



SRI KRISHNA



COLLEGE OF ENGINEERING AND TECHNOLOGY

Kuniamuthur, Coimbatore

(An Autonomous Institution, Affiliated to Anna University, Chennai)

**VOLUME 5
ISSUE 1**



ECHO

**MAGAZINE OF
MECHATRONICS
ENGINEERING DEPARTMENT**

"THE ONLY LIMIT TO OUR REALIZATION OF TOMORROW
WILL BE OUR DOUBTS OF TODAY."

- FRANKLIN D. ROOSEVELT



Editorial

It brings me immense joy to write the editorial for the next issue of this vibrant magazine. It has evolved into a harmonious fusion of innovative and creative thinking, showcasing an impressive blend of both technical expertise and artistic skills.

Recently, I read about an article on Assistive Robotic Technologies for Next-Generation Smart Wheelchairs. It was stated that, “According to the World Health Organization, in 2018, 75 million people worldwide needed a wheelchair, but only 5-15% of those in need had access to one. To attain equitable access to assisted mobility, it is therefore imperative to design new technical aids to compensate for any deficiencies while relying on the skills of each individual. Robotic assistance for driving a power wheelchair is hence an indispensable tool for people’s independence. In response to the clinical needs identified, two novel smart wheelchairs with complementary capabilities and a Virtual Reality (VR)-based wheel-chair simulator have been developed. These systems have been validated via extensive experimental campaigns in France and the United Kingdom.” (IEEE Robotics & Automation Magazine, March 2023). It is indeed impressive to see how technological innovations can revolutionize the lives of differently abled people.

My sincere congratulations go to the Editorial team for their outstanding and fantastic efforts in crafting the magazine and curating all the articles. I extend my gratitude to all the contributors for taking the time to share their valuable works.

Happy reading!



Dr. M. Lydia
Professor & Head

Faculty Editors:

Dr. K. Ananthi, Associate Professor

Mr. S. Madhankumar, Assistant Professor

Student Editors:

Madhesh B

NandhaKrishnan P

2023-27 Batch

SYNOPSIS

- DEPARTMENT EVENTS
- STUDENTS' ACHIEVEMENTS
- RESEARCH & DEVELOPMENT
- CREATIVE CORNER
- STUDENTS' TESTIMONIAL
- EXPLORE THE TECH

"The only thing standing between you and your goal is the story you keep telling yourself as to why you can't achieve it."

