

Affiliated to Visvesvaraya Technological University, Belgavi. Govt. of Karnataka. Approved by AICTE, New Delhi. Accredited by NBA, AICTE, New Delhi.

## Declaration by the Head of the Institution

I certify that the data included in this Self-Study Report (SSR) are true to the best of my knowledge.

The SSR is prepared by the institution after internal discussions and no part thereof has been out sourced.

I am aware that the Peer team will validate the information provided in the SSR during the peer team visit.

Place: Bengaluru Date: 31/3/2017 Dr. H.D. Maheshappa Principal Acharya Institute of Technology Bengaluru



Affiliated to Visvesvaraya Technological University, Belgavi. Govt. of Karnataka. Approved by AICTE, New Delhi. Accredited by NBA, AICTE, New Delhi.

## **Statement of Compliance**

This is to certify that Acharya Institute of Technology fulfills all norms.

- 1. Stipulated by the affiliated University and/or
- 2. Regulatory Council/Body( such as UGC, AICTE, etc)
- 3. The affiliation/recognition is conditional, and then a detailed enclosure with regard to compliance of conditions by the institution will be sent.

It is noted that NAAC's accreditation, if granted, shall stand cancelled automatically, once the institution loses its affiliation or recognition by the Regulatory Council, as the case may

In case the undertaking submitted by the institution is found to be false, then the accreditation given by NAAC is liable to be withdrawn. It is also agreeable that the undertaking given to NAAC will be displayed on the college website.

Place: Bengaluru

Date: 31/3/2017

Dr. H. D. MAHESHAPPA

Principal Acharya Institute of Technology Bengaluru

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## **Aeronautical Engineering**

- 1. Name of the department: Aeronautical Engineering
- **2. Year of Establishment:** 2011
- 3. Names of Programmes/Courses offered (UG, PG, M.Phil, Ph.D., Integrated Masters; Integrated Ph.D.,etc.)

- 4. Names of Interdisciplinary courses and the departments/units involved: Nil
- 5. Annual/semester/Choice Based Credit System (programme wise):

BE I-IV semester CBCS

V-VIIIsemester Semester scheme

- 6. Participation of the department in the courses offered by other departments: Nil
- 7. Courses in collaboration with other universities, industries, foreign institutions, etc.: Nil
- 8. Details of courses/programmes discontinued (if any) with reasons: Nil
- 9. Number of teaching posts

|                      | Sanctioned | Filled |
|----------------------|------------|--------|
| Professors           | 01         | 01     |
| Associate Professors | 02         | 01     |
| Asst. Professors     | 06         | 09     |



10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D./M.Phil.etc.,)

|                         | no no         |                               |                                       | Exp      | No.ofYears of Experience Teaching |     | nts<br>4 years |  |
|-------------------------|---------------|-------------------------------|---------------------------------------|----------|-----------------------------------|-----|----------------|--|
| Name                    | Qualification | Designation                   | Specialization                        | Industry | other than AIT                    | AIT | Total          | No. of Ph.D.Students<br>Guided for theLast 4 years |
| Sarat Kumar<br>Maharana | Ph. D         | Dean and<br>Professor,<br>HOD | Aerospace<br>Engineering              | 18       | 6                                 | 4   | 28             | 8  |
| MallikarjunVaggar       | Ph. D         | Associate<br>Professor        | Aircraft<br>Design<br>Optimization    | 24       | 13                                | 0.5 | 37.5           |  |
| Swetha S                | M Tech        | APG - III                     | Thermal power Engineering             |          | 2                                 | 5   | 7              |  |
| Mahanthayya<br>Hiremath | M Tech        | APG - III                     | Aeronautical<br>Engineering           | 3        | 1                                 | 3   | 7              |  |
| Venugopal MM            | M Tech        | APG - III                     | Aeronautical<br>Engineering           |          | 6                                 | 2.5 | 8.5            |  |
| Somashekar              | M Tech        | APG - III                     | Aeronautical<br>Engineering           | 2        | 2                                 | 3   | 7              |  |
| Steffi Thangachan       | МЕ            | APG - III                     | Avionics                              |          |                                   | 2.5 | 2.5            |  |
| Roohi                   | M Tech        | APG - III                     | Aerospace<br>Propulsion               |          | 2                                 | 2   | 4              |  |
| Parameshwar<br>Banakar  | M Tech        | APG - III                     | Aerospace<br>Propulsion<br>Technology |          |                                   | 4.5 | 4.5            |  |
| Shabeeb N P             | M Tech        | APG - III                     | Aerospace<br>Engineering              |          |                                   |     | 1              |  |
| Varsha N                | M Tech        | APG - III                     | Aircraft<br>Design                    |          |                                   |     |                |  |

11. List of senior visiting faculty: Nil.

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

Nil

13. Student-Teacher Ratio (programme wise): 16:1



## 14. Number of academic support staff (technical) and administrative staff, sanctioned and filled

| Category                | Sanctioned | Filled |
|-------------------------|------------|--------|
| Technical staff         | 2          | 1      |
| Junior office Assistant | 1          | 0      |

### 15. Qualifications of teaching faculty with DSc/D.Litt/Ph.D/MPhil/PG.

| Qualification | Number of faculty |
|---------------|-------------------|
| DSc/D Litt    | 0                 |
| Ph.D          | 2                 |
| M.Phil        | 0                 |
| PG            | 9                 |

- 16. Number of faculty with ongoing projects from a)National b)Internationalfunding agencies and grants received: Nil
- 17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received:

  Nil
- 18. Research Centre/facility recognized by the University: Nil

#### 19. Publications:

### a) Publication per faculty

Publications of the faculty in international journals, national journals, international conferences, national conferences, books authored / edited / chapter contribution are enclosed in Self Study Report: Volume II, Part II.

### 20. Areas of consultancy and income generated

| Name of Faculty | Area         | Income generated |
|-----------------|--------------|------------------|
| S K Maharana    | Aerodynamics | 8050/-           |
| Somashekar V    | Actodynamics | 8030/-           |



# 21. Faculty as members in a)National Committees b)International Committees c)Editorial Boards

| Name of Faculty | Committee | BOS       |            | BOE |       |  |
|-----------------|-----------|-----------|------------|-----|-------|--|
| rame of faculty | Details   | VTU       | Other      | VTU | Other |  |
| S K Maharana    |           | From 2010 | MSRUAS     |     | NMITE |  |
| 5 K Wanarana    |           | onwards   | ACE, Hosur |     | DSCE  |  |

## 22. Student projects

- a) Percentage of students who have done in-house projects including interdepartmental/programme: 65%
- b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies: 35%

|                                |    | Percentage |
|--------------------------------|----|------------|
| No of Students                 | 57 | 100        |
| No of in-house projects        | 9  | 65         |
| No of Inter dept projects      |    |            |
| No of Projects in R and D Labs | 2  | 14         |
| No of Projects in Industry     | 3  | 21         |

## 23. Awards/Recognitions received by faculty and students

| Name  | Award/Recognition                                     | Agency   | Year |
|---|---|--|------|
| Harsha M V, Anil Kumar,<br>Lingalasurrena Reddy, Vinay<br>Kumar Reddy | First and third place in the Hyo Rocketry competition | TECHNOZION<br>NIT Warangal                                   | 2015 |
| Divya C Savant, Neka K C,<br>Honnashree P                             | Second and third place in RC flying competition       |  |      |
| AlvinaNirmalraj, Girish R<br>ShanboughandChanamani<br>Singh           | Second place  | State level Project<br>competition at New<br>Horizon College | 2015 |
| Sharanabasappa  | Best innovative idea                                  | Idea impact  | 2015 |
| BanuPrakash   | Recognition   | Karnataka Motor<br>Sports Club                               | 2015 |
| Vikas K,  |   |  |      |
| Maria Nicholas, Pradeep,  | Recognition   | INGENIUM 2015  | 2015 |
| Santhosh  | Kecogiiiioii  | INGENIUM 2013  | 2013 |
| Prof. Somashekar V  |   |  |      |

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| Name  | Award/Recognition     | Agency   | Year |
|---|-----------------------|--|------|
| Mohammed Nabeeel, Naveen<br>Kumar S,<br>Sukesh B S, Nagaraj<br>Prof. Swetha S | Recognition           | INGENIUM 2015  | 2015 |
| HariBabu S K  | 3 <sup>rd</sup> Rank  | VTU  | 2015 |
| AbhishekDigambarJain  | 5 <sup>th</sup> Rank  | VTU  | 2015 |
| Harsha.M.V,<br>Y.Vinaykumarreddy, Anil<br>kumar.M.V                           | 1 <sup>st</sup> Place | Boeing National Aero modeling Champions of South zone, IIT Maas. | 2016 |
| L.Surenareddy,<br>Honnashree.P, Neha.K.C,<br>Divya C Savanth                  | 2 <sup>nd</sup> Place | Boeing National Aero modeling Champions of South zone, IIT Maas. | 2016 |
| Abhishek M B  | 1 <sup>st</sup> Place | SRISTHI 2016'  | 2016 |

## 24. List of eminent academicians and scientists/visitors to the department

| Name               | Designation  | Date of visit | Activity                               |  |
|--------------------|--|---------------|--|--|
| K Ramachana        | Former Director,<br>GTRE and Director of<br>NF                     | 01/03/2017    | Session with Aero-<br>Industry Leaders |  |
| ShekharShrivastava | General Manager<br>(Aerospace Division),<br>HAL                    | 01/03/2017    | Session with Aero-<br>Industry Leaders |  |
| Pramoda A          | Program Manager, Oil<br>and Gas Unit, GE<br>Aviation, JFWTC        | 01/03/2017    | Session with Aero-<br>Industry Leaders |  |
| SharatkumarVariyar | Senior Manager,<br>Technical Training,<br>UTC Aerospace<br>Systems | 01/03/2017    | Session with Aero-<br>Industry Leaders |  |
| Nagendhran         | Director, Aerospace<br>Throttle Systems,                           | 01/03/2017    | Session with Aero-<br>Industry Leaders |  |
| Madhukar M Rao     | Technical talk on CFD and its applications                         | 03/08/2016    | ACRi, Bangalore                        |  |

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| Name             | Designation   | Date of visit | Activity   |  |
|------------------|---|---------------|--|--|
| K.V.Srinivasan   | Emeritus Scientist,<br>ADE, DO                                    | 31/03/ 2016   | Avionics for civil and combat aircraft and Fly by wire System          |  |
| NandiniRao       | Independent Consultant  | 31/03/2016    | Artistic Director of<br>Yours Truly<br>Theatre- Graduate<br>Attributes |  |
| Pradeep K. Sahoo | Structural Integrity Group of National Aerospace Labs, Bangalore. | 5/5/ 2015     | Structural Analysis  |  |
| VivekSanghi      | IIT, Mumbai   | 5/5/2015      | Structural Analysis  |  |

## 25. Seminars/Conferences/Workshops organized and the source of funding

## a) National

| Seminar/<br>Conference/<br>Workshop   | Duration with dates            | Funding agency   | Amount of fund   | Amount funded by Institution | No of participants |
|---|--------------------------------|--|--|------------------------------|--------------------|
| Two day All India<br>Seminar On<br>Methods Of<br>Computations In<br>Fluid Flow, Heat<br>And Mass<br>Transfer Problems | 14/03/2017<br>to<br>15/03/2017 | Institute of Engineers (India), Innovent Technologies, CadcentrePee nya, Ind Lab Engineers | 47500  |                              | 60                 |
| VTU initiated one day workshop on "Computer Aided Aircraft awing".  | 27/02/<br>2017                 | VTU  | 16000  |                              | 16                 |
| Three-Day Workshop on Computational Modeling and Simulation In Engineering Using AnsysandMatlab Tools                 | 3/8/2015<br>to<br>5/8/2015     | Self   | Registra<br>tion Fee<br>from<br>outside<br>particip<br>ants<br>40000/- |                              | 55                 |

## Evaluative Report: Aeronautical Engineering

| Seminar/<br>Conference/<br>Workshop  | Duration with dates            | Funding agency | Amount of fund   | Amount funded by Institution | No of participants |
|--|--------------------------------|----------------|--|------------------------------|--------------------|
| Avionics System For Civil and Combat Aircraft and Fly By Wire System And Graduate Attributes | 31/03/<br>2016                 | AIT            |  | 3000                         | 120                |
| Two-Day<br>Workshop On<br>Computational<br>Mechanics   | 28/01/2016<br>to<br>29/01/2016 | Self           | Registra<br>tion Fee<br>from<br>outside<br>particip<br>ants<br>30000/- |                              | 40                 |

## **b) International:** Nil

## 26. Student profile programme/course wise

| Name of the Program             | Year    | Applications received | Selected |
|---------------------------------|---------|-----------------------|----------|
| BE(Aeronautical<br>Engineering) | 2013-14 | 54                    | 30       |
|                                 | 2014-15 | 35                    | 27       |
|                                 | 2015-16 | 30                    | 16       |
|                                 | 2016-17 | 42                    | 20       |

## 27. Diversity of Students

| Name of the Course          | % of students from the same state | % of students from other States | % of students from abroad |  |
|-----------------------------|-----------------------------------|---------------------------------|---------------------------|--|
| Aeronautical<br>Engineering | 64                                | 30                              | 6                         |  |



## 28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil Services, Defense Services, etc.?

| Competitive<br>Examinations | Year | No | Year | No | Year | No | Total |
|-----------------------------|------|----|------|----|------|----|-------|
| GATE                        | 2015 | 4  |      |    |      |    | 4     |
| Civil services              |      |    |      |    |      |    |       |
| Defense services            |      |    |      |    |      |    |       |

## 29. Student progression

| Student progression              | Against %enrolled |
|----------------------------------|-------------------|
| UG to PG                         | 05                |
| PG to M.Phil.                    | Nil               |
| PG to Ph.D.                      | Nil               |
| Ph.D. to Post-Doctoral           | Nil               |
| Employed                         |                   |
| -Campus Selection                | 15                |
| Other than Campus Recruitment    | 55                |
| Entrepreneurship/Self-employment | 02                |

## **Progression in the Department (Based on First year admission)**

| No/year | Intake sanctioned | Year1 | Year2 | Year3 | Year4 | %<br>Year 2 | %<br>Year3 | %<br>Year4 |
|---------|-------------------|-------|-------|-------|-------|-------------|------------|------------|
| 2012-13 | 60                | 61    | 56    | 55    | 55    | 92          | 98         | 100        |
| 2013-14 | 60                | 67    | 58    | 53    | 52    | 87          | 95         | 98         |
| 2014-15 | 60                | 67    | 63    | 60    |       | 94          | 95         |            |
| 2015-16 | 60                | 63    | 63    |       |       | 100         |            |            |
| 2016-17 | 60                | 62    |       |       |       |             |            |            |

### 30. Details of Infrastructural facilities

a) Library: Yes



### b) Internet facilities for Staff and Students:

- 1. 120Mbps Railtel
- 2. 10Mbps BSNL
- 3. Campus is enabled with Wi-Fi facility
- c) Class rooms with ICT facility: Nil
- d) Laboratories:
  - 1. Aerodynamic laboratory
  - 2. Structure laboratory
  - 3. Propulsion laboratory
  - 4. CAAD laboratory (Shared)
  - 5. Design, Modeling and Analysis laboratory(Shared)

## 31. Number of students receiving financial assistance from College, University, Government or other agencies

| Year    | No of<br>Students | College | University | Social welfare              | Merit | Other |
|---------|-------------------|---------|------------|-----------------------------|-------|-------|
| 2015-16 | 10                | 2       | VTU        | SC                          |       | SC    |
| 2014-15 | 4                 | 3       | VTU        | ST                          |       | ST    |
| 2013-14 | 47                | 1       | VTU        | OBC Category<br>Scholarship |       | OBC   |
| 2012-13 | 4                 |         | VTU        | KMDC Loan                   |       | KMDC  |

## 32. Details on student enrichment programmes (Special lectures/Workshops/ Seminar) with external experts

| Date        | Activity  |                                  | No of participants |
|-------------|---|----------------------------------|--------------------|
| 10/03/2017  | Incubation and NCCRD lab  | IIT Maas                         | 45                 |
| 23/09/2016  | GMR Aero Technic Ltd and Air<br>Traffic Control division of Rajiv<br>Gandhi | International Airport, Hyderabad | 50                 |
| 17/09/ 2016 | HAL Aerospace Museum  | Bangalore                        | 50                 |



### 33. Teaching methods adopted to improve student learning

| Chalk<br>and<br>Talk | Use of ICT | Demonstration | Experimentation | Collaborative | Experiential | Any<br>other   |
|----------------------|------------|---------------|-----------------|---------------|--------------|----------------|
| Yes                  | Yes        | Yes           | Yes             | Yes           | Yes          | Field<br>Visit |

## 34. Participation in Institutional Social Responsibility (ISR) and Extension activities

| Date         | Activity  | No of Participants |
|--------------|---|--------------------|
|              | Education iveANTARIKSH in Jindal Jubilee            |                    |
| 11 /09/ 2015 | Government High School, Abbigere, Bangalore.        | 40                 |
| ANTARIKSH    | Understand the concepts behind glider, ornithopter, | 40                 |
|              | paper planes, R.C. Airplane and hyo rocketry.       |                    |

## 35. SWOC analysis of the Department and Future plans

### **Strengths**

- 1. Team work and its expertise/subject specialization
- 2. Diversity among the faculty
- 3. Propensity towards Research
- 4. Application of learning (Aero-modeling)

#### Weakness

- 1. Senior faculty are not available.
- 2. Infrastructure to be developed.
- 3. Challenges posed by the industry in attracting the faculty for employment
- 4. Retention of the talents.

### **Opportunity**

- 1. MoUs for Academic exchange and research collaboration with National and International institutions
- 2. Aerospace graduates shall find opportunity in MRO, R and D laboratories, analysis and defense sector.
- 3. Establishing the research facilities in the area like UAU, MAV, Materials, future design of Aircraft, developing energy efficient engines, Bring NANO technology.



### **Challenges**

- 1. Providing opportunities in the relevant industry for research and training.
- 2. Attracting experienced staff from the academia and the industry.
- 3. To meet the expectations of the faculty in terms of career, compensation, benefits, Infrastructural support etc.
- 4. Connectivity and accessibility with the industries and service sectors

#### **Future Plans**

- 1. It will be Centre of excellence (Unmanned Aerial Vehicles )study and research
- 2. It will become a one-stop learning platform for computational activity required for graduates in Aeronautical engineering
- 3. It will focus on opportunity creations for global mobility of students to adapt to cross cultural environment
- 4. It would develop an ecosystem for holistic development of future faculty members and students in aeronautical engineering.



## **Automobile Engineering**

1. Name of the department: Department of Automobile Engineering

2. Year of Establishment: 2011

3. Names of Programmes / Courses offered:

| UG                           | PG | Ph.D. /M.Sc. (Eng.) |
|------------------------------|----|---------------------|
| BE in Automobile Engineering |    |                     |

- 4. Names of Interdisciplinary courses and the departments/units involved: Nil
- 5. Annual/ semester/choice based credit system (programme wise):
  Semester Based System

BE I-IV sem CBCS

V-VIII sem Semester scheme

6. Participation of the department in the courses offered by other departments:

Nil

7. Courses in collaboration with other universities, industries, foreign institutions, etc.:

Nil

- 8. Details of courses / programmes discontinued (if any) with reasons: Nil
- 9. Number of Teaching posts

|                      | Sanctioned | Filled |
|----------------------|------------|--------|
| Professors           | 01         | 01     |
| Associate Professors | 02         | 00     |
| Asst. Professors     | 06         | 08     |



## 10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D. / M. Phil. etc.,)

|                        | u             |                  | ű                                   |          | o. of Y<br>Experi<br>Te |     | 2     | ents<br>4 years                                     |  |
|------------------------|---------------|------------------|-------------------------------------|----------|-------------------------|-----|-------|---|--|
| Name                   | Qualification | Designation      | Specialization                      | Industry | Teaching other than AIT | AIT | Total | No. of Ph.D Students<br>guided for the last 4 years |  |
| C N Chandrappa         | ME, Ph.D.     | Prof. and<br>HOD | Machine<br>Design                   | 1        | 21                      | 4   | 26    | 08  |  |
| Bharath A              | M.Tech.       | APG - III        | Robotics                            | Nil      | 7                       | 5   | 12    | Nil   |  |
| Prashanth K P          | M.Tech.       | APG - III        | Advanced<br>Materials<br>Technology | Nil      | 4                       | 2.5 | 6.5   | Nil   |  |
| Swathi M B             | M.Tech.       | APG - III        | Computer Integrated Manufacturing   | Nil      | Nil                     | 2.5 | 2.5   | Nil   |  |
| Avinash B R            | M.Tech.       | APG -III         | Machine<br>Design                   | Nil      | 2                       | 0.6 | 2.6   | Nil   |  |
| Sreenath N             | M.Tech.       | APG - III        | Thermal Power Engineering           | 1        | 2                       | 0.6 | 3.6   | Nil   |  |
| Prajwal<br>Lingaraju S | M.Tech.       | APG - III        | Machine<br>Design                   | 1.5      | 1.5                     | 0.2 | 3     | Nil   |  |
| Athith D               | M.Tech.       | APG -III         | Machine<br>Design                   | Nil      | Nil                     | 0.2 | 0.2   | Nil   |  |
| Pavan Chwthay          | M.Tech.       | Lecturer         | Thermal Power Engineering           | 1        | Nil                     | 0.2 | 1.2   | Nil   |  |

11. List of senior visiting faculty:

Nil

12. Percentage of lectures delivered and practical classes handled (programme wise): by temporary faculty

Nil



### 13. Student - Teacher Ratio (programme wise):

| Sl.No | Program                         | Student Teacher Ratio |
|-------|---------------------------------|-----------------------|
| 1     | UG-BE in Automobile Engineering | 20:1                  |

## 14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

| Category             | Sanctioned | Filled |
|----------------------|------------|--------|
| Technical            | 2          | 1      |
| Administrative staff | 1          | 1      |

## 15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG:

| Sl. No.    | No. of faculty |
|------------|----------------|
| DSc/D Litt | Nil            |
| Ph.D       | 01             |
| M.Phil     | Nil            |
| PG         | 08             |

## 16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: Nil

## 17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:

| Name of the project                  | Funding    | Year of | Grant        |
|--------------------------------------|------------|---------|--------------|
| Name of the project                  | agency     | Funding | received     |
| Development of HVOF sprayed          |            |         |              |
| cermets coating improving resistance | AICTE      | 2013    | 18.10 lakhs  |
| to hot corrosion and erosion of gas  | AICIE      | 2013    | 16.10 lakiis |
| turbine alloys                       |            |         |              |
| Surface modification of metallic by  | DST (EMR)  | 2015    | 42.92 lakhs  |
| twin roll cladding                   | DSI (EMIK) | 2013    | 42.32 lakiis |

## 18. Research Centre /facility recognized by the University: Nil



#### 19. Publications:

### a) Publication per faculty

Publications of the faculty in international journals, national journals, international conferences, national conferences, books authored / edited / chapter contribution are enclosed in Self Study Report: Volume II, Part II.

### 20. Areas of consultancy and income generated: Nil

## 21. Faculty as members in a) National committees b) International Committees c) Editorial Boards

| Name of Faculty   | Committee Details        | BOS BOE |                   | ВОЕ |       |
|-------------------|--------------------------|---------|-------------------|-----|-------|
| ivalic of Faculty | Committee Details        | VTU     | VTU Other VTU Oth |     | Other |
|                   | Chairman BOE             |         |                   | V   |       |
|                   | (Automobile engineering) |         |                   | V   |       |
| C N Chandrappa    | BOS, member              |         | $\sqrt{}$         |     |       |
|                   | Chairman LIC committee   | √       |                   |     |       |
|                   | Senate Member            | √       |                   |     |       |
| Prof. Bharath A   | Member, BOS, BOE         |         | $\sqrt{}$         |     | √     |

## 22. Student projects:

- a) Percentage of students who have done in-house projects including inter departmental/ programme
- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies

|                                | Year | Percentage | Year    | Percentage |
|--------------------------------|------|------------|---------|------------|
|                                | 201: | 5-16       | 2014-15 |            |
| No of Students                 | 45   | 100        | 51      | 100        |
| No of in-house projects        | 39   | 87         | 51      | 100        |
| No of Projects in R and D Labs |      |            |         |            |
| No of Projects in Industry     | 6    | 13         |         |            |

### 23. Awards / Recognitions received by faculty and students: Nil



## 24. List of eminent academicians and scientists / visitors to the department:

| Name               | Designation   | Date of visit | Activity        |
|--------------------|---|---------------|-----------------|
| Parashuram         | Member of the board, Toyota Industries Engine pvt. Ltd.                                     | 2014-15       | Special lecture |
| T S Ramprabhu      | Scientist, DRDO,<br>Bangalore   | 2014-15       | Special lecture |
| S S Kale           | Regional Director,<br>DRDO, Bangalore   | 2014-15       | Special lecture |
| Prakash S Kulkarni | Prof. and Chief Scientist, Computional Machanics Laboratory, Dept. of Aerospace Engineering | 18/02/2016    | Special lecture |
| C Malikarjuna      | Joint Commissioner for<br>Transport , Govt. of<br>Karnataka                                 | 28/04/2016    | Special lecture |
| M K Murlidhara     | Rtd. Professor  | 23/02/2017    | Special lecture |

# 25. Seminars / Conferences / Workshops organized and the source of funding a) National b) International:

| Seminar/<br>Conference/<br>Workshop | Duration with dates            | Funding agency  | Amou<br>nt of<br>fund | Amount funded by Institution | No of participants  |
|-------------------------------------|--------------------------------|---|-----------------------|------------------------------|---------------------|
|                                     |                                | National  |                       |                              |                     |
| Auto Expo                           | 28/04/2016<br>to<br>29/04/2016 | BMW, KTM,<br>TVS, Royal<br>Enfield,<br>Hyundai,<br>Mahindra | 1.11<br>LAKH<br>Rs/-  | 40,000<br>Rupees/-           | 120<br>Participants |



## 26. Student profile programme / course wise:

| Name of the Programme      | Year      | Applications received | Selected |
|----------------------------|-----------|-----------------------|----------|
|                            | 2013-2014 | 20                    | 13       |
|                            | 2014-2015 | 28                    | 14       |
| BE(Automobile Engineering) | 2015-2016 | 26                    | 15       |
|                            | 2016-2017 | 23                    | 19       |

## **27.** Diversity of Students:

| Name of the<br>Course | Year      | % of students<br>from the<br>same state | % of students from other States | % of students from abroad |
|-----------------------|-----------|---|---------------------------------|---------------------------|
|                       | 2012-2013 | 77                                      | 23                              | 00                        |
|                       | 2013-2014 | 82                                      | 16                              | 02                        |
| BE (Automobile        | 2014-2015 | 79                                      | 21                              | 00                        |
| Engineering)          | 2015-2016 | 74                                      | 24                              | 02                        |
|                       | 2016-2017 | 71                                      | 29                              | 00                        |

# 28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? Nil

## 29. Student progression:

| Student progression   | Against % enrolled |
|---|--------------------|
| UG to PG  | 03                 |
| PG to M.Phil.   |                    |
| PG to Ph.D.   |                    |
| Ph.D. to Post-Doctoral  |                    |
| Employed 1. Campus selection 2. Other than campus recruitment | 04                 |
| Entrepreneurship/Self-employment                              |                    |



### **Progression in the Department (Based on First year admission):**

| Year    | Intake | Year 1 | Year 2 | Year 3 | Year 4 | %<br>Year 2 | %<br>Year 3 | %<br>Year 4 |
|---------|--------|--------|--------|--------|--------|-------------|-------------|-------------|
| 2012-13 | 60     | 61     | 56     | 55     | 51     | 91          | 90          | 83          |
| 2013-14 | 60     | 62     | 47     | 45     | 56     | 75          | 72          |             |
| 2014-15 | 60     | 53     | 37     | 59     |        | 69          | 90          |             |
| 2015-16 | 60     | 56     | 45     |        |        | 80          |             |             |
| 2016-17 | 60     | 52     |        |        |        |             |             |             |

• Percentage based on first year admission

#### 30. Details of Infrastructural facilities:

a) Library: Department library available

Space: 23Sq.Mts
 No. of books: 50
 Project reports: 50

### b) Internet facilities for Staff and Students:

Broad band connectivity of

- 1) 120Mbps Railtel
- 2) 10Mbps BSNL

3) Campus is enabled with Wi-Fi facility

#### c) Total Class rooms with ICT

2 class rooms: 81 sq.Mts 2 class rooms: 56 Sq.Mts

d) Students Laboratories: Sharing

e) Research Laboratory: Nil

## 31. Number of students receiving financial assistance from college, university, government or other agencies:

| Year    | College | University | Social welfare | Merit | Other |
|---------|---------|------------|----------------|-------|-------|
| 2013-14 | 1       |            | 13             |       |       |
| 2014-15 | 2       |            | 33             |       |       |
| 2015-16 |         |            | 41             |       |       |



# **32.** Details on student enrichment programmes (special lectures / workshops / Seminar) with external experts:

| Date       | Activity   | Resource person   | No of participants |
|------------|--|---|--------------------|
| 23/04/2015 | Special Lectures  Modern trends in Automobiles.  Manufacturing in Automobile  Industry | T S Ramprabhu,<br>Scientist, DRDO,<br>Bangalore   | 90                 |
| 23/04/2015 | Special Lectures Topic: Importance of Composite materials in Automobiles.2             | S S Kale, Regional<br>Director, DRDO  | 90                 |
| 18/02/2016 | Special Lectures Topic: Recent Development in Automobile Engineering                   | Prakash S Kulkarni, Prof. and Chief Scientist, Computional Machanics Laboratory, Dept. of Aerospace Engineering | 55                 |
| 28/04/2016 | Special Lectures Topic: Role of Two Wheelers in Road Transport.                        | C Malikarjuna, Joint<br>Commissioner for<br>Transport, Govt. of<br>Karnataka                                    | 60                 |
| 23/02/2017 | Special Lectures Topic: "Second Law" of Thermodynamics and its Application             | M K Murlidhara  | 130                |

## 33. Teaching methods adopted to improve student learning:

| Chal<br>and<br>Tall | Use of ICT | Demonstration | Experimentation | Collaborative | Experiential | Any<br>other |
|---------------------|------------|---------------|-----------------|---------------|--------------|--------------|
| Yes                 | Yes        |               | Yes             |               | Yes          |              |



### 34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

| Date       | Activity                  | No of Participants |
|------------|---------------------------|--------------------|
| 18/04/2013 | Blood donation            | 400                |
| 26/3/2014  | Rain water harvesting     | 50                 |
| 26/3/2014  | Good habits and diabetics | 50                 |
| 26/3/2014  | Awareness on Cancer and   | 40                 |
| 20/3/2014  | precaution                | 40                 |

#### 35. SWOC analysis of the department and Future plans:

#### **Strengths**

- 1. Training of students towards developing professional skills.
- 2. Development of academic competencies.
- 3. Practical oriented teaching of the curriculum

#### Weakness

- 1. Developing state of art infrastructure
- 2. Lack of MoUs with Industry and R and D based organizations

#### **Opportunities**

- 1. Opportunities to increase the intake due to large growth in automotive sector in the globe.
- 2. Starting of Masters Programme and skill based value added courses.
- 3. International University tie-up for knowledge exchange with Center of Excellence

#### **Challenges**

- 1. To attract best Rank Students
- 2. Enrichment of curriculum to the latest Know How.
- 3. To get even more better linkages in Core Automobile companies
- 4. To get projects sponsored and patented

#### **Future Plans**

- Starting of a postgraduate course and Research center in Automotive Engineering/Automotive technology
- 2. Starting of Automotive servicing training centers
- 3. Completion and Occupation of the New Block on the same Campus
- 4. Plans for student exchange programmes with Foreign Universities.
- 5. To introduce industry oriented electives through strengthened Industry Institute Interaction.
- 6. Enhance industry institute partnership for certification courses



## **Biotechnology**

1. Name of the department: Department of Biotechnology

2. Year of Establishment: 2002

3. Names of Programmes / Courses offered:

| UG: BE        | PG: 1. M Tech Biotechnology | Ph. D: Biotechnology |
|---------------|-----------------------------|----------------------|
| Biotechnology | 2. M Sc Engg.(by research)  | Th. D. Diotectmology |

4. Names of Interdisciplinary courses and the departments/units involved: Nil

5. Annual/ semester/choice based credit system (programme wise) Semester Based System (Non-CBCS)

I-IV sem CBCS

V-VIII sem Semester scheme

I-II sem CBCS

M.Tech
III-IVsem Semester scheme

6. Participation of the department in the courses offered by other departments:

Nil

- 7. Courses in collaboration with other universities, industries, foreign institutions, etc. Nil
- 8. Details of courses/programmes discontinued (if any) with reasons Nil

## 9. **Number of Teaching posts**

|                      | Sanctioned | Filled |
|----------------------|------------|--------|
| Professors           | 1          |        |
| Associate Professors | 1          | 1      |
| Asst. Professors     | 4          | 5      |
| Lecturers            |            | 1      |



# 10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

|                   |                             |                               |  | N        | o. of y        |     |       | ts<br>years  |
|-------------------|-----------------------------|-------------------------------|--|----------|----------------|-----|-------|--|
| Name              | Qualification               | Designation                   | Specialization   | Industry | Teaching other | AIT | Total | No. of Ph.D Students<br>guided in the last 4 years |
| S.M.Gopinath      | M.Sc.,<br>M.Phil., PhD      | Asso.<br>Professor<br>and HOD | Microbiology,<br>Environmental<br>Biotechnology,<br>Nano<br>Biotechnology,<br>Enzyme<br>technology |          | 11             | 8   | 19    | 0  |
| Ismail Shareef. M | B.Sc., M.Sc.,<br>PhD        | Asst.<br>Professor            | Plant<br>Biotechnology.<br>andGenetic<br>Engineering   | 1        | 0.6            | 13  | 15    | 0  |
| Suneetha T.B      | B.E., M.E,<br>PhD           | Asst.<br>Professor            | Chemical Engineering, Bioprocess Engineering, Phytochemistry                                       |          | 6              | 11  | 17    |  |
| Ramya Ramachanan  | M.Sc., (PhD)                | Asst<br>Professor             | Phytochemistry,<br>Immunology,<br>Molecular<br>Biology<br>andMicrobiolog<br>y                      |          |                | 9   | 9     | Nil  |
| Ashalatha         | M.Sc., (PhD)                | Asst<br>Professor             | Phytochemistry,<br>Molecular<br>Biology,<br>Biochemistry<br>andMicrobiolog<br>y                    |          | 2              | 9   | 11    |  |
| Liny.P            | B.E., M.Tech                | Asst.<br>Professor            | Chemical Engineering, Thermodynamics, Fluid mechanics and equipment design                         |          | 7              | 0.8 | 8     |  |
| Pruthvish R       | B.E.(Hons),<br>M.Sc. (Engg) | Lecturer                      | Molecular<br>Markers   | 1        | 0              | 0.2 | 1.2   |  |



### 11. List of senior visiting faculty Nil

## 12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty Nil

## 13. Student - Teacher Ratio (programme wise)

| Sl. No | Program                 | Student Teacher Ratio |
|--------|-------------------------|-----------------------|
| 1      | UG-BE in Biotechnology  | 18:1                  |
| 2      | PG-M.Tech Biotechnology | 18:1                  |

## 14. Number of academic support staff (technical) and administrative staff, sanctioned and filled

| Category             | Sanctioned | Filled |
|----------------------|------------|--------|
| Technical staff      | 02         | 01     |
| Administrative staff | 01         | 01     |

## 15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.

| Sl. No.    | No. of faculty |
|------------|----------------|
| DSc/D Litt |                |
| Ph.D       | 3              |
| M.Phil     | 0              |
| PG         | 4              |

## 16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received Nil

# 17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received

| Isolation and Purification of<br>Anticancer Enzyme and its Nano<br>Particle.   | KSCST | Suneetha T.B                  | 2014 | Rs. 5,000/-       |
|--|-------|-------------------------------|------|-------------------|
| Training and demonstration of cultivation of cut flowers Anthurium or Orchids for economic and enterprenurship development of rural weaker population and SC/ST women of Tumukur and Bengaluru(Rural) district | BDT   | S M Gopinath<br>Ismail Sherif | 2013 | Rs<br>22,00,000/- |



### 18. Research Centre /facility recognized by the University: Yes

#### 19. Publications:

### a) Publication per faculty

Publications of the faculty in international journals, national journals, international conferences, national conferences, books authored / edited / chapter contribution are enclosed in Self Study Report: Volume II, Part II.

## 20. Areas of consultancy and income generated: Nil

### 21. Faculty as members in

- a) National committees
- b) International Committees
- c) Editorial Boards

| Name of Faculty | Committee Details    | BOS |       | BOE |       |
|-----------------|----------------------|-----|-------|-----|-------|
| Name of Faculty |                      | VTU | Other | VTU | Other |
|                 | Chairman, BoS in     |     |       |     |       |
| S M Gopinath    | Biotechnology of VTU | √ √ |       |     |       |
|                 | (2016-till date)     |     |       |     |       |
|                 | Member, BoE in       |     |       |     |       |
| Suneetha T B    | Biotechnology of VTU |     |       | √   |       |
|                 | (2015-2016)          |     |       |     |       |

### 22. Student projects

- a) Percentage of students who have done in-house projects including inter departmental/programme
- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies

|                                |                        | Percentage |
|--------------------------------|------------------------|------------|
| No of Students                 | 34<br>(26 UG and 8 PG) |            |
| No of in-house projects        | 10                     | 29         |
| No of Inter dept projects      | 03                     | 8          |
| No of Projects in R and D Labs | 06                     | 17         |
| No of Projects in Industry     | 15                     | 44         |



## 23. Awards / Recognitions received by faculty and students

| Sl No | Name                             | Award/Recognitions  |  |  |  |
|-------|----------------------------------|---|--|--|--|
|       | Students                         |   |  |  |  |
| 1     | Sushma K                         | Best Outgoing student in 2015-16  |  |  |  |
| 2.    | Varsha B.I and Vikas V           | Best project award in 2015-16<br>Title: "In vitro antidiabetic study by glucose uptake<br>assay on skeletal muscle cell line and GLUT4 gene<br>expression studies". |  |  |  |
| 3     | Aftab Jahan Begum K.A            | Student Ambassador for the Green India  |  |  |  |
| 4     | Yash Shrivastava                 | Student Ambassador for the "Biodiversity"   |  |  |  |
| 5.    | Barot Vandhana Hariram           | Student Ambassador for the "Biodiversity"   |  |  |  |
| 6     | Kishore, Basavaraj And<br>Akshay | 3 <sup>rd</sup> prize paper presentation in National Conference<br>on "EMERGING ISSUES IN GREEN<br>CHEMISTRY: POSSIBLE ALTERNATIVES"                                |  |  |  |

## 24. List of eminent academicians and scientists / visitors to the department

| Name             | Designation   | Date of visit | Activity          |  |  |
|------------------|---|---------------|-------------------|--|--|
| Ashok Godavarthi | Founder and Director, Radiant<br>Research Services Pvt Ltd  | 16.02.2015    |                   |  |  |
| PrabirPatra      | Associate Professor, Department of Biomedical Engineering University of Bridgeport, USA   | 19.03.2015    |                   |  |  |
| Yogisha          | Founder and Director, Skanda Life<br>Sciences Pvt Ltd , Bangalore   | 22.09.2015    |                   |  |  |
| ShekarBabu       | Dean - Prist University   | 29.10.2015    | Expert Talk       |  |  |
| David Smith      | Sheffield Hallam University, UK   | 03.02.2016    | and<br>Discussion |  |  |
| Jeremy Simpson   | Head-School of Biology and<br>Environmental Science,<br>University College Dublin, Ireland  | 23.02.2016    |                   |  |  |
| R B Tiwari       | Principal Scientist ( Horticulture) UNU-Kirin Fellow Japan Division of Post Harvest Technology Indian Institute of Horticultural Research | 29.02.2016    |                   |  |  |



| Name         | Designation   | Date of visit | Activity  |
|--------------|---|---------------|---|
| Nethaji M    | Principal Scientist Department of Inorganic and Physical Chemistry. Indian Institute of Science Bangalore | 30.3.2017     | ug Design<br>using X-Ray<br>Crystallogra<br>phy |
| Raghuram P.T | Principal Scientist Department of Chemical Engineering Indian Institute of Science Bangalore              | 30.3.2017     | Fermenter<br>Design                             |

# 25. Seminars/ Conferences/Workshops organized and the source of funding a) National b) International Nil

## **26.** Student profile programme/course wise:

| Name of the Course/programme                    |         | Applications received | Selected |
|---|---------|-----------------------|----------|
| B.E ( Biotechnology) and M.Tech( Biotechnology) | 2013-14 | 20                    | 17       |
|   | 2013-14 | 06                    | 03       |
|   | 2014-15 | 22                    | 15       |
|   | 2014-13 | 05                    | 03       |
|   | 2015-16 | 18                    | 12       |
|   | 2013-10 | 04                    | 03       |
|   | 2016-17 | 15                    | 13       |
|   |         | 03                    | 01       |

## 27. Diversity of Students

| Name of the Course           | % of students<br>from the same<br>state | % of students<br>from other<br>States | % of students from abroad |
|------------------------------|---|---------------------------------------|---------------------------|
| B.E Biotechnology            | 60.9                                    | 34.8                                  | 4.4                       |
| M.Tech Biotechnology         | 62.5                                    | 37.5                                  |                           |
| M.Sc Engineering by Research | 100                                     |                                       |                           |
| Ph.D                         | 81.8                                    | 18.2                                  |                           |



# 28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defence services, etc.?

| Year    | NET | SLET | GATE | Civil<br>Services | Defense services | Others        |
|---------|-----|------|------|-------------------|------------------|---------------|
| 2015-16 |     |      | 1    |                   |                  | GRE/ TOFEL -5 |
| 2016-17 |     |      | 1    |                   |                  |               |

| Name of the Student      | Type of Exam | Year |  |
|--------------------------|--------------|------|--|
| Anurag Vishwanath Prabhu | GATE         | 2015 |  |
| Krishna Narayan          | GRE/TOEFL    | 2015 |  |
| Maneesh Nayak            | GRE/TOEFL    | 2015 |  |
| Shreyapundir singh       | GRE/TOEFL    | 2015 |  |
| Akshay Kumar             | GRE          | 2016 |  |
| Sushma.K                 | GRE          | 2016 |  |
| Vani Venugopal           | GATE         | 2017 |  |

## 29. Student progression

| Student progression              | Against % enrolled |
|----------------------------------|--------------------|
| UG to PG                         | 18                 |
| PG to M.Phil.                    |                    |
| PG to Ph.D.                      | 09                 |
| Ph.D. to Post-Doctoral           |                    |
| Employed                         |                    |
| 1. Campus selection              | 08                 |
| 2. Other than campus recruitment | 10                 |
| Entrepreneurship/Self-employment |                    |

| Competitive<br>Exam | Year    | No | Year    | No | Total |
|---------------------|---------|----|---------|----|-------|
| GATE                | 2016-17 | 1  | 2015-16 | 1  | 2     |



### **Progression in the Department (Based on First year admission)**

| Year    | Intake | Year 1 | Year 2 | Year 3 | Year 4 | %<br>Year 2 | %<br>Year 3 | %<br>Year 4 |
|---------|--------|--------|--------|--------|--------|-------------|-------------|-------------|
| 2012-13 | 31     | 31     | 26     | 19     | 16     | 84          | 61          | 52          |
| 2013-14 | 26     | 24     | 23     | 24     | 24     | 96          | 100         | 100         |
| 2014-15 | 27     | 25     | 20     | 13     |        | 80          | 52          |             |
| 2015-16 | 23     | 23     | 21     |        |        | 91          |             |             |
| 2016-17 | 25     | 25     |        |        |        |             |             |             |

• Percentage based on first year admission

#### 30. Details of Infrastructural facilities

a) Library

1. Area :  $14.88 \text{ m}^2$ 

2. Seating Capacity : 4

3. Books : 67 4. Journals : 47

5. UG and PG reports : 150

b) Internet facilities for staff and students:

Broad band connectivity of

- 1. 120Mbps Railtel
- 2. 10Mbps BSNL
- 3. Campus is enabled with Wi-Fi facility
- c) Class rooms with ICT facility Yes
- d) Laboratories

#### Lab - 1

- 1. Microbiology Lab
- 2. Genetic Engineering and Immuno technology lab
- 3. Biochemistry Lab
- 4. Cell and Molecular Biology Lab
- 5. Bio-kinetics and Enzyme technology lab

## **Lab - 2**

- 1. Unit Operation Lab
- 2. Bioprocess Control and Automation Lab
- 3. Downstream Processing Lab
- 4. Upstream Processing Lab



## 31. Number of students receiving financial assistance from college, university, government or other agencies (2015-16)

| No. of<br>Students | College | University | Social welfare | Merit | Other          |
|--------------------|---------|------------|----------------|-------|----------------|
| 07                 |         |            | 5              | 1     | 1(Rotary club) |

# 32. Details on student enrichment programmes (special lectures / workshops /seminar) with external experts

| Date       | Program  | Expert   |
|------------|--|--|
| 16.02.2015 | ug Discovery and Product<br>Development  | Ashok Godavarthi, Radiant Research<br>Services Pvt Ltd   |
| 19.03.2015 | Biochemical Engineering<br>Research and opportunities  | PrabirPatra, Associate Professor, Department of Biomedical Engineering University of Bridgeport, USA   |
| 22.09.2015 | Clinical ug development  | Yogisha, Founder and Director, Skanda<br>Life Sciences Pvt Ltd, Bangalore  |
| 29.10.2015 | Local mosquitoes- Global Implications  | ShekarBabu, Dean - Prist University  |
| 03.02.2016 | Homemade proteins and 3-D cell culture to detect biomolecules and investigate disease.           | David Smith, Sheffield Hallam<br>University, UK  |
| 23.02.2016 | Trafficking of Protein toxins in mammalian cells   | Jeremy Simpson, Head-School of<br>Biology and Environmental Science,<br>University College Dublin, Ireland   |
| 29.02.2016 | Production of value added products from Fruits and Vegetables through technological intervention | R B Tiwari, Principal Scientist ( Horticulture) UNU- Kirin Fellow Japan Division of Post-Harvest Technology Indian Institute of Horticultural Research |
| 26.08.2016 | SAS and Big Data<br>Management   | Mr.Vishwabramha Bhatt, Epoch<br>Research Institute, Bangalore  |



| Date       | Program                               | Expert  |
|------------|---------------------------------------|---|
| 24.09.2016 | Aromatic oils and their applications  | VivekBabu, Scientist, CIMAP(CSIR),<br>Bangalore   |
| 30.3.2017  | ug design by X-ray<br>crystallography | Nethaji M, Principal Scientist,<br>Department of Inorganic and Physical<br>Chemistry. IISC, Bangalore |
| 30.3.2017  | Fermentation Design                   | RaghuramP.T, Principal Scientist, Department of Chemical Engineering, IISC, Bangalore                 |

### 33. Teaching methods adopted to improve student learning

| Chalk<br>and<br>Talk | Use of ICT | Demonstration | Experimentation | Collaborative | Experiential | Any<br>other       |
|----------------------|------------|---------------|-----------------|---------------|--------------|--------------------|
|                      | √          | V             | V               | V             | V            | Industry<br>Visits |

### 34. Participation in Institutional Social Responsibility (ISR) and Extension activities

| Date       | Activity                           | No of Participants |
|------------|------------------------------------|--------------------|
| 18/04/2013 | Blood donation                     | 400                |
| 26/3/2014  | Rain water harvesting              | 50                 |
| 26/3/2014  | Good habits and diabetics          | 50                 |
| 26/3/2014  | Awareness on Cancer and precaution | 40                 |

### 35. SWOC analysis of the department and Future plans

#### Strengths

- 1. 40% of faculty in the department of Biotechnology possess Doctoral degree and the remaining faculty are pursuing and about to submit their thesis.
- 2. Interaction with industries and Universities for student projects (KSCST), Internships, expert lectures, training to faculty and students, industrial visits, student exchange program. The department has consistently bagged university ranks.
- 3. A major strength of the department is the faculty who are committed to excellent teaching using the ICT.
- 4. The department of Biotechnology has a strong alumni network and a robust mentor system for addressing student's problem



#### Weaknesses

- 1. Placements of students in the core companies to be improved.
- 2. Consultancy projects, collaboration with industries and foreign universities to be taken up more vigorously.
- 3. Laboratory facilities need to be improved.

