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Don't take rest after your first victory because if you fail in second, more lips are waiting to say that your first victory was just luck.

- A.P.J ABDUL KALAM



VISION

The Department of Aeronautical Engineering is committed to providing quality education fostering excellence in academics, research and innovation to produce aeronautical engineers who can contribute to society on a global scale.

MISSION

M1: To provide outcome-oriented learning that is based on research and innovation.

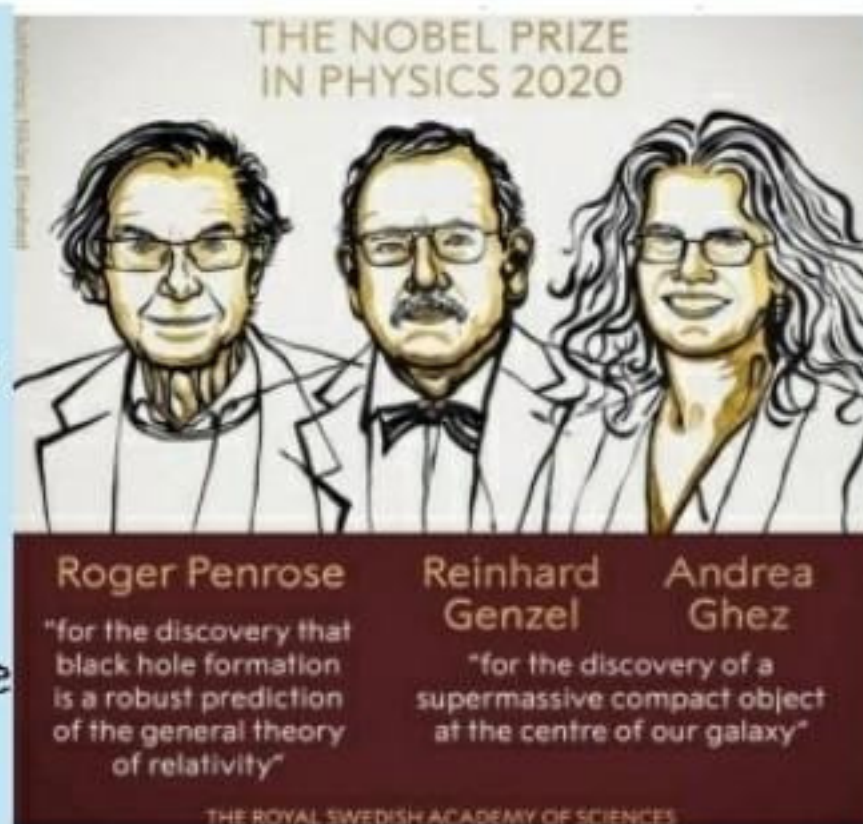
M2: To encourage cross-disciplinary learning and interaction with the global community.

M3: To enable a holistic education that is deeply rooted in social values.

Three share Physics Nobel for their discoveries about black holes

-Md Meeran Adnan(7th sem)

Three scientists who cemented the reality of black holes have been jointly awarded the Nobel Prize in physics. Roger Penrose of the University of Oxford, Reinhard Genzel of the Max Planck Institute for Extraterrestrial Physics in Garching, Germany and Andrea Ghez of UCLA will split the prize, the Royal Swedish Academy of Sciences.



Black holes are massive objects with a gravitational field so strong that nothing can escape once it falls within, not even light. At their centers, black holes harbor a puzzling zone called a singularity, where the laws of physics cease to make sense.

Black holes "really represent the breakdown of our physical understanding of the laws of physics. That's part of the intrigue," Ghez said via a phone call during the announcement. Studying the exotic objects "pushes forward on our understanding of the physical world." Penrose will receive half of the 10 million Swedish kronor prize (more than \$1.1 million), for his mathematical calculations showing that black holes are physically possible. When the strange objects were first proposed, as a consequence of Albert Einstein's general theory of relativity, scientists were skeptical that black holes could actually exist.