- Jordan Belfort

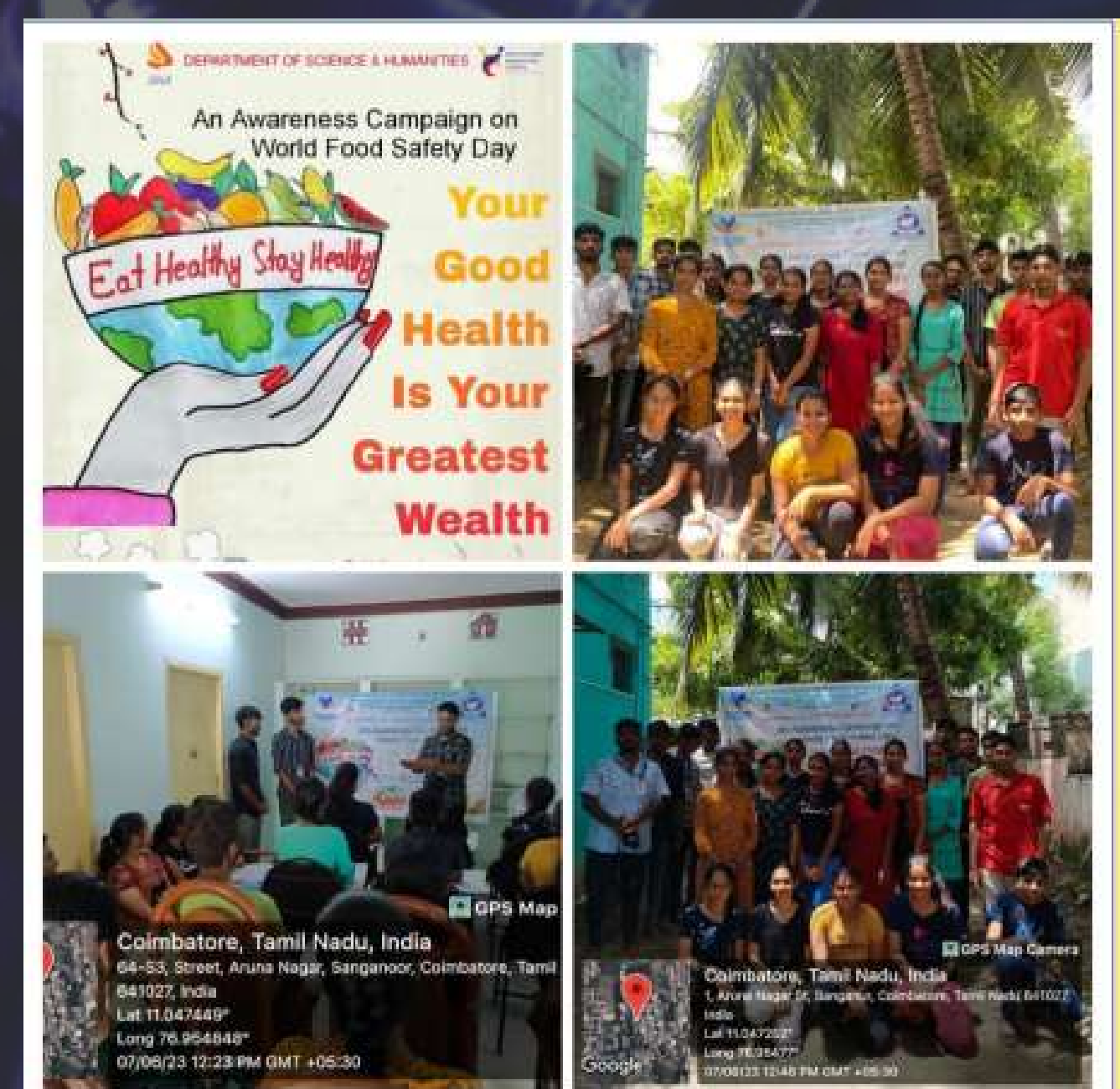
WELCOME ADDRESS



Dr. M. Lydia, Head of the Department addressed the final year students in the beginning of the odd semester on 19 June 2023. HoD emphasised the need to maintain discipline in and around the campus, attendance in placement training, internal tests and attendance etc. She motivated the students to be focussed towards the goal, to perform their best in Academics, participate in National and International Conferences, Workshops, Hackathons and in-house activities. Finally, she greeted the students to be safe and to enjoy every minute of learning in and around the campus.

OUTREACH ACTIVITY

Students of First year organized Outreach Activity on World Food Safety Day. The students volunteered to enlighten and educate school students about the significance of food safety. Our student volunteers emphasized mainly on the relationship between good health and proper food practices that will in fact help them to understand the value of making proper food choice about their diet and nutrition.



TUTOR WARD MEETING



Dr.K.Ananthi, Associate Professor has conducted Tutor Ward Meeting for III Year students on 04.07.2023. The pointers of discussion were:

- Regular attendance in the class
- IFT Report and Presentation
- Nature of subjects
- Accommodation Updates
- CIA 1 dates and preparation
- Participation in co and extra-curricular activities

DRUG FREE COIMBATORE



76th Independence Day Celebration – 76 kms Cycling

- 14 Students of SKCET participated in the “Let us make Drug free Coimbatore” 76 Kms cycling event organized by Coimbatore City Police on 12.08.2023.
- The event was flagged off by our Coimbatore City Police Commissioner Sri.

Balakrishnan at 5.45 am in the presence of our beloved Trustee Sir Sri. K. Adithya at Coimbatore City Police Commissioner office.

- Around 100 cyclists along with the police officials from Coimbatore City Police Department participated in the event.

YOUTH FUSION FIESTA

On the occasion of International Youth Day, Department of Mechatronics Engineering organized a "Youth Fusion Fiesta" on 12th August 2023 with an aim to help the students to sharpen their extra-curricular and creative minds. The students enthusiastically participated in the following events

- Pictowar
- Mute Masquerade
- Ink & Imagination

The Winners and participants were appreciated with certificates.