### **Opportunities**

- 1. The Alumni students are willing to interact and conduct hands on workshops that will benefit the students for placements in core companies.
- 2. To conduct an International conference in association with funding agencies such as AICTE, VGST, ISTE.
- 3. To organize workshops and seminars under various student-faculty chapters.
- 4. Encourage student entrepreneurs under Schemes like Skill India that provides opportunities in the form of subsidized loans.

#### Challenges

- 1. Getting core companies for campus recruitment.
- 2. To inculcate innovative practices among faculty and students in research projects for patent outcome.

#### **Future Plans**

- 1. To organize workshops and hands on training programs for the students to equip them with additional skills in their respective domains in BT.
- 2. To groom and encourage the students to take up higher studies
- 3. The department of Biotechnology in the coming five years plan to strengthen its R and D wing by applying for more funds in the form of research grants to various funding agencies like DBT, DST, VGST etc., and equip the labs with all the modern amenities.



## **Civil Engineering**

1. Name of the Department: Civil Engineering Department

2. Date of Establishment: 2009

3. Names of Programmes/Courses offered(UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D.,etc.):

| UG                      | PG  | Ph.D. /M.Sc. (Eng.) |  |  |
|-------------------------|-----|---------------------|--|--|
| BE in Civil Engineering | Nil | Nil                 |  |  |

- 4. Names of Interdisciplinary courses and the departments/units involved: Nil
- 5. Annual/semester/choice based credit system (programme wise):

BE I-IV semester CBCS

V-VIII semester Semester scheme

6. Participation of the department in the courses offered by other departments:

Nil

- 7. Courses in collaboration with other universities, industries, foreign institutions, etc.:
- 8. Details of courses/programmes discontinued (if any) with reasons: Nil

### 9. Number of teaching posts

|                      | Sanctioned | Filled |
|----------------------|------------|--------|
| Professors           | 2          | 2      |
| Associate Professors | 4          | 0      |
| Asst. Professors     | 18         | 21     |



# 10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D./M.Phil. etc.,)

|                        |                   |                       |   |          |                         | years erience |       | ears   |
|------------------------|-------------------|-----------------------|---|----------|-------------------------|---------------|-------|--|
| Name                   | Qualification     | Designation           | Specialization                                      | Industry | Teaching other than AIT | AIT           | Total | No. of Ph.D. Students<br>Guided for the Last 4 years |
| N. Balasubramanya      | M.E, Ph.D         | Professor<br>and Dean | Civil<br>Engineering                                |          | 34.5                    | 3.5           | 38    |  |
| M.R Prakash            | M.E, Ph.D         | Professor<br>and Hod  | Struct.   | 3.5      | 6                       | 17            | 23    | 4 students registered                                |
| Sushma.R               | M.Tech,<br>(Ph.D) | APG III               | Environmental                                       |          | 1.5                     | 4.5           | 6     |  |
| Sunil S K              | M.Tech            | APG III               | Struct.   |          | 1                       | 1.5           | 2.5   |  |
| Chaithra B.E           | M.Tech            | APG III               | Struct.   |          |                         | 2.5           | 2.5   |  |
| Dhananjay M            | M.Tech            | APG III               | Highway   |          | 1                       | 2.5           | 3.5   |  |
| Vijayalaxmi<br>Rangrej | M.Tech            | APG III               | Struct.   | 2        |                         | 1.5           | 3.5   |  |
| Jithendra S            | M.Tech            | APG III               | Environmental Engg.                                 |          | 2.5                     | 1             | 3.5   |  |
| Chidanand M Jadar      | M.Tech            | APG III               | Geotechnical Engg.                                  |          |                         | 0.5           | 0.5   |  |
| Ramya B                | M.Tech            | APG III               | Hydraulics  |          | 3                       | 0.5           | 3.5   |  |
| Puja Dutta             | M.Tech            | APG III               | Geotechnical<br>Engg.                               |          |                         | 0.5           | 0.5   |  |
| Sangeetha S            | M.Tech            | APG III               | Infrastructure<br>Construction<br>And<br>Management |          |                         | 1             | 1     |  |
| Satish Kumar M         | M.Tech            | APG III               | Structural<br>Engineering                           |          | 2.4                     | 1             | 3.4   |  |
| Deepika Girish         | M.Tech            | APG III               | Construction<br>Tech and Mgmt                       | 2        | 4                       | 0.5           | 6.5   |  |



|                    |               |             | N  | o. of y<br>Expe |                         |     | ears  |   |
|--------------------|---------------|-------------|--|-----------------|-------------------------|-----|-------|---|
| Name               | Qualification | Designation | Specialization                                 | Industry        | Teaching other than AIT | AIT | Total | No. of Ph.D. Students Guided for the last 4 years |
| Nandeesh M S       | M.Tech        | APG III     | Structural<br>Engineering                      |                 |                         | 0.5 | 0.5   |   |
| Shilpa Shet S      | M.Tech        | APG III     | Geotechnical<br>Engg.                          |                 |                         | 2   | 2     |   |
| Sneha M K          | M.Tech        | APG III     | Environmental Engg.                            |                 | 3                       |     | 3     |   |
| Arpita C Patil     | M.Tech        | APG III     | Structural Engg.                               |                 | 3                       |     | 3     |   |
| Shreyas K          | M.Tech        | APG-III     | Highway<br>Technology                          |                 |                         |     |       |   |
| Pramukh N          | M.Tech        | APG-III     | Transportation<br>Engineeringand<br>Management |                 |                         |     |       |   |
| Akhil Raj          | M.Tech        | APG-III     | Structure<br>Engineering                       |                 |                         |     |       |   |
| Anand M Hulagabali | M.Tech        | APG-III     | Geo Tech                                       |                 | 1                       |     |       |   |
| Sowmyashree R      | M.Tech        | APG-III     | Water and land management                      |                 |                         |     |       |   |

## 11. List of senior visiting faculty

| Name and affiliation | Qualification | Subject handled                         |
|----------------------|---------------|---|
| Vittal B R           | MBA           | 10AL51 – Management And Entreprenurship |

- 12. Percentage of lectures delivered and practical classes handled (programme wise)

  By temporary faculty

  Nil
- 13. Student-Teacher Ratio (programme wise) 20:1



## 14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

| Category         | Sanctioned | Filled |
|------------------|------------|--------|
| Lab Instructor   | 04         | 04     |
| Office Assistant | 01         | 01     |

### 15. Qualifications of teaching faculty with DSc/D.Litt/Ph.D/MPhil/PG.

| Sl. No.    | No. of faculty |
|------------|----------------|
| DSc/D Litt | Nil            |
| Ph.D       | 2              |
| M.Phil     | Nil            |
| PG         | 21             |

## 16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received Nil

## 17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received

| Name of the project  | Funding agency | Year of Funding | Grant received |
|--|----------------|-----------------|----------------|
| Studies on Durability Characteristics of self healing bacterial concrete | KSCST          | 2014-15         | 7,000          |
| Studies on Strength Characteristics of Self healing bacterial concrete   | KSCST          | 2013-14         | 7,000          |

#### 18. Research Centre/facility recognized by the University: Nil

#### 19. Publications:

Publication per faculty Number of papers published in peer reviewed journals (national/International) by faculty and students

Publications of the faculty in international journals, national journals, international conferences, national conferences, books authored / edited / chapter contribution are enclosed in Self Study Report: Volume II, Part II.

Nil



**20.** Areas of consultancy and income generated:

### 21. Faculty as members in

### a) National committees b)International Committees c)Editorial Boards

| Name of Faculty            | Committee | Е   | BOS     |     | BOE            |
|----------------------------|-----------|-----|---------|-----|----------------|
| Name of Faculty            | Details   | VTU | Other   | VTU | Other          |
| N Dalaguhramanya           | Review    |     | NITTE   |     | MSRIT,MSRU,    |
| N Balasubramanya           | Committee |     | NIIIE   |     | Alliance,NITTE |
| M R Prakash Invited Member |           |     | Invited |     |                |
|                            |           |     | Member  |     |                |

### 22. Student projects

- a) Percentage of students who have done in-house projects including interdepartmental/programme is 96%
- b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies is 4%

| Projects                       | 2012 | 2-13 | 2013 | 3-14 | 2014 | 4-15 | 2015 | 5-16 |
|--------------------------------|------|------|------|------|------|------|------|------|
| Tiojects                       | No's | %    | No's | %    | No's | %    | No's | %    |
| No of Students                 | 51   |      | 61   |      | 141  |      | 81   |      |
| No of in-house projects        | 13   | 100  | 14   | 87.5 | 35   | 97   | 20   | 100  |
| No of Inter dept projects      |      |      | 01   | 6.25 |      |      |      |      |
| No of Projects in R and D Labs |      |      |      |      |      |      |      |      |
| No of Projects in Industry     |      |      | 01   | 6.25 | 01   | 3    |      |      |
| Others                         |      |      |      |      |      |      |      |      |

### 23. Awards/Recognitions received by faculty and students:

| Name                | Award/Recognition       | Agency       |
|---------------------|-------------------------|--------------|
| H A Praveen Tissera | $9^{TH}$ RANK – 2012-13 | VTU, Belgaum |



## 24. List of eminent academicians and scientists/visitors to the department:

| Name                                 | Designation  | Date of visit            | Activity                         |
|--------------------------------------|--|--------------------------|----------------------------------|
| P. Nagesh                            | Zonal Head,<br>ULTRA TECH CEMENT   | 26.04.2013               | One day Workshop                 |
| H.N.Ramesh,                          | Professor, Department of<br>Civil Engineering, UVCE,<br>Jnanabharathi, Bangalore<br>University | 30.10.2013               | Expert talk                      |
| P. Parthasarathy                     | Director, E-Parisaraa Pvt.<br>Ltd.   | 09.11.2013               | ICCE 2013- One day Conference    |
| J. R. Mudakavi,                      | Professor, dept. Of chemical engg., i.i.sc   | 09.11.2013               | Icce 2013- one day conference    |
| L. G.<br>Aswathnarayana,             | Director, Space Geo Tech<br>Pvt. Ltd., S.P.G.T   | 09.11.2013               | ICCE 2013- One day Conference    |
| H. Lakshmikantha,                    | Scientist, Karnataka State<br>Pollution Control Board,<br>K.S.P.C.B.                           | 09.11.2013               | ICCE 2013- One day Conference    |
| H. S. Dayananda,                     | Professor and Head, Dept. Of Civil and Environmental Engg. U.V.C.E                             | 09.11.2013               | ICCE 2013- One<br>day Conference |
| Sean kwak.                           | Designer in S-form a Korean company its g m  | 15.04.2015               | Seminar of alumini formwork      |
| Ravi D R,                            | Officer, KSPCB   | 29.04.2016               | Expert talk                      |
| Arun KV<br>Sidharth<br>Chhawchharia, | Architect ,SAP labs PVT<br>LTD<br>Tech Analyst, Hashedin<br>Technology                         | 20.08.2016               | Pre placement talk               |
| A N Prakash                          | Managing Director. A.N. Prakash Construction Project Management Consultants Pvt. Ltd.          | 29.09.2016               | Expert talk                      |
| Vasudev murthy,                      | Manager, tools academy for career excellence   | 21/10/2016 to 22/10/2016 | 2 days concrete<br>workshop      |



| Name              | Designation                   | Date of visit | Activity                   |
|-------------------|-------------------------------|---------------|----------------------------|
| Jaswanth sobhana, | Manager, south zone, basf     | 25/10/2016    | Expert talk                |
| Ajith Kumar       | Free lancer, ark technologies | 25/02/2017    | Talk on career advancement |
| Bhanu prakash     | Free lancer, ark technologies | 12/03/2017    | Talk on career advancement |

## 25. Seminars/Conferences/ Workshops organized and the source of funding

## a) National b) International

| Seminar/<br>Conference/<br>Workshop   | Duration with dates             | Funding agency           | Amount of fund | Amount funded by Institution | No of participants |  |
|---|---------------------------------|--------------------------|----------------|------------------------------|--------------------|--|
|   | National                        |                          |                |                              |                    |  |
| Indian Congress<br>of Civil<br>Engineers – 2013   | 1 day                           | Participant Reg. fees    |                |                              | 30                 |  |
| Indian Congress<br>of Civil<br>Engineers – 2015   | 1 day                           | Participant Reg. fees    |                |                              | 30                 |  |
| Open Source GIS   | 1 day<br>25.04.2013             | Participant<br>Reg. fees |                |                              | 47                 |  |
| Workshop On<br>Bridge Modeling  | 30-31 OCT<br>14                 |                          |                |                              | 30                 |  |
| Cement and Concrete Workshop- An Insight in to a wonderful world By Vasudev Murthy, Tools Academy for Career Excellence | 21/10/2016<br>and<br>22/10/2016 | Participant<br>Reg. fees |                |                              | 60                 |  |



## **26.** Student profile programme/ coursewise:

| Name of the programme (Management seats) | Year    | Applications received | Selected |
|--|---------|-----------------------|----------|
| BE(Civil Enngineering)                   | 2013-14 | 30                    | 24       |
|  | 2014-15 | 35                    | 25       |
|  | 2015-16 | 38                    | 23       |
|  | 2016-17 | 32                    | 24       |

## **27.** Diversity of Students

| Name of the Course      | % of students from the same state | % of students from other states | % of students from abroad |  |  |  |
|-------------------------|-----------------------------------|---------------------------------|---------------------------|--|--|--|
|                         | 2012-                             | 13                              |                           |  |  |  |
| B E - Civil Engineering | 40                                | 49                              | 11                        |  |  |  |
| 2013-14                 |                                   |                                 |                           |  |  |  |
| B E - Civil Engineering | 57                                | 38                              | 8                         |  |  |  |
|                         | 2014-15                           |                                 |                           |  |  |  |
| B E - Civil Engineering | 63                                | 29                              | 8                         |  |  |  |
|                         | 2015-16                           |                                 |                           |  |  |  |
| B E - Civil Engineering | 61                                | 23                              | 16                        |  |  |  |

# 28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

| Competitive Examinations | Year | No. | Year | No. | Year | No | Total |
|--------------------------|------|-----|------|-----|------|----|-------|
| NET                      |      |     |      |     |      |    |       |
| SLET                     |      |     |      |     |      |    |       |
| GATE                     | 2013 | 2   | 2016 | 3   |      |    | 5     |
| Civil services           |      |     |      |     |      |    |       |
| Defense services         | 2012 | 1   |      |     |      |    | 1     |



### 29. Student progression

| Student progression              | Against % enrolled |
|----------------------------------|--------------------|
| UG to PG                         | 30                 |
| PG to M.Phil.                    |                    |
| PG to Ph.D.                      |                    |
| Ph.D. to Post-Doctoral           |                    |
| Employed                         |                    |
| 1. Campus selection              | 10                 |
| 2. Other than campus recruitment | 55                 |
| Entrepreneurship/Self-employment | 5                  |

### **Progression in the Department**

### (Based on First year admission):

| Year      | Intake  | Year 1 | Year 2 | Year 3 | Year 4 | %      | %      | %      |
|-----------|---------|--------|--------|--------|--------|--------|--------|--------|
| 1001      | Intuite | 10011  | 10012  | 10010  | 1001   | Year 2 | Year 3 | Year 4 |
| 2012 – 13 | 60      | 72     | 67     | 57     | 54     | 93     | 79     | 75     |
| 2013 – 14 | 60      | 72     | 60     | 46     | 45     | 83     | 64     | 63     |
| 2014 – 15 | 120     | 108    | 93     | 86     |        | 86     | 80     |        |
| 2015 – 16 | 120     | 109    | 92     |        |        | 84     |        |        |
| 2016 -17  | 120     | 87     |        |        |        |        |        |        |

### 30. Details of Infrastructural facilities

- a) Department Library Total Volume 196
- b) Internet facilities for Staff and Students –

Broad band connectivity of

- 1. 120Mbps Railtel
- 2. 10Mbps BSNL
- 3. Campus is enabled with Wi-Fi facility
- c) Class rooms with ICT facility 07 class rooms
- d) Laboratories –08
  - 1. Strength of Materials Lab
- 7. Environmental Engineering Lab

2. Survey Lab

8. Transportation Lab

- 3. Geotech Lab
- 4. Hydraulics and Hydraulics Machines Lab
- 5. Material Testing Lab
- 6. CAD Lab



# 31. Number of students receiving financial assistance from college, university, government or other agencies

| No of Students   | College | University | Social welfare             | Merit | Other |
|--|---------|------------|----------------------------|-------|-------|
| 2015-16 - 02<br>2014-15 - 04<br>2013-14 - 04<br>2012-13 - 03     | AIT     | VTU        | KMDC                       |       |       |
| 2012-13 – 08   | AIT     | VTU        | DEFENCE                    |       |       |
| 2012-13 - 83<br>2013-14 - 04<br>2014-15 - 75<br>2015-16- 90      | AIT     | VTU        | OBC                        |       |       |
| 2012-13 - 25<br>2013-14 - 14<br>2014-15 - 15+7<br>2015-16- 18+04 | AIT     | VTU        | SC.ST<br>BELOW 2.5<br>LAKH |       |       |
| 2015-16-06+02<br>2014-15 - 05+02<br>2013-14 - 05                 | AIT     | VTU        | SC.ST<br>ABOVE 2.5<br>LAKH |       |       |

## **32.** Details on student enrichment programmes (special lectures/workshops/ seminar) with external experts (For 2015-16)

| Date       | Activity   | Resource person  | No of        |
|------------|--|--|--------------|
|            |  |  | participants |
| 26.04.2013 | Concrete Technology- guest lecture                             | Nagesh, Ultra Cement   | 60           |
| 30.10.2013 | Importance of geotechnical engineering and earth quake effects | H.N.Ramesh, Professor, Department of Civil Engineering, UVCE, Jnanabharathi, Bangalore | 60           |
| 15.04.2015 | Aluminum Shuttering and Formwork                               | Mr Sean Kwak<br>General Manager,S-FORM)  | 60           |
| 11.02.2016 | Seminar on -G.I.S  | kCube Consultancy Services,<br>Chennai   | 50           |
| 10.02.2016 | Seminar on GATE coaching                                       | Narendra reddy and Prajwal ACE GATE, IES Coaching centre                               | 70           |
| 29.04.2016 | Solid waste management in bengaluru-guest lecture              | Ravi D R,<br>Officer, KSPCB  | 100          |



| Date       | Activity                   | Resource person           | No of        |
|------------|----------------------------|---------------------------|--------------|
| Date       | Activity                   | Resource person           | participants |
|            |                            | A N PRAKASH Managing      |              |
|            | Construction Project       | Director. A.N. Prakash    |              |
| 29.09.2016 | Management and its role in | Construction Project      | 100          |
|            | Construction Projects      | Management Consultants    |              |
|            |                            | Pvt. Ltd.                 |              |
|            |                            | Arun KV, Architect ,SAP   |              |
|            |                            | labs PVT LTD and Sidharth |              |
| 20.08.2016 | Pre placement Talk         | Chhawchharia, Tech        | 120          |
|            |                            | Analyst, Hashedin         |              |
|            |                            | Technology                |              |
| 25.10.2016 | Importance of Admixtures   | by Jaswanth Sobhana,      | 65           |
| 23.10.2010 | in Today's Construction    | Manager, South zone, BASF | US           |

## 33. Teaching methods adopted to improve student learning

| Chalk and<br>Talk | Use of ICT | Demonstration | Experimentation | Collaborative | Experiential | Any<br>other |
|-------------------|------------|---------------|-----------------|---------------|--------------|--------------|
| Yes               | 07         | Yes           | Yes             | Yes           | Yes          |              |

### 34. Participation in Institutional Social Responsibility (ISR) and Extension activities

| Date       | Activity   | No of Participants                        |
|------------|--|---|
| 08.03.2013 | Guest lecture about "Rain Water Harvesting" for<br>the people of Bodugur village near Siddlaghatta |   |
| 23.10.2013 | A mega rally on World Sight Day  | 800 students and 300<br>Lion Club members |
| 13.08.2014 | Blood donation camp  | 50  |
| 20.02.2017 | Waste Management   |   |
| 21.02.2017 | Digitalization   |   |
| 22.02.2017 | Health awareness program   |   |
| 23.02.2017 | Blood Donation Camp Constitution Day Plantation of trees etc                                       |   |

## 35. SWOC analysis of the department and future plans



### **Strengths**

- 1. Highly qualified, committed and experienced faculty.
- 2. Cosmopolitan and progressive culture due to Students from India and Abroad.
- 3. Encouragement for student's initiatives.

#### Weakness

- 1. Institution-industry interaction
- 2. Industrial consultancy and applied research
- 3. Recruitment/retention of Senior faculty

### **Opportunities**

- 1. Starting of Post Graduate Programs
- 2. Catering to the requirements of Society
- 3. Alumni Networking for Academic and Placement activities

### **Challenges**

- 1. Possibility of declining of students admitted due to extremely large institutes/universities that are coming up.
- 2. Decrease in availability of quality faculty with passion for teaching.
- 3. To make MOU'S with as number of industries possible

#### **Future Plans**

- 1. To start PG program
- 2. Start research Centre
- 3. Involve UG and PG students in consultancy work



### **Computer Science and Engineering**

1. Name of the Department: Computer Science and Engineering

2. Year of Establishment: 2000

### 3. Names of Programmes / Courses offered:

| UG                     | PG  | PhD. / MSc. (Engg.) |
|------------------------|---|---------------------|
| BE in Computer Science | M.Tech in Computer Scienceand Engineering | VTU Research Centre |

4. Names of Interdisciplinary courses and the departments/units involved: Nil

5. Annual/ semester/choice based credit system (programme wise):

BE I-IV sem CBCS

V-VIII sem Semester scheme

M.Tech I-II sem CBCS

III-IV sem Semester scheme

6. Participation of the department in the courses offered by other departments:

| Department     | Course                                 |
|----------------|--|
| Bio Technology | 15BT 36 Basics of Computer Application |
| Mining         | 10MN73 Computer Application in Mining  |

- 7. Courses in collaboration with other Universities, industries, foreign institutions, etc.: Nil
- 8. Details of courses/programmes discontinued (if any) with reasons: Nil

### 9. Number of teaching posts

|                      | Sanctioned | Filled |
|----------------------|------------|--------|
| Professors           | 3          | 01     |
| Associate Professors | 5          | 02     |
| Asst. Professors     | 18         | 23     |



# 10. Faculty profile with name, qualification, designation, specialization, (D.Sc. /D.Litt. /Ph.D. / M. Phil. etc,)

| Name of The<br>Staff    | Qualification    | Designation            | Specialization                                | No. of<br>Years of<br>Experience | No. of Ph.D. Students guided for the last 4 years |
|-------------------------|------------------|------------------------|---|----------------------------------|---|
| P V Kumar               | M.Tech.,<br>PhD  | Professor<br>and HOD   | Computer Science and Engineering              | 25                               | 2   |
| Nagesha A.G.            | M.Tech<br>(PhD)  | Associate<br>Professor | Computer Science and Engineering              | 19                               |   |
| Varalakshmi<br>B D      | M.E.,            | Associate<br>Professor | Computer Science and Engineering              | 16                               |   |
| Surekha K. B.           | M.Tech<br>(PhD)  | APG-I                  | Computer Science and Engineering              | 16                               |   |
| Deepak S S              | M.Tech<br>(PhD)  | APG-I                  | Information<br>Technology                     | 18                               |   |
| Vani K S                | M.Tech           | APG-II                 | Computer<br>Network<br>Engineering            | 13                               |   |
| Nagaveni V.             | M.Tech.Ph.D      | APG-II                 | Computer Science and Engineering              | 15                               |   |
| Gayathri Kamath         | M.Tech           | APG-II                 | Computer Science and Engineering              | 13                               |   |
| Narasimha<br>Murthy M.S | M.Tech<br>(Ph.D) | APG-II                 | VLSI Design and<br>Embedded<br>Systems        | 15                               |   |
| Naidila Sadashiv        | M.Tech<br>(PhD)  | APG-II                 | Computer Science and Engineering              | 13                               |   |
| MD Ziaur<br>Rahman      | M.Tech<br>(PhD)  | APG-III                | Computer Science and Engineering              | 10                               |   |
| Varshini<br>Vidyadhar   | M.Tech<br>(PhD)  | APG-III                | Digital Communication and Network Engineering | 5                                |   |
| Vaishak<br>Sundaresh    | M.Tech           | APG-III                | Networking and<br>Internet<br>Engineering     | 4                                |   |
| Dayananda<br>Lal.N      | M.Tech           | APG-III                | Computer Science and Engineering              | 7                                |   |
| Sunil.G.L               | M.Tech           | APG-III                | Computer Science and Engineering              | 6                                |   |



| Name of The<br>Staff  | Qualification   | Designation | Specialization                   | No. of<br>Years of<br>Experience | No. of Ph.D. Students guided for the last 4 years |
|-----------------------|-----------------|-------------|----------------------------------|----------------------------------|---|
| Manujakshi B C        | M.Tech<br>(PhD) | APG-III     | Computer Science and Engineering | 10                               |   |
| Manjunath G S         | M.Tech          | APG-III     | Computer Science and Engineering | 4.5                              |   |
| T Latha Rani          | M.Tech<br>(PhD) | APG-III     | Digital Electronics              | 8.5                              |   |
| Karthik D U           | M.Tech          | APG-III     | Computer Science and Engineering | 1.5                              |   |
| Bhavana A             | M.Tech          | APG-III     | Computer Network Engineering     | 5                                |   |
| Vandana Reddy         | M.Tech<br>(PhD) | APG-III     | Computer Science and Engineering | 2.5                              |   |
| Dhanya V Kurup        | ME.,            | APG-III     | Computer Science and Engineering | 1.5                              |   |
| Shivananda            | M.E             | APG-III     | Computer Science and Engineering |                                  |   |
| Mahesh G              | M.Tech          | APG-III     | Computer Science and Engineering |                                  |   |
| Deepshikha<br>Rathore | M.Tech          | APG-III     | Computer Science and Engineering | 1                                |   |
| Moshina<br>Choudhury  | M.Tech          | APG-III     | Computer Science and Engineering | 1                                |   |

Note: Three faculty members are allotted for first year

### 11. List of senior visiting faculty: Nil

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: Nil

13. Student -Teacher Ratio (programme wise)

UG: 20:1 PG: 12:1



## 14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

| Supporting Staff     | Sanctioned | Filled |
|----------------------|------------|--------|
| Administrative Staff | 1          | 1      |
| Assistant Manager-IT | 1          | 1      |
| System Engineer      | 1          | 1      |
| Technical Lead       | 1          | 1      |
| Trainee              | 1          | 1      |
| Lab Instructors      | 4          | 2      |
| Programmer           | 4          | 1      |
| Assistants           | 1          | 1      |

### 15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.

| Sl. No.    | No. of faculty |
|------------|----------------|
| DSc/D Litt |                |
| Ph.D       | 1              |
| M.Phil     |                |
| PG         | 25             |

## 16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: Nil

## 17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received

| Name of the Project                                      | Funding agency | Year of Funding | Grants received in Rs |
|--|----------------|-----------------|-----------------------|
| SMYSR-Haptic Devices for<br>Physically Challenged People | VGST           | 2013-14         | 6,00,000              |

## 18. Research Centre /facility recognized by the University: Yes

Research Centre Recognized by VTU -2013



#### 19. Publications:

#### a) Publication by faculty

Publications of the faculty in international journals, national journals, international conferences, national conferences, books authored / edited / chapter contribution are enclosed in Self Study Report: Volume II, Part II.

### 20. Areas of consultancy and income generated: Nil

### 21. Faculty as members in

- a) National committees Nil
- b) International Committees Nil
- c) Editorial Boards

| Committee/Board                              | Name       | Year |  |
|--|------------|------|--|
| IJNCAA International Journal of New Computer | Nagayani V | 2014 |  |
| architectures and their Applications.        | Nagaveni V | 2014 |  |

#### 22. Student projects

- a) Percentage of students who have done in-house projects including inter Departmental / programme
- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories / Industry / other agencies: Nil

### 23. Awards / Recognitions received by faculty and students

| Name              | Award/Recognitions  |  |  |  |  |  |
|-------------------|---|--|--|--|--|--|
|                   | Staff   |  |  |  |  |  |
|                   | Year 2015-16  |  |  |  |  |  |
| B Gayathri Kamath |   |  |  |  |  |  |
| Sunil G L         | Bronze partner faculty under Inspire- The Campus Connect Faculty Partnership Model- Infosys |  |  |  |  |  |
| Suresh Patel      |   |  |  |  |  |  |
| B Gayathri Kamath | 'A' grade – TTT on Python Programming Fundamentals -<br>Infosys                             |  |  |  |  |  |
| Vaishak Sundaresh | 'A' grade – TTT on Python Programming Fundamentals -<br>Infosys                             |  |  |  |  |  |



| Name  | Award/Recognitions |  |  |  |
|---|--------------------|--|--|--|
|   | Year 2014-15       |  |  |  |
| B Gayathri Kamath EMC- Academic Associate                   |                    |  |  |  |
| Year 2013-14  |                    |  |  |  |
| Varalakshmi B D Young Scientist Award                       |                    |  |  |  |
| Students  |                    |  |  |  |
| Year 2013-14  |                    |  |  |  |
| Raja Joseph Silver Medal in best Physique of 85Kg under VTU |                    |  |  |  |

## 24. List of eminent academicians and scientists / visitors to the department

| Name   | Date       |
|--|------------|
| Year 2015-16   | ,          |
| Riyad Rasheed CEO, Dwise Solutions and Services Pvt Ltd, Bangalore | 15/2/2016  |
| Machayya, CEO –InterLine publishing house                          | 9/9/2015   |
| Sujatha Pillai, Microsoft  | 30/03/2015 |
| Vijay Balakrishnan, AMCAT Team                                     | 10/03/2015 |
| Venkataramereddy, Ex Vice Chancellor, JNTU H                       | 23/01/2015 |
| Year 2014-15   |            |
| H R Mahadevaswami, Applied Invention Pvt Ltd                       | 17/06/2014 |
| S S Iyengar, Florida International University                      | 05/08/2014 |
| Cognizant Personnel  | 08/10/2014 |
| M. Prithviraj, Executive Secretary, KSCST                          | 12/11/2014 |
| Venkataramereddy, Ex Vice Chancellor, JNTU H                       | 23/01/2015 |
| TCS Company Employees  | 07/02/2015 |
| Vijay Balakrishnan, AMCAT Team                                     | 10/03/2015 |
| Sujatha Pillai, Microsoft  | 30/03/2015 |
| GATE Institute   | 03/04/2015 |



| Name   | Date        |
|--|-------------|
| From Softskills Department, Acharya Institutes         | 13/04/2015  |
| Rajdeep Manvani  | 15/04/2015  |
| Year 2013-14   | 1           |
| Subimal Bhattacharjee                                  | 03/04/ 2013 |
| Jeevan, M/s Interprid Pvt Ltd.                         | 25/09/2013  |
| S S Iyengar, Florida International University          | 30/12/2013  |
| Venkat Barla, Sanskruti School of Business, Puttaparti | 20/01/2014  |

## 25. Seminars/ Conferences/Workshops organized and the source of funding a) National

| Name of Seminars/ Conferences/Workshops  | Date                              | Funding                  |  |  |  |  |  |
|--|-----------------------------------|--------------------------|--|--|--|--|--|
| National                                 |                                   |                          |  |  |  |  |  |
| Year 202                                 | 15-16                             |                          |  |  |  |  |  |
| Android Application Development          | 2/4/2016                          | CSI-Student Chapter, AIT |  |  |  |  |  |
| Big Data and hadoop                      | 24 /3/16 and                      |                          |  |  |  |  |  |
| Big Data and nadoop                      | 25/3/16                           |                          |  |  |  |  |  |
| Know your Brain a Computer Way           | 19/08/2015                        | AIT                      |  |  |  |  |  |
| Year 20                                  | Year 2014-15                      |                          |  |  |  |  |  |
| FDP on "Multicore Architecture,          | 21/08/2014                        |                          |  |  |  |  |  |
| Multithreading and Programming"          | and                               | AIT and CSI              |  |  |  |  |  |
| Withthicading and Togramming             | 23/08/2014                        |                          |  |  |  |  |  |
| Two Day Workshop on Android Apps         | 17/09/2014                        | AIT and Meta Innovations |  |  |  |  |  |
| Development                              | and                               | Pyt Limited              |  |  |  |  |  |
| Development                              | 18/09/2014                        | 1 vt Emited              |  |  |  |  |  |
| 3 Day Workshop on Storage Area Networks  | 13/10/2014 to                     | CSI,                     |  |  |  |  |  |
| Configuration and Management             | 15/10/2014                        | AIT                      |  |  |  |  |  |
| Year 2013-14                             |                                   |                          |  |  |  |  |  |
| Distributed Computing and Virtualization | 10-13 <sup>th</sup> July,<br>2013 | VTU-VGST Sponsored       |  |  |  |  |  |

### b) International: Nil



### 26. Student profile programme /course wise:

| Name of the Programme   | Year    | Applications received | Selected       |
|---|---------|-----------------------|----------------|
| BE(Computer Science and Engineering) M.Tech (Computer Science and Engineering) M.Tech (Computer Networking Engineering) | 2013-14 | 75<br>10<br>06        | 55<br>04<br>05 |
|   | 2014-15 | 68<br>08<br>08        | 53<br>05<br>04 |
|   | 2015-16 | 62<br>03<br>02        | 34<br>01<br>01 |
|   | 2016-17 | 52<br>02<br>03        | 34<br>00<br>01 |

### 27. Diversity of Students

Course: BE Computer Science and Engineering

| Year    | % of students from | % of students from | % of students from |  |
|---------|--------------------|--------------------|--------------------|--|
| i eai   | the same state     | other states       | abroad             |  |
| 2013-14 | 49.63              | 41.60              | 8.75               |  |
| 2014-15 | 48.22              | 37.58              | 14.18              |  |
| 2015-16 | 50.76              | 41.53              | 7.69               |  |

## 28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

| Year | NET | SLET | GATE | Civil<br>Services | Defense services | Others                             |
|------|-----|------|------|-------------------|------------------|------------------------------------|
| 2015 | Nil | Nil  | Nil  | Nil               | Nil              | 1 Student has cleared banking exam |



### 29. Student progression

| Student progression               | 2012-13 | 2013-14 | 2014-15 | 2015-16 |
|-----------------------------------|---------|---------|---------|---------|
| UG to PG                          | 0.01    |         | 2.15    |         |
| PG to M.Phil                      |         |         |         |         |
| PG to Ph.D                        |         |         |         |         |
| Employed: campus selection        | 27.55   | 35.00   | 62.93   | 60.99   |
| Entrepreneurship/ self-employment |         | 1.15    |         |         |

### **Progression in the Department (Based on First year admission)**

| Year    | Intake | Year 1 | Year 2 | Year 3 | Year 4 | %<br>Year 2 | %<br>Year 3 | %<br>Year 4 |
|---------|--------|--------|--------|--------|--------|-------------|-------------|-------------|
| 2012-13 | 135    | 146    | 135    | 128    | 126    | 93          | 95          | 99          |
| 2013-14 | 132    | 148    | 128    | 124    |        | 87          | 97          |             |
| 2014-15 | 137    | 144    | 123    |        |        | 86          |             |             |
| 2015-16 | 130    | 142    |        |        |        |             |             |             |
| 2016-17 | 132    |        |        |        |        |             |             |             |

### 30. Details of Infrastructural facilities

### a) Department Library:

| No. of books  |                | No. of                 | CD |     |
|---------------|----------------|------------------------|----|-----|
| No. of titles | No. of volumes | National International |    |     |
| 452           | 776            | 8                      | 5  | 227 |

## b) Internet facilities for Staff and Students: Broad band connectivity of

- 1. 120Mbps Railtel
- 2. 10Mbps BSNL
- 3. Campus is enabled with Wi-Fi facility

### c) Class rooms with ICT facility: 4 class rooms



## d) Laboratories

| CSE LAB 001       |   |                      |  |  |  |
|-------------------|---|----------------------|--|--|--|
| System<br>Type    | Configuration   | Number of<br>Systems |  |  |  |
| Desktop<br>system | HP Compaq 8200 Elite- Processor Core i5 2400,3.1 GHz, 6MB Cache, 4 Cores, 4GB DDR3 RAM, 500GB Hard disk 7200 RPM / Chipset Intel Q67 Express with inbuilt Graphic Card (Intel HD Graphics 2000), 18.5" LED TFT Monitor, Optical Mouse, andHP Key board. | 40                   |  |  |  |
|                   | Total Number of Systems   | 40                   |  |  |  |
| Software's        | Operating System: Windows 7 and Ubuntu 12.04 Application Software: MS-Office 2007 System Software: Turbo C++, JDK 1.4.2_04 Antivirus: McAfee  |                      |  |  |  |

|                   | CSE LAB 201  |                   |  |  |  |  |
|-------------------|--|-------------------|--|--|--|--|
| System<br>Type    | Configuration  | Number of Systems |  |  |  |  |
| Desktop<br>system | Disk 512 MB RAM, HCl 104 Keyboard, 17" HCL Monitor, 2  |                   |  |  |  |  |
|                   | Assembled Core i5, 4GB RAM, DDR3, 250GB HDD, ATX Cabinet,18.5 LED WIDE FORNTECH  |                   |  |  |  |  |
| Server            | HP Server ProLiant ML 150 G3 single Processor 3 GHz, 2 GB RAM, 72x2 RAID HDD DVD ROM, R/W Combo Drive, HP 104 Keys KB, 17" Color Monitor TYPE2                             | 1                 |  |  |  |  |
|                   | Total  | 39                |  |  |  |  |
| Software's        | Software's Operating System: Windows XP and Fedora 12 Application Software: MS-Office 2007 Database: Oracle 10g System Software: Turbo C++, JDK 1.4.2_04 Antivirus: McAfee |                   |  |  |  |  |



|                       | CSE LAB 202   |                      |  |  |  |  |
|-----------------------|---|----------------------|--|--|--|--|
| System Type           | Configuration   | Number of<br>Systems |  |  |  |  |
| Desktop               | Intel PD 805 2.66 GHz. 80 GB SATA Hard Disk 512 MB RAM, HCl 104 Keyboard, 17" HCL Monitor, 2 buttons mouse  | 15                   |  |  |  |  |
| Systems               | Assembled Core i5, 4GB RAM, DDR3, 250GB HDD, ATX Cabinet,18.5 LED WIDE FORNTECH   | 25                   |  |  |  |  |
| Server                | HP Server Proliant ML 150 G3 single Processor 3 GHz, 2 GB RAM, 72x2 RAID HDD DVD ROM, R/W Combo Drive, HP 104 Keys KB, 17" Color Monitor TYPE2  | 1                    |  |  |  |  |
|                       | Total   | 41                   |  |  |  |  |
|                       | Operating System:   |                      |  |  |  |  |
|                       | Windows XP, Windows 98 and Fedora 12  |                      |  |  |  |  |
| Software's            | Application Software: MS-Office 2007  |                      |  |  |  |  |
|                       | System Software: Turbo C++, JDK 1.4.2_04  |                      |  |  |  |  |
|                       | Antivirus: McAfee   |                      |  |  |  |  |
|                       | CSE LAB 301   |                      |  |  |  |  |
| System Type           | Configuration   | Number of<br>Systems |  |  |  |  |
| System Configuration: | Assembled Intel® Core <sup>TM</sup> i5 CPU, 3.33 GHz, Hard Disk – 250 GB, RAM – 4 GB DDR  Monitor –Frontech LED Monitor 47cm Wide screen.  Keyboard - I ball Wintop v3.0, Mouse - I ball Wintop v3.1  | 25                   |  |  |  |  |
|                       | System Configuration: Intel (D) 3.0 GHz. 80 GB SATA Hard Disk 512 MB RAM, HCL 104 Keyboard, 17" HCL Monitor, 2 buttons mouse  | 13                   |  |  |  |  |
| Server                | HP Server ProLiant ML 150 G3 Dual Processor 3 GHz, 3 GB RAM, 72*3 RAID HDD DVD ROM, R/W Combo Drive, 43 CM (17") HCL CLR Monitor, HCM 728 M W/M PR-II-BLK ATX- CABINET, HCL 104 Keys KB, 14 Button INT/MM, Optical PS/2 Mouse Blk and Serial. | 1                    |  |  |  |  |
|                       | Total Number of Systems   | 39                   |  |  |  |  |



| Software's | Operating System:                                |  |  |  |  |
|------------|--|--|--|--|--|
|            | Windows XP, Fedora                               |  |  |  |  |
|            | Application Software: MS-Office 2007             |  |  |  |  |
|            | System Software: Turbo C++                       |  |  |  |  |
|            | Antivirus: McAfee                                |  |  |  |  |
| Tot        | Total Number of systems in C.SandE Department 15 |  |  |  |  |