The other half of the prize will be split between Genzel, also of the University of California, Berkeley, and Ghez for their work revealing that one of these dark objects lurks at the center of our own galaxy, the Milky Way.



All the things you do

-Karim Bhagwan (5th sem)

All the things you do

Its all for a naught

Living life like you're
supposed to

Coz that's all you got.

Never pausing to ponder

Is this what i seek?

Is this the ocean of wander,

Or just a pond of weak ?

Only when you jump in you
realise ,

The clutches of cliché are
pulling you down.

Soon you're drowning in this
ocean on mundanity

But thats all a part of
humanity.

Or so you tell yourself

You can still see the
extraordinary

Through the many layers of
mundane

Thats when routine quips "its
all fine"

I hope to swim above this
ocean

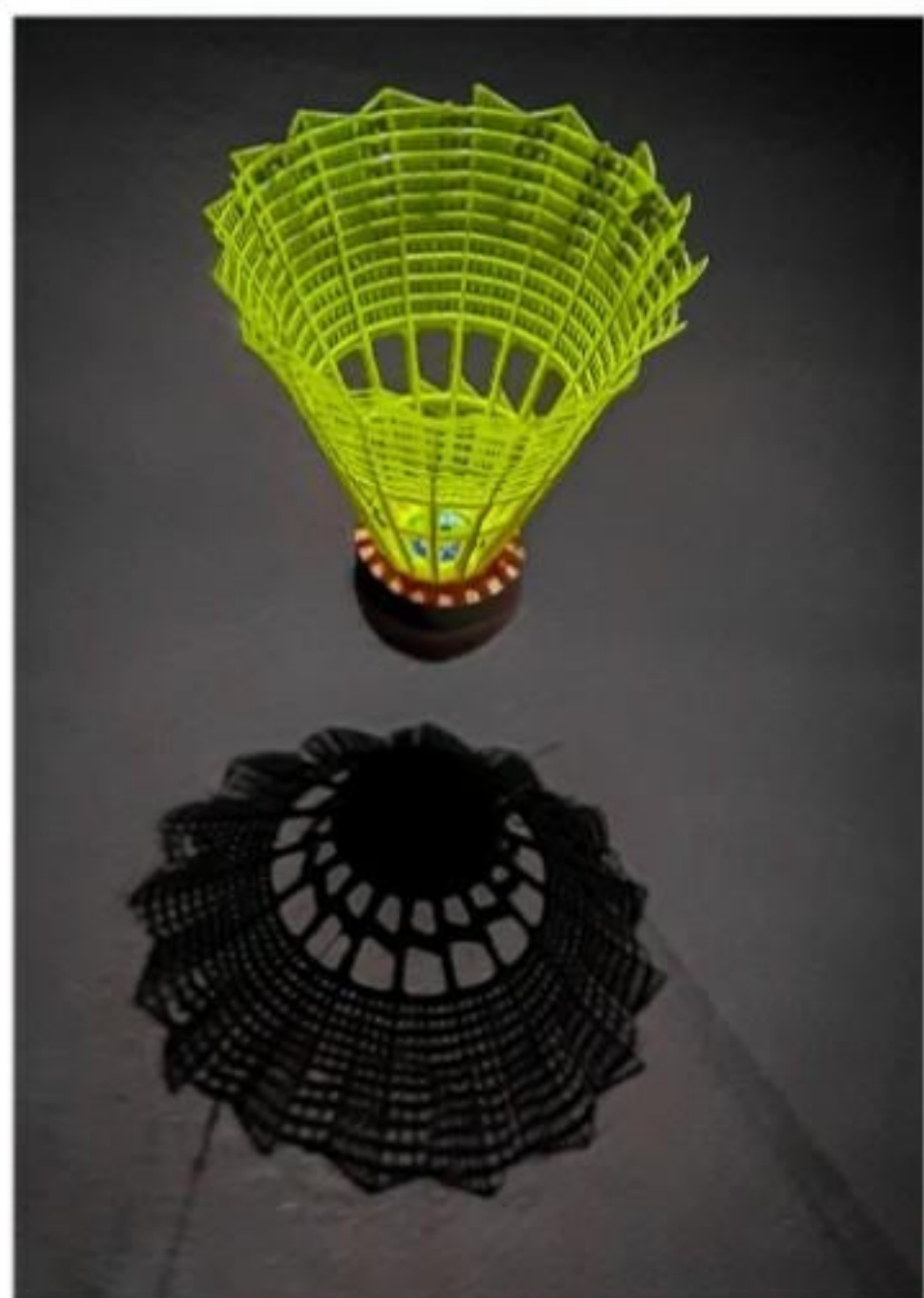
My head basking in the
extraordinary,

by body still cluched by
cliches

Even as I write these verses i
am bound by the shackles of
ryhmes amd poetic devices

"but that's okay" I tell myself
and so should you

-Rakshit M G (2nd year)



Courage isn't climbing Mount Everest

- Mir Suhaib (7th Sem)



Sometimes courage isn't climbing Mount Everest or changing the world. Sometimes your mountain to climb is made up of weekdays and months, made up of pushing yourself forward even when you want to nestle into the past. Sometimes changing the world means changing your world, as gradually as you need to, as gently as you heal, because sometimes courage isn't made up of war, and bloodshed; sometimes courage isn't made of combat. Sometimes courage is a quiet fight, a dim softness within you, that flickers even on your darkest days, and reminds you that you are strong, that you are growing — that there is hope.



-Rakshit (5th Sem)

The longest flight ever in the history is 64 days

- Mohammed Afnan (5th sem)

On 4 February 1959, the two pilots Robert Timm and John Cook succeeded and achieved to fly 64 days, 22 hours, 19 minutes and five seconds without landing. The Cessna 172 aircraft, named Hacienda, is nowadays displayed at the McCarran International Airport in Las Vegas

They had flown a little over 150,000 miles through the air, which was roughly equivalent to six times around the Earth. Timm and Cook were helped from the Hacienda, and Cook was quoted later as saying "There sure seemed to be a lot of fuss over a flight with one takeoff and one landing." Their extra effort appears to have paid off, however, as their record still stands today.



