

# **AERO NEWSLETTER**

2021-2022

### **VISION**

The Department of Aeronautical Engineering is committed to impart quality education fostering excellence in academics, research and innovation to develop globally competent aeronautical engineers contributing to the society.

### **MISSION**

M1: To offer outcome-based learning that encompasses research and innovation.

M2: To promote interdisciplinary learning and interaction with the global community.

M3: To enable holistic education engrossed with social values.



#### GOA SHIPYARD LIMITED

The Department of Aeronautical Engineering organized an educational visit to Goa Shipyard Limited, Goa on 25 May 2022.

As a part of experiential learning, the second-year students of AE were taken to Goa Shipyard Limited, Goa to provide the students with real-time time exposure in the field of manufacturing, processing and production technology.

The visit was organized under the guidance of Dr S K Maharana, HOD, AE and facilitated by Prof. Steffi Thangachan. The students of AE were accompanied by Prof. Mahantayya K H and Ms Tejaswini A N.





# DEMONSTRATIONS OF IOT FOR AEROSPACE APPLICATIONS:

The department of Aeronautical Engineering successfully conducted a 3-day skill development workshop on "Demonstrations of IoT for Aerospace Applications" under the Forum "UDAAN" on 26th, 27th February, and 5th March 2022 (Offline mode) at seminar hall, ANA block, AIT. This hands-on experience with fifty inhouse participants focused on applications and use of the MATLAB tools through ample practice exercises, exhaustive demos, and self-test assignments. To name a few... Eliminating the audio disturbance from the original audio, fast forward visual to slow motion, Temperature sensors, Identifying the faces and bodies, Visualization of different types of Vehicles by using Raspberry Pi and Arduino board, etc. The resource person Dr. Pramod Kumar Naik, an IBM and Simplilearn Certified Artificial Intelligence Engineer and a Data Scientist by profession, made the workshop all the more fruitful by discussing and demonstrating a couple of current industrial problems in the field of Aerospace.









#### VTU INTERZONE: TOURNAMENT



Students from the Aeronautical department participated in the VTU INTERZONE Throwball tournament 2022, as part of the Girls' throwball team for Acharya Institute of Technology. The team went on to win 1st place in the tournament on 9th June 2022, and also came runners up at the Sanskruthi Fest held at Dr. B R Ambedkhar college, Benguluru throwball tournament.

## 3-D AIRCRAFT SKETCHING AND TECHNICAL QUIZ:



The Department of Aeronautical Engineering organized an event named "3-D AIRCRAFT SKETCHING AND TECHNICAL QUIZ" under its technical Forum 'UDAAN' on 04/01/2022. The aeromodelling club of AE aims at developing both academic and technical skills by providing a platform for creativity. This event was initiated under the guidance of Dr. S K Maharana, HOD AE and was executed by the "UDAAN" Aero Club Coordinator Prof. Prashant and Prof. Akash S.





**PEO1**: Employability: Graduates of the program shall have necessary skills and competence to be employable in the core industry, academia and multi-disciplinary sectors

<u>**PEO2</u>**: Advancement: Graduates of the program shall advance professionally in the management, entrepreneurship and allied industries.</u>

**PEO3**: Contribution: Graduates of the program shall have innovative idea and the potential to contribute to the expansion, maintenance and ongoing needs of the aviation industry.

**PEO4**: Lifelong learning: Graduates of the program shall possess an unrelenting interest in learning and adapt new technological advancements to the requirements of the evolving industrial contexts.

**PSO1:** Elements of Aircraft Components and their operations: Apply the foundations of aerodynamics, propulsion, aircraft structure and materials; Evaluate the performance and operation of components of aircrafts and flying vehicles.

**PSO2**: Flight Vehicle design and development: Demonstrate the flight vehicle design, integrate the aircraft systems and components and test the flight.

**PSO3**: Aircraft Thermal and Fluid Structure Interaction: Apply the concepts of aerothermodynamics, energy conversion, heat and mass transfer in analyzing both internal and external flows; Demonstrate it for various aircraft engines and structures.

**PSO4:** Aircraft Avionics, Stability and Control: Apply the basic knowledge of avionics to communicate and control with the aircraft components; Evaluate the stability of the overall aircraft.