## 31. Number of students receiving financial assistance from college, university, Government or other agencies:

| Scholarship   | 2013-14 | 2014-15 | 2015-16 |
|---|---------|---------|---------|
| Taluk social welfare office [below 2.5 lakh] for SC [UG and PG] | 30      | 19      | 34      |
| Taluk social welfare office [below 2.5 lakh] for ST [UG and PG] | 4       | 4       | 3       |
| DTE scholarship [Above 2.5 lakh] for UG[SC/ST]                  |         |         |         |
| Karnataka Minorities Development Corporation                    | 3       | 6       | 5       |
| OBC Scholarship [UG and PG]-BCM<br>Scholarship                  | 44      | 49      | 90      |
| College   | 3       | 7       |         |

# 32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts

| Date        | Program   | Expert  |
|-------------|---|---|
| 15 /02/2016 | Significance of Entrepreneurship for Engineering Students | CEO, Dwise Solutions and<br>Services Pvt Ltd, Bangalore |
| 28/10/2015  | Introduction to Fonetwish<br>Platform                     | Anush and Saaransh, Fonetwish                           |
| 09/09/2015  | Research Based Education and Content<br>Writing           | C.M.Machayya, Co-founder, interlinepublishing.com       |
| 30-09-2015  | Industrial Visit to ISRO Satellite Centre                 | H.L.Srinivasa.  |



| Date       | Program   | Expert  |
|------------|---|---|
| 04/09/2015 | "Educational trip to Indian Institute of Science, Bangalore". | Raghuraman, System<br>Administration, S.E.R.C |
| 26/08/2015 | CDAC Industrial visit   | CDAC  |

#### 33. Teaching methods adopted to improve student learning

- 1. Black Board
- 2. White Board
- 3. Chalk and Talk
- 4. Role Play
- 5. Power Point Presentation
- 6. NPTEL Videos/MOOC Cell
- 7. Live Demo

#### 34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

- 1. The iCare Group is a student-formed organization that believes and works over community events with the intention of spreading social benevolence and learning.
- 2. Nature Watch The Eco-Club of A. I.T.
- 3. NCC
- 4. Blood Donation

### 35. SWOC analysis of the department and Future plans

#### Strength

- 1. Highly Qualified Teaching and Non-Teaching Staff
- 2. Strong Faculty Parent/Student Interaction
- 3. Good Industry Institute Interaction

#### Weakness

- 1. Up gradation of Computer Systems with UPS/Library books
- 2. Faculty retention rate is low
- 3. Non availability of 1) Seminar hall 2) Discussion Room 3) Sports Room
- 4. Ladies Waiting Room 5) sufficient number of Lecture Halls



### **Opportunity**

- 1. Students are allowed to do training/Internship both in Industry and International Universities.
- 2. Facilitating Faculty/Students for Higher Studies/Personal development
- 3. Fetching Grants/Consultancy from reputed agencies by Faculty Members

### Challenges

- 1. Creating Environment to transform students into Entrepreneurs
- 2. Curriculum not in line with Technology changes/Industry needs
- 3. Achieving the quality of Global Education

### **Future plans**

- 1. Planning to conduct a workshop on 'Ethical Hacking'.
- 2. Planning to conduct a National Seminar on 'Big Data and Cloud Computing.
- 3. Planning to conduct a technical talk on 'Mathematical Modelling'.
- 4. Planning to conduct a FDP on 'Algorithm Design and Development



## **Construction Technology and Management**

- 1. Name of the department: Construction Technology and Management
- 2. Year of Establishment: 2011
- 3. Names of Programmes / Courses offered

| UG: Construction Technology and Management | PG: Nil | Ph.D.: Nil |
|--|---------|------------|
|--|---------|------------|

- 4. Names of Interdisciplinary courses and the departments/units involved: Nil
- 5. Annual/ semester/choice based credit system (programme wise)

BE

I-IV semester

**CBCS** 

V-VIII semester Semester scheme

- 6. Participation of the department in the courses offered by other departments:
- 7. Courses in collaboration with other universities, industries, foreign institutions, etc.: Nil
- 8. Details of courses/programmes discontinued (if any) with reasons: Nil
- 9. Number of Teaching posts

|                      | Sanctioned | Filled |
|----------------------|------------|--------|
| Professors           | 1          | 1      |
| Associate Professors | 2          | 0      |
| Asst. Professors     | 6          | 8      |



# 10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D. / M. Phil. etc.,)

|                         |               |             |                            |          | No. of Years of Experience |     |       | udents<br>t 4 years                              |
|-------------------------|---------------|-------------|----------------------------|----------|----------------------------|-----|-------|--|
| Name                    | Qualification | Designation | Specialization             | Industry | Teaching other than AIT    | AIT | Total | No. of Ph.D.Students guided for the last 4 years |
| M T Maruthesha<br>Reddy | M.Sc, Ph.D    | Professor   | Geology                    |          | 28                         | 5   | 33    |  |
| Sirisha Reddy           | M.Tech        | APG-III     | Construction<br>Technology | 1        |                            | 2.9 | 3.9   |  |
| Prathiba S              | M.Tech        | APG-III     | Structures                 | 8        | 2.6                        | 1.9 | 12.5  |  |
| Anil Kumar              | M.Tech        | APG-III     | Construction<br>Technology | 2        |                            | 1.9 | 3.9   |  |
| H K<br>Chandrashekar    | M.Tech        | APG-III     | Structures                 | 1        |                            | 1.9 | 2.9   |  |
| K M Chanitanya          | M.Tech        | APG-III     | Construction<br>Technology |          |                            | 0.8 | 0.8   |  |
| K. Vijesh               | M.Tech        | APG-III     | Construction<br>Technology |          |                            |     |       |  |
| Viswanath K             | M.Tech        | APG-III     | Construction<br>Technology |          |                            |     |       |  |
| Rajani V Akki           | M.Tech        | APG-III     | Construction<br>Technology |          | 3                          |     |       |  |

### 11. List of senior visiting faculty

|           | 10CT55 - Construction Economics and Finance |
|-----------|---|
| W. 1DD    | 10AL51 – Entrepreneurship and Management    |
| Vital B.R | 15CT46 - Financial and Cost Accounting      |
|           | 10CT82 - Arbitration                        |



- 12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

  Nil
- 13. Student Teacher Ratio (programme wise): 20:1

## 14. Number of academic support staff (technical) and administrative staff, sanctioned and filled

| Category         | Sanctioned | Filled |
|------------------|------------|--------|
| Lab Instructor   | 04         | 04     |
| Office assistant | 01         | 01     |

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.

| Qualifications | No of faculty |
|----------------|---------------|
| DSc/D Litt     |               |
| Ph.D           | 1             |
| M.Phil         |               |
| PG             | 8             |

- 16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: Nil
- 17. Departmental projects funded by DST FIST; UGC, DBT, ICSSR, etc. and total grants received: Nil
- 18. Research Centre /facility recognized by the University: No
- 19. Publications:
  - a) Publication per faculty

Number of papers published in peer reviewed journals (national / International) by faculty and students

Publications of the faculty in international journals, national journals, international conferences, national conferences, books authored / edited / chapter contribution are enclosed in Self Study Report: Volume II, Part II.



- 20. Areas of consultancy and income generated: Nil
- 21. Faculty as members in
  - a) National committees b) International Committees c) Editorial Boards: Nil
- 22. Student projects
  - a) Percentage of students who have done in-house projects including inter departmental/programme 79
  - b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies- 21

| Projects                        | 2014-2015 |    | 2015-2016 |    | 2016-2017 |    |
|---------------------------------|-----------|----|-----------|----|-----------|----|
|                                 | No's      | %  | No's      | %  | No's      | %  |
| No of Students                  | 16        |    | 31        |    | 44        |    |
| No of in-house projects         | 3         | 75 | 6         | 75 | 10        | 90 |
| No of Inter department projects |           |    |           |    |           |    |
| No of Projects in R and D Labs  |           |    |           |    |           |    |
| No of Projects in<br>Industry   | 1         | 25 | 2         | 25 | 1         | 9  |
| Others                          |           |    |           |    |           |    |

### 23. Awards / Recognitions received by faculty and students:

| Name               | Award/Recognition | Agency       | Year      |  |
|--------------------|-------------------|--------------|-----------|--|
| Divyashree V.P     | II Rank           | VTU, Belagum | 2014-2015 |  |
| Abhisheik Pd       | Gold Medal        | VTU, Belagum | 2015-2016 |  |
| Prajwal B          | III Rank          | VTU, Belagum | 2015-2016 |  |
| Arindam Thakuria   | IV Rank           | VTU, Belagum | 2015-2016 |  |
| Nalluri Rajaharsha | VI Rank           | VTU, Belagum | 2015-2016 |  |
| Sachin S Guraddi   | VIII Rank         | VTU, Belagum | 2015-2016 |  |
| Prakhar Tiwari     | X Rank            | VTU, Belagum | 2015-2016 |  |



## 24. List of eminent academicians and scientists / visitors to the department

| Name                                 | Designation  | Date of visit                  | Activity                      |  |
|--------------------------------------|--|--------------------------------|-------------------------------|--|
| P. Parthasarathy                     | Director, E-Parisaraa Pvt.<br>Ltd.   | 09.11.2013                     | ICCE 2013- One day Conference |  |
| J. R. Mudakavi,                      | Professor, dept. Of chemical engg., i.i.sc   | 09.11.2013                     | Icce 2013- one day conference |  |
| L. G.<br>Aswathnarayana,             | Director, Space Geo Tech<br>Pvt. Ltd., S.P.G.T   | 09.11.2013                     | ICCE 2013- One day Conference |  |
| H. Lakshmikantha,                    | Scientist, Karnataka State<br>Pollution Control Board,<br>K.S.P.C.B.                           | 09.11.2013                     | ICCE 2013- One day Conference |  |
| H. S. Dayananda,                     | Professor and Head, Dept.<br>Of Civil and Environmental<br>Engg. U.V.C.E                       | 09.11.2013                     | ICCE 2013- One day Conference |  |
| P. NAGESH                            | Zonal Head,<br>Ultra Tech Cement   | 26.04.2013                     | One day Workshop              |  |
| H.N.RAMESH,                          | Professor, Department of<br>Civil Engineering, UVCE,<br>Jnanabharathi, Bangalore<br>University | 30.10.2013                     | Expert talk                   |  |
| Sean kwak.                           | Designer in S-form a<br>Korean company its g m   | 15.04.2015                     | Seminar of alumini formwork   |  |
| Ravi D R,                            | Officer, KSPCB   | 29.04.2016                     | Expert talk                   |  |
| A N PRAKASH                          | Managing Director. A.N. Prakash Construction Project Management Consultants Pvt. Ltd.          | 29.09.2016                     | Expert talk                   |  |
| Arun KV<br>Sidharth<br>Chhawchharia, | Architect ,SAP labs PVT<br>LTD<br>Tech Analyst, Hashedin<br>Technology                         | 20.08.2016                     | Pre placement talk            |  |
| Vasudev murthy                       | Manager, tools academy for career excellence   | 21.10.2016<br>to<br>22.10.2016 | 2 days concrete<br>workshop   |  |
| Jaswanth sobhana,                    | Manager, south zone, basf  | 25.10.2016                     | Expert talk                   |  |
| Bhanu prakash                        | Free lancer, ark technologies  | 12.03.2017                     | Talk on career advancement    |  |
| Ajith Kumar                          | Free lancer, ark technologies  | 25.02.2017                     | Talk on career advancement    |  |



## 25. Seminars/ Conferences/Workshops organized and the source of funding

### a) National

## b) International:

| Seminar/ Conference/<br>hop   | Duration with dates             | Funding agency           | Amount of fund | Amount funded by Institution | No of participants |
|---|---------------------------------|--------------------------|----------------|------------------------------|--------------------|
|   |                                 | National                 |                |                              |                    |
| Indian Congress of Civil Engineers – 2013,1 day National Conference   | 1 day                           | Participant<br>Reg. fees |                |                              | 30                 |
| Indian Congress of Civil Engineers – 2015, 1 day National Conference  | 1 day                           | Participant<br>Reg. fees |                |                              | 30                 |
| Cement and Concrete Workshop- An Insight in to a wonderful world By Vasudev Murthy, Tools Academy for Career Excellence | 21/10/2016<br>and<br>22/10/2016 | Participant<br>Reg. fees |                |                              | 60                 |

## 26. Student profile programme / course wise:

| Name of the Programme (Management seats) | Applications received | Selected |
|--|-----------------------|----------|
| 2012-2013                                | 12                    | 09       |
| 2013-2014                                | 18                    | 10       |
| 2014-2015                                | 09                    | 05       |
| 2015-2016                                | 02                    | 00       |



### 27. Diversity of Students

| Name of the<br>Course                  | % of students from the same state | % of students from other States | % of students from abroad |  |  |
|--|-----------------------------------|---------------------------------|---------------------------|--|--|
|  | 2012-13                           |                                 |                           |  |  |
| Construction Technology and Management | 59                                | 38                              | 3                         |  |  |
|  | 2013-14                           |                                 |                           |  |  |
| Construction Technology and Management | 57                                | 36                              | 7                         |  |  |
|  | 2014-1                            | 15                              |                           |  |  |
| Construction Technology and Management | 67                                | 21                              | 12                        |  |  |
| 2015-16                                |                                   |                                 |                           |  |  |
| Construction Technology and Management | 71                                | 8                               | 21                        |  |  |

# 28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

| Competitive Exams | Year | No | Year | No | Year | No | Total |
|-------------------|------|----|------|----|------|----|-------|
| NET               |      |    |      |    |      |    |       |
| SLET              |      |    |      |    |      |    |       |
| GATE              | 2016 | 1  |      |    |      |    |       |
| Civil services    |      |    |      |    |      |    |       |
| Defense services  |      |    |      |    |      |    |       |



### 29. Student progression

| Student progression   | Against % enrolled |
|---|--------------------|
| UG to PG  | 28%                |
| PG to M.Phil.   | Nil                |
| PG to Ph.D.   | Nil                |
| Ph.D. to Post-Doctoral  | Nil                |
| Employed  1. Campus selection  2. Other than campus recruitment | 2%                 |
| Entrepreneurship/Self-employment                                | 2%                 |

#### **Progression in the Department (Based on First year admission)**

| No/year | Intake | Year1 | Year2<br>(Regular+LA) | Year 3 | Year 4 | %<br>Year 2 | %<br>Year 3 | %<br>Year 4 |
|---------|--------|-------|-----------------------|--------|--------|-------------|-------------|-------------|
| 2012-13 | 60     | 49    | 36+7=43               | 43     | 43     | 73          | 77          | 77          |
| 2013-14 | 60     | 34    | 20+9=29               | 27     |        | 59          | 63          |             |
| 2014-15 | 60     | 27    | 21+8=29               |        |        | 78          |             |             |

Percentage based on first year admission

#### 30. Details of Infrastructural facilities

- a) Department Library: Volume-196
- b) Internet facilities for staff and students:

Broad band connectivity of

- 1. 120Mbps Railtel
- 2. 10Mbps BSNL
- 3. Campus is enabled with Wi-Fi facility
- c) Class rooms with ICT facility- 03
- d) Laboratories: 3 laboratories fully furnished



# 31. Number of students receiving financial assistance from college, university, government or other agencies-

| No of Students  | College | University | Social welfare          | Merit | Other |
|---|---------|------------|-------------------------|-------|-------|
| 2015-16 -Nil<br>2014-15 - Nil<br>2013-14 - 01<br>2012-13 - 01 | AIT     | VTU        | KMDC                    | 5     |       |
| 2012-13 - 01<br>2013-14 - 01<br>2014-15 - 01                  | AIT     | VTU        | DEFENCE                 | 4     |       |
| 2012-13 - 04<br>2013-14 - 04<br>2014-15 - 09<br>2015-16- 25   | AIT     | VTU        | OBC                     |       |       |
| 2012-13 - Nil<br>2013-14 - 02<br>2014-15 - 01<br>2015-16- 6+4 | AIT     | VTU        | SC.ST BELOW<br>2.5 LAKH | 5     |       |
| 2015-16-02+01<br>2014-15 -Nil<br>2013-14 - 2+1                | AIT     | VTU        | SC.ST ABOVE<br>2.5 LAKH |       |       |

# **32.** Details on student enrichment programmes (special lectures / workshops / seminar) with external experts

| Date       | Activity                         | Resource person  | No of participants |
|------------|----------------------------------|--|--------------------|
| 15-04-2015 | Aluminum Shuttering and Formwork | Mr Sean Kwak<br>General Manager,S-FORM)                        | 60                 |
| 11.02.2016 | Seminar on -G.I.S                | kCube Consultancy Services,<br>Chennai                         | 50                 |
| 10.02.2016 | Seminar on GATE coaching         | Narendra reddy and Prajwal<br>ACE GATE, IES Coaching<br>centre | 70                 |



| Date       | Activity  | Resource person   | No of participants |
|------------|---|---|--------------------|
| 29.04.2016 | Solid waste management in Bengaluru-Guest Lecture                     | Ravi D R,<br>Officer, KSPCB   | 100                |
| 29.09.2016 | Construction Project Management and its role in Construction Projects | A N Prakash Managing<br>Director. Construction Project<br>Management Consultants Pvt.<br>Ltd. | 100                |
| 20-08-2016 | Pre placement Talk  | Arun KV, Architect, SAP labs PVT LTD Sidharth Chhawchharia, Tech Analyst, Hashedin Technology | 120                |
| 25/10/2016 | Importance of Admixtures in Today's Construction                      | Jaswanth Sobhana, Manager,<br>South zone, BASF  | 65                 |

## 33. Teaching methods adopted to improve student learning

| Chalk<br>and<br>Talk | Use<br>of<br>ICT | Demonstration | Experimentation | Collaborative | Experiential | Any<br>other |
|----------------------|------------------|---------------|-----------------|---------------|--------------|--------------|
| Yes                  | 03               | Yes           | Yes             | Yes           | Yes          |              |

### 34. Participation in Institutional Social Responsibility (ISR) and Extension activities

| Date       | Activity  | No of Participants                        |
|------------|---|---|
| 08.03.2013 | Guest lecture about "Rain Water Harvesting" for the people of Bodugur village near Siddlaghatta |   |
| 23.10.2003 | A mega rally on World Sight Day   | 800 students and 300<br>Lion Club members |
| 13.08.2014 | Blood donation camp   | 50  |
| 20.02.2017 | Waste Management  |   |
| 21.02.2017 | Digitalization  |   |
| 22.02.2017 | Health awareness program  |   |
| 23.02.2017 | Blood Donation Camp Constitution Day<br>Plantation of trees etc                                 |   |



#### 35. SWOC analysis of the department and Future plans

#### **Strengths**

- 1. Students are university rank holders.
- 2. Determined, dedicated faculty.
- 3. Students with good achievement in extracurricular activities- Sports, Nature watch Eco-club, Music etc.

#### Weakness

- 1. Digitalized equipments and modern tools.
- 2. Industrial consultancy.
- 3. Industry Institution interaction.
- 4. Placements in reputed companies.

#### **Opportunities**

- 1. Can pursue graduation in different streams globally.
- 2. Consultancy services in Construction projects.
- 3. Alumni networking for placement and academic activities.
- 4. To improve the existing curriculum for the industrial needs.

#### **Challenges**

- 1. To motivate students for admission in the department
- 2. To get MOU's with the professional bodies
- 3. To achieve NABL for consultancy services.

#### **Future Plans**

- 1. Establish a research centre and PG
- 2. Involve PG and UG students in consultancy service
- 3. To bring funds and setup latest equipments required for research centre
- 4. Train the students through internship from the projects taken



### **Electronics and Communication Engineering**

1. Name of the Department: Electronics and Communication Engineering

2. Year of Establishment: 2000

### 3. Names of Programmes / Courses offered:

| UG  | PG   | Ph.D./ MSc. (Engg.)    |
|---|--|------------------------|
| BE in Electronics and Communication Engineering | M.Tech. in Digital Communication Engineering | VTU Research<br>Centre |

- 4. Names of Interdisciplinary courses and the departments/units involved: Nil
- 5. Annual/ semester/choice based credit system (programme wise) Semester Based System (Non-CBCS)

**BE** I-IV sem CBCS

V-VIII sem Semester scheme

M.Tech I-II sem CBCS

III-IV sem Semester scheme

#### 6. Participation of the department in the courses offered by other departments

| Department                            | Subject offered with code  |
|---------------------------------------|--|
| Manufacturing Science and Engineering | 10MA55 Applied Electronics and Microprocessor<br>10MAL57 Applied Electronics and Microprocessor Laboratory |

7. Courses in collaboration with other universities, industries, foreign institutions, etc.
Nil

8. Details of courses / programmes discontinued (if any) with reasons: Nil

#### 9. Number of Teaching posts

| Title                | Sanctioned | Filled |
|----------------------|------------|--------|
| Professors           | 03         | 04     |
| Associate Professors | 05         | 03     |
| Asst. Professors     | 16         | 17     |



# 10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D./M. Phil. etc.,)

|                   |               |                        |                               |          | No. o          | f year |       | lents   |  |  |
|-------------------|---------------|------------------------|-------------------------------|----------|----------------|--------|-------|---|--|--|
| Name              | Qualification | Designation            | Specialization                | Industry | Teaching other |        | Total | No. of Ph.D Students<br>guided in the last 4<br>years |  |  |
| Rajeswari         | M.E, Ph.D     | HOD and<br>Professor   | Speech Processing             | 0        | 0              | 22     | 22    | 3   |  |  |
| H D Maheshappa    | M.Tech, Ph.D  | Professor              | Instrumentation               | 0        | 26             | 7      | 33    | 5   |  |  |
| Sevugarajan S     | Ph.D          | Professor              | Instrumentation               | 1        | 7.5            | 3.5    | 12    |   |  |  |
| Shivashankrappa N | M.E (Ph.D)    | Professor              | Electronics and Communication | 0        | 34             | 1      | 35    |   |  |  |
| Sujatha B.M       | M.E (Ph.D)    | Associate<br>Professor | Electronics and Communication | 0        | 6              | 15     | 21    |   |  |  |
| Jayalaxmi.H       | M.Tech (Ph.D) | Associate<br>Professor | VLSI and<br>Embedded System   | 1        | 5              | 13     | 19    |   |  |  |
| Krupaprasad K.R   | M.Tech (Ph.D) | Associate<br>Professor | Biomedical<br>Instrumentation | 0        | 22             | 3.5    | 25.5  |   |  |  |
| Raghunath B.H     | M.Tech (Ph.D) | APG-I                  | VLSI and<br>Embedded System   | 3        | 3              | 12     | 18    |   |  |  |
| Siddesh M.B       | M.Tech (Ph.D) | APG-I                  | Power Electronics             | 0        | 2              | 12     | 14    |   |  |  |
| Shailesh M.L      | M.Tech        | APG-II                 | Electronics                   | 0        | 7              | 9      | 16    |   |  |  |
| Nataraju A.B      | M.E (Ph.D)    | APG-III                | Electronics and Communication | 9.5      | 1              | 6      | 16.5  |   |  |  |
| Nagapushpa K.P    | M.Tech (Ph.D) | APG-II                 | VLSI and<br>Embedded System   | 0        | 8              | 11     | 19    |   |  |  |
| Sapna Kumari .C   | M.Tech (Ph.D) | APG-III                | VLSI and<br>Embedded System   | 0        | 6              | 10     | 16    |   |  |  |
| Asha C.N          | M.Tech (Ph.D) | APG-II                 | VLSI and<br>Embedded System   | 0        | 0              | 10     | 10    |   |  |  |
| Vasanth Kumar T.R | M.Tech (Ph.D) | APG-III                | Digital<br>Communication      | 0        | 4              | 8      | 12    |   |  |  |



|                             |               |             |   | N   | lo. of                    | years  | of    | S   |      |       |
|-----------------------------|---------------|-------------|---|-----|---------------------------|--------|-------|---|------|-------|
|                             |               |             |   |     | Expe                      | erienc | e     | lent                                      | st 4 |       |
| Name Qualification Designat |               | Designation | Designation Specialization                  |     | reacning omer<br>than AIT | AIT    | Total | No. of Ph.D Students guided in the last 4 |      | years |
| Sumalatha.S                 | M.Tech (Ph.D) | APG         | VLSI and<br>Embedded System                 | 0   | 2                         | 7      | 9     |   |      |       |
| Sandeep Kumar K             | M E (Ph.D)    | APG III     | Electronics and Communication Engg          | 0   | 2                         | 6      | 8     |   |      |       |
| Sagar T D                   | M.Tech (Ph.D) | APG-III     | VLSI and<br>Embedded System                 | 0   | 0                         | 1.5    | 1.5   |   |      |       |
| Shashi Kumar                | M.Tech (Ph.D) | APG-III     | VLSI and<br>Embedded System                 | 1.5 | 0                         | 2.5    | 4     |   |      |       |
| Veena Sanathkumar           | M.Tech (Ph.D) | APG-II      | VLSI and<br>Embedded System                 | 0.5 | 9.5                       | 2      | 12    |   |      |       |
| Priyanka K C                | M.Tech        | APG-III     | VLSI and<br>Embedded System                 | 2   | 0                         | 0.75   | 2.75  |   |      |       |
| Lavanya P                   | M.Tech        | APG-III     | Electronics                                 | 2   | 0                         | 0.25   | 2.25  |   |      |       |
| Devasis Pradhan             | M.Tech        | APG-III     | Electronics<br>systems and<br>Communication | 0   | 9                         | 0.25   | 9.25  |   |      |       |

### 11. List of senior visiting faculty

| Name  | Qualification | Subject handled                 |
|-------|---------------|---------------------------------|
| Vivek | MBA           | Management and Entrepreneurship |

# 12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty Nil

## 13. Student -Teacher Ratio (programme wise)

UG: 20:1 PG: 12: 1



## 14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

| Details              | Sanctioned | Filled |
|----------------------|------------|--------|
| Administrative Staff | 01         | 01     |
| Lab Instructors      | 05         | 05     |

### 15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.

| Qualifications | No of faculty |
|----------------|---------------|
| DSc/D Litt     | -             |
| Ph.D           | 3             |
| M.Phil         | -             |
| PG             | 21            |

## 16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received

| Name of Faculty | National<br>Agencies<br>Name | Year of funding | No of<br>Faculty | Internation<br>al Agency<br>Name | Year of funding |
|-----------------|------------------------------|-----------------|------------------|----------------------------------|-----------------|
| Rajeswari       | VGST                         | 2015-16         | 2                | -                                | 2016            |

## 17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received

| Name of the project                | Funding | Year of | Grant Received in |
|------------------------------------|---------|---------|-------------------|
| Name of the project                | agency  | Funding | Rs.               |
| Development of Automatic Weed      |         |         |                   |
| Detection and Herbicide Spraying   | VGST    | 2015-16 | 2,000,000/-       |
| Control in Horticulture Plantation |         |         |                   |
| GPS based Land survey system       |         |         |                   |
| using QUAD copter unmanned         | KSCST   | 2013-14 | 6,000/-           |
| Aerial vehicle(UAV)                |         |         |                   |



| Name of the project             | Funding | Year of | Grant Received in |
|---------------------------------|---------|---------|-------------------|
| Name of the project             | agency  | Funding | Rs.               |
| Smart centralized E-garbage     | KSCST   | 2013-14 | 6,500/-           |
| system                          | ROCOT   | 2013 11 | 0,500/            |
| Smart tollgate System           | KSCST   | 2013-14 | 5,500/-           |
| A Smart Wireless Attendance     | MOCOL   | 2014 15 | C000/             |
| Monitoring System               | KSCST   | 2014-15 | 6000/-            |
| Farmbot – Small scale, Low Cost | KSCST   | 2015-16 | 5,000/-           |
| Farming Automation System       | RSCST   | 2015-10 | 3,000/-           |
| Smart arm Autonomous Low cost   | KSCST   | 2016-17 | 7,500/-           |
| Device for smart Agriculture    | IXSCS1  | 2010-17 | 7,500/-           |

### 18. Research Centre /facility recognized by the University: Yes

RandD Centre recognized by VTU – 2010

#### 19. Publications:

#### a) Publication per faculty

Publications of the faculty in international journals, national journals, international conferences, national conferences, books authored / edited / chapter contribution are enclosed in Self Study Report: Volume II, Part II.

### a) Publications by Students

| Nome of the          | No     | of           | No. of  | Books v             | vith     |                |      |     |               |         |
|----------------------|--------|--------------|---------|---------------------|----------|----------------|------|-----|---------------|---------|
|                      | Public | Publications |         | publication details |          |                |      |     | tor           |         |
| Name of the Students | Nat    | Int Nat      | Chapter | Edited              | Authored | Citation Index | SNIP | SJR | Impact factor | h index |
| Vinesh               |        | 1            |         |                     |          |                |      |     |               |         |
| Uday M               | 1      |              |         |                     |          |                |      |     |               |         |
| Sangeeta Reddy       | 1      |              |         |                     |          |                |      |     |               |         |
| Yogeesh H.R          | 1      |              |         |                     |          |                |      |     |               |         |
| Mohamad Kareem       |        | 1            |         |                     |          |                |      |     |               |         |
| Kusum Singh          | 1      |              |         |                     |          |                |      |     |               |         |
| Premkumar E          |        | 1            |         |                     |          |                |      |     |               |         |



|                      |     | of<br>cations |         |        | s with details | ex             |      |     | ır            |         |
|----------------------|-----|---------------|---------|--------|----------------|----------------|------|-----|---------------|---------|
| Name of the Students | Nat | Int Nat       | Chapter | Edited | Authored       | Citation Index | SNIP | SJR | Impact factor | h index |
| Shivarajkumar        | 1   |               |         |        |                |                |      |     |               |         |
| Suma C               | 1   |               |         |        |                |                |      |     |               |         |
| Shilpashree          |     | 1             |         |        |                |                |      |     |               |         |
| Chndra naik          | 1   |               |         |        |                |                |      |     |               |         |
| Shwetha              |     | 1             |         |        |                |                |      |     |               |         |
| Nethravati           | 1   |               |         |        |                |                |      |     |               |         |
| Sharanabasavaraju    | 1   |               |         |        |                |                |      |     |               |         |
| Pratibha             | 1   |               |         |        |                |                |      |     |               |         |
| Shilpa               | 1   |               |         |        |                |                |      |     |               |         |
| Masum                | 1   |               |         |        |                |                |      |     |               |         |
| Santhosh             | 1   |               |         |        |                |                |      |     |               |         |
| Shilpa               | 1   |               |         |        |                |                |      |     |               |         |
| Pavan T V            | 1   |               |         |        |                |                |      |     |               |         |
| Ananda               | 1   |               |         |        |                |                |      |     |               |         |
| Basavaraj Raygol     | 1   |               |         |        |                |                |      |     |               |         |
| Sandeep V            | 1   |               |         |        |                |                |      |     |               |         |
| Santosh B            | 1   |               |         |        |                |                |      |     |               |         |
| Vedavathy            | 1   |               |         |        |                |                |      |     |               |         |
| Satish V V           | 1   |               |         |        |                |                |      |     |               |         |
| Chandranayaka        | 1   |               |         |        |                |                |      |     |               |         |
| Prathibha            | 1   |               |         |        |                |                |      |     |               |         |



### b) Journals published by Students

|                      | No     | of           | No.     | of Books            | with     |                |      |     |               |         |
|----------------------|--------|--------------|---------|---------------------|----------|----------------|------|-----|---------------|---------|
|                      | Public | Publications |         | publication details |          |                |      |     | ctor          | ~       |
| Name of the Students | Nat    | Int Nat      | Chapter | Edited              | Authored | Citation Index | SNIP | SJR | Impact factor | h index |
| Shwetha M            |        | 1            |         |                     |          |                |      |     |               |         |
| Vinesh               |        | 1            |         |                     |          |                |      |     |               |         |
| Ashwini C            |        | 1            |         |                     |          |                |      |     |               |         |
| Ateet Josh           |        | 1            |         |                     |          |                |      |     |               |         |
| Deepu R              |        | 1            |         |                     |          |                |      |     |               |         |
| Pavan T V            |        | 1            |         |                     |          |                |      |     |               |         |
| Bhagya B O           |        | 1            |         |                     |          |                |      |     |               |         |
| Shilpashree B R      |        | 1            |         |                     |          |                |      |     |               |         |

### 20. Areas of consultancy and income generated:

| Name of Faculty | Area                                | Income generated |
|-----------------|-------------------------------------|------------------|
| Rajeswari       | Laboratory Course for AMIE students | 1,00,000/year    |

### 21. Faculty as members in

### a) National committees b) International Committees c) Editorial Boards

| Name of Faculty     | Committee Details | BOS |         | ВОЕ |                  |
|---------------------|-------------------|-----|---------|-----|------------------|
| 1 value of 1 activy | Committee Betains | VTU | Other   | VTU | Other            |
| Maheshappa H.D      | Senate Member,    | VTU | Calicut |     |                  |
| Maneshappa 11.D     | RRC Member        | VIO | Univ.   |     |                  |
| Rajeswari           | ВОЕ               |     |         |     | MSRIT            |
| Sujatha B M         | BOE               |     |         |     | Bangalor e Univ. |



### 22. Student Projects

## a) Percentage of students who have done in-house projects including inter departmental / programme

| Particulars                        | 2013-2014            | %  | 2014-2015            | %  | 2015-2016         | %  |
|------------------------------------|----------------------|----|----------------------|----|-------------------|----|
| No of Students                     | 129<br>(29 Projects) |    | 136<br>(36 Projects) |    | 134 (38 projects) |    |
| No of in-house projects            | 27                   | 93 | 31                   | 86 | 32                | 84 |
| No of Inter department<br>Projects | 0                    |    | 0                    |    | 0                 |    |

## b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies

| Particulars                    | 2013-2014            | % | 2014-2015            | %  | 2015-2016         | %  |
|--------------------------------|----------------------|---|----------------------|----|-------------------|----|
| No of Students                 | 129<br>(29 Projects) |   | 136<br>(36 Projects) |    | 134 (38 projects) |    |
| No of Projects in R and D Labs | 0                    |   | 0                    |    | 1                 | 3  |
| No of Projects in<br>Industry  | 2                    | 7 | 5                    | 14 | 5                 | 13 |

### 23. Awards / Recognitions received by faculty and students

| Faculty                            |                             |                      |      |  |  |
|------------------------------------|-----------------------------|----------------------|------|--|--|
| Name Award/Recognition Agency Year |                             |                      |      |  |  |
| Sevugarajan S Research Excellence  |                             | FIU                  | 2015 |  |  |
| Sandeep Kumar K                    | Certificate of Appreciation | Texas<br>Instruments | 2015 |  |  |



| Students   |  |                               |   |                       |  |  |
|--|--|-------------------------------|---|-----------------------|--|--|
| Name of the Student  | Name of the<br>Event   | Date                          | Place   | Prizes won (if any)   |  |  |
| Mritunjay Garain, Mohammed Zama, Lachhmi Prasad Sah, Niketa Kumari, Ayushi Simon | Technophilia –<br>IURL   | 30/9/2013                     | MT AIT  | I Prize               |  |  |
| Premkumar E  | ISTE Convention  | 12/10/2013                    | AMC,<br>Bangalore                             | Best Student<br>Award |  |  |
| Gaurav R and Deepak<br>J   | KSCST State Level Exhibition   | Aug 2014                      | KLE, Belgaum                                  | Best Student Project  |  |  |
| Sangeeta Reddy   | National level<br>student technical<br>paper presentation<br>contest | 28/3/2014                     | STJ institute of<br>Technology,<br>Ranebennur | 2nd Prize             |  |  |
| Lacchmiprasad, Mrityunjay Garain, Mohammed Zama, Ayushi Simon                    | Indo- US Robo<br>League 2014   | 22/3/2014<br>and<br>23/3/2014 | IIT Bombay.                                   | 2nd Prize             |  |  |
| Priyanka,<br>Krishnakanth,<br>Sourabh, Isa Ahamad<br>Aldoseri                    | Tryst, IIT Delhi   | 27/2/2015-<br>2/3/2015        | IIT,Delhi                                     | I Prize               |  |  |

| Sports Achievements  |      |  |                                 |                      |  |
|----------------------|------|--|---------------------------------|----------------------|--|
| Name of the Students | Date | Name of the event                        | Name of the sports participated | Prizes won ( if any) |  |
| Somashekhar<br>B K   | 2013 | VTU Volleyball Bangalore<br>North Zone   | Volleyball                      | II Place             |  |
| Vikas Kumar          | 2014 | State Level Softball Tournament          | Softball                        | I Place              |  |
| Mahalakshmi and Team | 2014 | Inter Collegiate Interzone<br>Tournament | Softball                        | III Place            |  |
| Pavan S              | 2014 | Bangalore Northzone Table Tennis         | Table Tennis                    | I Place              |  |



| Name of the Students | Date  | Name of the event                               | Name of the sports participated                  | Prizes won ( if any)                 |
|----------------------|---|---|--|--------------------------------------|
|                      | 2014  | Bangalore Northzone Table Tennis                | Table Tennis                                     | I Place                              |
| Charan V P           | 2014  | Southzone Table Tennis                          | Table Tennis                                     | III Place                            |
|                      | 2014  | All India Inter University Competition          | Table Tennis                                     | IV Place                             |
| Mahalaxmi G          | 2015  | VTU Intercolliate Womens<br>Softball Tournament | Softball   | I Place                              |
| Sushmitha<br>Bhat    | 2015  | VTU Intercolliate Womens<br>Handball Tournament | Handball   | III Place                            |
|                      | 2015  | VTU Northzone Table Tennis                      | Table Tennis                                     | II Place                             |
|                      | 2016  | Karnataka State ranking Table Tennis Tournament | Mens Single Table<br>Tennis                      | II Place                             |
|                      | 2016  | VTU North Zone Table<br>Tennis                  | Mens Single Table<br>Tennis                      | I Place                              |
|                      | 2016 VTU Internzone Table Ten  2017 Karnataka State Olympics Table Tennis                                       |   | Mens Table Tennis                                | III Place                            |
|                      |   |   | Mens Single and<br>Double Table<br>Tennis        | II Place<br>III Place                |
| Charan V P           | 3/3/2017-<br>6/3/2017   | Kreedotsav (Sports festival)                    | Table Tennis                                     | Best<br>Player                       |
|                      | 3/3/2017- Kreedotsav – Mukherjee<br>6/3/2017 Memorial Tournament<br>Karnataka State Olympics -<br>2017, Dharwad |   | Table Tennis                                     | I Place                              |
|                      |   |   | Table Tennis                                     | Sliver in Singles +Bronze in doubles |
|                      | 2016  | VTU Interzone Table Tennis-<br>Tumkur           | Mens (College<br>representation) Table<br>Tennis | III Place                            |
|                      | 2016  | Karnataka State Ranking Table Tennis Tournament | Mens Single Table<br>Tennis                      | II Place                             |

### 24. List of eminent academicians and scientists / visitors to the department

| Name              | Designation   | Date of visit | Activity       |
|-------------------|---|---------------|----------------|
| Anandi Giridharan | Anandi Giridharan Principal Research Scientist, IISC, Bengaluru |               | Technical talk |



| Name                 | Designation  | Date of visit | Activity       |
|----------------------|--|---------------|----------------|
| B.A. Patil           | Director – R and D Think and Ink Sahakar Nagar Bangalore | 13/3/2017     | Technical talk |
| P.Vijay Kumar        | Professor, ECE, IISc                                     | 26/04/2016    | Technical talk |
| Jaganath R           | Team Lead, DNAE, UK ltd.                                 | 11/03/2016    | Technical talk |
| Nagabhushan G K      | Technical Head, Prevataste<br>Solutions                  | 26/8/2016     | Technical talk |
| Revansiddappa P.H    | Technical Architect, ACE Designers                       | 21/05/2015    | Technical talk |
| Akshay Pai           | Design Engineer, CPH                                     | 29/01/2015    | Technical talk |
| Sangeetha Srivatsava | Senior Research Staff, CRL,<br>Bangalore                 | 15/9/2015     | Technical talk |
| Santhosh Kumar A     | Senior Research Staff                                    | 15/9/2015     | Technical talk |
| Damodar Kadaba       | Senior Research Staff                                    | 15/9/2015     | Technical talk |
| Naveen Namboodiri    | Manager, Corporate Communication td.                     | 15/9/2015     | Technical talk |
| Ashish Kansal        | Manager, BEL   | 15/09/2015    | Technical talk |
| C Sashidhar          | Professor  | 21/10/2014    | Technical talk |
| Subhash Rao          | Delivery Manager, SASKIN                                 | 07/08/2014    | Technical talk |
| Yoganand Jeppu       | Senior Manager, MOOG<br>India                            | 26/07/2014    | Technical talk |
| Hariprasad S.A       | Professor  | 15/05/2014    | Technical talk |
| Guru Murthy J.D      | Managing Director, Mobinus<br>Technologies               | 13/03/2014    | Technical talk |
| Srinivas Kumar K.S   | Project Engineer Wizardry Designs pvt. Ltd.              | 22/02/2014    | Technical talk |
| Ganga Prasad G.L     | CDAC   | 22/02/2014    | Technical talk |
| S.Saleem Ahmed       | Professor, IISc  | 22/02/2014    | Technical talk |
| C.Suresh             | Project Engineer, I2R Design                             | 22/02/2014    | Technical talk |
|                      |  |               |                |



| Name                         | Designation                    | Date of visit | Activity       |
|------------------------------|--------------------------------|---------------|----------------|
| Subhash Bera                 | Team Lead, Tektronics          | 22/02/2014    | Technical talk |
| Suresh S Navanda             | Professor, IISc                | 21/02/2014    | Technical talk |
| Mamata N Rao                 | NID, Bangalore                 | 21/02/2014    | Technical talk |
| Jagriti P Galphade           | NID, Bangalore                 | 21/02/2014    | Technical talk |
| Nagaraj B.G                  | Professor, SIT                 | 24/01/2014    | Technical talk |
| Chandrashekar M Patil        | Professor, VVCE, Mysore        | 24/01/2014    | Technical talk |
| Purohit Shrinivas<br>Acharya | Professor, SIT                 | 24/01/2014    | Technical talk |
| Kausik Nanda                 | CDAC                           | 22/02/2014    | Technical talk |
| N.Narasimha Swamy            | Design Engineer                | 20/01/2014    | Technical talk |
| Yoganand Jeppu               | Senior Manager, MOOG<br>India  | 02/08/2013    | Technical talk |
| Satish Kumar                 | Design Engineer, MOOG<br>India | 02/08/2013    | Technical talk |