How do an aircraft act against thunderstorm?

- Keerthivasan pillai (5th sem)



On August 2, 1985, a strong and sudden thunderstorm caused a plane to crash at the Dallas Fort Worth Airport in Texas. The on-board the Lockheed L-1011 enjoyed a completely normal flight until it approached the Dallas summer afternoon in central Texas often include thunderstorms. Flight 191 moved around a storm on its original flight and ended up coming in due south runway 17. The airplane crash almost killed 135 people on board.

For years, scientists observed corona discharge at the tip of the aircraft during storms. Corona discharge is an electric glow produced when the air surrounding a conductive object is briefly ionized by an electrically charged environment.

Corona discharge can strengthen in windy conditions, glowing more brightly it also electrifies the air. On the recent study at the MIT's Wright Brother Wind Tunnel, the researchers exposed an airplane wing to increasingly strong wind gusts. They found that the stronger the wind, the weaker the corona discharge, and the dimmer the glow that was produced.

This way can be used for airplanes to counteract thunderstorms.



- Yatin singla

PRIVATISATION OF INDIAN SPACE SECTOR

- Devalla srinivas (7th Sem)



INTRODUCTION:

Indian Space Research Organisation, a proud organisation which started its journey in the year 1969, the same year when America's Neil Armstrong became the first human to step on the moon. we must take pride in the fact that we have come thus far. India has launched 319 satellites for 33 different countries as of 2019. ISRO launched 104 satellites on single launch out of which 96 of them were from the United States, while the others were from Israel, UAE, Kazakhstan, the Netherlands, Belgium and Germany. It remains the largest number of satellites launched on single flight by any space agency. ISRO showed to the world that it can launch satellite at a very low cost too. ISRO has its own space observatory (Astrosat). ISRO has its own navigational system (NavIC). ISRO discovered three species of rare bacteria highly resistant to ultra-violet radiation in the upper Stratosphere.

