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THE SPARK Igniting Innovations

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

UNIVERSITY COLLEGE OF ENGINEERING KAKINADA (A) J JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA





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ACHIEVEMENTS









N. Rohith 21021A0210

C V HEMANTH BHAVANI SAI SREENIVAS 21021A0235

As a Graduate Engineer Trainee with CTC of 8.6 LPA







V. LAKSHMI PRASANNA 21021A0203

N. BALAJI NAIK 22025A0260





Y. MADHURI 21021A0227

U.V.S SATYA SAI SRIVATSA 21021A0236 **K.VARA PRASAD** 21021A0242 As a Graduate Engineer Trainee with CTC of 4.5LPA





BALUM KARTHIK 21021A0202



P.HYMA (21021A0206)

As a Graduate Engineer Trainee with CTC of 4.8LPA

Internships

- 4 students from IV B.Tech have been selected for a four months internship at TATA INSTITUTE OF FUNDAMENTAL RESEARCH BALLOON facility at Hyderabad.
- 14 students from IV B.Tech have been selected for a four months internship at Bharat Heavy Electricals Limited (BHEL), Visakhapatnam.
- 1 student from IV B.tech selected for internship at TATA ADVANCED SYSTEMS, Bangalore.
- 9 students from IV B.Tech have been selected for a four months internship at SOUTH CENTRAL RAILWAY, VIJAYAWADA.
- 2 students from IV B.Tech have been selected for a four months internship at APOLLO TYRES, Tirupathi.
- 3 students from IV B.Tech have been selected for a four months internship at GALAXE SOLUTIONS . 5 students from IV B.Tech have been selected for a four months internship at AVISHKARAN
- INDUSTRIES PRIVATE LIMITED, Hyderbad
- 15 students from IV year B.Tech have been selected for a four months internship at TRONTECH LABS PRIVATE LIMITED, Kakinada.
- 1 STUDENT IV B.TECH SELECTED FOR INTERNSHIP AT SANDHYA AQUA EXPORTS PRIVATE LIMITED, KAKINADA.

AKINADA. Congratulations to our IV BTech students for securing good internships, marking a remarkable step towards <u>a bright future!</u>"

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Future Frontiers: Upcoming Missions by ISRO Shaping India's Space Exploration

Research Indian Space Organisation (ISRO) is the space of India. The agency organisation is involved in engineering and science, technology to harvest the benefits of outer space for India and the mankind. ISRO is a constituent of maior the Department of Space (DOS), Government of India. The department executes the Indian Space Programme primarily through various Centres or units within ISRO.

GLSY-F15:



GSLV-F15 is the 17th fright of India's Geosynchronous Satellite Launch Vehicle (GSLV) and t I th flight with Indigenous Cryo stage.It is the 8th operational flight of GSLV with an indigenous Cryogenic stage an 100th Launch from the India'sSpaceport

Sriharikota.ĠSLV-Fl5 pnyload fairing is a metallic version with diameter of 3.4 meters

GAGANYAAN 1 AND 2

The spacecraft is being designed to carry three people, and a planned upgraded version will be equipped with rendezvous and docking capabilities. I n its maiden crewed mission, the Indian Space Research (ISRO)'s largely Organisation 5.3-metric autonomous ton capsule will orbit the Earth at 400 km altitude for up to seven days with a two- or three-person crew on board. The first crewed mission was originally planned to be launched on ISRO's H LVM 3 rocket in December 2021.As of November 2024, it is expected to be launched no earlier than 2026.

MANGALYAAN-2 MARS ORBITAR MISSION



If is a mission is the india's second interplanetary mission to Mars is primarily an orbiter mission. it will build on the success of magalyaan -1 providing further insights into Mars's atmosphere surface , and mineral composition.