## 25. Seminars/ Conferences/Workshops organized and the source of funding

### a) National

| Name of the Short Term<br>Course / Training / FDP<br>Conducted      | Funding<br>Agency | Amount (Rs.) | Duration, Month and Year   | No. of participants |
|---|-------------------|--------------|--|---------------------|
| In-House FDP- Linear<br>Integrated Circuits and<br>its Applications | AIT               | 5,000        | 3 days,<br>8 <sup>th</sup> Feb 2017-10 <sup>th</sup> Feb<br>2017 | 40                  |
| Name of the Short Term<br>Course / Training / FDP<br>Conducted      | Funding<br>Agency | Amount (Rs.) | Duration, Month and Year   | No. of participants |
| Awareness Workshop<br>on Entrepreneurship                           | AIT               | 15,000       | 3 <sup>rd</sup> April 2017                                       | 200                 |
| Technocracy   | AIT               | 40,000       | 25th April-26th April<br>2016                                    | 150                 |
| BEL Lecture Series<br>Programme                                     | AIT               | 5,000        | 15 Sept. 2015  | 50                  |



| Name of the Short Term<br>Course / Training / FDP<br>Conducted                 | Funding<br>Agency            | Amount (Rs.) | Duration, Month and Year                          | No. of participants |
|--|------------------------------|--------------|---|---------------------|
| CONSYS 2014  | AIT ,<br>MOOG<br>India       | 15,000       | 8days,<br>22 July-28 July 2014                    | 20                  |
| Workshop on Latex  | AIT                          | 5,000        | 2day, 24 <sup>th</sup> -25 <sup>th</sup> Jan 2014 | 40                  |
| In house FDP   | AIT                          | 5,000        | 21 <sup>st</sup> -25 <sup>th</sup> July 2014      | 30                  |
| Workshop on product design and innovation                                      | IEEE                         | 15,000       | 2days,<br>21-22 <sup>nd</sup> Feb 2014            | 100                 |
| Workshop on Learning<br>Electronics with<br>Arduino and digital<br>Oscillscope | ARDUINO<br>and<br>TeKtronics | 5,000        | 1day, 18 <sup>th</sup> Nov 2013                   | 40                  |
| Workshop on Labview and Multisim   | AIT                          | 2,000        | 1day, 2 <sup>nd</sup> Feb 2013                    | 40                  |
| National workshop on<br>NS2 and wireless<br>protocol Design                    | AIT                          | 10,000       | 1 <sup>st</sup> - 2 <sup>nd</sup> March 2013      | 50                  |
| In house FDP   | AIT                          | 5,000        | 21 <sup>st</sup> -25 <sup>th</sup> Jan 2013       | 30                  |
| CONSYS 2013  | AIT,<br>MOOG<br>India        | 15,000       | 15 <sup>th</sup> July-2 <sup>nd</sup> Aug 2013    | 25                  |
| Workshop on Analog<br>and digital design using<br>CADENCE                      | AIT                          | 5,000        | 24 <sup>th</sup> -25 <sup>th</sup> July 2013      | 50                  |

### b) International

| Name of the Short Term<br>Course / Training / FDP<br>Conducted | Funding<br>Agency | Amount (Rs.) | Duration, Month and<br>Year | No. of participants |
|--|-------------------|--------------|-----------------------------|---------------------|
| IEEE Conference ,ITACT 2015                                    | IEEE              | 3,00,000     | 2days, 21-22 December 2015  | 100                 |



### 26. Student profile programme / course wise:

UG : Total intake is 120 students (25% Management seats)

| Name of the programme | Applications received | Selected |
|-----------------------|-----------------------|----------|
| 2013-14               | 35                    | 30       |
| 2014-15               | 30                    | 26       |
| 2015-16               | 32                    | 27       |
| 2016-17               | 45                    | 33       |

### PG: Total intake is 18 students

| Name of the programme | Applications received | Selected |
|-----------------------|-----------------------|----------|
| 2013-14               | 7                     | 4        |
| 2014-15               | 2                     | 1        |
| 2015-16               | 1                     | 1        |

### 27. Diversity of Students

| Name of the                               | % of students from | % of students     | % of students |  |  |
|---|--------------------|-------------------|---------------|--|--|
| Course                                    | the same state     | from other States | from abroad   |  |  |
| 2013 - 2014                               |                    |                   |               |  |  |
| Electronics and Communication Engineering | 60                 | 39.2              | 0.8           |  |  |
| 2014 - 2015                               |                    |                   |               |  |  |
| Electronics and Communication Engineering | 55.2               | 42.9              | 1.75          |  |  |
|   | 2015 - 2016        |                   |               |  |  |
| Electronics and Communication Engineering | 59.6               | 35.9              | 4.38          |  |  |
| 2016 - 2017                               |                    |                   |               |  |  |
| Electronics and Communication Engineering | 54.6               | 42                | 3.36          |  |  |



## 28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

| Year    | GATE | Civil services | Defense services | Total |
|---------|------|----------------|------------------|-------|
| 2013-14 | 1    |                | 1                | 2     |
| 2014-15 | 1    |                |                  | 1     |
| 2015-16 | 4    |                |                  | 4     |
| 2016-17 |      |                |                  |       |

### 29. Student progression

| Student progression | Against % enrolled |
|---------------------|--------------------|
| UG t                | o PG               |
| 2015-16             | 7                  |
| 2014-15             | 7                  |
| 2013-14             | 6                  |
| PG to               | Ph.D.              |
| 2015-16             | 1                  |

### **Placement Details**

| Academic<br>Year | No. of<br>Students | No. of<br>Eligible<br>Students | Number of<br>Companies<br>Visited | Number of UG<br>Students Placed | Number of PG<br>Students Placed |
|------------------|--------------------|--------------------------------|-----------------------------------|---------------------------------|---------------------------------|
| 2016 - 2017      | 128                | 69                             | 9                                 | 42                              | 0                               |
| 2015 – 2016      | 135                | 85                             | 10                                | 56                              | 1                               |
| 2014 – 2015      | 138                | 96                             | 13                                | 53                              | 2                               |
| 2013 – 2014      | 99                 | 76                             | 12                                | 36                              | 1                               |



#### **Progression in the Department (Based on First year admission)**

| Year    | Intake | Year1 | Year2 | Year3 | Year4 | %<br>Year 2 | %<br>Year3 | %<br>Year4 |
|---------|--------|-------|-------|-------|-------|-------------|------------|------------|
| 2012-13 | 120    | 118   | 107   | 100   | 74    | 91          | 85         | 63         |
| 2013-14 | 120    | 125   | 115   | 93    | 87    | 92          | 74         | 70         |
| 2014-15 | 120    | 114   | 97    | 83    |       | 85          | 73         |            |
| 2015-16 | 120    | 114   | 99    |       |       | 87          |            |            |
| 2016-17 | 120    | 119   |       |       |       |             |            |            |

• Percentage based on first year admission

#### **30.** Details of Infrastructural facilities

- a) Library: Department library is available.
  - 1. Space 40 Sq.Mts
  - 2. Number of books: 750 nos.
  - 3. Project reports (UG students): 250 no.s
  - 4. Project reports (PG students): 56 no.s
- b) Internet facilities for staff and students:

Broad band connectivity of

- 1. 120Mbps Railtel
- 2. 10Mbps BSNL
- 3. Campus is enabled with Wi-Fi facility
- c) Total number of class rooms with ICT facility:
  - 1. UG: 7 class rooms (73 SqMts)
  - 2. PG: 2 class rooms (73 SqMts)
- d) Students' laboratories
  - 1. Analog Electronics Lab (88 Sq Mts)
  - 2. Digital Electronics lab(88 Sq Mts)
  - 3. Communication lab (88 Sq Mts)
  - 4. Microwaves lab (88 Sq Mts)
  - 5. VLSI lab (88 Sq Mts)
  - 6. DSP and Microprocessor lab (88 Sq Mts)
- e) Research laboratories R and D Laboratory (40 Sq Mts)



## 31. Number of students receiving financial assistance from college, university, government or other agencies

| Year        | No. of   | University | Social welfare |        | college | Other  |                                  |
|-------------|----------|------------|----------------|--------|---------|--------|----------------------------------|
| 1 cai       | Students | Oniversity | SC             | ST OBC |         | conege | Other                            |
| 2015 - 2016 | 528      |            | 33             | 4      | 119     | 29     | 4-ICCR<br>2-KMDC                 |
| 2014 - 2015 | 570      |            | 41             | 8      | 97      | 1      | 1-Defence, 1-<br>JandK<br>4-KMDC |
| 2013 - 2014 | 531      |            | 40             | 8      | 77      | 14     | 3-KMDC                           |

# 32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts

| Date                            | Activity  | Resource person  | No of participants |
|---------------------------------|---|--|--------------------|
| 24/7/2013 to 25/7/2013          | Workshop on Analog and<br>Digital Design using<br>Cadence                   | Mr Yatheesh H G, Senior Analog<br>Verification Engineer-II at Microchip<br>Technology.<br>Kishan, Technical Coordinator,<br>Cadence Design Systems                         | 50                 |
| 18/11/2013                      | Workshop on Learning<br>Electronics with Arduino<br>and Digital Oscillscope | Mr Arun Dutta<br>Director, Tektronics, Bangalore   | 40                 |
| 24/01/2014<br>and<br>25/01/2014 | Workshop on Latex   | Dr Chandrashekhar patil Associate Professor, VVCE, Mysuru Prof Nagraju B.G, Associate Professor GMIT, Davanageri Purohit Srinivasacharya, Associate Professor, SIT, Tumkur | 40                 |
| 21/02/2014<br>and<br>22/02/2014 | Workshop on Product<br>Design and Innovation                                | A Achutha Rao Former Centre Head, NID R and D Campus Bangalore   | 100                |
| 17/6/2014                       | Technical Talk on "IPR<br>Awareness and<br>Management"                      | Dr H R Mahadevaswami<br>Applied Invention private limited  | 100                |
| 22/07/2014<br>to<br>28/07/2014  | Consys 2014   | Jeppu Yogananda<br>Senior Systems Specialist<br>MOOG INDIA   | 20                 |
| 15/09/2015                      | Corporate Presentation on BEL   | Ashish Kansal, BEL   | 104                |



| Date       | Activity   | Resource person   | No of participants |
|------------|--|---|--------------------|
| 15/09/2015 | Insight And Motivation on<br>Embedded Computing<br>Technologies        | Sangeetha Srivastava, BEL   | 104                |
| 15/09/2015 | Avenues of Image<br>Processing Applications.                           | Santosh Kumar<br>BEL  | 104                |
| 15/09/2015 | Talk on Radar Signal<br>Processing                                     | Damodar Kadaba BEL  | 104                |
| 11/03/2016 | Seminar on "Career<br>Awareness In Embedded<br>System Design".         | Mr Arun Mathais,<br>Asst Manager Training, Sandeepani<br>School of Embedded system Design | 90                 |
| 11/03/2016 | Seminar on "Introduction to VLSI Design and CMOS Analog Design Flow".  | Jaganath, Design Engineer, DNAE.  | 90                 |
| 25/04/2016 | Technical Talk on "Error-<br>Correcting Codes for Big<br>Data"         | P. Vijay Kumar, Professor, ECE, IISc  | 120                |
| 26/08/2016 | Technical Talk on Advances in Electronics and Communication            | Mr Nagabhushan G K<br>NichePro Technologies   | 110                |
| 22/2/2017  | Seminar on "Career<br>Awareness in Embedded<br>System Design and VLSI" | Niharika P<br>Asst Manager Training, Sandeepani<br>School of Embedded system Design       | 55                 |
| 13/03/2017 | " Technical Excellence and<br>Leadership Mantra by Sir<br>M.V "        | Prof B.A. Patil Director (RandD) of Think and Ink Education and Research Foundation       | 80                 |
| 5/4/2017   | "Multimedia<br>Applications"   | Anandi Giridharan<br>Senior Scientific Officer,<br>Dept. of ECE, IISC                     | 85                 |

## 33. Teaching methods adopted to improve student learning

| Chalk<br>and<br>Talk | Use<br>of<br>ICT | Demonstration | Experimentation | Collaborative | Experiential | Any<br>other |
|----------------------|------------------|---------------|-----------------|---------------|--------------|--------------|
| Yes                  | 06               | Yes           | Yes             | Yes           | Yes          |              |



#### 34. Participation in Institutional Social Responsibility (ISR) and Extension activities

| Date       | Activity                           | No of Participants |
|------------|------------------------------------|--------------------|
| 18/04/2013 | Blood donation                     | 400                |
| 26/3/2014  | Rain water harvesting              | 50                 |
| 26/3/2014  | Good habits and diabetics          | 50                 |
| 26/3/2014  | Awareness on Cancer and precaution | 40                 |

#### 35. SWOC analysis of the department and Future plans

#### Strength

- 1. Qualified faculty members with diversified skill set committed to academics, research and lifelong learning.
- 2. Learning environment for students with very good infrastructure facilities.
- 3. Well established institute/industry interaction to provide industrial exposure to students.

#### Weakness

- 1. Research orientation in terms of bringing in external funding and consultancy.
- 2. Interdisciplinary interaction with other departments within the campus.

#### **Opportunities**

- 1. Exploring the possibilities of collaboration with industry and research institutes through value added courses.
- 2. Utilization of open source software and hardware.
- 3. Scope for creation of research and development opportunities in campus.

#### **Challenges**

- 1. Providing placement and better career opportunities to all the students.
- 2. Fast changes in technology development in communication engineering enforce to upgrade knowledge/facilities regularly.



### **Electrical and Electronics Engineering**

1. Name of the department : Electrical and Electronics Engineering

2. Year of Establishment : 2004

3. Names of Programmes / Courses offered:

| UG                         | PG                        | Ph.D/ Msc. (Engg):         |
|----------------------------|---------------------------|----------------------------|
| Electrical and Electronics | 1 0                       | Electrical and Electronics |
| Engineering                | Power Systems Engineering | Research Center            |

- 4. Names of Interdisciplinary courses and the departments/units involved: Nil
- 5. Annual/ semester/choice based credit system (programme wise) Semester Based System (Non-CBCS)

**BE** I-IV sem CBCS

V-VIII sem Semester scheme

M.Tech I-II sem CBCS

III-IV sem Semester scheme

- 6. Participation of the department in the courses offered by other departments: Nil
- 7. Courses in collaboration with other universities, industries, foreign institutions, etc.: Nil
- 8. Details of courses/programmes discontinued (if any) with reasons: Nil
- 9. Number of teaching posts

|                      | Sanctioned | Filled |
|----------------------|------------|--------|
| Professors           | 03         | 02     |
| Associate Professors | 05         | 01     |
| Asst. Professors     | 16         | 21     |



# 10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D. / M. Phil. Etc.,)

|                         |                           |                     |  | No. of Years of<br>Experience |                         |     |       | udents<br>last 4                                       |  |
|-------------------------|---------------------------|---------------------|--|-------------------------------|-------------------------|-----|-------|--|--|
| Name of the Staff       | Qualification Designation |                     | Specialization                                     | Industry                      | Teaching other than AIT | AIT | Total | No. of Ph.D.Students<br>guided for the last 4<br>years |  |
| R.Vivekananda           | M.E.,                     | and Head            | Power Systems                                      |                               | 35                      | 11  | 46    |  |  |
| Shivakumar<br>Aradhya   | M.E.,PhD                  | Professor           | High Voltage<br>Engineering                        | 33                            | 1.5                     | 1.5 | 36    | 06   |  |
| Lekshmi M               | M.Tech.,<br>(Ph.D)        | Assco.<br>Professor | Electrical<br>Machine                              | 02                            | 02                      | 16  | 20    |  |  |
| Shivakumar<br>Swamy.R   | M.Tech<br>(Ph.D)          | APG. I              | Electrical<br>Energy System                        | 04                            | 11                      | 5   | 20    |  |  |
| Lakshmikanth<br>Reddy V | M.Tech<br>(Ph.D)          | APG I               | VLSI Design<br>and Embedded<br>Systems and<br>MEMS | 03                            | 03                      | 10  | 16    |  |  |
| Kusumadevi G H          | M.Tech<br>(Ph.D)          | APG II              | Power Systems                                      |                               |                         | 9.5 | 9.5   |  |  |
| Sunitha N S             | M.Tech<br>(Ph.D)          | APG II              | Computer<br>Aided Industrial                       |                               |                         | 9.5 | 9.5   |  |  |
| H .Nagesh               | M.E<br>(Ph.D)             | APG II              | Power Energy<br>System                             | 01                            | 08                      | 5.5 | 14.5  |  |  |
| Sunil Kumar.A.V         | M.Tech, MBA APG III       |                     | Power Systems                                      | 0                             | 01                      | 05  | 06    |  |  |
| Sushma S Kini           | M.Tech<br>(Ph.D)          | APG III             | Power Systems                                      |                               | 7                       | 05  | 12    |  |  |
| Dayananda.L.N           | M.Tech<br>(Ph.D)          | APG III             | Microelectronic<br>s and control<br>systems        |                               | 01                      | 04  | 05    |  |  |
| Rekha . C.M             | M.Tech<br>(Ph.D)          | APG III             | Power And<br>Energy Systems                        | 4.5                           | 03                      | 04  | 11.5  |  |  |



|                                 |                    |             |                                  |          | No. of Years of Experience |     |       |                      | t 4                   |       |
|---------------------------------|--------------------|-------------|----------------------------------|----------|----------------------------|-----|-------|----------------------|-----------------------|-------|
| Name of the Staff               | Qualification      | Designation | Specialization                   | Industry | Teaching other than AIT    |     | Total | No. of Ph.D.Students | guided for the last 4 | years |
| Kesari Hanumanthu.              | M.Tech             | APG III     | Power<br>Electronics             | 0        | 03                         | 04  | 07    |                      |                       |       |
| Harshavardhan<br>Vijay Kulkarni | M.Tech             | APG III     | Power and<br>Energy Systems      | 01       | 04                         | 03  | 08    |                      |                       |       |
| Hari Babu                       | M.Tech             | APG III     | Power Electronics and Electrical |          | 04                         | 03  | 08    |                      |                       |       |
| Anzum                           | M.Tech<br>(Ph.D)   | APG III     | Power Systems                    | 0        | 0                          | 3.5 | 3.5   |                      |                       |       |
| Shiva Kumar K S                 | M.Tech             | APG III     | Power Systems                    |          | 1                          | 1.5 | 3.5   |                      |                       |       |
| Shreyas Karnick                 | M.Tech             | APG III     | Power Systems                    |          |                            | 0.5 | 0.5   |                      |                       |       |
| Aruna.M                         | M.Tech<br>( Ph. D) | APGII       | Power Systems                    | 2        | 3                          | 8   | 13    |                      |                       |       |
| Karthik.S                       | M.Tech             | APG III     | VLSI and<br>Embedded<br>System   | 0.6      |                            | 0.1 | 0.8   |                      |                       |       |
| Reshmi.KN                       | M.Tech             | APG III     | Power System                     | 6        |                            | 0.5 | 6.5   |                      |                       |       |
| Surendranath Reddy              | M.Tech             | APG III     | Power Systems                    |          | 7                          |     | 7     |                      |                       |       |
| Gurushant Koulagi               | M.Tech             | APG III     | Energy systems                   |          |                            |     |       |                      |                       |       |
| Chaitra Naidu S                 | M.Tech             | APG III     | Power<br>Electronics             |          |                            |     |       |                      |                       |       |

## 11. List of senior visiting faculty

| Name                  | Qualification | Subject handled                 |
|-----------------------|---------------|---------------------------------|
| Vivek Rajapadmanabhan | MBA           | Management and Entrepreneurship |



## 12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty Nil

### 13. Student -Teacher Ratio (programme wise)

UG Teacher Ratio : 20:1
PG Teacher Ratio : 12:1

## 14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

| Category             | Sanctioned | Filled |
|----------------------|------------|--------|
| Technical Staff      | 05         | 03     |
| Administrative Staff | 01         | 01     |

#### 15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.

| S1 No.     | No of faculty |
|------------|---------------|
| DSc/D Litt | Nil           |
| Ph.D       | 01            |
| M.Phil     | Nil           |
| PG         | 23            |

## 16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received Nil

## 17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received

| Name of the project                  | Funding | Year of | Grant          |
|--------------------------------------|---------|---------|----------------|
| Name of the project                  | agency  | Funding | received in RS |
| Experimental Study Of The Leakage    |         |         |                |
| Current Characteristics Of Porcelain | KSCST   | 2014-15 | 7,000/-        |
| Insulators                           |         |         |                |
| Design And Development Of Rooftop    |         |         |                |
| Solar Pv Grid Connected With Net     | KSCST   | 2016-17 | 7.500/         |
| Metering Using Hybrid Inverter With  | KSCS1   | 2010-17 | 7,500/-        |
| Dual Axis Tracking                   |         |         |                |

## 18. Research Centre /facility recognized by the University Yes/No: Yes R and D Centre recognized by VTU-2012



#### 19. Publications:

### a) Publication per faculty

Publications of the faculty in international journals, national journals, international conferences, national conferences, books authored / edited / chapter contribution are enclosed in Self Study Report: Volume II, Part II.

### b) Publication per student

| Name of the faculty   | No of<br>Publications |         | No. of Books<br>with publication<br>details |        | Citation<br>Index | SNIP     |  | Impact<br>factor |  | h index |  |
|-----------------------|-----------------------|---------|---|--------|-------------------|----------|--|------------------|--|---------|--|
|                       | Nat                   | Int Nat | Chapter                                     | Edited |                   | Authored |  |                  |  |         |  |
| Radhika Priyadarshini |                       | 3       |   |        |                   |          |  |                  |  |         |  |
| B.S.Mohan             |                       | 2       |   |        |                   |          |  |                  |  |         |  |
| Praseeda Ramesh       |                       | 2       |   |        |                   |          |  |                  |  |         |  |
| Sagar.T.M             |                       | 1       |   |        |                   |          |  |                  |  |         |  |
| Pavana R              |                       | 1       |   |        |                   |          |  |                  |  |         |  |
| Ramesh. E             |                       | 1       |   |        |                   |          |  |                  |  |         |  |
| ShreyasKarnick        |                       | 1       |   |        |                   |          |  |                  |  |         |  |
| Reshmi                |                       | 1       |   |        |                   |          |  |                  |  |         |  |
| Swaroop               |                       | 1       |   |        |                   |          |  |                  |  |         |  |
| Swetha K              |                       | 1       |   |        |                   |          |  |                  |  |         |  |
| Sreedevi Sreekumaran  |                       | 1       |   |        |                   |          |  |                  |  |         |  |
| Sowmya                |                       | 1       |   |        |                   |          |  |                  |  |         |  |

### 20. Areas of consultancy and income generated

| Name of Faculty | Area                                 | Income generated in Rs |
|-----------------|--------------------------------------|------------------------|
| R.Vivekananda   | Laboratory Courses for AMIE Students | 50000/-per year        |

### 21. Faculty as members in

### a) National committees b) International Committees c) Editorial Boards

| Name of Faculty |                   | BOS |       | BOE |       |
|-----------------|-------------------|-----|-------|-----|-------|
|                 | Committee Details | VTU | Other | VTU | Other |
| R.Prakash       | BOS               | VTU |       |     |       |



| Name of Faculty            | Committee Details   | BOS |       | BOE |       |
|----------------------------|---|-----|-------|-----|-------|
| Name of Faculty            | Committee Details   | VTU | Other | VTU | Other |
| R S Shivakumara<br>Aradhya | National committees Member of Project Evaluation committee of Research Scheme on Power ( RSOP) of CPRI, Ministry of power, Govt. of India | Nil | Nil   | Nil | Nil   |
| Shankar.C.B                | BOE   |     |       | VTU |       |

### 22. Student projects

## a) Percentage of students who have done in-house projects including inter departmental / programme

| Year                      | 2012-13 |      | 2013-14 |      | 2014-15 |      | 2015-16 |      |
|---------------------------|---------|------|---------|------|---------|------|---------|------|
| 1 ear                     | No's    | %    | No's    | %    | No's    | %    | No's    | %    |
| No of Students            | 74      |      | 64      |      | 129     |      | 128     |      |
| No of in-house projects   | 18      | 85.7 | 15      | 78.9 | 30      | 90.9 | 30      | 90.9 |
| No of Inter dept projects | 2       | 9.5  | 3       | 15.7 | 2       | 6.03 | 2       | 6.03 |

## b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies

| Year              | 2012-13 |     | 2013-14 |     | 2014-15 |     | 2015-16 |      |
|-------------------|---------|-----|---------|-----|---------|-----|---------|------|
|                   | No's    | %   | No's    | %   | No's    | %   | No's    | %    |
| No of Projects in |         |     |         |     |         |     |         |      |
| R and D Labs      |         |     |         |     |         |     |         |      |
| No of Projects in | 1       | 4.7 | 1       | 5.2 | 1       | 3.0 | 1       | 3.03 |
| Industry          | 1       | 4.7 | 1       | 3.2 | 1       | 3   | 1       | 3.03 |

### 23. Awards / Recognitions received by faculty and students:

| Students             |   |   |         |  |  |  |
|----------------------|---|---|---------|--|--|--|
| Name of the Students | Award/Recognition   | Agency  | Year    |  |  |  |
| Shubham Srivastava   | Awarded with bronze medal for<br>his project titled "Dynamic<br>Traffic Control For Emergency<br>Vehicles Using Rfid" | National Design and<br>Research Forum, the<br>Institution of<br>Engineers (India) | 2013-14 |  |  |  |



| Name of the Students                                   | Award/Recognition   | Agency   | Year    |
|--|---|--|---------|
| Amit Kumar Mishra<br>Akash Mukesh                      | Won 3rd place with cash prize of Rs.10,000 each along with 32GB pen drive and Telecasted on "DD Podhigai" regional channel of Doordarshan, Tamil Nadu (on 12th January 2014 from 10am-11am).                          | Meenakshi College<br>for Women, Chennai  | 2013-14 |
| Amit Kumar Mishra,<br>Akash Mukesh<br>Karthik K.A.(MT) | Won 3rd place and Books from<br>Hachette India Pvt. Ltd, New<br>Delhi, worth Rs.1500 each along<br>with certificate of appreciation<br>and telecasted on "DD Bharti"<br>regional channel of Doordarshan,<br>Karnataka | National Level<br>organized by "Xpress<br>minds" at "RV<br>College of<br>Engineering,<br>Bangalore | 2013-14 |
| Amith Kumar Mishra                                     | National level selection  | Service selection<br>Board Chennai   | 2014-15 |
| Amith Kumar Mishra                                     | Valedictorian 2014-15   | Acharya Institute of<br>Technology,<br>Bangalore   | 2014-15 |
| Shristy Singh  | 7 <sup>th</sup> Rank  | VTU, Belgaum   | 2014-15 |
| Parijatha.R  | 3 <sup>rd</sup> Rank  | VTU, Belgaum   | 2014-15 |
| Chandana   | VTU Throw ball 4th place  | VTU, Belgaum   | 2014-15 |
| Yogendra Pratap<br>Singh                               | Athletic Participated   | VTU, Belgaum   | 2014-15 |
| Harshitha L  | VTU Netball Winners   | VTU, Belgaum   | 2014-15 |
| S Srujana  | VTU Netball Winners   | VTU, Belgaum   | 2014-15 |
| Ujjwal Bharti  | Handball participated   | VTU, Belgaum   | 2014-15 |
| Adarsh Verma   | Handball participated   | VTU, Belgaum   | 2014-15 |
| Keerthna B   | VTU Throw ball 4th place  | VTU, Belgaum   | 2014-15 |
| Kumari Jyoti   | Kho - Kho Participated  | VTU, Belgaum   | 2014-15 |
| Kruthi J Rao   | VTU Netball Winners   | VTU, Belgaum   | 2014-15 |
| Hemalatha I V  | VTU Throw ball 4th place  | VTU, Belgaum   | 2014-15 |
| Chandana V   | VTU Throw ball 4th place  | VTU, Belgaum   | 2014-15 |



| Name of the Students  | fame of the Students Award/Recognition                        |   | Year    |
|---|---|---|---------|
| Rakshith S  | Rakshith S VTU Weight lifting team championship               |   | 2014-15 |
| Lakshminarayana<br>K.S.   | VTU Foot ball game participated                               | VTU, Belgaum  | 2014-15 |
| Arya V  | Arya V 1st prize and cash reward of Rs.7000 in English debate |   | 2015-16 |
| Kruthi J Rao  | Represented Basket Ball VTU in inter University tournament.   | SRM University<br>24-28 Sept. 2015  | 2015-16 |
| Kruthi J Rao  | Net Ball Winners  | Chikkodi, Belgaum 5-6/10/2015   | 2015-16 |
| Shailashree Kalal   | Throw Ball Represented College                                | Nagarjuna Institute of<br>Technology 08 <sup>th</sup><br>Oct.2015               | 2015-16 |
| BasavaJyothi  | asavaJyothi Kho- kho 4th Place                                |   | 2015-16 |
| B Keerthana   | Hand Ball 3rd Place   | Global college of<br>Engg.<br>23 – 25th April.2015                              | 2015-16 |
| Yogendra pratap<br>Singh  |   |   | 2015-16 |
| Yogendra Pratap Singh  completed in 2 hrs 42 mns and won the first place at India level and cash reward of Rs.50000/- |   | Sir MVIT Campus) 42 KM NIRBHAYA MIDNIGHT MARATHON (Bangalore / 30th april.2016) | 2015-16 |

## 24. List of eminent academicians and scientists / visitors to the department

| Name Designation                                 |   | Date of visit | Activity  |  |
|--|---|---------------|---|--|
| R Nagaraja Managing Director, PRDC,<br>Bangalore |   | 27/09/2013    | Emerging research areas in Electrical Power Systems                                     |  |
| T.S Mohan  | Principal Researcher, Ecom<br>Research lab, Education<br>and Research Unit,<br>INFOSYS, Bangalore | 27/09/2013    | Emerging research areas in<br>Cloud computing and<br>cyber security in power<br>systems |  |
| Priya Ranjan<br>Mishra,                          | PHILIPS Innovation<br>Campus, Manyata Tech<br>Park, bangalore                                     | 27/09/2013    | Emerging research areas in low voltage DC and micro grid                                |  |



| Name                             | Designation  | Date of visit            | Activity   |
|----------------------------------|--|--------------------------|--|
| G.R<br>Nagabhushana,             | Former chairman, Dept. of<br>High voltage Engg. IISc,<br>Bangalore                                       | 28/09/2013               | Emerging research areas in High voltage  |
| yashveer Singh,                  | Research Engineer, Global<br>Research, GE, Bangalore   | 28/09/2013               | Emerging research areas in Power electronics   |
| Faraz Zafer Khan,                | Senior Engineer, PRDC,<br>Bangalore  | 28/09/2013               | Emerging research areas in Wide area Monitoring  |
| Bhagwanth Singh,                 | Proprietor, High Voltage<br>India Pvt. Ltd., Peenya Ist<br>stage, Bangalore                              | 06/09/2014               | High voltage Engineering   |
| Usha Rani,                       | Asst. Engineer, BWSS,<br>Bangalore   | 15/10/2014               | Matrix Convertor   |
| Jayaraman,                       | National Instruments   | 06/11/2014               | Evolving technology and its impact on teaching learning process                            |
| Padma.R                          | Deputy Manager (Training) -Customer Service Division, Yokogawa India Limited                             | 11/03/2015               | "Emerging trends in<br>Process Automation with<br>DCS/PLC and SCADA<br>overview"           |
| N. Vasudev,                      | Joint Director, CPRI,<br>Bangalore   | 25/04/2015               | "State of art insulators for<br>High voltage transmission<br>system"                       |
| Sulochana Reddy                  | Member of Lions club,<br>Bangalore   | 19/08/2015               | General Science  |
| Shri.C.B.M.<br>Bhooshan          | Former Vice president ABB  | 02/10/2015<br>03/10/2015 | Power System Protection  |
| Mallikarjunappa                  | Director, CPRI, Bangalore  | 09/05/2016               | Diagnostic testing and<br>Condition assessment of<br>High Voltage Generators<br>in Service |
| K.R Adishesha                    | Senior Consultant, TCS,<br>Bangalore   | 10/05/2016               | Overview of communication media in power sector  |
| Anil Kumar Sabaji                | M/s TerraServe, No. 37, 3rd<br>Main,1st Block, 3rd phase,<br>Banashankari 3rd Stage<br>Bangalore 560 085 | 17/09/2016               | Solar World  |
| H Jayakumar                      | Director, Galaxy Earthing<br>Electrodes (P) Ltd, Chennai.  | 20/09/2016               | Power System grounding and Measurements  |
| Shri. T. S.<br>Sathyanaraya Rao, | Former, Executive Engineer, Karnataka Power Transmission Corporation Ltd. Bangalore                      | 30/12/2016               | "Systems and Impulse grounding"  |
| Bhaghavan<br>Srinivasan,         | Director, Carrier Race<br>Technologies Pvt. Ltd  | 03/11/2016               | Building Automation and<br>Integrated Building<br>Management Systems                       |



# 25. Seminars/ Conferences/Workshops organized and the source of funding

### a) National

| Seminar/ Conference/<br>Workshop  | Duration with dates            | Funding agency                                   | Amount of fund | Amount funded by Institution | No of participants |
|---|--------------------------------|--|----------------|------------------------------|--------------------|
| Two day Workshop<br>on "Emerging<br>Research Areas in<br>Electrical<br>Engineering" | 27/9/2013<br>to<br>28/9/2013   | PRDC Bangalore and High voltage India, Bangalore | Rs. 20,000/-   |                              | 95                 |
| Personality development for Technical Staff   | 27/01/2014<br>to<br>29/01/2013 | Management                                       |                | Rs.<br>20,000/-              | 42                 |

### b) International

| Seminar/ Conference/<br>Workshop   | Duration with dates             | Funding agency     | Amount of fund  | Amount funded by Institution | No of participants |
|--|---------------------------------|--------------------|-----------------|------------------------------|--------------------|
| International Conference<br>on Trends in<br>Automation,<br>Communication and<br>Computing Technologies<br>ITACT-15 | 21/12/2015<br>and<br>22/12/2015 | Self<br>Supporting | Rs.5000<br>00/- | Rs.75000/-<br>from ISRO      | 50                 |

### 26. Student profile programme/course wise:

| Name of the Programme  | Year    | Applications received | Selected |
|--|---------|-----------------------|----------|
| BE(Electrical and Electronics<br>Engineering)<br>M.Tech(Power System<br>Engineering) | 2013-14 | 35<br>05              | 16<br>03 |
|  | 2014-15 | 39<br>06              | 15<br>03 |
|  | 2015-16 | 28<br>04              | 17<br>02 |
|  | 2016-17 | 30<br>02              | 19<br>01 |



### 27. Diversity of Students

|   | 2012-1                                  | 3                                     |                              |
|---|---|---------------------------------------|------------------------------|
| Name of the Course                              | % of students<br>from the same<br>state | % of students<br>from other States    | % of students<br>from abroad |
| B.E - Electrical and<br>Electronics Engineering | 50.42                                   | 47.89                                 | 1.68                         |
| M. Tech - Power Systems                         | 63.16                                   | 31.58                                 | 5.26                         |
|   | 2013-1-                                 | 4                                     |                              |
| Name of the Course                              | % of students<br>from the same<br>state | % of students<br>from other<br>States | % of students<br>from abroad |
| B.E - Electrical and<br>Electronics Engineering | 55.34                                   | 41.75                                 | 2.91                         |
| M. Tech - Power Systems                         | 83.34                                   | 16.66                                 | 0                            |
|   | 2014-1                                  | 5                                     |                              |
| Name of the Course                              | % of students<br>from the same<br>state | % of students<br>from other<br>States | % of students from abroad    |
| B.E - Electrical and<br>Electronics Engineering | 62.79                                   | 33.72                                 | 3.49                         |
| M. Tech - Power Systems                         | 94.45                                   | 5.55                                  | 0                            |
| 1   | 2015-1                                  | 6                                     | 1                            |
| Name of the Course                              | % of students<br>from the same<br>state | % of students<br>from other<br>States | % of students<br>from abroad |
| B.E - Electrical and<br>Electronics Engineering | 57.83                                   | 34.94                                 | 7.23                         |
| M. Tech - Power Systems                         | 70.58                                   | 17.65                                 | 11.77                        |

# 28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

| Competitive<br>Exam | Year      | No | Year      | No | Year      | No | Total |
|---------------------|-----------|----|-----------|----|-----------|----|-------|
| GATE                | 2013-2014 | 4  | 2014-2015 | 4  | 2015-2016 | 5  | 13    |
| Defense services    | 2013-2014 |    | 2014-2015 | 1  | 2015-2016 | 1  | 2     |



#### 29. Student progression

| Student progression                  | Against % enrolled 2012-13 | Against %<br>enrolled<br>2013-14 | Against %<br>enrolled<br>2014-15 | Against %<br>enrolled<br>2015-16 |
|--------------------------------------|----------------------------|----------------------------------|----------------------------------|----------------------------------|
| UG to PG                             | 13.16                      | 3.12                             | 4.61                             | 3.12                             |
| PG to Ph.D.                          | 5.26                       |                                  |                                  |                                  |
| Employed                             |                            |                                  |                                  |                                  |
| Campus selection                     | 9                          | 12                               | 36                               | 52                               |
| Other than campus recruitment        | 40                         | 42                               | 35                               | 30                               |
| Entrepreneurship/Self-<br>employment | 3                          | 3                                | 3                                | 2                                |

#### **Progression in the Department (Based on First year admission)**

| No/year | Intake | Year1 | Year2<br>(Regular+LA) | Year 3 | Year 4 | %<br>Year 2 | %<br>Year 3 | %<br>Year 4 |
|---------|--------|-------|-----------------------|--------|--------|-------------|-------------|-------------|
| 2012-13 | 120+24 | 119   | 106+20                | 95+18  | 92+16  | 89.08       | 79.83       | 77.31       |
| 2013-14 | 120+24 | 105   | 89+22                 | 76+20  | 76+20  | 84.76       | 72.38       | 72.38       |
| 2014-15 | 120+24 | 88    | 77+27                 | 75+26  |        | 87.50       | 85.23       |             |
| 2015-16 | 120+24 | 85    | 76+56                 |        |        | 89.41       |             |             |
| 2016-17 | 120+24 | 82    | 76+56                 |        |        |             |             |             |

<sup>•</sup> Percentage based on first year admission

## **30.** Details of Infrastructural facilities

### a) Departmental Library

Volume : 743
 Journals : 12
 Project Reports : 357

#### b) Internet facilities for Staff and Students

Broad band connectivity of

- 1. 120Mbps Railtel
- 2. 10Mbps BSNL
- 3. Campus is enabled with Wi-Fi facility



c) Class rooms with ICT facility : 08 Class rooms each of 80 Sq.m

d) Laboratories : 06 02 Labs 90 Sq. m each, 03 Labs 80 Sq. m each

01 Lab 112 Sq. m

1. Electrical Machines Lab I

2. Electrical Machines Lab II

3. Analog Electronics Lab

4. Digital Electronics Lab

5. Power System Engineering Lab

6. High Voltage Lab

# 31. Number of students receiving financial assistance from college, university, Government or other agencies

| Academic    | No of    | C-11    | T.T::4     | Soc     | cial welf | are  | Other     |
|-------------|----------|---------|------------|---------|-----------|------|-----------|
| Year        | Students | College | University | SC / ST | OBC       | KMDC | (Defense) |
| 2013 - 2014 | 124      |         |            | 40      | 81        | 2    | 1         |
| 2014 - 2015 | 151      | 6       |            | 39      | 107       | 5    | 0         |
| 2015 - 2016 | 178      | 3       |            | 44      | 130       | 4    | 0         |

## **32.** Details on student enrichment programmes (special lectures / workshops / seminar) with external experts

| Date       | Activity   | Resource person   | No of participants |
|------------|--|---|--------------------|
| 27/09/2013 | Emerging research areas in Electrical Power Systems                                  | R Nagaraja, Managing Director, PRDC, bangalore  | 65                 |
| 27/09/2013 | Emerging research areas in<br>Cloud computing and cyber<br>security in power systems | T.S Mohan, Principal<br>Researcher, Ecom Research lab,<br>Education and Research Unit,<br>INFOSYS, Bangalor | 55                 |
| 27/09/2013 | Emerging research areas in low voltage DC and micro grid                             | Priya Ranjan Mishra, PHILIPS<br>Innovation Campus, Manyata<br>Tech Park, bangalore                          | 45                 |
| 28/09/2013 | Emerging research areas in High voltage  | G.R Nagabhushana, Former chairman, Dept. of High voltage Engg. IISc, Bangalore                              | 50                 |
| 28/09/2013 | Emerging research areas in Power electronics   | yashveer Singh, Research<br>Engineer, Global Research, GE,<br>Bangalore                                     | 55                 |
| 28/09/2013 | Emerging research areas in Wide area Monitoring                                      | Faraz Zafer Khan, Senior<br>Engineer, PRDC, Bangalore   | 50                 |



| Date                     | Activity  | Resource person  | No of participants |
|--------------------------|---|--|--------------------|
| 12/10/2013               | Software Industry Outlook   | Ramachandra, Infosys   | 45                 |
| 27/01/2014<br>28/01/2014 | Behavioral Science  | Gururaj Urs, AIEFL, QUACAI<br>Head, ES to chairman, Acharya<br>Institutes                      | 55                 |
| 27/01/2014<br>28/01/2014 | Key aspects in Computers  | Ravikiran Rao, Anandraj, Asst<br>Professor, EEE Dept, Acharya<br>Institute of Technology       | 60                 |
| 29/01/2014               | Lab Handling Techniques   | manjunathnTN, Associate Professor, Dept of ISE, Acharya institute of Technology                | 35                 |
| 29/01/2014               | Personality Development   | Iqbal Ahmed, Deputy Director,<br>Acharya Institutes  | 70                 |
| 29/01/2014               | English Communication   | Umesh, Asst. Professor, AIEFL, Acharya institutes  | 55                 |
| 22/02/2014               | How to face Interviews  | Vinay, Marketing Engineer, M/s.<br>Cromotone and Greaves,<br>Bangalore                         | 40                 |
| 06/09/2014               | High voltage Engineering  | Bhagwanth Singh, Proprietor,<br>High Voltage India Pvt. Ltd.,<br>Peenya Ist stage, Bangalore   | 80                 |
| 15/10/2014               | Matrix Convertor  | Usha Rani, Asst. Engineer,<br>BWSS, Bangalore  | 45                 |
| 06/11/2014               | Evolving technology and its impact on teaching learning process               | Jayaraman, National<br>Instruments   | 35                 |
| 06/11/2014               | Graphical system design in the circuit engineering branches.                  | Jayaraman, National<br>Instruments   | 35                 |
| 06/11/2014               | Graphical system design in automation engineering industry                    | Jayaraman, National<br>Instruments   | 35                 |
| 11/03/2015               | "Emerging trends in Process<br>Automation with DCS/PLC<br>and SCADA overview" | Padma.R, Deputy Manager<br>(Training) -Customer Service<br>Division, Yokogawa India<br>Limited | 60                 |
| 19/08/2015               | General Science   | Sulochana Reddy, Member of<br>Lions club, Bangalore  | 55                 |
| 25/04/2015               | "State of art insulators for<br>High voltage transmission<br>system"          | N. Vasudev, Joint Director,<br>CPRI, Bangalore   | 70                 |
| 02/10/2015<br>03/10/2015 | Power System Protection   | Shri.C.B.M. Bhooshan   | 65                 |
| 12/09/2015               | Issues in auto-reclosing of Transmission Lines                                | R.S. Shivakumara Aradhya,<br>Professor, EEE Department, AIT                                    | 50                 |



| Date                     | Activity  | Resource person   | No of participants |
|--------------------------|---|---|--------------------|
| 09/05/2016               | Diagnostic testing and<br>Condition assessment of High<br>Voltage Generators in Service | Mallikarjunappa, Director,<br>CPRI, Bangalore   | 45                 |
| 10/05/2016               | Overview of communication media in power sector   | K.R Adishesha, Senior<br>Consultant, TCS, Bangalore   | 45                 |
| 17/09/2016               | Solar World   | Anil Kumar Sabaji, M/s<br>TerraServe, No. 37, 3rd Main,1st<br>Block, 3rd phase, Banashankari<br>3rd Stage Bangalore 560 085 | 40                 |
| 20/09/2016               | Power System grounding and<br>Measurements  | H Jayakumar, Director, Galaxy<br>Earthing Electrodes (P) Ltd,<br>Chennai.   | 80                 |
| 29/12/2016<br>30/12/2016 | Importance of Grounding in Power Systems  | H Jayakumar, Director, Galaxy<br>Earthing Electrodes (P) Ltd,<br>Chennai.   | 80                 |
| 30/12/2016               | "Systems and Impulse grounding"   | Shri. T. S. Sathyanaraya Rao,<br>Former, Executive Engineer,<br>Karnataka Power Transmission<br>Corporation Ltd.Bangalore   | 65                 |
| 30/12/2016               | Safety at working<br>Environment  | G T N Babu, Head, Facilities<br>and Maintenance, Acharya<br>Institute of<br>Technology, Bengaluru.                          | 65                 |
| 03/11/2016               | Building Automation and<br>Integrated Building<br>Management Systems                    | Bhaghavan Srinivasan,<br>Director, Carrier Race<br>Technologies Pvt. Ltd  | 65                 |

### 33. Teaching methods adopted to improve student learning

| Chalk<br>and<br>Talk | Use<br>of<br>ICT | Demonstration | Experimentation | Collaborative | Experientia 1 | Any<br>other                       |
|----------------------|------------------|---------------|-----------------|---------------|---------------|------------------------------------|
| Yes                  | Yes              | Yes           | Yes             | Nil           | Nil           | Hobby project s Industr ial visits |



#### 34. Participation in Institutional Social Responsibility (ISR) and Extension activities

| Date                        | Activity            | No of Participants |
|-----------------------------|---------------------|--------------------|
| 19/08/2015                  | Blood Donation Camp | 152                |
| 01/04/2017 to<br>07/04/2017 | NSS CAMP            | 01                 |
| 09/04/2017 to<br>15/04/2017 | Social activity     | 03                 |

#### 35. SWOC analysis of the department and Future plans

#### **Strengths**

- 1. Faculties are committed in research activities and believe in lifelong learning
- 2. Excellent Infrastructure for teaching and learning
- 3. Permanent affiliation by VTU

#### Weaknesses

- 1. Interaction with industry
- 2. Student teacher ratio
- 3. Getting Funding projects

#### **Opportunities**

- 1. Starting of IEEE student chapter
- 2. MOU's with reputed industries
- 3. Organizing an international conference

#### **Challenges**

- 1. Placement for all the students and employability particularly in core industries
- 2. Achieving100% success rate of the students
- 3. Getting very good ranking students through CET and COMED K

#### **Future Plans**

- 1. Planned to start one more new PG Programme in Power Electronics
- 2. Establish Well equipped RandD center in the department
- 3. Department is planned to have MOUs with industries / Institutes and research centers for joint research and development
- 4. Planned to establish Energy park.