LAUNCHING FACILITIES, SATELLITES DESIGNING AND FABRICATION:

Today, ISRO is fully dependent on two launch vehicles in the PSLV and GSLV series. While ISRO has innovated and performed interplanetary, deep space exploration missions with these (lesser-power) rockets, India is nowhere near self-reliance in terms of launch capabilities. In the last 27 years, India has not developed an engine that is more powerful than the Vikas Engine. India still pays for the French Rocket Ariane V to launch its own satellites that weigh over 4-tons. Whereas the SpaceX Falcon 9 rocket (their smallest) can lift twice as much payload as India's most powerful rocket the GSLV Mark III. SpaceX most powerful rocket Falcon Heavy can lift six times as much payload as the Mark III. So, if private sector will participate in existing launching facilities, then ISRO will have more time to do research and development to increase its capacity.

When it comes to Satellites Designing and Fabrication, ISRO has been designing and fabricating a wide range of them that are being used for communication, imaging, weather monitoring, remote-sensing, strategic purposes etc. However, this is also a field that can be thrown open to the private sector in a bigger way. Till now very few private companies are there in assembly of satellites. Private sector along with ISRO can serve the demand of the domestic as well as foreign clients and help in increasing the capabilities of Indian space sector.

STEPS TO BOOST PRIVATE INVESTMENT:

Announcement of entry of private players in space sector is just the starting point. However to actual turn the word into reality, a lot of steps needs to be done. Detailed Policy for the private players addressing all the issues related to damage, compensation, spectrum and so on. Body for the regulation of Space Industry. Incentives such as tax holiday for new start-ups in the space s

CONCLUSION:

ISRO has done a tremendous job till now and Every Indian is proud of ISRO and its work. The private industry will also free up ISRO to concentrate on science, research and development, interplanetary exploration and strategic launches. There is no reason why ISRO alone should be launching weather or communication satellites. The world over, an increasing number of private players are taking over this activity for commercial benefits. Though ISRO has worked with some companies such as Alpha Design, Bellatrix Aerospace but all in outsourcing model. It is the right moment to move further. Private Sector in Space Industry has immense potential if we clear some hurdles. Time has come to unlock the potential.



PEO'S and PSO'S

PEO1: Employability: Graduates of the programme shall have the abilities required for employment in the core industries, academic fields, and multidisciplinary fields.

PEO2: Advancement: Graduates of the programme shall have professional advancement in the management, entrepreneurship and industries.

PEO3: Contribution: Graduates of the programme shall have creative ideas and the potential to support the aviation industry needs

PEO4: Lifelong learning: Graduates of the programme shall have a never-ending desire to learn and be able to adapt new technology developments to the needs of changing industrial environments.

PSO1. The ability to apply aeronautical engineering fundamentals in the sphere of industries such as aerospace.

PSO2. The ability to translate numerical and experimental results for propulsion systems, structural components, flight vehicle aerodynamics, and control systems.

PSO3. The ability to advance in the chosen field.

PSO4. The ability to broaden the scope of learning to include socially relevant activities.



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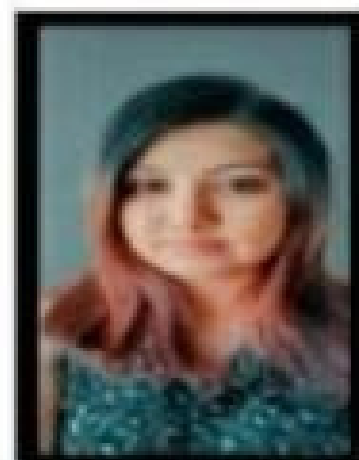
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