NISAR



NASA- ISRO SAR(N ISAR) is a joint project with nasa to launch the first dual band radar imaging satelite for remote sensing this satelite wilt provide high resolution imagery various to applications including applicationc including agricu1ture,forestry and disaster management.It is a Earth Orbit (LEO) Low observatory being jointly developed by NASA and ISRO.



SHUKRAYAAN- VENUS ORBITAR MISSION:



The shukrayan mission aims to study the atmosphere in Venus orbiter this will provide valuable Venus data on surface and atmosphere conditions contributing to our understanding of the planets geology and climate.

CHANDRAYAAN-4



Chandrayaan 4 is a lunar sample return mission , the fourth in the chandrayaan series. This mission aims to:

- To perform safe and soft landing on lunar surface.
- To demonstrate lunar sample collection and containerization.
- To demonstrate ascend from the Moon's surface.
- To demonstrate docking and undocking in lunar orbit.
- To demonstrate transfer of samples from one module to other.
- To demonstrate return and re-entry to Earth for sample delivery

"ISRO is not just a space agency; it is a testament to India's vision, innovation, and indomitable spirit to reach for the stars"

> WRITTEN BY P.KRISHNA KUMARI 24021A0233 I Btech

The Crisis of Engineering Education in India

Lack of Effort or Systemic Failure?

Engineering has long been considered one of the most prestigious career choices in India. However, in recent years, the quality of engineering education and the employability of graduates have been major concerns. With thousands of engineering colleges across the country, India produces over a million engineers annually, yet significant а remain unemployed percentage or underemployed. The blame often falls on students for not putting in enough effort, but is the real problem with them, or is the system failing them?

Quantity Over Quality

One of the biggest issues with engineering education in India is the uncontrolled growth of private colleges. Many institutions prioritize profit over education, lacking proper infrastructure, experienced faculty, or industry connections. The result is a large number of graduates who hold degrees but lack the necessary technical skills.

Student Effort

While it is true that many students do not put in enough effort, the root cause often lies in how they approach learning. A culture of rote memorization dominates, where marks are valued more than knowledge. Many students take shortcuts—copying assignments, memorizing previous years' question papers —rather than focusing on deep learning. The lack of inspiring faculty and hands-on experiences further reduces motivation

Parental & Societal Pressure

Another reason for disengagement among students is the pressure to pursue engineering even when they have no interest in the field. Many students enter engineering due to societal expectations rather than passion. This results in a lack of curiosity, innovation, and enthusiasm for problem-solving, which are essential traits for successful engineers.

The Way Forward

To address these issues, there needs to be a fundamental shift in both the education system and students' approach to learning. Colleges must update their curriculum, encourage research, and provide better industry exposure. Students, on the other hand, must take responsibility for their learning—engaging in self-study, working on projects, and seeking internships. Online platforms offer a wealth of knowledge, and students should leverage them to bridge the skill gap



Crisis in Engineering Education: Time to re-think approach to education Outdated curriculum, lack of soft skills, and automation pose major

Outdated curriculum, lack of soft skills, and automation pose major challenges to students

N. Rusinessline / Anr. 26 2017

Lack of Student Effort: The Harsh Reality^{*} While the education system has flaws, many students also fail to put in the right kind of effort. Some key issues include:

- Focus on Marks, Not Knowledge:* Many students prioritize passing exams over truly understanding concepts. Rote learning is common, and assignments are often copied rather than completed with genuine effort.
- Lack of Practical Learning:* Students do not actively engage in coding, electronics projects, or technical experiments outside of their syllabus, making them dependent on college teaching alone.
- Minimal Interest in Internships & Skill Development:* Despite the availability of online courses, hackathons, and internships, many students do not take advantage of these opportunities.
- The Shortcut Mentality:* Many students seek the easiest way to get through college —memorizing previous years' question papers, copying projects, and avoiding challenges rather than embracing problemsolving.
- Fear of Failure & Lack of Experimentation:* The fear of failure discourages students from trying new things, leading to a lack of innovation. They hesitate to work on real-world projects, start tech clubs, or build prototypes because they fear making mistakes.