#### **Information Science and Engineering**

1. Name of the department: Information Science and Engineering

2. Year of Establishment: 2000

#### 3. Names of Programmes/Courses offered:

| UG                                       | PG   | Ph.D./ MSc. (Engg.)   |
|--|--|---|
| BE - Information<br>Science &Engineering | <ol> <li>M.Tech. in Computer<br/>Network Engineering.</li> <li>M.Tech. in Cyber<br/>Forensic and<br/>Information Security</li> </ol> | VTU Research Centre<br>of Information<br>Science and<br>Engineering |

4. Names of Inter disciplinary courses and the departments/units involved:

Nil

5. Annual/semester/choice based credit system (programme wise)

**Under Graduate** I – IV semester Choice Based Credit System

V-VIII semester Semester system

**Post Graduate** I – II semester Choice Based Credit System

III-IV semester Semester system

- 6. Participation of the department in the courses offered by other departments Nil
- 7. Courses in collaboration with other universities, industries, foreign institutions, etc.

Nil

8. Details of courses/programmes discontinued (if any) with reasons Nil

#### 9. Number of Teaching posts

| Designation          | Sanctioned | Filled |
|----------------------|------------|--------|
| Professors           | 04         | 02     |
| Associate Professors | 06         | 02     |
| Assistant Professors | 19         | 24     |



# 10. Faculty profile with name, qualification, designation, specialization (D.Sc./D.Litt./Ph.D./M.Phil.etc.,)

| Name          | Qualification     | Designation          | Specialization                         | No. of<br>Years of<br>Experience | No. of Ph.D.<br>Students guided<br>in the last 4 years |
|---------------|-------------------|----------------------|--|----------------------------------|--|
| C K Marigowda | M.Tech, (Ph.D)    | HOD &<br>Assoc. Prof | Information<br>Security                | 13.5                             |  |
| Mamatha G     | M.Tech,<br>Ph.D   | Professor            | Wireless<br>Networks                   | 19                               | 1  |
| Suresh Babu   | M.E, Ph.D         | Professor            | Computer<br>Networks                   | 25                               | 6  |
| Mahesh G      | M.Tech,<br>(Ph.D) | Assoc. Prof          | Wireless<br>Networks                   | 13                               |  |
| Sudarsanan D  | M.Tech ,<br>Ph.D) | APG - I              | Wireless<br>Networks                   | 19                               |  |
| UmapathiG R   | M.E,<br>(Ph.D)    | APG - I              | Wireless Sensor<br>Networks            | 19                               |  |
| Kala Vishesh  | M.Tech            | APG - I              | Computer<br>Science and<br>Engineering | 11.75                            |  |
| Srinivas K    | M.Tech,<br>(Ph.D) | APG - I              | Human<br>Computer<br>Interaction       | 18                               |  |
| UshaKumari    | M.Tech            | APG - II             | Computer<br>Science and<br>Engineering | 11.25                            |  |
| Arun K H      | M.Tech            | APG - II             | Computer<br>Science and<br>Engineering | 10.5                             |  |
| Chaitra B     | M.Tech            | APG-III              | Software<br>Engineering                | 11.75                            |  |
| Yogesh N      | M.Tech            | APG-III              | Computer<br>Network<br>Engineering     | 8.75                             |  |
| Hemantha T D  | M.Tech            | APG-III              | Computer<br>Science and<br>Engineering | 9                                |  |



| Name                | Qualification     | Designation | Specialization                            | No. of<br>Years of<br>Experience | No. of Ph.D.<br>Students guided<br>in the last 4 years |
|---------------------|-------------------|-------------|---|----------------------------------|--|
| PrathibhaVani P M   | M.E,<br>(Ph.D)    | APG-III     | Wireless Sensor<br>Networks               | 10                               |  |
| Chayapathi A R      | M.E.,<br>(Ph.D)   | APG-III     | Cloud and Big-<br>Data                    | 8.75                             |  |
| Gangadharaiah S     | M.Tech,<br>(Ph.D) | APG-III     | IoT Security                              | 12                               |  |
| Arpitha N S         | M.Tech            | APG-III     | Computer<br>Network<br>Engineering        | 4.75                             |  |
| Mithuna H R         | M.E               | APG-III     | Wireless sensor<br>Networks               | 5.5                              |  |
| Sushma T.M          | M.Tech            | APG-III     | Networking and<br>Internet<br>Engineering | 8.75                             |  |
| Prakash B<br>Metre  | M.Tech,<br>(Ph.D) | APG-III     | Wireless<br>Networks                      | 13                               |  |
| AkshthaBallal       | M.Tech            | APG-III     | Software<br>Engineering                   | 3.75                             |  |
| Yatheesh N.G        | M.Tech            | APG-III     | Computer<br>Science and<br>Engineering    | 2.75                             |  |
| Chethan M           | M.Tech            | APG-III     | Big Data and data Mining                  | 6                                |  |
| Kavya Shree D       | M.Tech            | APG-III     | Big Data and data Mining                  | 2.5                              |  |
| Geetha Lakshmi      | M.Tech            | APG-III     | Computer<br>Science and<br>Engineering    | 1                                |  |
| Gayatri R. Sorganvi | M.Tech            | APG-III     | Computer<br>Science and<br>Engineering    | 0                                |  |
| ChanchalAgarwal     | M.Tech            | APG-III     | Computer<br>Science and<br>Engineering    | 3                                |  |
| Mouna N.            | M.Tech            | APG-III     | Computer Science and Engineering          | 1                                |  |



11. List of senior visiting faculty: Nil

12. Percentage of lectures delivered and practical classes handled (programmewise)

by temporary faculty: Nil

13. Student-Teacher Ratio (programme wise)

Under Graduate : 20:1 Post Graduate : 12:1

## 14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

| Supporting Staff     | Sanctioned | Filled |
|----------------------|------------|--------|
| Administrative Staff | 1          | 1      |
| Assistant Manager-IT | 1          | 1      |
| System Engineer      | 1          | 1      |
| Technical Lead       | 1          | 1      |
| Trainee              | 1          | 1      |
| Lab Instructors      | 4          | 4      |
| Programmer           | 4          | 0      |
| Assistants           | 1          | 1      |
| Attenders            | 3          | 3      |

#### 15. Qualifications of teaching faculty with DSc/D.Litt/Ph.D/MPhil/PG.

| Qualification | No. of Faculty |
|---------------|----------------|
| D.Litt        | Nil            |
| Ph.D          | 02             |
| M.Phil        | Nil            |
| PG            | 26             |

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: Nil



## 17. Departmental projects funded by DST-FIST;UGC, DBT, ICSSR,etc.and total grants received

| Project  | Funding agency | Amount in Rs. |  |
|--|----------------|---------------|--|
| 2013-2014  |                |               |  |
| A Multi-Information Localization Algorithm in<br>Wireless Sensor Networks and Its application in<br>Medical Monitoring Systems | KSCST          | 5000/-        |  |
| 2015-2016  |                |               |  |
| Simple Smart Connected City Apps   | KSCST          | 3000/-        |  |
| Regifeed Instant Feedback System with Smart<br>Registration Process  | KSCST          | 3000/-        |  |
| 2016-2017  |                |               |  |
| Automated Toll Payment System  | KSCST          | 4000/-        |  |
|  | Total          | 15,000/-      |  |

#### 18. Research Centre/facility recognized by the University

Visvesvaraya Technological University (VTU) Ph.D&M.Sc (Engg) by Research

## 19. Publications by

#### a) faculty:

Publications of the faculty in international journals, national journals, international conferences, national conferences, books authored / edited / chapter contribution are enclosed in Self Study Report: Volume II, Part II.

#### **b) Students**

| Name of the Students | Number of Publications |
|----------------------|------------------------|
| Geetha H S           | 1                      |
| Pallavi H            | 1                      |
| Navya P              | 1                      |
| UrmaHaldar           | 1                      |
| Vishnu B             | 2                      |
| Hamsa C              | 2                      |
| Clement Almeida      | 1                      |
| Harshitha K          | 2                      |
| Divya M              | 1                      |
| Chimayee             | 1                      |



| Name of the Students | Number of Publications |
|----------------------|------------------------|
| Swathi C             | 1                      |
| SaurabhButtan        | 1                      |
| Nikhil P Naik        | 1                      |
| Manojkumar S         | 1                      |
| Ajo M Varghese       | 1                      |
| Surabhi Shankar      | 1                      |
| Vishnavi B           | 1                      |
| Aadarsa V R Ram      | 1                      |
| Debanjan C           | 1                      |
| Niranjan K           | 1                      |
| S.P Goutham          | 1                      |
| shreyas K            | 1                      |
| ManjunathShingadi    | 1                      |
| Sandeep Bhandari     | 1                      |
| Karthik C            | 1                      |
| Roshan S,            | 1                      |
| Thilak N             | 1                      |
| Amit Kumar           | 1                      |
| Kiran Gowda H N      | 1                      |
| Kusuma M             | 1                      |
| Udaya Kumar C        | 1                      |
| Megha J              | 1                      |
| AkshathaPoojar       | 1                      |
| Spurthi Raj          | 1                      |
| Vibha Shree M        | 1                      |

20. Areas of consultancy and income generated / If any: Nil



#### 21. Faculty as members in

#### a) National committees b) International Committees c) Editorial Boards

| Committee/Board  | Name          | Year |
|--|---------------|------|
| Editorial Board MemberInformatics<br>Engineering, an International Journal(IEIJ) | C K Marigowda | 2013 |

#### 22. Student projects

## a) Percentage of students who have done in-house projects including interdepartmental / programme

|                   | In-house Project |   |  |  |
|-------------------|------------------|---|--|--|
| No of<br>Projects | No of students   | Year Percentage of students who have done in-hou projects |  |  |
| 26                | 95               | 2013-2014   | 95(In-house Projects) + 5 (Industry Project) |  |
| 28                | 111              | 2014-2015   | 100  |  |
| 24                | 95               | 2015-2016   | 100  |  |

## b) Percentage of students placed for projects in organizationsoutside the Institutioni.e.in Research laboratories/Industry/ other agencies

| Outside the Institution Project |                |  |   |  |  |
|---------------------------------|----------------|--|---|--|--|
| No of<br>Projects               | No of students | Year Percentage of students who had one Outside the Institution proj |   |  |  |
| 1                               | 2              | 2014-2015  | 2 |  |  |
| 1                               | 2              | 2015-2016  | 2 |  |  |

### 23. Awards/Recognitions received by faculty and students

| Name of the Faculty                           | Event Name   | Award/Recognitions                           |
|---|--|--|
| Infosys Pricipal's Meet-16 on 30th March 2016 |  | Best SPOC (Single Point of Contact) in State |
| Marigowda C.K                                 | Inspire Faculty Excellence Awards from Infosys Limited,16 <sup>th</sup> May 2014 | Silver- Partner Faculty                      |
| Satish .S                                     | Inspire Faculty Excellence Awards from Infosys Limited,16 <sup>th</sup> May 2014 | Bronze Partner Faculty                       |
| Arun K.H                                      | Inspire Faculty Excellence Awards from Infosys Limited,16 <sup>th</sup> May 2014 | Bronze Partner Faculty                       |



| Name of the Faculty | Event Name   | Award/Recognitions     |
|---------------------|--|------------------------|
| Hemantha.T.D.       | Inspire Faculty Excellence Awards from Infosys Limited,16 <sup>th</sup> May 2014 | Bronze Partner Faculty |
| NagarajNaik         | Inspire Faculty Excellence Awards from Infosys Limited,16 <sup>th</sup> May 2014 | Bronze Partner Faculty |

## Awards/Recognitions received by students

| Name of the Student   | Event   | Award/<br>Recognitions |
|---|---|------------------------|
| Chimayee, Hamsa C,<br>Harshitha&Swathi C                    | SRISHTI 2015 - Innovation Exchange<br>Competition of projects by final year<br>engineering students     | 2 <sup>nd</sup> prize  |
| SaurabhButtan   |   |                        |
| Vishnu B, Nikhil P<br>Naik, Manojkumar<br>S, Ajo M Varghese | SRISHTI 2015 - Innovation Exchange<br>Competition of projects by final year<br>engineering students2015 | 4 <sup>th</sup> prize  |
| Surabhi Shankar &<br>Vishnavi B                             | SRISHTI 2015 - Innovation Exchange<br>Competition of projects by final year<br>engineering students.    | Consolation prize      |
| GyanRaunak  | 7th Indian Society for Technical Education<br>Student Annual Convention -2013                           | 1 <sup>st</sup> prize  |
| Prabhash Kumar  | 7th Indian Society for Technical Education<br>Student Annual Convention-Technical Quiz<br>-2013         | 1 <sup>st</sup> prize  |
| Suhas   | 7th Indian Society for Technical Education<br>Student Annual Convention-Debugging<br>Contest -2013      | 1 <sup>st</sup> prize  |
| Srinivas M  | 7th Indian Society for Technical Education<br>Student Annual Convention-Debugging<br>Contest-2013       | 3 <sup>rd</sup> prize  |
| Srinivas M  | 7th Indian Society for Technical Education<br>Student Annual Convention-Animation -2013                 | 1 <sup>st</sup> prize  |
| VivekVardhan  | 7th Indian Society for Technical Education<br>Student Annual Convention-Aptitude -2013                  | 1 <sup>st</sup> prize  |
| Praveen Kumar   | 7th Indian Society for Technical Education<br>Student Annual Convention-Aptitude -2013                  | 3 <sup>rd</sup> prize  |



| Name of the Student   | Event  | Award/<br>Recognitions |
|---|--|------------------------|
| Manasa. R   | 25th CSI Karnataka Student Convention,<br>Paper Presentation 2013  | 2 <sup>nd</sup> prize  |
| Mridula S Tunga   | 25th CSI Karnataka Student Convention,<br>Paper Presentation 2013  | 2 <sup>nd</sup> prize  |
| Vinayashree H V   | VTU Inter Zone Sport Competition, Kho-Kho - 2013   | 2 <sup>nd</sup> prize  |
|   | VTU in All India Inter-University Archery 30<br>Mtrs Year-2014   | 1 <sup>st</sup> prize  |
| Shirisha K  | VTU in All India Inter-University Archery 50<br>Mtrs , Year -2015  | 2 <sup>nd</sup> prize  |
|   | All India Inter University Compound Round<br>Archery Championship held at Punjabi<br>University, Punjab held during 22nd January<br>to 26th January 2016 | 3 <sup>rd</sup> prize  |
| Surabhi Shankar   | VTU Zonals-throw ball -2015  | 4 <sup>th</sup> prize  |
| Swathi C  | VTU Zonals-throw ball-2015   | 4 <sup>th</sup> prize  |
| Debanjan C,<br>Niranjan,<br>S.P.Goutham,<br>Shreyas K                   | ranjan, P.Goutham, Rangalore -2016   |                        |
| Jay Narayan Das,<br>LunagariyaDivyesh,<br>Shubham Kumar,<br>Shubhashree | State Level Seminar and Project Exhibition was held at BLDE, Helakatti College of Engineering and Technology, Vijayapura, Karnataka -2016                | Best and First prize   |

## 24. List of eminent academicians and scientists/visitors to the department

| 2013-2014                                 |   |             |  |  |  |  |
|---|---|-------------|--|--|--|--|
| Talk on                                   | Talk on Name  |             |  |  |  |  |
| Emerging trends in Information Processing | Nagabhushan P, Professor, Mysore University   | 11/01/13    |  |  |  |  |
|   | Girish, CEO, Qspiders, Bangalore  | 22/01/13    |  |  |  |  |
| Software Testing and<br>Quality Assurance | GunasekaranVeeraPillai,<br>Competency Head, Testing Services, Wipro<br>Technologies | To 24/01/13 |  |  |  |  |



| Talk on   | Name  | Date                       |
|---|---|----------------------------|
| Software Testing and<br>Quality Assurance                               | UmakanthKulkarni, Professor, SDMCE, Dharwad Nagana Gouda S J, VP and Head HR, Synapse India Ltd., Bangalore PrathaapKodancha, Associate Manger, SAP Labs, Bangalore | 22/01/13<br>To<br>24/01/13 |
| Research<br>Methodologies   | M K Bhanga, GM, Wipro Technologies, Banglore C B Akki, Senior Consultant, Wipro Technologies, Bangalore   | 30/01/13<br>To<br>31/01/13 |
| Evaluation of Cloud<br>Computing  | T S Mohan, Principal Researcher, E&R, Infosys Ltd.,   | 01/07/13                   |
| Cloud Computing<br>Architectures  | RavindraDastikop,SDM  | 02/07/13                   |
| Software development in Cloud using open stack cloud                    | Marimuthu, NITK   | 02/07/13                   |
| Cloud Web Services and SOA  | Pradeep,Accenture Services  | 03/07/13                   |
| Eucalyptus  | Raghavan, NITK  | 03/07/13                   |
| Migrating enterprise application on cloud                               | Mahesh G, 4 <sup>th</sup> DYmensionteeknocrats  | 04/07/13                   |
| Cloud Computing<br>Services(SaaS,PaaS,Ia<br>S) and Service<br>Providers | a Ganesh Prabhakar,TCS,Chennai  | 05/07/13                   |
| Cloud developments  | AmithBhati, TCS, Bangalore  | 05/07/13                   |
| Cloud Frameworks and API's  | d PravinHanchinal, Inspire Gropus   | 08/07/13                   |
| Cloud Security Issues   | Sridhar IIITB,Bangalore   | 09/07/13                   |
| Cloud Research Issues and Challenges                                    | Madan Kumar, Infosys Ltd.,  | 13/07/13                   |
| Cloud Computing with Google App   | MayurPatil, SDM, Dharwad  | 19/09/13<br>to<br>20/09/13 |
|   | 2014-2015   |                            |
| Big data and Hadoop<br>Framework  | Suner N R, Vice President<br>Accenture, India   | 28/01/15<br>to<br>30/01/15 |



| 2015-2016  |   |                            |  |  |
|--|---|----------------------------|--|--|
| Talk on  | Name  | Date                       |  |  |
| Overview of Big<br>Data and Hadoop<br>Ecosystem                              | Anoop Singh, Principal, ETA, Infosys Ltd.,<br>Bangalore.  | 10/09/15                   |  |  |
| Cloud Computing  | AxelAngeli,<br>Leadership for High Performance IT Change<br>Management Founder Logos! Informatik GmbH,<br>Germany   | 11/09/ 15                  |  |  |
| GATE introductory seminar  | Reginald Raj, from IISc, Bangalore.   | 18/09/15                   |  |  |
| Big Data Analytics   | Rajeev Agrawal, Department of Computer<br>Systems Technology, North Carolina A&T State<br>University, Greensboro, USA   | 17/12/15                   |  |  |
| Awareness of challenges and potential research topics.                       | Sithu D Sudarshan,<br>ABB Corporate Research, Bangalore   | 19/12/15                   |  |  |
| Design and<br>Implementation of<br>Student Centered<br>Learning              | DhineshRadhakrishnan, Co-Director of Footsteps<br>and American Society for Engineering<br>Education 1818 N Street N.W. Suite 600  <br>Washington                                  | 05/01/16<br>to<br>06/01/16 |  |  |
| TGMC project by IBM by   | Balaji, Trainer, IBM India.   | 26/02/16                   |  |  |
| Offerings of IUCEE to faculty  |   |                            |  |  |
|  | 2016-2017   |                            |  |  |
| Offerings of IUCEE to faculty  | Vedula Krishna, Executive Director, Indo<br>Universal Collaboration for Engineering Education<br>(IUCEE), Professor and Dean Emeritus, University<br>of Massachusetts Lowell, USA | 03/08/16                   |  |  |
| Creating Value using<br>Business Analytics<br>and Big Data –<br>Perspectives | Dr Murray Scott, Business Information Systems ,<br>J.E. Cairnes School of Business & Economics,<br>National University of Ireland Galway  | 21/02/17                   |  |  |

# 25. Seminars/Conferences/Workshops organized & the source of funding a) National b) International

| Name of the Seminar/Conference | Doto       | Source of            | National/     |
|--------------------------------|------------|----------------------|---------------|
| /Workshop                      | Date       | Financial Support    | International |
| International Workshop on      |            | Acharya Institute of |               |
| Emerging Trends in             | 10/01/2013 | Technology           | International |
| Information Technology         |            | recimology           |               |



| Name of the Seminar/Conference<br>/Workshop  | Date                           | Source of Financial Support        | National/<br>International |
|--|--------------------------------|------------------------------------|----------------------------|
| Three Day Workshop on<br>Software Testing & Quality<br>Assurance   | 22/01/2013<br>to<br>24/01/2013 | Acharya Institute of Technology    | National                   |
| Two Day workshop on<br>Research Methodologies  | 30/01/2013<br>to<br>31/01/2013 | Acharya Institute of Technology    | National                   |
| AICTE Sponsored Faculty Development Programme on Advances in Cloud Computing   | 01/07/2013 to<br>13/07/2013    | AICTE,<br>New Delhi.               | National                   |
| Two Day Workshop on<br>Cloud Computing with<br>Google App  | 19/09/2013<br>to<br>20/09/2013 | Acharya Institute of<br>Technology | National                   |
| Big Data & Hadoop<br>Framework   | 28/01/2015 to 30/01/2015       | Acharya Institute of Technology    | National                   |
| Technical Seminar on Overview of Big Data and Hadoop Ecosystem   | 10/09/2015                     | Acharya Institute of Technology    | National                   |
| International Conference on<br>Trends in Automation,<br>Communication and<br>Computing Technologies<br>ITACT-15 (With technical<br>co-sponsorship of IEEE,<br>Bangalore Section) | 21/12/2015 to<br>22/12/2015    | Acharya Institute of Technology    | International              |
| 2 Day FDP on Design and<br>Implementation of Student<br>Centered Learning  | 05/01/2016<br>to 06/01/2016    | Acharya Institute of Technology    | National                   |

## 26. Student profile programme /Course wise:

| Name of the Programme  | Year    | Applications received | Selected |
|--|---------|-----------------------|----------|
|  | 2013-14 | 55<br>05              | 30       |
|  |         | 05                    | 03       |
| BE(Information Science and                                   | 2014-15 | 52                    | 31       |
| Engineering) M.Tech(Cyber Forensic and Information Security) |         | 06                    | 03       |
|  | 2015-16 | 38                    | 25       |
|  |         | 02                    | 01       |
|  | 2016 17 | 46                    | 31       |
|  | 2016-17 | 00                    | 00       |



### 27. Diversity of Students

| Name of the Course<br>ISE | % of students from the same state | % of students from other States | %of students from abroad |
|---------------------------|-----------------------------------|---------------------------------|--------------------------|
| 2016-2017                 | 51                                | 44                              | 5                        |
| 2015-2016                 | 57                                | 34                              | 9                        |
| 2014-2015                 | 69                                | 29                              | 2                        |
| 2013-2014                 | 55                                | 43                              | 2                        |

## 28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

| Year      | GATE | Defense services | Others |
|-----------|------|------------------|--------|
| 2015-2016 | 3    | 1                |        |

#### 29. Student progression

| Student progression              | Percentage against enrolled |      |      |      |      |
|----------------------------------|-----------------------------|------|------|------|------|
| UG to PG                         |                             |      | 7    |      |      |
| PG to M.Phil.                    |                             |      | Ni   | 1    |      |
| PG to Ph.D.                      |                             |      | Ni   | 1    |      |
| Ph.D. to Post-Doctoral           | Nil                         |      |      |      |      |
| Employed                         | 2011 2012 2013 2014 2015    |      |      |      |      |
| Campus selection                 | 52 48 22 30 83              |      |      |      | 83   |
| Other than community requirement | 2011                        | 2012 | 2013 | 2014 | 2015 |
| Other than campus recruitment    | 26                          | 32   | 11   | 27   |      |
| Entrepreneurs                    | 1                           | 1    | 1    | 1    | 1    |

#### **Progression in the Department (Based on First year admission)**

| No/year  | year Intake Year1 Year2 Year 3 Year 4 | Intake Vear1 | Vear A    | %   | %   | %      |        |        |
|----------|---------------------------------------|--------------|-----------|-----|-----|--------|--------|--------|
| 140/year |                                       | 1 carr       | 1 1 Car 2 |     |     | Year 2 | Year 3 | Year 4 |
| 2012-13  | 90                                    | 102          | 131       | 93  | 94  | 89     | 91     | 97     |
| 2013-14  | 120                                   | 131          | 109       | 118 | 92  | 88     | 87     | 97     |
| 2014-15  | 120                                   | 124          | 133       | 96  | 111 | 73     | 87     | 100    |
| 2015-16  | 120                                   | 128          | 120       | 114 | 95  | 88     | 91     | 97     |
| 2016-17  | 120                                   | 130          | 136       | 114 | 110 |        |        |        |



## 30. Details of Infrastructural facilities a) Library b) Internet facilities for Staff & Students c) Class rooms with ICT facility d) Laboratories

Department Library: Area in Sq.M = 16.81

- 1. Department Library includes 500 Number of Titles and 835 number of volumes
- 2. Repository of Seminar and Project reports from 2012
- 3. Seating capacity of 20 Members

#### **Internet Facilities for Staff & Students**

Broad band connectivity of

- 1. 120Mbps Railtel
- 2. 10Mbps BSNL

Campus is enabled with Wi-Fi facility

#### **Class rooms with ICT facility**

ICT when integrated into the classrooms has added immense value to the quality of teaching, making it a holistic teaching/ learning experience for the faculties and students.

Some of the innovative teaching methodologies adopted using ICT are:

- Development of smart classrooms with LCD projector Use of interactive modules like videos and presentations and visually attractive methods of teaching to make it appealing to students
- 2. Use of innovative teaching methodologies like Role Plays, Seminars, Team online assignments, Peer learning, etc.
- 3. Providing resource materials like tutorials, assignments, lecture notes, lab manuals and other relevant materials to the students.

| Parameter  |       | Area in Sq.M                |
|------------|-------|-----------------------------|
|            | LH001 | 7.10 X 11.50 = 81.65        |
| Class Room | LH002 | 7.10  X  11.50 = 81.65      |
|            | LH201 | $7.10 \times 10.76 = 76.40$ |
|            | LH202 | 7.8 X 7.8=60.86             |
|            | LH204 | 7.10  X  11.75 = 83.43      |
|            | LH205 | $7.10 \times 10.76 = 76.40$ |

#### Laboratories

5 Laboratories in the department and the details stated below:

- 1. ISE Lab- 002 (Data Structure/OOPS Lab)
- 2. ISE Lab- 101 (Algorithms & Database Lab)
- 3. ISE Lab- 102 (Operating system & Networking Lab)
- 4. ISE Lab- 302 (System Programming & Internet Programming Lab)
- 5. Electronic Circuits and Logic Design Lab



|      | Parameter          | Area in Sq.M                |
|------|--------------------|-----------------------------|
|      | ISE-001Laboratory  | 7.10  X  10.40 = 73.84      |
| Labs | ISE-002 Laboratory | 7.10  X  10.40 = 73.84      |
|      | ISE-101 Laboratory | $7.10 \times 10.40 = 73.84$ |
|      | ISE-102 Laboratory | $7.10 \times 10.40 = 73.84$ |

## 31. Number of students receiving financial assistance from college, university, government or other agencies

| Scholarship   | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 |
|---|---------|---------|---------|---------|---------|
| Taluk social welfare office [below 2.5 lakh] for SC [UG & PG] | 19      | 21      | 32      | 30      | 20      |
| Taluk social welfare office [below 2.5 lakh] for ST [UG & PG] | 3       | 6       |         | 4       | 2       |
| DTE scholarship [Above 2.5 lakh] for UG[SC/ST]                |         |         |         | 6       | 7       |
| OBC Scholarship [UG & PG]-BCM Scholarship                     | 104     | 101     | 28      | 31      |         |
| ICCR Scholarship  |         |         |         | 8       |         |
| College   | 3       | 2       | 7       | 1       |         |

# **32.** Details on student enrichment programmes (special lectures/workshops/ seminars) with external experts

| Date                       | Program  | Expert  |  |  |  |  |  |  |  |
|----------------------------|--|---|--|--|--|--|--|--|--|
|                            | 2013-2014  |   |  |  |  |  |  |  |  |
| 19/09/13<br>to<br>20/09/13 | Cloud Computing with Google App                                  | MayurPatil, SDM, Dharwad                                |  |  |  |  |  |  |  |
|                            | 2014-2015  |   |  |  |  |  |  |  |  |
| 28/01/15<br>to<br>30/01/15 | Big Data and Hadoop Framework                                    | Sunder N R, Vice President,<br>Accenture India          |  |  |  |  |  |  |  |
|                            | 2015-2016  |   |  |  |  |  |  |  |  |
| 10/09/15                   | Technical Seminar on "Overview of Big Data and Hadoop Ecosystem" | Anoop Singh, Principal, ETA,<br>Infosys Ltd., Bangalore |  |  |  |  |  |  |  |



| Date                      | Program  | Expert  |
|---------------------------|--|---|
|                           | 2015-2016  |   |
| 11/09/15                  | Talk on "Cloud Computing"                              | Axel AngeliLogos! Informatik<br>GmbH, Hologramming for SAP &<br>SOA, Project Management for SOA<br>and Cloud, Leadership for Complex<br>SAP Solution                                    |
| 18/09/15                  | GATE introductory seminar                              | Reginald Raj, IISc Bangalore  |
| 17/12/15                  | Technical Talk on "BigData Analytics"                  | Rajeev Agrawal, Professor, Department of Computer Systems Technology, North Carolina A&T State University, Greensboro, USA  |
| 19/12/15                  | Awareness of challenges and potential research topics. | Sithu D Sudarshan   |
|                           | 2016-17  |   |
| 05/01/16<br>&<br>06/01/16 | Design and Implementation of Student Centered Learning | DhineshRadhakrishnan, Co-Director<br>of Footsteps and American Society for<br>Engineering Education 1818 N Street<br>N.W. Suite 600   Washington  |
| 26/02/16                  | Talk on TGMC project by IBM                            | Balaji, Trainer, IBM India.   |
| 03/08/16                  | About IUCEE offerings to faculty                       | Vedula Krishna, Executive Director,<br>Indo Universal Collaboration for<br>Engineering Education (IUCEE),<br>Professor and Dean Emeritus,<br>University of Massachusetts Lowell,<br>USA |
| 05/08/16                  | Pre Placement Training for Non Eligibility students    | Kumar sourabh,Software<br>Engineer,M/s Cognizant, Bangalore.<br>Amit Kumar,Software Engineer,<br>MahaSwamy Software<br>Solution,Bangalore.  |
| 16/08/16                  | Pre Placement Training                                 | Adarsh, Software Engineer,M/s<br>Cognizant, Bangalore   |
| 20/08/16                  | Pre Placement Training                                 | SidharthChhawchharia, Hashedin,<br>Bangalore Naveen Eregowda, LAM   |



#### 33. Teaching methods adopted to improve student learning

The enthusiastic faculty members of the department aim at delivering an effective classroom experience that is redefined with innovative ideas, implementing effective teaching methods to enrich the knowledge of the students' community.

In principle, all the courses follow lecture method (chalk and board and/or audio-visual aids) providing sufficient time for interaction. In addition to the classroom interactions, following are the other methods of learning experiences provided to the students:

- 1. Role Plays
- 2. Team assignments
- 3. Peer learning
- 4. Brainstorming
- 5. Seminars/ workshops
- 6. Paper presentations/ Group discussions
- 7. Project work
- 8. Industrial visit
- 9. Use of e-resources such as NPTELs, open course ware for better content delivery.
- 10. Providing open access to Massive Open Online Course (MOOC) via web.
- 11. Use of online tools such as Moodle for blended learning, flipped classroom, evaluation etc.
- 12. Internships etc.

#### 34. Participation in Institutional Social Responsibility(ISR) and Extension activities

- 1. Annual Blood Donation Camp will be conducted in every year
- 2. Waste Management rally
- 3. The world human rights day rally
- 4. Spoken English classes regularly for underprivileged people of the society
- 5. Skill Development programmes for underprivileged people of the society
- 6. Plantation
- 7. Rain Water Harvesting
- 8. Health (General, Dental, Etc.)
- 9. Computer Awareness to Govt. School Students
- 10. Cleanliness With Respect to the Environmental Hazards
- 11. Parthenium Nirmulane
- 12. English Speaking Course to Govt. School Students



#### 35. SWOC analysis of the department and Future plans

#### Strength

- 1. Effective mentoring system is in place to ensure the academic excellence.
- 2. Highly Qualified Teaching and Non-Teaching Staff.
- 3. Engaging with various Industries and Universities for research, training, internship, and projects.
- 4. Nurturing student competency through MOOC and student forum.

#### Weakness

- 1. Cadre ratio.
- 2. Lack of consultancy and research.
- 3. Inadequate communication skills of students.

#### **Opportunity**

- 1. Converting students projects into value added or commercial products.
- 2. Utilization of Alumni network for career guidance.
- 3. Alignment with Technology Business Incubation (TBI) for promoting entrepreneurship.

#### Challenges

- 1. Coping with rapid change in technology, industrial requirements, and improving the employability of the students.
- 2. Retaining qualified and experienced faculty.
- 3. Acquire autonomous status to offer need based innovative programmes

#### **Future plans:**

- 1. To organize international conference in association with professional society and industry.
- 2. To establish an in house company and to provide internship opportunity to students
- 3. To collaborate with industries and institutions at national and international levels to enhance interdisciplinary research
- 4. To promote entrepreneur through BOX-AIT Business Incubator



## **Mechanical Engineering** and **Manufacturing Science and Engineering**

- 1. Name of the Department: Mechanical Engineering and Manufacturing engineering
- 2. Year of Establishment: 2002/2013
- **3.** Names of Programmes/Courses offered:

| Program                | Course                                    |
|------------------------|---|
| UG                     | (1) Mechanical Engineering                |
|                        | (2) Manufacturing Science and Engineering |
| PG                     | Machine Design                            |
| PG                     | Product Design and Manufacturing          |
| Ph.D                   | Mechanical Engg                           |
| M.Sc(Engg) by research | Mechanical Engg                           |

- 4. Names of Interdisciplinary courses and the departments/units involved: Nil
- **5.** Annual/semester/choice based credit system (programme wise): Semester Based **System (Non-CBCS)**

 $\mathbf{BE}$ I-IV sem **CBCS** V-VIII sem Semesterscheme M.Tech I-II sem **CBCS** 

III-IVsem Semester scheme

- **6.** Participation of the department in the courses offered by other departments: Nil
- Courses in collaboration with other universities, industries, foreign institutions, 7. etc.: Nil
- Details of courses/programmes discontinued(if any) with reasons:Nil 8.
- 9. **Number of teaching posts:**

|                     | Sanctioned | Filled |
|---------------------|------------|--------|
| Professors          | 05         | 04     |
| AssociateProfessors | 08         | 02     |
| Asst.Professors     | 29         | 36     |
| Total               | 42         | 42     |



# 10. Faculty profile with name, qualification, designation, specialization, (D.Sc./ D.Litt./ Ph.D./ M.Phil. etc.,)

| in.b., with this etc., |                    |                        |  | ]        | No. of Y<br>Exper       |     | of    | hil.<br>r the   |
|------------------------|--------------------|------------------------|--|----------|-------------------------|-----|-------|---|
| Name                   | Qualification      | Designation            | Specialization                                   | Industry | Teaching other than AIT | AIT | Total | No. of Ph.D./M.Phil.<br>Students guided for the<br>last 4 years |
| Mahesha K.             | M.E.,<br>Ph.D      | Professor and HOD      | Manufacturing,<br>Materials Engg,                |          | 12                      | 6   | 18    | Nil   |
| S.C.Pilli              | M.E.,<br>Ph.D      | Professor              | Machine design                                   | 1        | 32.5                    | 1.5 | 35    | 5   |
| K. Nagaraju            | M.TechP<br>h.D     | Professor              | production                                       | 38       |                         | 1.5 | 39.5  |   |
| Devarajaiah R. M       | M.E.,<br>Ph.D      | Professor              | Machine Design/Polymer Composite Tribology       | 4        | 8                       | 9.5 | 21.5  | Nil   |
| Pakkirappa H           | M.E.,<br>(Ph.D)    | Associate<br>Prof      | Production<br>Management                         |          | 13                      | 17  | 30    | Nil   |
| Lokesh G. N.           | M.Tech.,<br>Ph.D   | Associate<br>Professor | Production engineering systems Technology        | 1        | 4.5                     | 12  | 17.5  | Nil   |
| Shadakshari R.         | M.Tech., (Ph.D)    | APG-I                  | Nano Composites                                  |          |                         | 19  | 19    | Nil   |
| ManjunathaB.           | M.E.,(Ph. D)       | APG-I                  | Composite<br>Materials                           | 0.5      |                         | 13  | 13.5  | Nil   |
| AttelManjunath         | M.Tech.,<br>Ph.D)  | APG-II                 | Design and<br>Analysis                           | 2        | 6                       | 8   | 16    | Nil   |
| S Karunakara           | M.Tech.,<br>(Ph.D) | APG-II                 | Manufacturing science and engineering            |          | 12                      | 4   | 16    | Nil   |
| Praveen.M.P.           | M.Tech.,<br>Ph.D)  | APG-II                 | Artificial Intelligence, Supply Chain Management | 5        | 5                       | 3   | 13    | Nil   |
| Sachidananda<br>K.B.   | M.Tech.,<br>Ph.D)  | APG-III                | Coated Materials                                 |          | 0.5                     | 6   | 6.5   | Nil   |
| Vinod Kumar C.S.       | M.Tech.,<br>(Ph.D) | APG-III                | Production and<br>Manufacturing<br>systems       |          | 2                       | 5   | 7     | Nil   |
| BalachandraBingi       | M.Tech.,<br>Ph.D)  | APG-III                | Advanced<br>Material<br>Technology               |          | 1                       | 4   | 4.5   | Nil   |



|                      |                    |             |                                   |          | No. of<br>Expe          | Years |       | idents<br>ears  |
|----------------------|--------------------|-------------|-----------------------------------|----------|-------------------------|-------|-------|---|
| Name                 | Qualification      | Designation | Specialization                    | Industry | Teaching other than AIT | AIT   | Total | No. of Ph.D./M.Phil. Students guided for the last 4 years |
| Nagaraja K C         | M.Tech.,<br>Ph.D)  | APG-III     | Material<br>Science               |          | 3                       | 4     | 7     | Nil   |
| Basavaraju           | M.E.,<br>(Ph.D)    | APG-III     | Nano<br>composites                |          | 2                       | 5     | 7     | Nil   |
| Nagamadhu.           | M.Tech.,<br>Ph.D)  | APG-III     | Machine<br>Design                 | 1        | 3                       | 4     | 8     | Nil   |
| Sunil.B              | M.Tech.,<br>Ph.D)  | APG-III     | Machine<br>Design                 |          | 3.5                     | 2.5   | 6     | Nil   |
| YogendraKumar .S     | M.Tech.,           | APG-III     | Thermal Power Engineering         |          | 6                       | 3     | 9     | Nil   |
| Chethan.G.R          | M.Tech.,<br>Ph.D)  | APG-III     | Thermal Engineering               |          | 3                       | 3     | 6     | Nil   |
| Vijay RB             | M.Tech.,           | APG-III     | Machine<br>Design                 |          | 3.5                     | 2.5   | 6     | Nil   |
| Shashikala.A         | M.Tech.,(<br>Ph.D) | APG-III     | Product Design<br>Manufacturing   |          | 2.5                     | 3     | 5.5   | Nil   |
| Raju.M.G             | M.Tech.,<br>(Ph.D) | APG-III     | Computer Integrated Manufacturing |          | 2                       | 3     | 5     | Nil   |
| Jayshima.SLN         | M.Tech.,(<br>Ph.D) | APG-III     | CIM                               | 1        | 3.5                     | 1.5   | 6     | Nil   |
| SanmanShivaku<br>mar | M.Tech.,(<br>Ph.D) | APG-III     | Composite<br>Materials            |          | 1                       | 1     | 2     | Nil   |
| Harshih.C            | M.Tech             | APG-III     | CIM                               | 1.5      |                         | 1     | 2.5   | Nil   |
| Lavakumar.S          | M.Tech.            | APG-III     | Thermal Power Engineering         |          | 5                       | 1     | 6     | Nil   |
| Priyanka S<br>Umarji | M.Tech.            | APG-III     | PEST                              | 5        | 0.5                     | 1     | 6.5   | Nil   |



|                          |                    |                             |   |          | No. of<br>Expe      | Years |       | rdents<br>ears  |
|--------------------------|--------------------|-----------------------------|---|----------|---------------------|-------|-------|---|
| Name                     | Qualification      | Designation                 | Specialization                              | Industry | Teaching other than | AIT   | Total | No. of Ph.D./M.Phil. Students guided for the last 4 years |
| Praveen.B.B              | M.Tech.            | APG-III                     | Machine<br>Design                           | 3.5      |                     | 1     | 4.5   | Nil   |
| RichaMishra              | M.Tech.            | APG-III                     | Thermal<br>Engineering                      |          | 3                   | 0.5   | 3.5   | Nil   |
| Shipla.R.S               | M.Tech.            | APG-III                     | PDM   | 1.5      | 5                   |       | 6.5   | Nil   |
| shashidhar.M.K           | M.Tech.            | APG-III                     | CIM   | 5.5      | 4.5                 | 0.5   | 10.5  | Nil   |
| Venkata Shiva<br>Reddy   | M.Tech.,<br>(Ph.D) | APGIII                      | Manufacturing<br>Science and<br>Engineering |          | 1.6                 | 2.6   | 4     | Nil   |
| ShivadarshanShe<br>rugur | M.Tech             | APG –III                    | Manufacturing                               | 1.5      |                     |       |       |   |
| ManjunathaIyer           | M.Tech             | APG –III                    | Manufacturing                               | 3        | 1                   |       |       |   |
| Ambarish.M               | M.Tech             | APG –III                    | Production                                  | 5.5      | 2                   |       |       |   |
| Sharanabasava<br>A.B.    | M.Tech             | APG –III                    | CIM   | 1        |                     |       |       |   |
| Harsha.B.M               | M.Tech             | APG –III                    | Thermal                                     |          |                     |       |       |   |
| Nagesh Kumar R           | M.Tech             | APG –III                    | Thermal                                     | 4.5      |                     |       |       |   |
| RakshithGowda<br>D S     | M.Tech             | APG –III                    | CI M  | 0.5      |                     |       |       |   |
| Chandhan.R.S             | M.Tech(P ersuing)  | APG –III<br>–<br>Identified | Machine<br>Design                           |          |                     |       |       |   |
| VinodKumar               | M.Tech(P ersuing)  | APG –III<br>–<br>Identified | PDM   |          |                     |       |       |   |

### 11. List of senior visiting faculty: Nil

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: Nil



#### 13. Student-Teacher Ratio (programme wise):

| Program   | Student Teacher Ratio |
|---|-----------------------|
| UG-BE in Mechanical Engineering/Manufacturing Science and Engineering | 20:1                  |
| PG-M. Tech in Machine Design  | 18:1                  |
| PG-M. Tech in Product Design and Manufacturing                        | 18:1                  |

## 14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

| Category               | Sanctioned | Filled |
|------------------------|------------|--------|
| Academic support staff | 13         | 11     |
| Administrative staff   | 01         | 01     |

### 15. Qualifications of teaching faculty with DSc/D.Litt / Ph.D/ MPhil/ PG.

| Sl.No      | No. of Faculty |
|------------|----------------|
| DSc/D Litt | Nil            |
| Ph.D       | 04             |
| M.Phil     | Nil            |
| PG         | 38             |

## 16. Number of faculty with ongoing projects from a)National b)Internationalfunding agencies and grants received:

| No of Faculty | National Agencies Name | Year of funding | Status    |
|---------------|------------------------|-----------------|-----------|
| 2             | AICTE , RPS            | 2013            | Completed |
| 1             | VGST                   | 2013            | Ongoing   |
| 1             | KCST                   | 2014            | Completed |

# 17. Departmental projects funded by DST-FIST;UGC, DBT, ICSSR, etc. and total grants received:

| Name of the preject                   | Funding     | Year of | Grant Received |
|---------------------------------------|-------------|---------|----------------|
| Name of the project                   | Agency      | Funding | Grant Received |
| Facilities for Research in Material   | VGST        | 2013    | Da 40 00 000/  |
| Science and Engineering               | ( K_FIST)   | 2013    | Rs.40,00,000/- |
| Studies on Damping Characteristics of |             |         |                |
| Magneto-Mechanical Material Coated    | AICTE (RPS) | 2013    | Rs.20,00,000/- |
| Alloys                                |             |         |                |



| Name of the project       | Funding<br>Agency | Year of<br>Funding | Grant Received |
|---------------------------|-------------------|--------------------|----------------|
| Pineapple Peeling Machine | KSCST             | 2014               | Rs.9000/-      |
|                           |                   | Total              | 6,009,000      |

#### 18. Research Centre/facility recognized by the University:

| State recognition: | Approved R and D for Mechanical Engineering Research |  |  |
|--------------------|--|--|--|
| State recognition. | from VTU, Belagavi.in 2008-09                        |  |  |

#### 19. Publications:

a) Publication per faculty

Publications of the faculty in international journals, national journals, international conferences, national conferences, books authored / edited / chapter contribution are enclosed in Self Study Report: Volume II, Part II.

#### **20.** Areas of consultancy and income generated:

| Name of Faculties | Area                                       | Income Generated | Year |
|-------------------|--|------------------|------|
| Shadakshari.R     | Material Testing(Wear, castingand fatigue) | 5000/-           | 2016 |

#### 21. Faculty as members in a) National committees b)International committees

#### c) Editorial Boards

| Name of   | Committee          | ВС       | OS    | В        | OE    | Others  |
|-----------|--------------------|----------|-------|----------|-------|---|
| faculty   | Details            | VTU      | Other | VTU      | Other | Others  |
| Mahesha.K | BOS for IP/IEM/MSE | <b>V</b> |       |          |       |   |
| S.C.Pilli | BOS for IP/IEM/MSE | V        | V     | <b>V</b> |       | -BOG –Two Institutions Academic Council Member Two Universities -Two autonomous Colleges Member Executive council |

#### 22. Student projects:

## a) Percentage of students who have done in-house projects / programme [2016-17]

| No of students          | 157 | Percentage |
|-------------------------|-----|------------|
| No of in-house projects | 65  | 41.4       |



# b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies(2016-17)

|                                      | No. of Students | Percentage |
|--------------------------------------|-----------------|------------|
| No of projects in Industry           | 88              | 56.05      |
| No of projects research laboratories | 04              | 2.5        |

#### 23. Awards/Recognitions received by faculty and students:

| Name   | Awards/Recognition  | Year    |
|--|---|---------|
| Santhosh, Jayson John,<br>AnkithBharadwaj and AkshayAnvekar                  | Mechanism Design Contest-3rd<br>Prize   | 2013-14 |
| Mohammad Yahya.S, Siddhant Patel,<br>Harish Kumar M and UdithAzeevan         | Engineering Trooper- 1st prize  | 2013-14 |
| Sourabh.B.Zoshi,<br>Ivayya.C.Managundi, Honnurswamy.V                        | Bridge the Gap-2nd Prize  | 2013-14 |
| UdayVajapu   | Car Mania-2nd Prize   | 2013-14 |
| HS Mohan Govind,<br>SB Radhika   | Approved for sponsorship in<br>38th series of student Projects<br>Programme 2014-15<br>from Karnataka State Council for<br>Science and Technology | 2014-15 |
| Sunny Rai, BhanuPratap Singh,<br>ShivamPrakash and UdithAjeevan              | The students were selected for final round of Red Bull Flugtag, Indian Debut 2014-2015  | 2014-15 |
| Somaskanda S, PritheshKotian,<br>Santhosh SS, Suresh P andRanjith<br>Kumar C | ASME HPVC INDIA 2015,Delhi<br>Technological University ,Delhi,<br>India   | 2014-15 |
| Muralidhar, Rajath.J, Shreyash,<br>Subhankar                                 | Mutual exchanging education program   | 2014-15 |
| Abhishek.G, SunkaruPrithvi Reddy,<br>Umuhuza Marie Merci, Nazeer             | Mutual exchanging education program   | 2015-16 |



## 24. List of eminent academicians and scientists/visitors to the department:

| Name                          | Designation   | Date of<br>Visit | Activity   |
|-------------------------------|---|------------------|--|
| S.N.Sandoor                   | Project Co-ordinator, Biofuel Cell, Karnataka State Council for Science and Technology, Bangalore.                              | 07/02/201        | Research Opportunities in Biofuels                     |
| Col.G.S.Rana<br>(Retd)        | Retd. Colonel,<br>Indian Army   | 14/03/201        | Leadership in Engineering Profession                   |
| Abhay Anand<br>Kulkarni       | Deputy Manager, PPP Dept, Plant Adm in Div. Toyota kirloskar motor Pvt Ltd, Bidadi, Ramnagara-562109                            | 14/02/201        | Basics of TPS and<br>Supply chain<br>management        |
| Srinivas.M                    | Asst. Manager, Micrometric<br>Machine Tools PVt Ltd   | 07/03/201        | CNC Grinding Technology and Automation                 |
| Sathyak Sundar<br>Padhy       | UDVAVISK Technologies Pvt.<br>Ltd, Chennai  | 17/4/2015        | Open Source Tools Powered Engineering                  |
| Mahima KulKarni               | Kennametal India Pvt Ltd  | 5/3/2015         | Introduction to Cutting Tools                          |
| Vaishali Jagannath            | Kennametal India Pvt Ltd  | 10/3/2015        | Cementide Carbide<br>,Steel Cutting ,Hard<br>Coating,  |
| Nikil.B.Wani                  | Kennametal India Pvt Ltd  | 21/4/2015        | Principle and working of Milling Machine               |
| Nikilesh K Reddy<br>Mylavaram | Kennametal India Pvt Ltd  | 28/4/2015        | Drilling Machines andNomenClature                      |
| Kumarappa                     | Senior Manager- Design Machining Solution Group, WIDMA Machine tool, Kennametal India Ltd                                       | 25/3/2015        | DFMEA ( Design<br>Failure Mode and<br>Effect Analysis) |
| Virupaksha H S                | Deputy General Manager -<br>Information System and Planning,<br>Ace Manufacturing systems ERP<br>(Enterprise Resource Planning) | 25/3/2016        | ERP (Enterprise Resource Planning)                     |



| Name       | Designation                                 | Date of<br>Visit | Activity   |
|------------|---|------------------|--|
| Ramesh Rao | Research and Development , Kennametal India | 29/4/2016        | Technical talk on " Lean Six Sigma approach for variation reduction" |

### 25. Seminars/Conferences/Workshops organized and the source of funding

#### a) National b)International:

| Seminar/Conferen ce/workshop  | Duration with dates            | Funding<br>Agency | Amount<br>of<br>fund            | Amount funded by institution | No of participants |
|---|--------------------------------|-------------------|---------------------------------|------------------------------|--------------------|
| Workshop on "Automobile Mechanics and IC Engine Design                    | 20/03/2014<br>to<br>21/03/2014 | self              | 220,500                         |                              | 147                |
| "Geometrical<br>Dimensioning and<br>Tolerances"                           | 23/01/2015<br>to<br>24/01/2015 | Self              | Industry<br>sponsore<br>d 6,500 |                              | 65                 |
| Robotics Workshop-<br>"Robotryst-2014"                                    | 26/8/2014<br>and<br>27/8/2014  | Self              | 120,000                         |                              | 100                |
| National Seminar on " Emerging Trends in Metal Forming and Heat Treatment | 23.7.2015 to 24.7.2015         | SERB              | 75,000                          | 50,000                       | 150                |
| FDP on DATA science with R  | 25.7.2016 to 30.7.2016         | Self              | 100,000                         | 5,000                        | 50,000             |

### 26. Student profile programme/course wise: Mechanical Engineering(UG+PG):

| Name of the Programme  | Year    | Applications received | Selected             |
|--|---------|-----------------------|----------------------|
| BE(Mechanical Engineering) BE(Manufacturing Science and Engineering) M.Tech(Machine Design) M.Tech(Product Design and Manufacturing) | 2013-14 | 55<br>10<br>05<br>02  | 32<br>05<br>00<br>00 |
| BE(Mechanical Engineering) BE(Manufacturing Science and Engineering) M.Tech(Machine Design) M.Tech(Product Design and Manufacturing) | 2014-15 | 48<br>15<br>02<br>00  | 31<br>06<br>00<br>00 |



|                              |         | 51 | 30 |
|------------------------------|---------|----|----|
| BE(Mechanical Engineering)   | 2015-16 | 08 | 02 |
| BE(Manufacturing Science and |         | 03 | 00 |
| Engineering)                 |         | 00 | 00 |
| M.Tech(Machine Design)       |         | 48 | 30 |
| M.Tech(Product Design and    | 2016-17 | 06 | 02 |
| Manufacturing)               |         | 01 | 00 |
|                              |         | 01 | 00 |

#### Manufacturing Science and Engineering:

| Year    | Applications |          | Enrol | led |
|---------|--------------|----------|-------|-----|
| 1 Cui   | received     | Selected | M     | F   |
| 2013-14 | 90           | 3        | 3     |     |
| 2014-15 | 65           | 8        | 6     |     |
| 2015-16 | 80           | 1        | 1     |     |
| 2016-17 | 70           | 3        | 3     |     |

### 27. Diversity of Students(for the current year 2016-17):

| Name of the Course       | % of students from the samestate | % of students fromother States | % of students from abroad |
|--------------------------|----------------------------------|--------------------------------|---------------------------|
| Mechanical Engg          | 60.50                            | 29.41                          | 10.08                     |
| Manufacturing<br>Science | 84.21                            | 10.52                          | 5.26                      |

# 28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

|          | Year    | No | Year    | No | Year    | No  | Total |
|----------|---------|----|---------|----|---------|-----|-------|
| GATE     | 2014-15 | 3  |         |    | 2016-17 | 1+1 | 5     |
| Defense  |         |    | 2015-16 | 1  |         |     | 1     |
| Services |         |    |         |    |         |     |       |
| GRE      | 2014-15 | 7  | 2015-16 | 3  | 2016-17 | 1   | 11    |
| IELTS    |         |    | 2015-16 | 3  |         |     | 3     |
| TOEFL    | 2014-15 | 3  | 2015-16 | 3  |         |     | 6     |
| CAT      |         |    |         |    | 2016-17 | 1   | 1     |



### 29. Student progression:

| Studentprogression               | Against%enrolled |            |  |  |
|----------------------------------|------------------|------------|--|--|
|                                  | Academic Year    | Percentage |  |  |
| HG. PG                           | 2015-2016        |            |  |  |
| UGtoPG                           | 2014-2015        | 15         |  |  |
|                                  | 2014-2013        | 17         |  |  |
| PGtoM.Phil.                      |                  | Nil        |  |  |
|                                  | Academic Year    | Percentage |  |  |
| PGtoPh.D.                        | 2015-2016        | 5          |  |  |
| I Gioi ii.D.                     | 2014-2015        | 15         |  |  |
|                                  | 2014-2013        | 5          |  |  |
| Ph.D.toPost-Doctoral             | Nil              |            |  |  |
| Employed                         |                  | 19.25%     |  |  |
| Entrepreneurship/Self-employment | 10%              |            |  |  |

Progression in the department (Based on First year admission)

### Mechanical Engineering

| No/year  | Intake  | Year1   | Year2 | Year 3  | Year 4  | %      | %      | %      |
|----------|---------|---------|-------|---------|---------|--------|--------|--------|
| 100/year | IIItake | 1 cai i | 16412 | 1 car 3 | 1 Cai 4 | Year 2 | Year 3 | Year 4 |
| 2012-13  | 120     | 135     | 157   | 139     | 137     | 98     | 89     | 99     |
| 2013-14  | 120     | 134     | 153   | 135     | 132     | 96     | 89     |        |
| 2014-15  | 120     | 118     | 121   | 117     |         | 83     |        |        |
| 2015-16  | 120     | 132     | 133   |         |         |        |        |        |
| 2016-17  | 120     | 118     |       |         |         |        |        |        |

## Manufacturing Science and Engineering:

| No/year | Intake | Year1 | Year2 | Year 3 | Year 4 | %<br>Year 2 | %<br>Year 3 | %<br>Year 4 |
|---------|--------|-------|-------|--------|--------|-------------|-------------|-------------|
| 2013-14 | 60     | 21    | 19    | 15     | 13     | 90          | 79          | 87          |



#### 30. Details of Infrastructural facilities

#### a) Library

| 1. | Area              | $42.6 \text{ m}^2$ |
|----|-------------------|--------------------|
| 2. | Seating Capacity  | 24                 |
| 3. | Books             | 452Nos.            |
| 4. | Journals          | 470Nos.            |
| 5. | UG and PG reports | 150Nos.            |

#### b) Internet facilities for Staff and Students

Broad band connectivity of

- 1) 120Mbps Railtel
- 2) 10Mbps BSNL
- 3) Campus is enabled with Wi-Fi facility

#### c) Class rooms with ICT facility

|     | Description   | Area of Class room in Sq. Mts |
|-----|---------------|-------------------------------|
| 1.  | MELH -101     | 58                            |
| 2.  | MELH -102     | 42                            |
| 3.  | MELH - 103    | 63                            |
| 4.  | MELH-200      | 43                            |
| 5.  | MELH-201      | 59                            |
| 6.  | MELH-202      | 128                           |
| 7.  | HMT Lab       | 56.8                          |
| 8.  | FM Lab        | 52.91                         |
| 9.  | MT Lab        | 54.4                          |
| 10. | . F and F Lab | 54.4                          |
|     |               |                               |

#### d) Laboratories

- 1. Computer Aided Engineering Laboratory
- 2. Basic Workshop
- 3. Computer Aided Machine Drawing Laboratory
- 4. Metallography and Material Testing Laboratory
- 5. Foundry and forging Laboratory
- 6. Machine shop
- 7. Mechanical Measurements and Metrology Laboratory
- 8. Fluid Mechanic and Machines Laboratory
- 9. Computer Aided Modeling and Analysis Laboratory



- i. Energy Conversion Engineering Laboratory
- ii. Heat and Mass Transfer Laboratory
- 10. Design Laboratory
- 11. CIM and Automation Laboratory

## 31. Number of students receiving financial assistance from college, university, Government or other agencies

| No of Students | College                         | University | Social welfare     | College | Other |
|----------------|---------------------------------|------------|--------------------|---------|-------|
| 704            | Acharya Institute of Technology | VTU        | SC,ST,OBC,K<br>MDC | 9       | 2     |

# **32.** Details on student enrichment programmes (special lectures/workshops /seminar) with external experts

| Date       | Program   | Expert   |
|------------|---|--|
| 07/02/2015 | Research Opportunities in Bio-fuels                                       | S.N. Sondur, Project Co-ordinator, Biofuel Cell,<br>Karnataka State Council for Science and<br>Technology, Indian Institute of Science, Bangalore. |
| 14/03/2015 | Leadership in Engineering Profession                                      | Col.G.S.Rana(Retd.)  |
| 14/02/2015 | Basics of TPS and Supply chain management                                 | AbhayAnandKulkarni, Deputy Manager,PPPDept,<br>Plant Adm in Div. Toyota kirloskar motor Pvt Ltd,<br>Bidadi, Ramnagara-562109                       |
| 7/03/2015  | CNC Grinding Technology and Automation                                    | Srinivas.M, Asst.Manager,Micromatic Machine<br>Tools PVt Ltd   |
| 17/4/2015  | Open source tools powered Engineering                                     | SathyakSundarPadhy, UDVAVISK Technologies<br>Pvt Ltd, Chennai  |
| 5/3/2015   | Introduction to Cutting<br>Tools  | MahimaKulKarni Kennametal India Pvt Ltd  |
| 10/3/2015  | Clementine Carbide, Steel<br>Cutting ,Hard Coating,                       | Vaishalijagannath,Kennametal India Pvt Ltd   |
| 21/4/2015  | Principle and working of Milling Machine                                  | Nikil.B.Wani.Kennametal India Pvt Ltd  |
| 28/4/2015  | Drilling Machines and<br>Nomenclature                                     | Nikilesh K Reddy Mylavaram, Kennametal India Pvt<br>Ltd  |
| 25/3/2016  | DFMEA ( Design Failure<br>Mode and Effect Analysis)                       | Kumarappa, Senior Manager- Design Machining<br>Solution Group, WIDMA Machine tool, Kennametal<br>India Ltd   |
| 25/3/2016  | ERP (Enterprise Resource Planning)  | Virupaksha H S, Deputy General Manager -<br>Information System and Planning, Ace<br>Manufacturing systemsERP (Enterprise Resource<br>Planning)     |
| 29/4/2016  | Technical talk on "Lean Six<br>Sigma approach for<br>variation reduction" | Ramesh Rao, Research and Development,<br>Kennametal India  |



#### 33. Teaching methods adopted to improve student learning

Faculty members adopt various teaching methods to cater to the needs of the entire spectrum of students in a particular class. The following are the frequently used teaching methods by the faculty:

| Chalk<br>and<br>Talk | Use<br>of<br>ICT | Demonstration | Experimentation | Collaborative | Experiential | Any Other  |
|----------------------|------------------|---------------|-----------------|---------------|--------------|--|
| V                    | V                | V             | V               | V             | V            | Role play Working model/ experimental set up Industrial visits Seminars Internship |

#### 34. Participation in Institutional Social Responsibility (ISR) and Extension activities

| Date                     | Activity                         | No of Participants |
|--------------------------|----------------------------------|--------------------|
| 28/6/14                  | Pollution and some solutions     | 20                 |
| 13/8/14                  | Blood donation camp              | 50                 |
| 20/8/14                  | Awareness on epidemic diseases   | 25                 |
| 20/10/2014               | "Awareness on crackers bursting" | 40                 |
| 10/11/2014 to 12/11/2014 | Computer literacy program        | 25                 |
| 14/11/14                 | Acharya Helping hands            | 35                 |
| 15/12/2014               | Women health                     | 5                  |

#### 35. SWOC analysis of the department and Future plans

#### **Strengths:**

- 1. About 10% of faculty possesses doctorate degree and 80% of the faculty members are pursuing Ph D, which gives the departmental atmosphere a blend of strong academic and research.
- 2. Interaction with industries and foreign Universities that lead to student projects, Internship, expert lectures, training to faculty and students, industry visits, student exchange program etc.
- 3. Excellent infrastructure / facilities with well-equipped and spacious laboratories.
- 4. Strong support to student activities encouraging students to assimilate innovative culture.



#### Weakness:

- 1. Lack of Industrial Research and lack of Consultancy work
- 2. Placement in core companies.
- 3. Imbalance in cadre ratio

#### **Opportunities:**

- 1. Opportunity to enhance Industry Institute Interaction as the college is close to a major industrial hub.
- 2. Changing mindset of MSME towards indigenous R and D that provides opportunity to start sponsored projects and consultancy work.
- 3. Recent government schemes like Make in India are likely to enhance job opportunities to students.

#### **Challenges:**

- 1. Attract good rank students to seek admission in our department
- 2. To attract core companies for campus placement.
- 3. To increase innovative content in departmental projects, this can result in patenting a few of them.

#### **Future Plan**

- 1. Develop center of excellence in research in advanced materials engineering
- 2. Provide platform for the students to undergo industry linked training
- 3. Extend the research facility and research expertise for consultancy work
- 4. Promote students participation in various competitions.



## **Mechatronics Engineering**

1. Name of the Department : Mechatronics Engineering

2. Year of Establishment : 2009

#### 3. Names of Programmes/Courses offered

| UG                       | PG  | Ph.D |
|--------------------------|-----|------|
| Mechatronics Engineering | Nil | Nil  |

- 4. Names of Interdisciplinary courses and the departments/units involve: Nil
- 5. Annual/semester/choice based credit system (programme wise):

**BE** I-IV sem CBCS

V-VIII sem Semester scheme

### 6. Participation of the department in the courses offered by other departments

| Department      | Subject offered with code    | Year              |
|-----------------|------------------------------|-------------------|
| Die Technology  | Bio Sensors and Bio          | 2013-14, 2014-15, |
| Bio- Technology | Instrumentation              | 2015-16           |
| Electronics and | Power Electronics, Real time | 2013-14           |
| Communication   | Systems                      | 2015-14           |

## 7. Courses in collaboration with other universities, industries, foreign institutions, etc.: Nil

8. Details of courses/programmes discontinued (if any)with reasons: Nil

#### 9. Number of teaching posts

|                     | Sanctioned | Filled |
|---------------------|------------|--------|
| Professors          | 1          | 1      |
| AssociateProfessors | 2          | 0      |
| Asst.Professors     | 6          | 8      |



# 10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D./M.Phil. etc.)

|                      |                            |                        |  | No. of Years of<br>Experience |                         |      | ch<br>or Ph.D |   |
|----------------------|----------------------------|------------------------|--|-------------------------------|-------------------------|------|---------------|---|
| Name                 | Qualification              | Designation            | Specialization   | Industry                      | Teaching other than AIT | AIT  | Total         | No. of research<br>ScholarsGuiding for Ph.D |
| A R K Swamy          | B.E , M.E,<br>Ph.D         | Professor<br>and Head  | Composite  Material and  Machine Design                  |                               | 26.50                   | 6.50 | 33            | 05  |
| Sridhar S Jetty      | B.E ,<br>M.Tech,<br>(Ph.D) | Associate<br>Professor | Product Design<br>and<br>Manufacturing,<br>Wear Analysis | 8.0                           | 5.50                    | 5.50 | 19            |   |
| Bhagirathi Bai V     | B.E,<br>M.Tech,<br>(Ph.D)  | Associate<br>Professor | Digital Electronics<br>and<br>Communication              |                               | 7                       | 5    | 12            |   |
| L<br>RanganathGowda  | B.E,<br>M.Tech,<br>(Ph.D)  | APG III                | Computer Integrated Manufacturing                        |                               | 2                       | 5    | 7             |   |
| Dilip R              | B.E., ME,<br>(Ph.D)        | APG III                | Control and Instrumentation                              |                               | 2                       | 4    | 6             |   |
| Kiran Kumar K        | B.Tech, ME                 | APG III                | Electronics and Communications                           |                               | 3                       | 4    | 7             |   |
| Chandrashekar L      | B.E., M.<br>Tech           | APG III                | Digital Electronics<br>and<br>Communication<br>System    | 4                             | 3                       | 4    | 11            |   |
| Meghana M<br>Sinthre | B.E., M.<br>Tech           | APG III                | VLSI Design and<br>Embedded System                       |                               | 0.5                     | 3.5  | 4.0           |   |
| Sandeep K            | B.E.,<br>M.Tech,<br>(Ph.D) | APG III                | Thermal Power Engineering                                | 0.5                           | 3.25                    | 0.25 | 4.0           |   |



- 11. List of senior visiting Faculty Nil
- 12. Percentage of lectures delivered and practical classes handled(programme wise) by temporary faculty

  Nil
- 13. Student-Teacher Ratio (programme wise): 20:1

# 14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

| Category                          | Sanctioned | Filled |
|-----------------------------------|------------|--------|
| Administrative Staff              | 01         | 01     |
| Academic Support Staff(Technical) | 02         |        |

#### 15. Qualifications of teaching faculty with DSc/D.Litt/Ph.D/MPhil/PG.

| Sl.No. | No. of faculty |
|--------|----------------|
| Ph.D   | 01             |
| PG     | 08             |

# 16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received Nil

# 17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, KSCST, etc. and total grants received

| Name of the project  | Funding agency | Year of Funding | Grant received |
|--|----------------|-----------------|----------------|
| Power Generation from exhaust gas and engine heat          | KSCST          | 2015            | 7,000 /-       |
| 3D Scanner   | KSCST          | 2016            | 8,000 /-       |
| Portable Photocopier                                       | KSCST          | 2016            | 6,000 /-       |
| Eco-Drive  | KSCST          | 2016            | 6,000 /-       |
| Automatic soil mulching machine                            | KSCST          | 2017            | 5,000/-        |
| (Mersi) mine exploration, recovery and Securing instrument | KSCST          | 2017            | 9,000/-        |



#### 18. Research Centre/facility recognized by the University Yes/No: No

#### 19. Publications:

#### a) Publication per faculty

Publications of the faculty in international journals, national journals, international conferences, national conferences, books authored / edited / chapter contribution are enclosed in Self Study Report: Volume II, Part II.

#### 20. Areas of consultancy and income generated: Nil

#### 21. Faculty as members in

#### a) National Committees b)International Committees c)Editorial Boards

| Name of East-less | Citt D-t-il-      | ВС  | OS    | BOE |       |
|-------------------|-------------------|-----|-------|-----|-------|
| Name of Faculty   | Committee Details | VTU | Other | VTU | Other |
| ARK Swamy         | SIT Tumkur        |     |       |     | BOE   |

### 22. Student projects

# a) Percentage of students who have done in-house projects including interdepartmental/programme

| Doutioulous of                        | Year   |         |        |         |        |         |        |         |  |
|---------------------------------------|--------|---------|--------|---------|--------|---------|--------|---------|--|
| Particulars of                        | 2012   | 2012-13 |        | 2013-14 |        | 2014-15 |        | 2015-16 |  |
| the project                           | No's   | %       | No's   | %       | No's   | %       | No's   | %       |  |
| No of Students<br>(No. of<br>batches) | 50(14) |         | 63(19) |         | 70(20) |         | 66(19) |         |  |
| No of in-house projects               | 09     | 65      | 14     | 74      | 11     | 55      | 13     | 68      |  |

## b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies

| Dortioulors of                        | Year       |    |            |    |            |    |            |    |
|---------------------------------------|------------|----|------------|----|------------|----|------------|----|
| Particulars of                        | 2012-13    |    | 2013-14    |    | 2014-15    |    | 2015-16    |    |
| the project                           | No's       | %  | No's       | %  | No's       | %  | No's       | %  |
| No of Students<br>(No. of<br>batches) | 50<br>(14) |    | 63<br>(19) |    | 70<br>(20) |    | 66<br>(19) |    |
| No of Projects in Industry            | 5          | 35 | 05         | 26 | 8          | 40 | 03         | 16 |



## 23. Awards/Recognitions received by faculty and students

## • Faculty members

Awards/Recognitions received by faculty members

| Name     | Award/Recognition | Agency                                  | Year |
|----------|-------------------|---|------|
| Dilip. R | Past namer        | International Conference on Innovations | 2013 |
| Dilip. K | Best paper        | Instrumentation, Karunya University, TN | 2013 |

## • Students

Awards/Recognitions received by students

| Name                                  | Award/Recognition   | Agency   | Year |
|---------------------------------------|---|--|------|
| Arjun Datar<br>Pradeep T              | Best instrumentation<br>engineering project award<br>Rs 12000                   | SRISHTI 2017 National level technical<br>Project Competition and Exhibition  | 2017 |
| Arjun Datar<br>Pradeep T              | The project won a cash price of Rs. 3500/-                                      | Innovation festival Organised by visveswariah industrial and technological museum                                    | 2017 |
| Shah Darshan                          | selected for the final round<br>and presented his project                       | Tech Top National Innovation<br>Competiton-2016 organized by<br>Sahrdaya College of Engineering,<br>Thrissur, Kerala | 2016 |
| Darshan Shah<br>Vaibhav Desai         | won second place in the event   | IEEE TECH EXPO<br>R.N.S.I.T, Bangalore   | 2016 |
| ManjuBhargav<br>Girish BV and<br>team | First Prize Rs. 1.25 Lakhs cash prize   | National Level Bike Design<br>Competition and Auto Expo, AIT<br>Bangalore  | 2016 |
| TanmayDeshmukh                        | Autonomous humanoid robot best technical paper award                            | National conference on recent trends in Engineering and Management -2016, Held at Amrutha Institute of Technology    | 2016 |
| Darshan Shah<br>Vaibhav Desai         | Won 4th place   | SRISTHI 2K16 state level project exhibition and competition  | 2016 |
| Arjun Datar                           | First Prize   | National Level Techno-cultural,<br>Management and Sporting<br>Extravaganza REVAMP 16                                 | 2016 |
| Karthik K.A<br>M. Nikhiil             | Power generation from<br>exhaust gas and engine<br>heat Project of the Year     | 38th series of Student Project<br>Programme  | 2015 |
| YVS Rohit<br>Manish B S<br>Vivek V    | Additive manufacturing using rapid prototyping best paper                       | 7th National Conference on Artificial intelligence and software engineering (AISE)                                   | 2015 |
| YVS Rohit<br>Manish B S<br>Vivek V    | Additive Manufacturing Using Rapid Prototyping technology-3D Printer RUSI AWARD | Instituted by Rotary Bangalore Udyog<br>and Standards international Precision<br>Engineers Pvt.Ltd                   | 2015 |



| Name                      | Award/Recognition         | Agency   | Year |
|---------------------------|---------------------------|--|------|
| Niveda BS and team        | Qualified for Final Round | RoboTryst- 2014, A National Level<br>Championship, IIT Delhi | 2014 |
| Darshan Shah              | Second Prize              | Remote Controlled Car Race at Pravega, IISc Bangalore        | 2014 |
| Sajal Raj Gautam and team | Third Prize               | Indo-US Robo League zonal round                              | 2014 |

## 24. List of eminent academicians and scientists/visited to the department

| Year    | Visitors  |
|---------|---|
|         | P Vijay Kumar Badagi, Rolls Royce Company, Canada   |
| 2013-14 | Diwakar , Network Engineer, AT andT., BANGALORE   |
|         | HariprasadHemanthPawan B.S and Arvind GE, TEXTRON, and Schneider Electric company,3M India  |
|         | K Ramachandra, Professor, RVCE, Bangalore   |
|         | RaviKatukam Manager Analysis, Head Innovation Infotech Enterprises Ltd<br>Hyderabad   |
|         | Rathinam "Mitsubishi Electric manufactured CNC"   |
|         | T Srinivas, Professor in ECE department, Indian Institute of Science, Bangalore   |
|         | S D Swamy, Swamy Design Solution (SDS)  |
|         | Umesh Chandra, Mechatronics Engg. AIT, Bangalore  |
| 2014-15 | HariprasadHemanth Kumar Arvind .R Ashwin Mohan Kumar andRaghunandan GE, Schneider Electric, E Aerospace, Scania Commercial Vechicles, Toyota Kirloskar Motors, UTC Aerospace. |
|         | SouravMohnty, 2014 VTU Gold Medal Winner and Valedictorian, AIT. MS in Aerospace Engineering, University of Michigan, USA   |
|         | K Natarajan Prof and Head TCE MSRIT, Bangalore  |
|         | MogannaGowdaMultifacetTechnica Center Pvt Ltd   |
|         | Basavaraj C.H CBCS Innovations  |
|         | Jambulingam Origin Engineering Solutions Bangalore  |
|         | Thygaraj Origin Engineering Solutions Bangalore   |
| 2015-16 | Karamchand Origin Engineering Solutions Bangalore   |
| 2013-10 | Abdul Jabbar Origin Engineering Solutions Bangalore   |
|         | Ganesan, Head Mraketing Jindal Aluminium Ltd Bangalore  |
|         | Prof. Deepa T.P CSE Dept. AIT Bangalore   |



| Year    | Visitors  |
|---------|---|
|         | AchuthRao Origin Engineering solution, Bangalore                            |
|         | Ravi Katukam Director-Disruptive Innovation Group Value Labs LLP, Hyderabad |
|         | Sunil Telkar PMI, Bangalore   |
|         | Padma R, Deputy Manager, YOKOGAWA   |
| 2015-16 | PruthviSekharPagala, KPIT   |
| 2013-10 | Shivshakar, Branch Manager, PROLIFIC  |
|         | Rohan Joy Mathew, Tunic Factory   |
|         | Ayshik Nag, Founder Director, CREANNOVENT Group Pvt. Ltd.                   |
|         | Harish Ravi, Technologics Global Pvt. Ltd.                                  |
|         | Jitendra R Raol, Retired Scientist, NAL                                     |

## 25. Seminars/Conferences/Workshops organized and the source of funding

## a) National

## b)International

Seminars/Conferences/Workshops organized and the source of funding

| Seminar/<br>Conference/<br>Workshop                        | Duration with dates             | Funding agency          | Amount of fund, Rs. | Amount funded by Institution Rs. | No of participants |
|--|---------------------------------|-------------------------|---------------------|----------------------------------|--------------------|
|  |                                 | Nationa                 | al                  |                                  |                    |
| Two Days Workshop On Vibration Studies And Applications    | 7/10/2013<br>and<br>8/10/2013   | Renaissance<br>MT Forum | 50,000              | 50,000                           | 64                 |
| Robotics workshop<br>on Haptic Robotic<br>Arm              | 30-09-2013<br>and<br>1-10-2013  | Renaissance<br>MT Forum | 40,000              | 40,000                           | 40                 |
| Ardiuno workshop   | 25-04-2014<br>and<br>26-04-2014 | Renaissance<br>MT Forum | 20,000              | 20,000                           | 40                 |
| Two day workshop<br>on Robotics by Indo-<br>US Robo League | 10-04-2014<br>and<br>11-04-2014 | Renaissance<br>MT Forum | 40,000              | 40,000                           | 40                 |
| Two day workshop<br>on Robotics by<br>RoboTryst            | 26-02-2014<br>and<br>27-02-2014 | Renaissance<br>MT Forum | 40,000              | 40,000                           | 35                 |



| Seminar/ Conference/<br>Workshop  | Duration with dates               | Funding agency          | Amount of fund, Rs. | Amount funded by Institution Rs. | No of participants |
|---|-----------------------------------|-------------------------|---------------------|----------------------------------|--------------------|
| One day Robotics<br>workshop for<br>diploma students of<br>Ashoka Polytechnic | 07-03-2015                        | Renaissance<br>MT Forum | 10,000              | 10,000                           | 25                 |
| Two day workshop<br>on Autonomous<br>Robotic System                           | 06-04-2017<br>And<br>07-04-2017   | Renaissance<br>MT Forum | 45,000              | 45,000                           | 30                 |
|   |                                   | Internation             | onal                |                                  |                    |
| Trends in Automation, Communications and Computing Technology (I- TACT-15)    | 21/12/2015<br>and-<br>22 /12/2015 | IEEE                    | 500000              | 500000                           | 55                 |

## 26. Student profile programme/ course wise

| Name of the programme (Management seats) | Year    | Applications received | Selected |
|--|---------|-----------------------|----------|
|  | 2013-14 | 30                    | 23       |
| DE(Machatronics)                         | 2014-15 | 36                    | 22       |
| BE(Mechatronics)                         | 2015-16 | 15                    | 08       |
|  | 2016-17 | 38                    | 24       |

## **27.** Diversity of Students

| Voor (Dotoh) | % of students from | % of students from | % of students from |
|--------------|--------------------|--------------------|--------------------|
| Year (Batch) | the same state     | other States       | abroad             |
| 2013         | 78                 | 20                 | 2                  |
| 2014         | 73                 | 21                 | 6                  |
| 2015         | 78                 | 18                 | 4                  |
| 2016         | 72                 | 22                 | 6                  |



# 28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil Services, Defense Services, etc.?

| Year    | GRE | TOFEL | IELTS | PGCET | Total |
|---------|-----|-------|-------|-------|-------|
| 2012-13 | 6   | 0     | 0     | 5     | 11    |
| 2013-14 | 10  | 3     | 0     | 6     | 19    |
| 2014-15 | 3   | 3     | 0     | 4     | 10    |
| 2015-16 | 2   | 2     | 6     | 3     | 13    |

## 29. Student progression

Progression in the Department (Based on First year admission)

| Ctudent nuccusarion   | Against % enrolled |         |          |          |  |
|---|--------------------|---------|----------|----------|--|
| Student progression   | 2012-13            | 2013-14 | 2014-15  | 2015-16  |  |
| UG to PG  | 20                 | 16      | 9        | 4        |  |
| Employed • Campus selection • Other than campus recruitment | 19<br>45           | 5<br>50 | 17<br>30 | 28<br>15 |  |
| Entrepreneurship/ Self-employment                           | 8                  | 9       | 9        | 10       |  |

## **Progression in the Department (Based on First year admission)**

| No/year | Intake | Year1 | Year2 | Year 3 | Year 4 | %<br>Year 2 | %<br>Year 3 | %<br>Year 4 |
|---------|--------|-------|-------|--------|--------|-------------|-------------|-------------|
| 2012-13 | 72+13  | 66    | 54    | 48     | 46     | 82          | 73          | 70          |
| 2013-14 | 72+13  | 68    | 59    | 53     | 52     | 87          | 78          | 77          |
| 2014-15 | 72+16  | 65    | 48    | 41     |        | 74          | 63          |             |
| 2015-16 | 72+19  | 51    | 45    |        |        | 89          |             |             |
| 2016-17 | 72     | 67    |       |        |        |             |             |             |



## 30. Details of Infrastructural facilities

- a) Library: Department library has
  - 1. space 17sqMts,
  - 2. volumes of books 200
  - 3. Project reports. 72
- b) Internet facilities for Staff and Students

Broad band connectivity of

- 1. 120Mbps Railtel
- 2. 10Mbps BSNL
- 3. Campus is enabled with Wi-Fi facility
- c) Class rooms with ICT facility

| Class Room | Room size (sq.Mts) |
|------------|--------------------|
| 1. D042057 | 77.76              |
| 2. D042062 | 77.76              |
| 3. D042059 | 77.76              |
| 4. D042047 | 77.76              |

## d) Laboratory

| Laboratory description in the Curriculum | Exclusive use /Shared | Space in Sq.Mts |
|--|-----------------------|-----------------|
| 1. Mechanical Lab-I                      |                       | 120             |
| 2. Analog and Digital Electronics Lab    |                       | 86              |
| 3. Mechanical Lab-II                     |                       | 120             |
| 4. Microcontroller Lab                   | Chanad                | 86              |
| 5. Metrology and Measurements lab        | Shared                | 120             |
| 6. ACP Lab                               |                       | 120             |
| 7. MEMS Lab                              |                       | 120             |
| 8. DSP Lab                               |                       | 86              |
| 9. Robotics Machine Vision Lab           | Exclusive             | 60              |



# 31. Number of students receiving financial assistance from college, university, Government or other agencies

| Scholarship/ Fee Concession Schemes | 2013-14 | 2014-15 | 2015-16 |
|-------------------------------------|---------|---------|---------|
| KMDC Loan                           | 3       | 2       | 1       |
| SC/ST below 2.5 lakh                | 6       | 7       | 13      |
| SC/ST above 2.5 lakh                | 7       |         | 1       |
| OBC category                        | 31      | 30      | 43      |
| College                             | 1       | 1       |         |

# **32.** Details on student enrichment programmes (special lectures/workshops/Seminar) with external experts

| Topic Date  |                               | Resource Person  |  |
|---|-------------------------------|--|--|
| Network Topologies  | 24-8-2013                     | Diwakar, Network engineer, Alcatel Lucent,<br>Bangalore                              |  |
| Dynamic response of thickness<br>and width tapered composite<br>beams using Ray-leighritz<br>method and modal testing | 31-8-2013                     | Vijay Kumar Badagi, Concorde University<br>Rolls Royce, Montreal, Canada             |  |
| Alumni interaction with the students  | 1 21-9-2013   GE              |  |  |
| Workshop on Mechanical vibration studies and applications   | 7-10-2013<br>and<br>8-10-2013 | Krishna, NV Dynamics   |  |
| Transformation through motivation   | 6-02-2014                     | ArjunDevaiah   |  |
| Discover the inventor within you  | 15-05-2014                    | Ravi Katukam, Managar analysis, Head innovatin, Infotech Enterprises Ltd., Hyderabad |  |
| CAM/CAD/CAE   | 5-02-2015                     | SDS, Bangalore   |  |
| Electronic Manufacture CNC machines   | 5-02-2015                     | Rathinam, CNC training incharge, Mitsubishi electric.                                |  |



| Topic   | Date       | Resource Person   |
|---|------------|---|
| Optical Mems  | 09-03-2015 | T Srinivas, Prof. IISc, Bangalore   |
| Talk on Do you really want to<br>be an Engineer – What roles<br>exists for an engineer  | 13-03-2015 | Umesh Chandra   |
| Industry Students interaction *Innovations/Hobby projects *Recent trends in Mechatronics/Mechanical/Aeros pace industries *Career *Job opportunities *Higher studies *Corporate culture and Motivational talk | 25-04-2015 | Arvind R, Schneider electric Ashwin B/E aerospace, Bangalore Hariprasad K, 3M India Hemanth Kumar, General Electric Mohan Kumar, Toyota kirloskar motors, Bangalore Raghunandan, UTC aerospace, Bangalore                     |
| Emerging trends in Mechatronics (Mems)  | 5-05-2015  | K Natarajan, Prof. and Head, TCE, MSRIT, Bangalore  |
| Focus in life and Higher studies in abroad (Alumni interaction)   | 15-05-2015 | SouravMohanty, MSE in Aerospace engineering, Unversity of Michigan, USA   |
| Ergonomics  | 21-05-2015 | Basavaaraj C H, CBCS innovations  |
| Product design and development<br>(Industry Interaction)Origin<br>Engineering Solutions,<br>Bangalore   | 21-08-2015 | Jambulingam, Expertise in product design and manufacturingThygaraj, Expertise in electronics and embedded systemsKaramchand, Specialization in tool and die makingAbdul Jabbar, Corporate relationship, CAD and Manufacturing |
| Extruded Aluminium production<br>and self motivation (Industry<br>Interaction)  | 22-09-2015 | A S Ganesan, Head marketing, Jindal<br>Aluminium Ltd.   |
| Artificial Intelligence   | 31-10-2015 | Prof. Deepa T.P, Assistant professer, Department of CSE, Acharya Institute of Technology, Bangalore   |
| Creativity, design and<br>Innovation (Brain storming<br>session) (Industry<br>Interaction)Origin Engineering<br>Solutions, Bangalore  | 03-02-2016 | AtchuthRao  |
| Discover the inventor in India  | 30-03-2016 | Ravi Katukam, Director-disruptive innovation group, Value labs LLP, Hyderabad   |
| Emerging trends in process<br>automation with DCS and PLC<br>review (Industry Interaction)  | 19-08-2016 | Padma R, Deputy manager, Yokogawa,<br>Bangalore   |



| Topic  | Date       | Resource Person   |
|--|------------|---|
| Preplacement talk by AITAA (Alumni interaction)  | 20-08-2016 | PruthviSekharPagala, KPIT, BangaloreSujan<br>Suresh, HCL, Bangalore   |
| PLC and SCADA                                    | 23-08-2016 | H S Shivashankar, Branch manager, Prolific,<br>Bangalore              |
| Pre placement talk by AITAA (Alumni interaction) | 22-10-2016 | Rohan Joy Mathew, Tunic Factory, Thrissur                             |
| CANSAT (CannisterSatellaite)                     | 17-02-2017 | Ayishik Nag, Founder director, creannovent group Pvt. Ltd., Bangalore |

#### 33. Teaching methods adopted to improve student learning

| Chalk | Use |               |                 |               |              |           |
|-------|-----|---------------|-----------------|---------------|--------------|-----------|
| and   | of  | Demonstration | Experimentation | Collaborative | Experiential | Any other |
| Talk  | ICT |               |                 |               |              |           |
| V     |     | V             | V               | V             | _            |           |
| •     | ٧   | •             | •               | •             |              |           |

#### 34. Participation in Institutional Social Responsibility (ISR) and Extension activities

| Date | Activity  | No of Participants |
|------|---|--------------------|
| 2015 | Support physically and mentally challenged women at LIZA's HOME | 35                 |
| 2014 | Supporting the blind Children's KAANADA Belaku                  | 30                 |

#### 35. SWOC analysis of the department and Future plans

#### **Strength:**

- 1. Qualified and committed faculties with diverse specialization.
- 2. Proactive counseling and motivation towards student's success.
- 3. Industry- Institute Interaction- Providing platform for students in terms of projects, internship, placements, higher studies (in India and aboard), patent applications.