WRITTEN BY GOKARLA GNANENDRA 24025A0255 II Btech

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EVENTS AND WORKSHOPS



- Dr. K. Venkata Reddy, Professor and Head of the Department, at **INTUK** Kakinada, delivered an insightful lecture on "Electric Vehicles" on 6th and 7th February 2025 at St. Ann's College of Engineering & Technology. He discussed the future scope of the EV industry, how electric vehicles are transforming the automobile sector, and their significant role in reducing pollution. He also interacted with the students and clarified their doubts regarding the topic.
- Dr. K. Ravindra, Professor, Department of EEE, participated as a Session Chair in the 2nd International Conference on Renewable Energy, Green Computing & Sustainable Development (ICREGCSD-2025), sponsored by ISTE. The conference was organized by the Department of Electrical and Electronics Engineering and held on 21st–22nd February 2025 at CVR Engineering College, Hyderabad, Telangana.
- Dr. K. Venkata Reddy, Professor and Head of the Department at JNTUK Kakinada, delivered a guest lecture on "Electric Vehicles" at Pragati Engineering College on 25th February 2025. He enlightened the students about the vast opportunities in the EV sector and addressed their queries with insightful explanations. The event was attended by Dr. K. Naresh, Principal of Pragati Engineering College, Mr. Durga Prasad, Head of the E.E.E. Department, along with faculty members and students.



- The Innovation and Coding Club commenced its session on 15th February 2025. Joint Secretary M. Yaswanth Kumar gave a briefing about the kits and components received in the department. He also explained the various activities that take place within the club. This was followed by Secretary J. Mukesh, who provided an overview of paper presentations. Vice President Meghana then explained the concepts of microprocessors and microcontrollers.
- The Communication and Leadership Skills Club held on 22nd February 2025 at the Dr. B. R. Ambedkar Central Library, UCEK, JNTUK. In this session members were divided into groups of five, and each group was assigned a book. They were given half an hour to read the book, understand its content, and then present their insights and interpretations to the rest of the club.





A guest lecture on the Importance of Sports and Injuries was conducted by the Sports Club under the Student Activity Center on 28th February 2025. The session was delivered by Dr. Hymavathi, who emphasized the significance of sports in daily life and the importance of safety while participating in sports activities.The event concluded with a speech by the Sports Club President, Ashok Sai.

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ARTS AND CULTURALS



Killana Kavya II BTech 24025A0256



R. Keerthy II BTech 23021A0240



Sai Sri II BTech 23021A0252 **Photography**



Kavya Sri II BTech 23021A0250



P Praneeth II BTech 23021A0234

K .Vijay II BTech 23021A0219

G. Jhansi I BTech 24021A0213

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ARTS AND CULTURALS



Jyotsna II BTech 23021A0218



Niharika II BTech 23021A0214



Harika II BTech 23031A0238



Bhavitha II BTech 23031A0212



M. Snehita I BTech 24021A0227



Our Team,

Editor in Chief Dr. K.Venkata Reddy Head & Professor

Issue Editor

Dr.Ch.Sai Babu Professor

Associate Editors

Smt.K.Vijaya Bhanu Assistant Professor(C)

Smt.J.Jyothsna Assistant Professor (C)

Dr.C.Naga Kota Reddy Assistant Professor (C)

Student Members

III B.Tech

Mr. T. Sai Govinda Krishna Ms. B. Thulasi Mr. R.D. Pavan Kumar Mr. M. Jai Surya Mr. G. Naveen Sai

II B.Tech Mr. G.Gnanendra Ms. G.Bhavitha

I B.Tech

Mr. J.Mist Ms. M.Snehita

Contact Details:

Editor in Chief Department of Electrical & Electronics Engineering. University College of Engineering Kakinada. Kakinada-533003,Andhra Pradesh. Mail.Id: thespark@jntucek.ac.in