#### Weakness:

- 1. Upgrading the infrastructure.
- 2. Publication Journals



#### **Opportunities:**

- 1. Linkages with industry for enhancement of placements through collaborative projects.
- 2. Establishing Post Graduation and research centre.
- 3. Enhancement of intake at UG program.

#### **Challenges:**

- 1. To attract more meritorious students.
- 2. Undertaking research projects.
- 3. MOU with National and International Organizations collaborative research project.

#### **Future Plans**

- 1. Establishment of Computer lab, Microcontroller lab, ADE lab, Power electronics lab and DSP lab
- 2. Establishment of Virtual Instrumentation lab
- 3. Establishing R and D center
- 4. Starting of PG program/s



## **Mining Engineering**

1. Name of the department: Mining Engineering

2. Year of Establishment: 2013

3. Names of Programmes/Courses offered:

| UG: B.E. in Mining | PG: Nil | Ph.D.: Nil |
|--------------------|---------|------------|
| Engineering        | TO. WII | TII.D MII  |

- 4. Names of Inter disciplinary courses and the departments/units involved: Nil
- 5. Annual/semester/choice based credit system (programme wise):

I – IV semester Choice Based Credit System

V-VIII semester Semester system

- 6. Participation of the department in the courses offered by other departments: Nil
- 7. Courses in collaboration with other universities, industries, foreign institutions, etc.

Nil

8. Details of courses/programmes discontinued (if any) with reasons: Nil

9. Number of Teaching posts:

|                     | Sanctioned | Filled |
|---------------------|------------|--------|
| Professors          | 02         | 01     |
| AssociateProfessors | 04         | 00     |
| Asst.Professors     | 12         | 06     |



10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D./M.Phil. etc.,):

|                        | u                  |                  | u                           |                               | No.ofYears of<br>Experience |     |       |   |
|------------------------|--------------------|------------------|-----------------------------|-------------------------------|-----------------------------|-----|-------|---|
| Name                   | Qualification      | Designation      | Specialization              | Industry                      | Teaching other than AIT     | AIT | Total | No.of Ph.D<br>Students guided<br>for the Last 4 years |
| ManasMukhopadh<br>ayay | M.Tech.<br>(Ph.D.) | HOD<br>and APG-I | Open Cast<br>Mining         | 2.5                           | 20                          | 1.5 | 24    |   |
| B.B. Mandal            | Ph.D.              | Professor        | Env.Sc<br>andEngg           | 33(Indus<br>try+Rese<br>arch) |                             |     | 33    |   |
| Rajesh Sonkar          | M.E.               | APG-II           | Env.Sc<br>andEngg           | 21                            |                             |     | 21    |   |
| Manjunath A            | B.E.<br>(Ph.D.)    | APG-III.         | Mine<br>Closure<br>planning |                               | 7.5                         | 2   | 9.5   |   |
| Narasimhamurthy<br>J K | M.Sc.<br>(Ph.D.)   | APG-III          | Economic<br>Geology         | 4                             |                             | 2   | 6     |   |
| Raja S.                | M.Tech.<br>(Ph.D.) | APG-III          | Strata<br>Control           |                               |                             | 4   | 4     |   |
| Vishal<br>BabuGuggari  | M.Tech.            | APG III          | Mining                      |                               |                             | 2   | 2     |   |

11. List of senior visiting faculty: Nil

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: Nil

13. Student-Teacher Ratio (programme wise): 43:1



## 14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

| Category                          | Sanctioned | Filled |
|-----------------------------------|------------|--------|
| Academic support staff(technical) | 2          | 1      |
| Administrative staff              | 1          | 1      |

#### 15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil/ PG:

| SI no      | No of faculty |
|------------|---------------|
| DSc/D Litt |               |
| Ph.D       | 1             |
| M.Phil     |               |
| PG         | 6             |

- 16. Number of faculty with ongoing projects from a)National b)International funding agencies and grants received: Nil
- 17. Departmental projects funded by DST-FIST;UGC, DBT, ICSSR, etc. and total grants received:

  Nil
- 18. Research Centre/facility recognized by the University: Nil
- 19. Publications:
  - a) Publication per faculty

Publications of the faculty in international journals, national journals, international conferences, national conferences, books authored / edited / chapter contribution are enclosed in Self Study Report: Volume II, Part II.

20. Areas of consultancy and income generated: Nil



## 21. Faculty as members in a) National Committees b) International Committees c) Editorial Boards:

| Name of Faculty             | Committee Details | BOS |       | BOE       |       |
|-----------------------------|-------------------|-----|-------|-----------|-------|
| Name of Faculty Committee I | Committee Details | VTU | Other | VTU       | Other |
| ManasMukhopadhyay           |                   |     |       | $\sqrt{}$ |       |

#### 22. Student projects:

- a) Percentage of students who have done in-house projects including interdepartmental/programme: Nil
- b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies

|                                |    | Percentage |
|--------------------------------|----|------------|
| No of Students                 | 36 |            |
| No of in-house projects        |    | 90         |
| No of Inter dept projects      |    | 10         |
| No of Projects in R and D Labs |    | 10         |
| No of Projects in Industry     |    | 10         |
| Others                         |    | Nil        |

## 23. Awards/Recognitions received by faculty and students: Nil

#### 24. List of eminent academicians and scientists/visitors to the department:

| Name        | Designation   | Date of visit | Activity   |
|-------------|---|---------------|--|
| Raja Ramani | Professor (Emeritus and Chair), Pennsylvania state university | 25/01/ 2015   | Guest Lecture on "Mine Closure"  |
| L. D. Babu  | DGM, MEL  | 28/10/ 2015   | Guest Lecture on "Safety System in Mines"                              |
| Kumaresh A  | Manager, HGML   | 25 /03/2016   | Guest Lecture on "Rock Mechanics and Ground Control (Instrumentation)" |



| Name          | Designation                     | Date of visit | Activity  |
|---------------|---------------------------------|---------------|---|
| G. Gopinath   | Senior Scientist, NIRM          | 26/10/ 2016   | Guest Lecture on "Blasting Practices in Mines"          |
| Srinivasan C. | Former Scientist and Head, NIRM | 28/03/ 2017   | Guest Lecture on  "Application of Seismology in Mining" |

## 25. Seminars/Conferences/Workshops organized and the source of funding

a) National: Nilb) International: Nil

## 26. Student profile programme/course wise:

| Name of the programme (Management seats) | Year    | Applications received | Selected |
|--|---------|-----------------------|----------|
|  | 2013-14 | 60                    | 35       |
| BE(Mining Engineering)                   | 2014-15 | 45                    | 30       |
|  | 2015-16 | 42                    | 34       |
|  | 2016-17 | 36                    | 27       |

## **27.** Diversity of Students:

| Name of the Programme | % of students from the same state | % of students from other States | % of students from abroad |
|-----------------------|-----------------------------------|---------------------------------|---------------------------|
| Trogramme             | the same state                    | other States                    | abroad                    |
| B.E. (Mining          | 51                                | 39                              | 10                        |
| Engineering)          | 31                                | 39                              | 10                        |

# 28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil Services, Defense Services, etc.?

|      | Year | No | Year | No | Year | No | Total |
|------|------|----|------|----|------|----|-------|
| NET  |      |    |      |    |      |    |       |
| SLET |      |    |      |    |      |    |       |
| GATE | 2017 | 3  |      |    |      |    |       |



## 29. Student progression:

| Student progression              | Against % enrolled |
|----------------------------------|--------------------|
| UG to PG                         | Nil                |
| PG to M.Phil.                    | Nil                |
| PG to Ph.D.                      | Nil                |
| Ph.D.to Post-Doctoral            | Nil                |
| Employed                         |                    |
| 1. Campus selection              | 2                  |
| 2. Other than campus recruitment |                    |
| Entrepreneurship/Self-employment | Nil                |

#### Progression in the Department (Based on First year admission)

| Year    | Intake | Year 1 | Year 2 | Year 3 | Year 4 | % year 2 | %Year3 | % year4 |
|---------|--------|--------|--------|--------|--------|----------|--------|---------|
| 2013-14 | 60     | 43     | 35     | 25     | 25     | 81       | 58     | 58      |
| 2014-15 | 120    | 55     | 15     | 11     |        | 27       | 20     |         |
| 2015-16 | 120    | 72     | 38     |        |        | 53       |        |         |
| 2016-17 | 120    | 48     |        |        |        |          |        |         |

• Percentage based on first year admission

#### 30. Details of Infrastructural facilities

a) Library: Yes

#### b) Internet facilities for Staff and Students: Yes

Broad band connectivity of

- 1. 120Mbps Railtel
- 2. 10Mbps BSNL
- 3. Campus is enabled with Wi-Fi facility
- c) Class rooms with ICT facility: Yes
- d) Laboratories:
  - 1. Rock Mechanics
  - 2. Mineral Processing
  - 3. Mine Environmental Engineering.
  - 4. Mine Machinery



# 31. Number of students receiving financial assistance from college, university, Government or other agencies, SC-ST/OBC/KMDC/DEFENSE.

| Year      | No Of<br>Students | University | Social Welfare | College | Other/Defense |
|-----------|-------------------|------------|----------------|---------|---------------|
| 2013-2014 | 0                 |            |                | 1       |               |
| 2014-2015 | 14                |            | 14             | 3       |               |
| 2015-2016 | 30                |            | 30             | 2       |               |

# **32.** Details on student enrichment programmes (special lectures/workshops/ seminar) with external experts

| Date         | Activity   | Resource person | No of participants |
|--------------|--|-----------------|--------------------|
| 25 /01/ 2015 | Guest Lecture on "Mine Closure" Mines"                                       | Raja Ramani     | 60                 |
| 28/10/ 2015  | Guest Lecture on "Safety System in Mines"                                    | L. D. Babu      | 60                 |
| 25/03/ 2016  | Guest Lecture on "Rock<br>Mechanics and Ground Control<br>(Instrumentation)" | Kumaresh A      | 50                 |
| 26/10/ 2016  | Guest Lecture on "Blasting Practices in Mines"                               | G. Gopinath     | 65                 |
| 28/03/ 2017  | Guest Lecture on "Application of Seismology in Mining"                       | Srinivasan C.   | 50                 |

#### 33. Teaching methods adopted to improve student learning:

| Chalk | Use |               |                      |               |              | Anz   |
|-------|-----|---------------|----------------------|---------------|--------------|-------|
| and   | of  | Demonstration | Experimentation      | Collaborative | Experiential | Any   |
| Talk  | ICT |               |                      |               |              | other |
| Yes   | Yes | Yes           | Yes (Chart and Talk) | -             | Yes          | Nil   |

## 34. Participation in Institutional Social Responsibility (ISR) and Extension activities: Nil

#### 35. SWOC analysis of the department and Future plans:

#### Strength

1. Resource persons and expertise drawn from National Institute of Rock Mechanics in the field of ground control and blasting practices in mines.



- 2. Experienced and dynamic full-time faculty with strong commitment.
- 3. Locational advantage of the Institute to attract talents both in teaching and learning of mining engineering.

#### Weakness

- 1. Inadequate library facility.
- 2. Lack of in-house facility for research.
- 3. Inadequate supporting staff.

### **Opportunity**

- 1. To establish strategic alliance with Directorate General of Mines Safety and Indian Bureau of Mines which are located in Bangalore city itself.
- 2. Industry institute partnership.
- 3. Latest technologies like web education, internet and video conference are to be utilized in learning and teaching.
- 4. Research in Frontier areas of mining.

#### Challenge

- 1. Making mining engineering students employable in mining and allied industries as it requires diverse and multi-disciplinary approach.
- 2. Standing out as one among the competitive and highly credible institutes in the areas of Mining and allied industries.
- 3. Making the Mining Engineering programme relevant to the needs of industry by bridging gaps between curriculum and changing requirements.

#### **Future plans**

- To get approval for center for conducting Gas Testing Examination by DGMS, Ministry of Mines
- 2. To have a collaboration with mining industries to give more exposures to our students on various problems faced by the industry to make them industry ready candidates.
- 3. To establish research centre to carry out research activities in the emerging field of mining engineering



## **Chemistry**

1. Name of the department: Chemistry

2. Year of Establishment: 2000

3. Names of Programmes/Courses offered(UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D.,etc.):

| UG: B.E | PG: Nil | Ph.D: Chemistry |
|---------|---------|-----------------|
|         |         |                 |

- 4. Names of Inter disciplinary courses and the departments/units involved: Nil
- 5. Annual/semester/choice based credit system(programme wise):CBCS
- 6. Participation of the department in the courses offered by other departments: Nil
- 7. Courses in collaboration with other universities, industries, foreign institutions, etc.:
- 8. Details of courses/programmes discontinued (if any) with reasons: Nil
- 9. Number of Teaching posts

|                     | Sanctioned | Filled |
|---------------------|------------|--------|
| Professors          | 1          |        |
| AssociateProfessors | 1          |        |
| Asst.Professors     | 7          | 7      |

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D./ M.Phil. etc.,):

|                   |               |             |                     | No.ofYears of<br>Experience |                            |     |       |  |
|-------------------|---------------|-------------|---------------------|-----------------------------|----------------------------|-----|-------|--|
| Name              | Qualification | Designation | Specialization      | Industry                    | Teaching other<br>than AIT | AIT | Total | No.ofPh.D.<br>Students<br>guidedforthe<br>last4years |
| Vishnuvardhan T K | M.Sc.Ph.D.    | APG-I       | Inorganic chemistry | Nil                         | 11                         | 8   | 11    | Nil  |
| Harish MNK        | M.Sc.Ph.D     | APG-I       | General chemistrty  | Nil                         | 2                          | 4   | 6     | Nil  |



|                    |                                     |             |                       |          | No.of<br>Expe              |     |       |   |
|--------------------|-------------------------------------|-------------|-----------------------|----------|----------------------------|-----|-------|---|
| Name               | Qualification                       | Designation | Specialization        | Industry | Teaching other<br>than AIT | AIT | Total | No.ofPh.D. Students guidedforthe last4years |
| Satishkumar<br>K B | M.Sc.<br>M.Phil.<br>M.Ed<br>(Ph.D.) | APG-I       | Physical<br>Chemistry | Nil      | 2                          | 18  | 20    |   |
| Satish K           | M.Sc.<br>(Ph.D)                     | APG-<br>III | Bio<br>Chemistry      | Nil      | nil                        | 8   | 8     |   |
| Brungesh K V       | M.Sc.<br>(Ph.D)                     | APG-<br>III | Physical<br>Chemistry | Nil      | 11                         | 5   | 16    |   |
| Poornima G S       | M.Sc.<br>(Ph.D)                     | APG-<br>III | Inorgaanic chemistry  | Nil      | 3                          | 5   | 8     |   |
| Shwetha R          | M.Sc.<br>(Ph.D.)                    | APG-<br>III | General chemistry     | Nil      | 1                          | 5   | 6     |   |

- 11. List of senior visiting faculty: Nil
- 12. Percentage of lectures delivered and practical classes handled (programme wise)by temporary faculty: Nil
- 13. Student-Teacher Ratio(programme wise):20:1
- 14. Number of academic support staff(technical) and administrative staff; sanctioned and filled:

| Category  | Sanctioned | Filled |  |  |
|-----------|------------|--------|--|--|
| Technical | 2          | 2      |  |  |



#### 15. Qualifications of teaching faculty with DSc/D.Litt/Ph.D/MPhil/PG:

| Sl. No.    | No. of faculty |
|------------|----------------|
| DSc/D Litt | Nil            |
| Ph.D.      | 2              |
| M.Phil     | 2              |
| PG         | 3              |

- 16. Number of faculty with ongoing projects from a)National b)International funding agencies and grants received: Nil
- 17. Departmental projects funded by DST-FIST;UGC, DBT, ICSSR, etc. and total grants received: Nil
- 18. Research Centre/facility recognized by the University Yes/No: yes
- 19. Publications:
  - a) Publication per faculty

Number of papers published in peer reviewed journals(national/international) by faculty and students.

Publications of the faculty in international journals, national journals, international conferences, national conferences, books authored / edited / chapter contribution are enclosed in Self Study Report: Volume II, Part II.

20. Areas of consultancy and income generated: Nil

## 21. Faculty as members in a) National committees b)International committees c)Editorial Boards

| Name of              | Committee Details  |     | BOS   |     | BOE                |  |
|----------------------|--|-----|-------|-----|--------------------|--|
| Faculty              |  |     | Other | VTU | Other              |  |
| Vishnuvardhan<br>T K | Electrochemical society of India: LF244 International association of Engg:LM- 135683 Indian science congress: LM-23234 International Association of Chemical Eng.—135683 International Safety Quality Environment Management Association-Associate | nil |       |     | Reva<br>university |  |



| Name of              | Committee Details   |     | BOS   |     | BOE                |
|----------------------|---|-----|-------|-----|--------------------|
| Faculty              |   |     | Other | VTU | Other              |
| Vishnuvardhan<br>T K | Member-15M27940 Deccan Journal of Chemistry –Advisory Board Member Reviewer-International Journal of Engineering and Technology Reviewer- Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano- Metal Chemistry | nil |       |     | Reva<br>university |

### 22. Student projects

- a) Percentage of students who have done in-house projects including inter departmental/programme: NA
- b)Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies: NA
- 23. Awards/Recognitions received by faculty and students: Nil

#### 24. List of eminent academicians and scientists/visitors to the department:

| Name             | Designation  | Date of visit | Activity  |
|------------------|--|---------------|---|
| Thippeswamy H N, | Principal, TJIT, Bangalore   | 5.3.2013      | Water Management                                      |
| E.S.Dwarak Das   | CEO and MD, <u>Karnataka</u> <u>Hybrid Micro Devices</u> Ltd. IISc,Bengaluru   | 27.2.2014     | Li and Polymer Battery and its applications           |
| Anand B Halgeri  | Director for PISR Former Head of R andD, vice- president of Indian Petro chemical corp, Ltd, and Reliance Industry Ltd, Baroda | 8.4.2017      | Nanomaterials and nanotechnology and its applications |

- 25. Seminars/Conferences/Workshops organized and the source of funding
  - a) National -Nil
  - b) International -Nil



26. Student profile programme/coursewise: NA

27. Diversity of Students: NA

- 28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? NA
- 29. Student progression: NA
- 30. Details of Infrastructural facilities

a) Library: Yes

b) Internet facilities for Staff and Students: Yes

c) Class rooms with ICT facility: Yes

d) Laboratories: Yes

- 31. Number of students receiving financial assistance from college, university, Government or other agencies: NA
- **32.** Details on student enrichment programmes (special lectures/workshops/ seminar) with external experts:

| Date      | Activity                          | Resource person  | No of participants |
|-----------|-----------------------------------|------------------|--------------------|
| 5.3.2013  | Poster presentation from Students | Thippeswamy H N, | 70                 |
| 27.2.2014 | Science Exhibition from Students  | E.S.Dwarak Das   | 100                |

#### 33. Teaching methods adopted to improve student learning:

| Chalk<br>and<br>Talk | Use<br>of<br>ICT | Demonstration | Experimentation | Collaborative | Experiential | Any<br>other |
|----------------------|------------------|---------------|-----------------|---------------|--------------|--------------|
| Yes                  | No               | Yes           | Yes             | Nil           | Yes          |              |

## 34. Participation in Institutional Social Responsibility (ISR)and Extension activities: Nil



#### 35. SWOC analysis of the department and Future plans

#### Strength

- 1. Well qualified faculty members with congenial atmosphere.
- 2. Strong interaction between faculty and students.
- 3. Research Activities.
- 4. Good infrastructure, adequate number of classrooms.

#### Weakness

- 1. Student capabilities to group the subjects in a limited period / semester.
- 2. Lack of research infrastructure.

#### **Opportunities**

- 1. To inject future scope and the research direction encompassing all the disciplines while making students competent towards research and development.
- 2. To fortifying the academic and industry interactions, consultancy programs with organization.

#### **Challenges**

- 1. Teaching applied chemistry for average students
- 2. Promote research activities with existing facilities along with academics

#### **Future Plans:**

- 1. All Faculty involve in research and chemistry of research is applied to teach BE I Sem students Upgrading the research facilities.
- 2. To receive the funding from various funding agencies for teaching and research activity



#### **Mathematics**

1. Name of the department: Mathematics

2. Year of Establishment: 2000

3. Names of Programmes/Courses offered(UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D.,etc.):

| UG:             | PG:                     | Ph.D:                     |
|-----------------|-------------------------|---------------------------|
| Engg.Maths-I-IV | Applied Mathematics,    | Mathematics(Graph Theroy, |
|                 | Advanced Mathemtics and | Number Theory, Analysis)  |
|                 | Numerical Methods and   |                           |
|                 | Statistics              |                           |

- 4. Names of Inter disciplinary courses and the departments/units involved: Nil
- 5. Annual/semester/choice based credit system(programme wise):Semester
- 6. Participation of the department in the courses offered by other departments:

| Department                                | Subject offered with code      |  |  |
|---|--------------------------------|--|--|
| Diotachnology                             | Numerical Methods and          |  |  |
| Biotechnology                             | Statistics(16BBT11)            |  |  |
| Electrical and Electronics Engineering    | Applied Mathematics (16EPS11)  |  |  |
| Electronics and Communication Engineering | Advanced Mathematics (16ELD11) |  |  |
| Mechanical Engineering                    | Applied Mathematics (16MMD11)  |  |  |

- 7. Courses in collaboration with other universities, industries, foreign institutions, etc.: Nil
- 8. Details of courses/programmes discontinued (if any) with reasons: NA
- 9. Number of Teaching posts

|                     | Sanctioned | Filled |
|---------------------|------------|--------|
| Professors          | 1          | 1      |
| AssociateProfessors | 1          | 1      |
| Asst.Professors     | 11         | 12     |



# 10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D./ M.Phil. etc.,) :

|                    |                              | g g                   |                              | No.ofYears of Experience |                         |     |       |   |
|--------------------|------------------------------|-----------------------|------------------------------|--------------------------|-------------------------|-----|-------|---|
| Name               | Qualification                | Designation           | Specialization               | Industry                 | Teaching other than AIT | AIT | Total | No.ofPh.D. Students guidedforthe last4years |
| Rajanna K R        | M.Sc.,<br>M.Phil.,<br>Ph.D.  | Professor<br>and Head | Number<br>Theory             |                          | 14                      | 06  | 20    | 4(pursuing)                                 |
| Pradeep Kumar      | M.Sc,<br>Ph.D                | Asso.<br>Professor    | Differential Geometry        | Nil                      | 06                      | 05  | 11    | 2(pursuing)                                 |
| T Rami Reddy       | M.Sc,<br>M.Phil,<br>Ph.D.    | APG-I                 | Algebraic<br>Graph<br>Theory | Nil                      | 11                      | 04  | 15    | 1(pursuing)                                 |
| Rajeshwari M       | M.Sc,<br>M.Phil,<br>Ph.D.,   | APG-III               | Graph<br>Theory              | Nil                      | 06                      | 11  | 17    | 2(pursuing)                                 |
| Md.<br>SamiulHaque | M.Sc.,<br>M.Phil,<br>(Ph.D.) | APG-III               | Graph<br>Theory              | Nil                      | 02                      | 08  | 10    |   |
| Manohar M C        | M.Sc,<br>(Ph.D)              | APG-III -             | Statistics                   | Nil                      | 10                      | 10  | 20    |   |
| Kavitha S<br>Permi | M.Sc,<br>Ph. D               | APG-III               | Graph<br>Theory              | Nil                      | 06                      | 07  | 13    |   |
| Sandeep Kumar      | M.Sc.,<br>Ph. D.             | APG-III               | Mathematic al Analysis       | Nil                      | 03                      | 06  | 09    |   |
| Niranjan C M       | M.Sc<br>(Ph. D)              | APG-III               | Fluid mechanics,             | Nil                      | 07                      | 04  | 11    |   |
| Chethan Kumar      | M.Sc.,                       | APG-III               | Fluid mechanics,             | Nil                      | 02                      | 8m  | 2.8   |   |



|                      |                  |             |                                      | N        | lo. of Ye               | ears o | of    |              |          |                |              |
|----------------------|------------------|-------------|--------------------------------------|----------|-------------------------|--------|-------|--------------|----------|----------------|--------------|
|                      |                  |             |                                      |          | Experie                 | ence   |       |              |          |                |              |
| Name                 | Qualification    | Designation | Specialization                       | Industry | Teaching other than AIT | AIT    | Total | No. of Ph.D. | Students | guided for the | last 4 years |
| Anitha S             | M.Sc,<br>(Ph. D) | APG-III     | Fluid mechanics,                     | Nil      | 04                      | 8m     | 4.8   |              |          |                |              |
| Deepasree S<br>Kumar | M.Sc.,           | APG-III     | Analysis                             | Nil      | 05                      | 2m     | 4.2   |              |          |                |              |
| Keshava<br>Reddy     | M.Sc.,           | APG-III     | Computatio<br>nal Fluid<br>mechanics | Nil      | 2.7                     | 2m     | 2.9   |              |          |                |              |
| Ashwini              | M.Sc.            | APG-III     | Data analytics                       | 2        |                         |        |       |              |          |                |              |

## 11. List of senior visiting faculty:

| Name       | Qualification | Subject handled      |
|------------|---------------|----------------------|
| C Somanath | Ph.D          | Engg. Mathematics -I |

- 12. Percentage of lectures delivered and practical classes handled (programme wise)by temporary faculty: Nil
- 13. Student-Teacher Ratio(programme wise): Supporting Department
- **14.** Number of academic support staff(technical) and administrative staff; sanctioned and filled:

  Nil
- 15. Qualifications of teaching faculty with DSc/D.Litt/Ph.D/MPhil/PG:

| Sl no      | No of faculty |
|------------|---------------|
| DSc/D Litt | 00            |
| Ph.D       | 06            |
| M.Phil     | 02            |
| PG         | 06            |



- 16. Number of faculty with ongoing projects from a)National b)International funding agencies and grants received: Nil
- 17. Departmental projects funded by DST-FIST;UGC, DBT, ICSSR, etc. and total grants received:

  Nil
- 18. Research Centre/facility recognized by the University Yes/No: yes
- 19. Publications:
  - a) Publication per faculty

Number of papers published in peer reviewed journals(national/international) by faculty and students.

Publications of the faculty in international journals, national journals, international conferences, national conferences, books authored / edited / chapter contribution are enclosed in Self Study Report: Volume II, Part II.

- 20. Areas of consultancy and income generated: Nil
- 21. Faculty as members in a) National committees b)International committees c)Editorial Boards Nil
  - 22. Student projects
    - a) Percentage of students who have done in-house projects including inter departmental/programme: NA
    - b)Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies: NA
  - 23. Awards/Recognitions received by faculty and students: Nil

#### 24. List of eminent academicians and scientists/visitors to the department:

| Name                   | Designation  | Date of visit | Activity     |
|------------------------|--|---------------|--------------|
| Wade Ellis             | Professor, University of<br>California                                     | 23/11/2012    | Special Talk |
| K C Gouda              | Scientist, CMMACS  | 27/04/2013    | Special Talk |
| P. K. Banerji          | Emeritus Professor,<br>J. N. V. University                                 | 12/03/2016    | Invited Talk |
| DrIndraniPramodKhelkar | Assistant Vice President, Thinkcell learning Solutions Pvt. Ltd Academics. | 14/03/2016    | Invited Talk |



- 25. Seminars/Conferences/Workshops organized and the source of funding
  - a) National -Nil
  - **b)** International -Nil
- 26. Student profile programme/course wise: NA
- 27. Diversity of Students: NA
- 28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? NA
- 29. Student progression: NA
- 30. Details of Infrastructural facilities
  - a) Library: Yes
  - b) Internet facilities for Staff and Students: Provided
  - c) Class rooms with ICT facility: Yes
  - d) Laboratories: NA
- 31. Number of students receiving financial assistance from college, university, Government or other agencies: NA
- 32. Details on student enrichment programmes (special lectures/workshops/ seminar)with external experts:

| Date       | Activity   | Resource person  | No of participants |
|------------|--|--|--------------------|
| 12/03/2016 | Guest Lecture on "Mathematics – Trick or Treatment"                  | P. K. Banerji Emeritus Professor Former Head, Department of Mathematics Faculty of Science, J. N. V. University JODHPUR - 342 005, India | 62                 |
| 14/03/2016 | Guest Lecture on "Mathematical Applications to Phenomenon Vibration" | DrIndraniPramodKhelkar<br>Assistant Vice President, Academics,<br>Thinkcell learning Solutions Pvt. Ltd.<br>Hyderabad, AP, India.        | 65                 |



| Date       | Activity  | Resource person                                       | No of participants |
|------------|---|---|--------------------|
| 27/04/2013 | Mathematical Modeling-Need for friendship of Mathematicians and Scientists in Face book era | K C Gouda<br>Scientist, CMMACS, Bangalore             | 70                 |
| 23/11/2012 | Effective Mathematical teaching and learning with TI Nspire technology                      | Wade Ellis<br>University of California, Santa Barbara | 60                 |

### 33. Teaching methods adopted to improve student learning:

| Chalk<br>and<br>Talk | Use of ICT | Demonstration | Experimentation | Collaborative | Experimental | Any<br>other |
|----------------------|------------|---------------|-----------------|---------------|--------------|--------------|
| Yes                  | Yes        |               |                 |               |              |              |

# 34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

| Date       | Activity  | No of Participants |
|------------|---|--------------------|
| 11/09/2015 | Mathematics Made Easy – (Vedic Mathematics for 8th and 9th class students) Jindal Jubilee Govt School, Abbigere, Bengaluru-90 | 120                |

#### 35. SWOC analysis of the department and Future plans

#### **Strengths:**

- 1. Engaging students with mathematical answers.
- 2. Conducive environment for teaching learning.
- 3. Event based learning through Mathematical modeling approach
- 4. Support for conducting in GATE, Ph.D and other entrance exa

#### Weaknesses:

- 1. Less focus on industrial projects / researcher.
- 2. Lack of inter-disciplinary interaction.
- 3. Lack of training for faculty to relate theoretical concept to practical engineering situation.



### **Opportunities:**

- 1. To provide multiple pathways in analyzing complex proble
- 2. Statistical analysis of data
- 3. Technology based / assisted teaching and learning

#### **Challenges:**

- 1. Teaching basic mathematical skills to the average student.
- 2. Integration of technology due to lack of mathematical software.
- 3. Promote inter-disciplinary collaboration involving technology among mathematics and other content area teachers.
- 4. Research programs in Mathematics and other cognate / inter related subjects.

#### **Future Plan:**

- 1. Start a PG course on Industrial Mathematics
- 2. Start a computational mathematics research centre



## **Physics**

1. Name of the department: Physics

2. Year of Establishment: 2000

3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.)

| UG: Engineering Physics | PG: Nil | Ph.D: Physics |
|-------------------------|---------|---------------|
|-------------------------|---------|---------------|

- 4. Names of Interdisciplinary courses and the departments/units involved: Nil
- 5. Annual/ semester/choice based credit system (programme wise): CBCS
- 6. Participation of the department in the courses offered by other departments: Nil
- 7. Courses in collaboration with other universities, industries, foreign institutions, etc.: Nil
- 8. Details of courses/programmes discontinued (if any) with reasons: Nil
- 9. Number of teaching posts: 06

|                      | Sanctioned | Filled |
|----------------------|------------|--------|
| Professors           | 1          | 1      |
| Associate Professors | 1          | 0      |
| Asst. Professors     | 4          | 5      |



# 10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D. / M. Phil. etc.,)

|                         |                       |                               |                                   | No. of Years of<br>Experience |                          |     | ast 4 |   |
|-------------------------|-----------------------|-------------------------------|-----------------------------------|-------------------------------|--------------------------|-----|-------|---|
| Name                    | Qualification         | Designation                   | Specialization                    | Industry                      | aching other than<br>AIT | AIT | Total | No. of Ph.D. Students<br>guided for the last 4<br>years |
| Mahesh S S              | MSc, PhD              | Professor<br>and HOD,<br>Dean | Solid State<br>Physics            | Nil                           | 11.6                     | 5.4 | 16    | 4   |
| Manjunath H R           | MSc, PhD              | APG-II                        | Solid State<br>Physics            | Nil                           | 9                        | 3.6 | 12.6  | 02  |
| Chanasekhar M           | MSc, M.Phil,<br>PhD   | APG-III                       | Nuclear<br>Physics                | Nil                           | 14                       | 8.0 | 23    | Nil   |
| Mallikarjuna K S        | MSc, M.Phil,<br>(PhD) | APG-III                       | Nuclear<br>Physics                | Nil                           | 7                        | 5   | 12    | Nil   |
| Ashok Kumar<br>Satpathy | MSc, (PhD)            | APG-III                       | General<br>Physics                | Nil                           | 12                       | 3   | 15    | Nil   |
| Hemalatha D L           | MSc                   | APG-III                       | Condensed<br>Matter of<br>Physics | Nil                           | Nil                      | 7.2 | 7.2   | Nil   |

## 11. List of senior visiting faculty: Nil

# 12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty

| Name       | Qualification | Subject handled         | Percentage (semester wise load) |
|------------|---------------|-------------------------|---------------------------------|
| Rajashekar | Msc, BEd      | Engineering Physics Lab | 21 Units                        |

## 13. Student - Teacher Ratio (programme wise): NA



# 14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

| Category           | Sanctioned | Filled |
|--------------------|------------|--------|
| Lab Instructor     | 02         | 02     |
| Teaching Assistant | 01         | 01     |

## 15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.

| Sl no      | No of faculty |
|------------|---------------|
| DSc/D Litt | Nil           |
| Ph.D       | 3             |
| M.Phil     | 1             |
| PG         | 2             |

# 16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: Nil

# 17. Departmental projects funded by DST – FIST; UGC, DBT, ICSSR, etc. and total grants received

| Name of the project  | Funding agency                                   | Year of Funding | Grant received |
|--|--|-----------------|----------------|
| Development of cost effective rare earth activated terovskite structured Nano phosphorous display dosimetry and weld application | VGST<br>(VGST/P-<br>3/SMYSR/GRD-<br>302/2013-14) | 2013-14         | 600,000        |

## 18. Research Centre /facility recognized by the University : Yes



#### 19. Publications:

#### a) Publication per faculty: 5

Number of papers published in peer reviewed journals (national / International) by faculty and students

Publications of the faculty in international journals, national journals, international conferences, national conferences, books authored / edited / chapter contribution are enclosed in Self Study Report: Volume II, Part II.

#### 20. Areas of consultancy and income generated: Nil

### 21. Faculty as members in

#### a) National committees b) International Committees c) Editorial Boards

| Name of    | Committee Details  |     | BOS   | ВО  | E     |
|------------|--|-----|---|-----|-------|
| Faculty    | Committee Betans   | VTU | Other   | VTU | Other |
|            | Member of Indian<br>Society for Technical<br>Education<br>(MISTE) - Lifetime |     |   |     |       |
|            | IAENG-International Association of Engineers.                                |     |   |     |       |
| Mahesh S S | Editorial Board Chief and Member of Journals                                 |     | 1. Editorial board of Nano science and Nano engineering 2. AE International Journal of Science and Technology 3. World Research Journal of Applied Physics 4.International Journal of Applied Engineering Research and Technology 5.International Journal of advances in chemical Engineering |     |       |



| Name of          | Committee Details                            |     | BOS  | BOE     |       |  |
|------------------|--|-----|--|---------|-------|--|
| Faculty          | Committee Details                            | VTU | Other  | VTU     | Other |  |
| Mahesh S S       | Editorial Board Chief and Member of Journals |     | 6.Journal of applied physics and research 7.Journal of advanced materials and technology 8.Journal of engineering research and technology 9.Journal of advanced composite materials 10.Advanced in structures and solids |         |       |  |
| Chanasekhar<br>M | Board of Examiner-<br>Nanotechnology         |     |  | 2016-17 |       |  |

### 22. Student projects

- a) Percentage of students who have done in-house projects including inter Departmental/programme: NA
- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies: Nil
- 23. Awards / Recognitions received by faculty and students: Nil

## 24. List of eminent academicians and scientists / visitors to the department

| Name   | Designation                     | Date of visit | Activity                  |
|--|---------------------------------|---------------|---------------------------|
| N Ruaswamy Professor, Universit<br>Bangalore, Bangal |                                 | 19/05/2015    | Analysis of bio molecules |
| Shashank Bhatnagar                                   | Professor                       | 24/08/2013    | Particle Physics          |
| C Shivaram   | Ex-Scientist, IIA,<br>Bangalore | 20/03/2013    | Astronomy-The future      |



## 25. Seminars/ Conferences/Workshops organized and the source of funding

#### a) National b) International

| Seminar/ Conference/<br>Workshop  | Duration with dates   | Funding agency | Amount of fund | Amount funded by Institution | No of participants |
|---|---|----------------|----------------|------------------------------|--------------------|
| National conference on recent advances in nano Science and Technology"(NARNT) | Two<br>day(3 <sup>rd</sup><br>and 4 <sup>th</sup><br>May 2013 | Self           | 108,000        | 55,000                       | 36                 |

26. Student profile programme / course wise: NA

27. Diversity of Students:

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?: NA

NA

29. Student progression: NAProgression in the Department (Based on First year admission): NA

- 30. Details of Infrastructural facilities
  - a) Library: Yes
  - b) Internet facilities for Staff and Students: Yes
  - c) Class rooms with ICT facility: Yes
  - d) Laboratories: Two labs (As per AICTE norms)
- 31. Number of students receiving financial assistance from college, university, Government or other agencies: Nil

# 32. Details on student enrichment programmes (special lectures / workshops / Seminar) with external experts

| Date       | Activity                  | Resource person                                      | No of participants |
|------------|---------------------------|--|--------------------|
| 19/05/2015 | Analysis of bio molecules | N Ruaswamy" Prof Bangalore University,<br>Bengaluru. | 60                 |



| Date       | Activity             | Resource person   | No of participants |
|------------|----------------------|---|--------------------|
| 24/08/2013 | Particle Physics     | Shashank Bhatnagar, Department of Physics, Addis Ababa University, Addis Ababa, Ethiopia. | 60                 |
| 20/03/2013 | Astronomy-The future | C Shivaram, Ex. Scientist, Indian Institute of Astrophysics, Bangalore.                   | 70                 |

### 33. Teaching methods adopted to improve student learning

| Chalk<br>and Talk | Use<br>of<br>ICT | Demonstration | Experimentation | Collaborative | Experiential | Any<br>other |
|-------------------|------------------|---------------|-----------------|---------------|--------------|--------------|
| Yes               | Yes              | Yes           | Yes             | Yes           | Yes          |              |

# 34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

Nil

#### 35. SWOC analysis of the department and Future plans

#### **Strengths**

- 1. Good infrastructure, adequate number of classrooms
- 2. Well qualified faculty members with congenial atmosphere
- 3. Strong interaction between members and students

#### Weakness

- 1. Inadequate research laboratory and facilities to enthuse faculty members to compete with globally recognized institutes
- 2. Lagging in funded projects

### **Opportunity**

- 1. Locational advantage for strengthening academia-industry linkages
- 2. Initiating consultancy with premier organizations
- 3. Exploring possibility of collaborative research with research institutions



### Challenges

- 1. To start research activities for the development of the faculty members with available facilities in collaboration with nearby Universities and research institutes
- 2. Retention of quality and experience faculty/Staff in the department.
- 3. Involving students in basic research level along with their academic activities.

#### **Future Plan**

- 1. To receive the funding from various funding agencies for teaching and research activity
- 2. Collaboration with reputed Universities and industries
- 3. Exploring possibility of collaborative research with research institutions.
- 4. Initiating consultancy with premier organizations.



### **Master of Business Administration**

1. Name of the department: Master of Business Administration Department

2. Year of Establishment: 2006

3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.)

| UG  | PG  | Ph.D                      |
|-----|-----|---------------------------|
| Nil | MBA | (Business Administration) |

- 4. Names of Interdisciplinary courses and the departments/units involved: Nil
- 5. Annual/ semester/choice based credit system (programme wise):

Master of Business Administration

• 2015-17 Batch: Semester Pattern

• 2016-18 Batch: CBCS

6. Participation of the department in the courses offered by other departments:

| Department                    | Subject offered with code              |  |  |  |
|-------------------------------|--|--|--|--|
|                               | 10AL51 – Entrepreneurship and          |  |  |  |
| Bio-Technology                | Management                             |  |  |  |
|                               | 10BT81 – Project Management and IPR    |  |  |  |
| Electronics and Communication | 10AL51 – Entrepreneurship and          |  |  |  |
| Electronics and Communication | Management                             |  |  |  |
| Electrical and Electronics    | 10AL51 – Entrepreneurship and          |  |  |  |
| Electrical and Electronics    | Management                             |  |  |  |
| Civil Engineering             | 10AL51 – Entrepreneurship and          |  |  |  |
| Civil Engineering             | Management                             |  |  |  |
|                               | 10CT55 - Construction Economics and    |  |  |  |
|                               | Finance                                |  |  |  |
| Construction Technology and   | 10AL51 – Entrepreneurship and          |  |  |  |
| Management                    | Management                             |  |  |  |
|                               | 15CT46 - Financial and Cost Accounting |  |  |  |
|                               | 10CT82 - Arbitration                   |  |  |  |
| Mining                        | 10AL51 – Entrepreneurship and          |  |  |  |
| Willing                       | Management                             |  |  |  |



- 7. Courses in collaboration with other universities, industries, foreign institutions, etc. Nil
- 8. Details of courses/programmes discontinued (if any) with reasons: Nil

# 9. Number of Teaching posts

| Designation          | Sanctioned | Filled |
|----------------------|------------|--------|
| Professors           | 04         | 02     |
| Associate Professors | 04         | 04     |
| Asst. Professors     | 06         | 20     |

# 10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D. / M. Phil. etc.,)

|                      |                           |                       |                       | No. of Years of<br>Experience |                         |       |       | ts   |
|----------------------|---------------------------|-----------------------|-----------------------|-------------------------------|-------------------------|-------|-------|--|
| Name                 | Qualification Designation |                       | Specialization        | Industry                      | Teaching other than AIT | AIT   | Total | No. of Ph.D. Students<br>guided for the last 4 years |
| N Venkatesh Kumar    | MBA,<br>MPhil, (PhD)      | Asso. Prof<br>and HOD | Marketing and Finance | 2.5                           | 7 .25                   | 8 .25 | 18    |  |
| G Ramanaiah          | MBA, MFM,<br>PhD          | Professor             | Finance               | Nil                           | 19                      | 5     | 24    |  |
| Prakash B Yaragol    | M.Com,<br>MBA             | Professor             | Finance               | 2                             | 16                      | 5     | 23    |  |
| Prof. Kisholay Gupta | PGDPM,<br>PGDBM           | Asso. Prof            | Management            | 33                            | 4                       | 5     | 41    |  |
| Satyapriya .J        | MBA, Ph.D                 | Asso. Prof            | HR                    | 12.5                          |                         |       |       |  |
| Sandip Sane          | MBA, Ph.D.                | Asso. Prof            | Marketing             | 6                             | 8                       |       |       |  |
| Archana Vijay        | PGDM                      | APG-3                 | Marketing and IT      | 1.6                           | Nil                     | 7     | 8.6   |  |
| Mahak Balani         | MBA                       | APG 1                 | HR                    | Nil                           | 17                      |       | 17    |  |



|                                 |               |                        |                          | No. of Years of<br>Experience |                         |     |       | idents<br>4 years                                 |
|---------------------------------|---------------|------------------------|--------------------------|-------------------------------|-------------------------|-----|-------|---|
| Name                            | Qualification | Designation            | Specialization           | Industry                      | Teaching other than AIT | AIT | Total | No. of Ph.D. Students guided for the last 4 years |
| Renuka devi                     | MBA,PhD       | APG-1                  | Marketing                |                               | 6                       |     |       |   |
| Monica M                        | MBA           | APG-3                  | HR                       | Nil                           | Nil                     | 6   | 6     |   |
| Bhagyashree G<br>Kasturi        | MBA           | APG-3                  | HR                       | Nil                           | Nil                     | 5   | 5     |   |
| Omprakash C                     | MPhil, MBA    | APG-3                  | Operations<br>Management | 15                            | 16                      | 2   | 33    |   |
| Ganesh Babu M                   | MBA, PhD      | Assistant<br>Professor | Marketing                | Nil                           | 7                       | 10  | 17    |   |
| Suhas Patel                     | MBA           | APG-3                  | Marketing                | 2                             | 3                       | 2   | 7     |   |
| Reena Mahesh Rao                | MBA           | APG-3                  | Finance and Marketing    | 3.5                           | 1.6                     |     | 5     |   |
| Sathyanarahaya<br>Krishnamurthy | MBA           | APG-3                  | Management               |                               |                         |     |       |   |
| Amita Yadav                     | MBA           | APG-3                  | HR and<br>Marketing      | 7                             |                         |     |       |   |
| Saptharshi Mukherjee            | MBA           | APG-3                  | Finance                  |                               | 8                       |     |       |   |
| Keerthi H.K                     | MBA           | APG-3                  | Management               |                               | 4                       | 2   |       |   |
| Chandrika L V                   | MBA           | APG-3                  | Finance                  | 4                             |                         |     |       |   |
| Gangadhar isvi                  | MBA           | APG-3                  | Marketing                | 4                             | 7                       |     |       |   |
| Reshma                          | MBA           | APG-3                  | Finance                  | 1                             | 3                       |     |       |   |
| Swati Arora                     | MBA           | APG-3                  | Finance                  |                               | 2                       |     |       |   |
| Shruthi K                       | MBA           | APG-3                  | Finance                  |                               |                         |     |       |   |



### 11. List of senior visiting faculty

| Name                           | Qualification | Subject handled  |
|--------------------------------|---------------|--|
| Prof. Vivek<br>Rajapadmanabhan | (PhD)         | Research Methods, Strategic Management,<br>Entrepreneurial Development |
| Ajith Kumar Das                | MBA           | Marketing  |

- 12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty Nil
- 13. Student Teacher Ratio (programme wise): 20:1

# 14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

| Category         | Sanctioned | Filled |
|------------------|------------|--------|
| Office Assistant | 1          | 1      |

#### 15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.

| Sl no      | No of faculty |
|------------|---------------|
| DSc/D Litt |               |
| Ph.D       | 6             |
| M.Phil     | 2             |
| PG         | 16            |

- 16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received Nil
- 17. Departmental projects funded by DST FIST; UGC, DBT, ICSSR, etc. and total grants received Nil
- 18. Research Centre /facility recognized by the University: Yes
- 19. Publications:
  - a) Publication per faculty

Number of papers published in peer reviewed journals (national /international) by faculty and students

Publications of the faculty in international journals, national journals, international conferences, national conferences, books authored / edited / chapter contribution are enclosed in Self Study Report: Volume II, Part II.



### 20. Areas of consultancy and income generated

| Name of Faculty(ies)          | Area           | Income generated |  |
|-------------------------------|----------------|------------------|--|
| Nijaguna G<br>Venkatesh Kumar |                |                  |  |
| venkatesh Kumar               | Human Resource | Rs. 2,25,000     |  |
| Gururaj B Urs                 |                |                  |  |

#### 21. Faculty as members in

### a) National committees b) International Committees c) Editorial Boards

| Name of Faculty      | Committee Details    | ВС  | OS    | BOE |       |
|----------------------|----------------------|-----|-------|-----|-------|
| Name of Faculty      | Committee Details    | VTU | Other | VTU | Other |
| Ramanaiah G          | Board of Studies     | Yes |       |     |       |
| Prakash B<br>Yaragol | Board of Examination |     |       | Yes |       |

### 22. Student projects

- a) Percentage of students who have done in-house projects including inter departmental/programme
- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies

|                                |     | Percentage |
|--------------------------------|-----|------------|
| No of Students                 | 180 |            |
| No of in-house projects        |     |            |
| No of Inter dept projects      |     |            |
| No of Projects in R and D Labs |     |            |
| No of Projects in Industry     | 180 | 100        |
| Others                         |     |            |

### 23. Awards / Recognitions received by faculty and students

| Name                       | Award/Recognition                    | Agency | Year |
|----------------------------|--------------------------------------|--------|------|
| Naveen Dattatreya<br>Hegde | VTU Topper (I Rank-Gold<br>Medalist) | VTU    | 2016 |
| Nallagatla Shwetha         | VTU Topper (2 <sup>nd</sup> Rank)    | VTU    | 2016 |



## 24. List of eminent academicians and scientists / visitors to the department

| Name                | Designation  | Date of visit | Activity   |
|---------------------|--|---------------|--|
| Haja<br>Mohideen    | President and CEO,<br>Rocheston LLC, New<br>York, USA    | 22/02/2017    | Innovation Strategy (Disruptive technologies, IoT) |
| Omkar               | Director – HR,<br>SKF Technologies India<br>Pvt. Ltd.    | 25/11/2016    | Employability                                      |
| Prasad<br>Prabhakar | Director – HR,<br>Trianz Holdings, USA                   | 11/11/2016    | Competencies required for today's corporate world  |
| Philip Laird        | Vice President,<br>Trinity Western University,<br>Canada | 04/10/2016    | Strategic Leadership                               |

# 25. Seminars/ Conferences/Workshops organized and the source offunding a) National b) International

| Seminar/ Conference/<br>Workshop   | Duration with dates             | Funding agency | Amoun<br>t of<br>fund | Amount funded by Institution | No of participants |
|--|---------------------------------|----------------|-----------------------|------------------------------|--------------------|
| National Symposium   |                                 | National       |                       |                              |                    |
| On Innovative Practices In Management  | 25/04/2014<br>and<br>26/04/2014 | Institute      | 1,02,84               | 36,000                       | 38                 |
| Fdp On Financial<br>Modelling And Stock<br>Market Analysis                                 | 12/09/2014<br>and<br>13/09/2014 | Institute      | 36,087                | 23,174                       | 110                |
| National Conference<br>On Rural<br>Entrepreneurship<br>Opportunities and<br>Challenges     | 25/04/2014                      | Institute      | 97,000                | 52,500                       | 50                 |
|  |                                 | International  |                       |                              |                    |
| International Conference On Trends In Automation, Communication And Computing Technologies | 21/12/2015<br>and<br>22/12/2015 | Institute      |                       |                              | 50                 |



#### 26. Student profile programme / course wise:

| Name of the programme (Management seats) | Year    | Applications received | Selected |
|--|---------|-----------------------|----------|
| Master of Business<br>Administration     | 2013-14 | 102                   | 74       |
|  | 2014-15 | 93                    | 73       |
|  | 2015-16 | 56                    | 34       |
|  | 2016-17 | 52                    | 30       |

### 27. Diversity of Students

| Name of the | % of students from | % of students from | % of students from |
|-------------|--------------------|--------------------|--------------------|
| Course      | the same state     | other States       | abroad             |
| MBA         | 80                 | 18                 | 2                  |

# 28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? : Nil

#### 29. Student Progression: Nil

#### **Progression in the Department (Based on First year admission)**

| No/year | Intake | Year1 | Year2 | Year3 | Year4 | %<br>Year 2 | %<br>Year3 | %<br>Year4 |
|---------|--------|-------|-------|-------|-------|-------------|------------|------------|
| 2012-13 | 240    | 209   | 206   |       |       | 99          |            |            |
| 2013-14 | 240    | 177   | 172   |       |       | 97          |            |            |
| 2014-15 | 240    | 186   | 186   |       |       | 100         |            |            |

<sup>•</sup> Percentage based on first year admission

#### 30. Details of Infrastructural facilities

a) Library: Yes

b) Internet facilities for Staff and Students: Yes

c) Class rooms with ICT facility: Yes

d) Laboratories: Not Applicable

# 31. Number of students receiving financial assistance from college, university, government or other agencies

| No | of Students | College | University | Social welfare | Merit | Other |
|----|-------------|---------|------------|----------------|-------|-------|
|    | 178         | 16      | NA         | 54             | NA    | NA    |



# 32. Details on student enrichment programmes (special lectures / workshops /seminar) with external experts

| Date       | Activity         | Resource person   | No of participants                         |
|------------|------------------|---|--|
| 17/3/2014  | Guest<br>lecture | TKS Narayanan Zonal Director LIC  | 104  |
| 25/3/2014  | Guest<br>lecture | Nandini Chawla CEO, TVRLS   | 90   |
| 25/3/2014  | Guest<br>lecture | Manoranjan Sharma, Chief Economist,<br>Canara Bank                      | 90   |
| 25/4/2014  | Guest<br>lecture | Arun Bharadwaj, Asia –pacific<br>Director Global Alliance, Dell         | 60   |
| 25/4/2014  | Guest<br>lecture | Nandini Chawla CEO, TURLS   | 60   |
| 25/4/2014  | Guest<br>lecture | Mahidhara Davanagere, MD,<br>Pramathra Investments                      | 60   |
| 25/4/2014  | Guest<br>lecture | Shrinivas Narayan, Senior Consultant                                    | 50   |
| 25/4/2014  | Guest<br>lecture | Pro. Rajan L P, Principal, Vasavi<br>Institute of Management            | 50   |
| 16/5/2014  | Guest<br>lecture | Narayana Gowda, Vice Chancellor,<br>University of Agricultural Sciences | 110  |
| 5/8/2014   | Guest<br>lecture | Geetha Ramakrishna, Consultant  | 108  |
| 10/8/2014  | Guest<br>lecture | Shaju John, HR Leader   | 85   |
| 12/9/2014  | Guest<br>lecture | Thenmozhi, Professor, IIT Chennai                                       | 80   |
| 13/9/2014  | Guest<br>lecture | P Varadharajan, BGIM, Coimbatore  | 100  |
| 23/9/2014  | Guest<br>lecture | Sumathi, Regional Director, ICICI<br>Bank                               | 75   |
| 23/9/2014  | Guest<br>lecture | David, entrepreneur   | 110  |
| 23/9/2014  | Guest<br>lecture | Ritheesh Pandya, Managing Director                                      | 115  |
| 21/11/2014 | Guest<br>lecture | Prasanna Chandra, Director, CFM   | 100  |
| 21/11/2014 | Guest<br>lecture | Narahari, Director, Corporate<br>Communication Texas Instruments        | 80   |
| 21/11/2014 | Guest<br>lecture | Kishan Cariappa, AGM-Hr Admin<br>Volvo Construction Equipment           | 90   |
| 19/3/2015  | Guest<br>lecture | Anirudh Sharma, Innovator and Co-<br>Head MIT Media Lab India           | Strengthening the roots through Innovation |



| Date       | Activity         | Resource person   | No of participants  |
|------------|------------------|---|---|
| 19/3/2015  | Guest<br>lecture | Vani Murthy, Green Campaigner<br>Green Initiatives                                      | Waste Management and Greener Earth  |
| 25/04/2015 | Guest<br>lecture | Srikrishna S Murthy, CEO Sattva<br>Media and Consulting (P) Ltd.                        | Rural Entrepreneurship - Opportunities and Challenges                           |
| 22/05/2015 | Guest<br>lecture | Rajdeep Manwani, Professor Jain University  | Self Commitment -<br>Success in career  |
| 22/05/2015 | Guest<br>lecture | Arun Shivaram, Director-Global<br>Technical Centre                                      | 360° Problem solving -<br>An effective tool for<br>organisational success       |
| 11/8/2015  | Guest<br>lecture | Sanjay M Datta, Programme Head<br>SPSS South Asia                                       | Business Analytics -<br>An overview through<br>SPSS                             |
| 28/09/2015 | Guest<br>lecture | Kalyan Kumar P, AGM - Business<br>Development, Positive Edge<br>Technology Pvt. Ltd.    | Microsoft Excel - An<br>effective tool for Data<br>Analysis and<br>Presentation |
| 2/10/2015  | Guest<br>lecture | Seetha Nesarathnam, Professor, Asia<br>Pacific University of T and I                    | Challengens in hiring international intellectual capital                        |
| 2/10/2015  | Guest<br>lecture | Rohizan, Professor, Asia Pacific<br>University of T and I                               | Supply chain strategies in International marketing                              |
| 2/10/2015  | Guest<br>lecture | Nur Azam, Professor, Asia Pacific University of T and I                                 | Malaysian financial system and new business opportunities                       |
| 20/10/2015 | Guest<br>lecture | Gopinath, General Manager-<br>PR,Toyota Kirloskar (P) Ltd.                              | Plant layout decision<br>for Automobile<br>companies                            |
| 31/10/2015 | Guest<br>lecture | Gaurang H Shah, Vice President,<br>Geojit BNP Paribas                                   | India Capital Market - Trends and opportunities                                 |
| 25/11/2015 | Guest<br>lecture | Kodandaram, DGM-HR, VST Tillers and Tractors Ltd.                                       | Modern equipments for enhanced agricultural productivity                        |
| 27/11/2015 | Guest<br>lecture | Kirtiman Sharma, Director and<br>Serial Entrepreneur, Mabbit<br>Communications (P) Ltd. | Jump Start career -<br>Career Mastery   |
| 27/11/2015 | Guest<br>lecture | Anu Ibrahim, Senior Manager -<br>Legal, State Bank of Mysore                            | Legal aspects of<br>Banking   |
| 30/11/2015 | Guest<br>lecture | Sriram, Professor, Retired Professor<br>from US University                              | Case method of solving organisational problems                                  |



| Date       | Activity         | Resource person  | No of participants   |
|------------|------------------|--|--|
| 2/12/2015  | Guest<br>lecture | S Sargen, Assistant Manager - PR,<br>Karnataka Soaps and Detergents Ltd. | Perspectives and<br>Challenges in sandal<br>soap manufacturing |
| 12/12/2015 | Guest<br>lecture | Poornachandra, DGM-PR,<br>Visvesvaraya Iron and Steel Plant              | Indian Steel sector - Perspectives and Challenges              |
| 4/5/2016   | Guest<br>lecture | Ashokan, Director, De-Quest<br>Management Services                       | Lean Management and Siz Sigma Practices                        |
| 11/5/2016  | Guest<br>lecture | Rajarshi Choudhury, Head-HR,<br>Amadeus Software Labs                    | Future corporate challenges                                    |
| 16/8/2016  | Guest<br>lecture | Ravi Sharma, Consultant, TV Rao learning systems                         | Leadership Challenges  |
| 16/8/2016  | Guest<br>lecture | Mousmi, Consultant, TV Rao learning systems                              | Forms of Leadership  |
| 24/9/2016  | Guest<br>lecture | Jagadish Naik, Head-Talent acquisition and PM, Scania India              | EmpRiseAbility   |
| 24/9/2016  | Guest<br>lecture | Sunil Yajaman, Head-Corporate<br>Affairs, ACT Fibernet                   | Aspire and Inspire   |
| 4/10/2016  | Guest<br>lecture | Philip Laird, Vice President, Trinity<br>Western University, Canada      | Strategic Leadership   |
| 11/11/2016 | Guest<br>lecture | Prasad Prabhakar, Director - HR,<br>Trianz Holdings, USA                 | Competencies required for today's corporate world              |
| 25/11/2016 | Guest<br>lecture | Omkar, Director - HR, SKF<br>Technologies India Pvt. Ltd.                | Employability  |
| 10/12/2016 | Guest<br>lecture | Sridip Sarkar, Lead Consultant,<br>Sapient Consulting                    | Investment Banking -<br>An insight perspective                 |
| 22/2/2017  | Guest<br>lecture | Haja Mohideen, President and CEO,<br>Rocheston LLC, New York, USA        | Innovation Strategy<br>(Disruptive<br>technologies, IoT)       |

# 33. Teaching methods adopted to improve student learning

| Chalk<br>and Talk | Use of ICT | Demonstration | Experimentation | Collaborative | Experimental | Any<br>other |
|-------------------|------------|---------------|-----------------|---------------|--------------|--------------|
| Yes               | Yes        | Yes           | NO              | Yes           | Yes          | NA           |



#### 34. Participation in Institutional Social Responsibility (ISR) and Extension activities

| Date      | Activity        | No of Participants |
|-----------|-----------------|--------------------|
| 5/10/2012 | Orphanage visit | 35                 |
| 14/9/2014 | Orphanage visit | 40                 |
| 15/3/2014 | Orphanage visit | 40                 |
| 2/11/2014 | Orphanage visit | 40                 |

#### 35. SWOC analysis of the department and Future plans

#### **Strengths:**

- 1. Competent faculty, blended with academic and industry experience and high team cohesiveness
- 2. Adoption of innovative teaching methods including case studies, industrial visits etc
- 3. Good facilities for research including tools for data analysis(Accord Fintech., SPSS
- 4. Membership of RAI AIMA, CII, NIPM etc and good rating by ICRA and others

#### Weaknesses:

- 1. Case development pertaining to local and regional needs
- 2. Research and Consultancy
- 3. Extension activities

#### **Opportunities:**

- 1. Improved collaboration with industry and academic institutions
- 2. Opportunities for consultancy with industry/others
- 3. Students-faculty exchange program with the foreign universities/institutions
- 4. Further enhancing value added courses to students

#### **Challenges:**

- 1. Internship placement
- 2. Validation of curriculum
- 3. Attract more students to join management program

#### **Future plans:**

- 1. Obtaining accreditation from NBA
- 2. Value added certificate programs to Corporates
- 3. International FDP/MDP



# **Master of Computer Applications**

- 1. Name of the Department : Master of Computer Applications
- 2. Date of Establishment::2002
- 3. Names of Programmes/Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D.,etc.):

| UG: | PG: | Ph.D:                |
|-----|-----|----------------------|
| Nil | MCA | VTU, Research Centre |

- 4. Names of Interdisciplinary courses and the departments/units involved: Nil
- 5. Annual/semester/choice based credit system (programme wise):

I and II Sem. CBCS

III to VI Sem Semester scheme

- 6. Participation of the department in the courses offered by other departments : Nil
- 7. Courses in collaboration with other universities, industries, foreign institutions, etc.: Nil
- 8. Details of courses/programmes discontinued (if any) with reasons: Nil
- 9. Number of teaching posts

|                     | Sanctioned | Filled |
|---------------------|------------|--------|
| Professors          | 04         | 00     |
| AssociateProfessors | 08         | 01     |
| Asst.Professors     | 24         | 35     |
| Total               | 36         | 36     |



# 10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D./M.Phil. etc.,)

|                         |                |               | Specialization                           |          | o.ofYea                 | of  | dfo   |  |
|-------------------------|----------------|---------------|--|----------|-------------------------|-----|-------|--|
| Name                    | Qualificatior  | Qualification |  | Industry | Teaching other than AIT | AIT | Total | No.ofPh.D.<br>Studentsguidedfo<br>rthelast4years |
| Ramesh Hedge            | MCA,<br>Ph.D.  | Asso.Prof     | Image<br>Processing                      |          |                         | 22  | 22    |  |
| Rosita Kamala F         | MCA, ME        | APG-I         | Data Mining                              |          | 7                       | 8   | 17    |  |
| Narasimha<br>Murthy G K | M.Tech,<br>MCA | APG-II        | Data Mining,<br>Information<br>Retrieval |          | 3                       | 13  | 16    |  |
| Susmita J A Nair        | MCA            | APG-II        | Cloud<br>Computing                       |          |                         | 13  | 13    |  |
| Anitha K L              | MCA            | APG-III       | Cloud<br>Computing                       | 0.6      |                         | 10  | 10.6  |  |
| Indumathy M             | MCA            | APG-III       | Security                                 |          |                         | 9   | 9     |  |
| Rajesh Rao K            | MCA            | APG-III       | Networking                               |          | 3                       | 9   | 12    |  |
| Sridevi T N             | MCA,<br>M.Tech | APG-III       | Image<br>Processing                      |          | 2                       | 9   | 11    |  |
| Prathibha. S.B          | MCA,<br>M.Tech | APG-III       | Computer<br>Networks                     | 1        |                         | 9   | 10    |  |
| Manish Kumar<br>Thakur  | MCA            | APG-III       | Java and J2EE,<br>Web and Web<br>2.0     |          |                         | 7.2 | 7.2   |  |
| Kalpana K               | MCA            | APG-III       | Image<br>Processing                      |          | 1                       | 6   | 6     |  |



|                            |               |             |                                      | No.ofYears of Experience |                         |     |       |            |          |              |            |
|----------------------------|---------------|-------------|--------------------------------------|--------------------------|-------------------------|-----|-------|------------|----------|--------------|------------|
| Name                       | Qualification | Designation | Specialization                       | Industry                 | Teaching other than AIT | AIT | Total | No.ofPh.D. | Students | guidedforthe | last4years |
| Shashikanth<br>Reddy       | MCA           | APG-III     | Advance<br>Algorithms,<br>Networking |                          | 1                       | 7   | 8     |            |          |              |            |
| Kavitha M S                | M.Tech        | APG-III     | Soft Computing                       | 4.3                      |                         | 4.8 | 8.11  |            |          |              |            |
| Sreeparna<br>Chakrabarti   | MCA           | APG-III     | Image<br>Processing                  |                          |                         | 5   | 5     |            |          |              |            |
| Ramakrishna<br>Reddy K     | MCA           | APG-III     | Big Data<br>Analytics                | 2                        |                         | 4   | 6     |            |          |              |            |
| Venkatesh H                | MCA           | APG-III     | Network                              |                          | 3                       | 3   | 6     |            |          |              |            |
| Sushmasree Y J             | MCA           | APG-III     | CN                                   |                          |                         |     |       |            |          |              |            |
| Pushpalatha M              | MCA           | APG-III     | CN                                   |                          |                         |     |       |            |          |              |            |
| Shivalingayya<br>GM        | MCA           | APG-III     | CN                                   |                          |                         |     |       |            |          |              |            |
| DebasmithaChakr<br>aborthy | MCA           | APG-III     | CN                                   |                          |                         |     |       |            |          |              |            |
| Bincy                      | MCA           | APG-III     | MMS                                  |                          |                         |     |       |            |          |              |            |
| Anjali T M                 | MCA           | APG-III     | MMS                                  |                          |                         |     |       |            |          |              |            |
| Chandini J                 | MCA           | APG-III     | MMS                                  |                          |                         |     |       |            |          |              |            |
| Bhavya Shree               | MCA           | APG-III     | MMS                                  |                          |                         |     |       |            |          |              |            |
| AkshayaAnvekar             | MCA           | APG-III     | MMS                                  |                          |                         |     |       |            |          |              |            |



|                        | a .           | u       |                    | o.ofYe<br>Experie |                         |     |       | Forthe     |                       |            |
|------------------------|---------------|---------|--------------------|-------------------|-------------------------|-----|-------|------------|-----------------------|------------|
| Name                   | Qualification |         | Specialization     |                   | Teaching other than AIT | AIT | Total | No.ofPh.D. | Students guidedforthe | last4years |
| Anoop D M              | MCA           | APG-III | Web Tech           |                   |                         |     |       |            |                       |            |
| AnirbanMitra           | MCA           | APG-III | Web Tech           |                   |                         |     |       |            |                       |            |
| AshwiniVaijinath       | MCA           | APG-III | Web Tech           |                   |                         |     |       |            |                       |            |
| BalteRadhaGhale<br>ppa | MCA           | APG-III | Advanced Java      |                   |                         |     |       |            |                       |            |
| Bhavin Kumar<br>Patel  | MCA           | APG-III | Advanced Java      |                   |                         |     |       |            |                       |            |
|                        | MCA           | APG-III | Cloud<br>Computing |                   |                         |     |       |            |                       |            |
| Devipriyanka A         | MCA           | APG-III | Cloud<br>Computing |                   |                         |     |       |            |                       |            |
| Divyashree H N         | MCA           | APG-III | Cloud<br>Computing |                   |                         |     |       |            |                       |            |
| DushyanthKumari<br>N S | MCA           | APG-III | ADA                |                   |                         |     |       |            |                       |            |
| Akshata H              | MCA           | APG-III | ADA                |                   |                         |     |       |            |                       |            |
| Kavana P K             | MCA           | APG-III | ADA                |                   |                         |     |       |            |                       |            |

11. List of senior visiting faculty

12. Percentage of lectures delivered and practical classes handled (programme wise)

By temporary faculty

Nil

Nil

13. Student-Teacher Ratio (programme wise) 20:1



# 14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

| Category     | Sanctioned | Filled |
|--------------|------------|--------|
| Programmer   | 1          | 1      |
| Instructor   | 2          | 1      |
| Jr.Assistant | 1          | 1      |

### 15. Qualifications of teaching faculty with DSc/D.Litt/Ph.D/MPhil/PG.

| Sl no      | No. of faculty |
|------------|----------------|
| DSc/D Litt |                |
| Ph.D       | 1              |
| M.Phil     | 2              |
| PG         | 35             |

# 16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received Nil

# 17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received Nil

#### 18. Research Centre/facility recognized by the University: Yes

MCA- Research Centre - VTU

#### 19. Publications:

#### a) Publication per faculty

Publications of the faculty in international journals, national journals, international conferences, national conferences, books authored / edited / chapter contribution are enclosed in Self Study Report: Volume II, Part II.

20. Areas of consultancy and income generated:

Nil



### 21. Faculty as members in

a) National committees b)International Committees c)Editorial Boards

| Name of Faculty   | Committee | В   | SOS   |     | ВОЕ                  |
|-------------------|-----------|-----|-------|-----|----------------------|
| Traine of Faculty | Details   | VTU | Other | VTU | Other                |
|                   |           |     |       |     | National             |
| Prathibha S.B     |           |     |       |     | College(Autonomous)  |
|                   |           |     |       |     | Bangalore University |

## 22. Student projects:

- a) Percentage of students who have done in-house projects including inter Departmental/programme: Nil
- b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ otheragencies

|                                | Percentage |
|--------------------------------|------------|
| No of Students                 | 100        |
| No of in-house projects        |            |
| No of Inter dept projects      |            |
| No of Projects in R and D Labs |            |
| No of Projects in Industry     | 70         |
| Others                         | 30         |

### 23. Awards/Recognition received by faculty and students:

| Name                | Award/Recognition                               | Agency | Year |
|---------------------|---|--------|------|
| Manish kumar Thakur | Best Mentor Award, "Best mentor Award for 2014" | IBM    | 2014 |



# 24. List of eminent academicians and scientists/visitors to the department:

| Name                         | Designation  | Date of visit | Activity  |
|------------------------------|--|---------------|---|
| M.G Patil                    | H.P India Limited  | 31/8/2013     | Advanced Web Technologies And Latest Trends, a talk             |
| Santanu Das and<br>Aditi Pal | Tata Elxsi Manhattan   | 6/9/2013      | Approach to latest Trends in IT Industry, a talk                |
| Shivakanth U,                | HP India limited   | 28/9 /2013    | Simulation, a talk  |
| Amrendrajha,                 | Silvan innovations ltd   | 26/10/2013    | Application of Android, a talk                                  |
| Sachin,                      | IBM  | 4/11/2013     | TGMC, a talk  |
| Budhan                       | IBM  | 8/11/ 2013    | e-disha Fresher's day   |
| PhanindraRao                 | Principal Engineer, Aspect Technologies Pvt. Ltd                                     | 10/09/2014    | Blue mix Hackathon event  |
| Naveen Agarwal               | Global Institute of Electrical and Electronics Engineering on                        | 27/09/2014    | A Career Development Seminar On "New Trends In Web Technologies |
| Naman Shah,                  | SAS Solution Architect and Senior Vice President                                     | 10/10/2014    | Sas And Big Data Workshop                                       |
| Aditya Singh,                | Business Development Associate addressed on Business Process Optimization solutions. | 10/10/2014    | Sas And Big Data Workshop                                       |
| Dharmesh                     | Centre Manager of<br>Epoch Research<br>Institute India Pvt. Ltd                      | 10/10/2014    | Sas And Big Data Workshop                                       |



| Name                     | Designation  | Date of visit                 | Activity   |
|--------------------------|--|-------------------------------|--|
| Padmashri R M<br>Vasagam | Former Vice<br>Chancellor, Anna<br>University            | 5/12/2014<br>and<br>6/12/2014 | National Conference<br>[TECHMAN-14]  |
| K Rajanikanth,           | Former Principal MSRIT                                   | 5/12/2014<br>and<br>6/12/2014 | National Conference [TECHMAN-14]   |
| PhanindraRao             | Principal Engineer, Aspect Technologies Pvt              | 10/09/ 2014                   | a speech on various<br>opportunities available in IT<br>industries and the applications<br>of computer science |
| Lohit YC                 | Amadeus Software labs                                    | 25/04/ 2015                   | Software Architecture and Framework"   |
| GopalLingsur,            | Founder and Director, Academy of Testing Practices       | 19/02/ 2016                   | A talk on software practices and opportunities.  |
| Shubha p,                | Cognizant technology solutions                           | 4/05/ 2016                    | MAVEN- A build tool dated MAVEN simply means "Accumulation of Knowledge".                                      |
| Mahantesh,               | Co-founder and CEO,<br>Knee kite IT Solutions<br>Pvt Ltd | 28/04/1 2016                  | Talk on "Passion and<br>Startups"  |
| SarithaDevpunje-         | Director, Magneton<br>Technologies                       | 20/11/<br>2016                | E-disha Forum Activity "Industry Expectations and how to crack interview"                                      |
| Premasudha,              | Prof MCA,SIT<br>Tumkur                                   | 7/11/2016                     | Invited Talk "Selection of interdisciplinary topics for projects in internships"                               |
| Srinivas,                | Technical Head BGS Info tech                             | 7/11/2016                     | Carrier Guidance and<br>Internships  |



## 25. Seminars/Conferences/ Workshops organized and the source of funding

## a) National b) International

| Seminar/ Conference/<br>Workshop | Duration with dates             | Funding agency | Amount of fund | Amount funded by Institution | No of participants |
|----------------------------------|---------------------------------|----------------|----------------|------------------------------|--------------------|
|                                  |                                 | National       |                |                              |                    |
| Techman 13                       | 27/12/2013<br>and<br>28/12/2018 |                |                |                              |                    |
| Techman 14                       | 5/12/ 2014                      |                |                |                              | 48                 |
|                                  |                                 | Internationa   | al             |                              |                    |
| ITACT - 15                       | 21/12/2015<br>and<br>22/12/2015 | ISRO           | 75,000         | 5,00,000/-                   | 51                 |
| Workshop                         |                                 |                |                |                              |                    |
| Workshop on "Python Programming  | 24/01/2017<br>and<br>25/01/2017 |                |                | 16,900/-                     | 44                 |

## 26. Student profile programme/ coursewise:

| Name of the programme (Management seats) | Year    | Applications received | Selected |
|--|---------|-----------------------|----------|
| Master of Computer Applications          | 2013-14 | 78                    | 50       |
|  | 2014-15 | 72                    | 45       |
|  | 2015-16 | 43                    | 22       |
|  | 2016-17 | 37                    | 21       |



## **27.** Diversity of Students

| Name of the | % of students from | % of students from | % of students |
|-------------|--------------------|--------------------|---------------|
| Course MCA  | the same state     | other States       | from abroad   |
| 2013 – 2014 | 65                 | 35                 | 0.6           |
| 2014 -2015  | 76                 | 24                 | 0.7           |
| 2015-2016   | 77                 | 23                 |               |
| 2016-2017   | 77                 | 23                 |               |

# 28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

|                  | Year | No | Year | No | Year | No | Total |
|------------------|------|----|------|----|------|----|-------|
| NET              |      |    |      |    |      |    |       |
| SLET             |      |    |      |    |      |    |       |
| GATE             |      |    |      |    |      |    |       |
| Civil services   |      |    |      |    | Nil  |    |       |
| Defense services |      |    |      |    |      |    |       |

## 29. Student progression:

| Studentprogression                | Against%enrolled |
|-----------------------------------|------------------|
| UGtoPG                            | Nil              |
| PGtoM.Phil.                       | Nil              |
| PGtoPh.D.                         | 1                |
| Ph.D.toPost-Doctoral              | Nil              |
| Employed                          |                  |
| <ul><li>Campusselection</li></ul> | 55               |
| Other than campus recruitment     | 45               |
| Entrepreneurship/Self-employment  | 11               |



### **Progression in the Department (Based on First year admission)**

| No/year | Intake | Year1 | Year2        | Year3 | % year 2 | %Year3 |
|---------|--------|-------|--------------|-------|----------|--------|
| 2013-14 | 240    | 182   | 169+5=177    | 170   | 93       | 91     |
| 2014-15 | 240    | 156   | 133+1+45=179 | 170   | 85       | 84     |
| 2015-16 | 240    | 101   | 86+5+46=137  |       | 85       |        |
| 2016-17 | 240    | 81    |              |       |          |        |

• Percentage based on first year admission

#### 30. Details of Infra structural facilities:

a) Library

No. of Title: 1931

No. of Volumes: 11354

#### b) Internet facilities for staff and students:

Broad band connectivity of

- 1) 120Mbps Railtel
- 2) 10Mbps BSNL
- 3) Campus is enabled with Wi-Fi facility

### c) Class rooms with ICT facility:4 Class Rooms with LCD

**d) Laboratories:** 4 Labs with 181

# 31. Number of students receiving financial assistance from college, university, government or other agencies

| Year    | No of<br>Students | College | University | Social welfare                   | Merit | Other                     |
|---------|-------------------|---------|------------|----------------------------------|-------|---------------------------|
| 2013-14 | 146               | 3       |            | Taluk social welfare office      |       | Wind D                    |
| 2014-15 | 153               | 2       |            | DTE scholarship [Above 2.5 lakh] |       | Kitthur Rani<br>Chennamma |
| 2015-16 | 160               | 2       |            | for SC                           |       | PrathibhaPurask<br>ar     |
| 2016-17 | 166               |         |            | OBC Scholarship BCM Scholarship  |       |                           |



# 32. Details on student enrichment programmes (special lectures/workshops/ seminar) with external experts (For 2015-16)

| Date        | Activity   | Resource person  | No of participants |
|-------------|--|--|--------------------|
| 31/08/2013  | Advance Web Technologies And Latest Trends A Talk                      | M.G PatilH.P India Limited   | 120                |
| 06/09/2013  | Approach To Latest Trends In It Industry                               | Santanu DasAditi PalTata<br>Elxsi Manhattan                              | 120                |
| 27/09/2013  | New Trends In Web<br>Technologies                                      | Naveen Agarwal Global Institute Of Electrical And Electronic Engineering | 120                |
| 28/09/2013  | Simulation - A Talk  | Shivakanth .U<br>H.P India Limited                                       | 120                |
| 26/10/2013  | Application Of Android   | AmendraJha Silvan Innovations Ltd  | 120                |
| 04/11/2013  | Tgmc   | Sachin, IBM  | 120                |
| 08/11/2013  | Project Seminar  | Budhan, IBM  | 120                |
| 30.08.2014  | "Opportunities With Cloud<br>Computing And Other<br>Technologies       | Gopalakrishna<br>Tekinar Ltd   | 120                |
| 10/10/ 2014 | Sas And Its Use For Big Data Analytics                                 | Naman Shah Sas Solution<br>Architecture                                  | 120                |
| 25/04/2015  | Software Architecture and Framework                                    | Lohith Y C<br>Amadeus Software Lab                                       | 120                |
| 30/10/2015  | Enterprise Service Bus And<br>Web Methods Integration<br>Product Suite | Sahana M S<br>Software Ag  | 120                |
| 19/02/2016  | Software Testing   | GopalLingsur Academy Of Testing Practices                                | 120                |
| 4 /05 2016  | MAVEN- A build tool  | Shubha p, cognizant technology solutions                                 | 44                 |



| Date        | Activity  | Resource person   | No of participants |
|-------------|---|---|--------------------|
| 28/04/ 2016 | Passion and Startups  | Mahantesh, Co-founder and CEO, Knee kite IT Solutions Pvt Ltd |                    |
| 20/10/2016  | Industry Expectations and how to crack interview                  | SarithaDevpunje- Director,<br>Magneton Technologies pvt       | 120                |
| 7/11/2016   | Carrier Guidence and<br>Interships                                | Srinivas, Technical Head<br>BGS Info tech                     | 180                |
| 7/11/2016   | Selection of interdisciplinary topics for projects in internships | DrPremasudha, Prof<br>MCA,SIT Tumkur                          | 170                |

## 33. Teaching methods adopted to improve student learning

| Chalk | Use  |               |                 |               |              | Any   |
|-------|------|---------------|-----------------|---------------|--------------|-------|
| and   | of   | Demonstration | Experimentation | Collaborative | Experiential | Any   |
| Talk  | ICT  |               |                 |               |              | other |
| Yes   | Yes  | Yes           |                 | Yes           | Yes          | MO    |
| 168   | 1 68 | 168           |                 | 1 68          | 1 68         | OC,   |

## 34. Participation in Institutional Social Responsibility (ISR) and Extension activities

| Date  | Activity                 | No of Participants |
|---|--------------------------|--------------------|
| 21 <sup>st</sup> and22 <sup>nd</sup> Dec 2017 | Internet world Programme | 60                 |

#### 35. SWOC analysis of the department and future plans

#### Strength

- 1. MOU with IBM having "IBM software center of excellence".
- 2. Competent faculty resulting in year wise university ranks.
- 3. Strong mentorship and Proctorial system that monitors the development of the students.
- 4. Research center and congenial research environment, where in large number of faculty have registered for Ph.D



#### Weakness

- 1. Lack of campus placement opportunity for MCA student.
- 2. Consultancy and extension activities need improvement.
- 3. Industry and institution interaction needs to be strengthened further.

### **Opportunity**

- 1. Expansion of community work.
- 2. Twinning program / projects collaboration with other universities.
- 3. Providing more opportunities for students to attend conferences, workshop and training at international level.

#### Challenges

- 1. Declining admission and quality of students.
- 2. Availability of qualified/ doctorial faculty.
- 3. Rapidly changing technologies, tools in IT industry to synchronize with the present day requirement.

#### **Future Plans:**

- 1. Improve industry contacts, and placements.
- 2. Create more awareness on tools and technologies in the job market.
- 3. Get more funded project.