Empower the youth today; Enrich the world tomorrow



OUTREACH ACTIVITY

The Institutions Innovation Council in association with Robotics Club of Mechatronics Engineering Department conducted a "Workshop on Introduction to Robotics and 3D Printing - Facilitating an Orientation-Cum-Mentoring Session for ATL Schools" for the students of Government Girls Higher Secondary School, Thondamuthur, Coimbatore on 17/08/2023.

Mr T Vignesh, Assistant Professor and **Dr N Mithran**, Associate Professor were the Resource persons of this workshop and educate the young minds on the trending topics of Robotics, 3D printing and AR/VR.



AWARENESS PROGRAM ON OVERSEAS EDUCATION AND JOB OPPORTUNITIES



Department organized an Awareness Program on Overseas Education and Job Opportunities on 18.08.2023. Ms.Sonia from Dream Overseas Education, Coimbatore, briefed about,

- University and course selection from Canada, UK, USA, Germany.
- Visa process.
- Part time job opportunity during PG study.

- Scholarship provision for international scholars
- Entry requirements for various countries.
- Entrance exams for various countries like IELTS, GRE, TOEFL
- Applications process
- Job opportunities after Masters

TUTOR WARD MEETING

Tutor ward meeting was conducted for 3rd year students on 22.07.2023. The following points were discussed.

- Regular attendance and discipline
- Industrial training attendance for open elective
- Attending the placement test
- CIA 1 preparation
- Semester exam results
- Participation in curricular and extracurricular activities
- Transparency application submission: 24/07/2023
- Industrial Training
- Placement activities



TUTOR WARD MEETING



Tutor ward meeting was conducted for final year students on 23.07.2023. The following points were discussed.

- Accenture Drive Preparation.
- Self-Practice through online mock tests.
- Placement Drive Dress code
- Class and Placement discipline
- Placement Not willing students Activities
- Class and placement timing punctuality and attendance

YOUTH DAY COMPETITION



The Department of Mechatronics Engineering, SKCET has coordinated the Institution of Engineering and Technology (IET) Present Around The Network (PATN) Coimbatore Regional level competition on 12.08.2023 as a part of International Youth Day 2023.

The theme of the competition was 'Green Skills for Youth: Towards a Sustainable World'

- Students from the various Engineering colleges in and around Coimbatore Region have been enthusiastically participated and showcased their presentation skills.
- Jury Members of this event were Ms. Eileen Pious, AP/S&H, SKCET and Mr. Saktheeswaran Govindarajan of Easwara Agro and Engg Agencies, Coimbatore.
- The winners of this competition were,
- 1st prize - P.S.Sangeeth Raj from M.Kumarasamy College of Engineering.
- 2nd prize - Kishore Ravichandran from Sri Krishna College of Engineering and Technology.

CLASS COMMITTEE MEETING



Dr. R. Jeyakumar, Associate Professor of Mechanical Engineering, conducted a Class Committee Meeting for the IV-year MCT A and B students on 17-08-2023. The following points were discussed as follows:

1. Academic Performance
2. Course feedback
3. Placement training
4. Class attendance
5. General Grievances

TUTOR WARD MEETING



Dr.D.Pritima, Professor has conducted Tutor Ward Meeting for III Year students on 12.07.2023. The pointers of discussion were:

1. Regular attendance and Discipline.
2. Placement preparedness.
3. Innovative project team formation and follow up.
4. IFT report submission & presentation.
5. CIA 1 preparedness.

TUTOR WARD MEETING

Dr.S.Balasubramani, Associate Professor conducted Tutor Ward Meeting for III Year MCT B sec students on 14.07.2023. The pointers of discussion were:

- Regular attendance in the class
- IFT Report and Presentation
- Placement Test
- CIA 1 dates and preparation
- Participation in co and extra-curricular activities
- Student Discipline



MCT - OUTREACH ACTIVITY



The Department in association with NSS conducted an outreach activity for the School Students of Government High School, Kuniyamuthur, on 21.07.2023. The importance and awareness about the World Nature Conservation Day was disseminated to the school students and Seedballs were also distributed.

MCT OUTREACH ACTIVITY



The Institution's Innovation Council in association with Robotics Club of Mechatronics Engineering Department conducted one day "Workshop on Introduction to Robotics , Automation, 3D Printing and Hands on training in ATAL Tinkering Lab - Hands on Training -Cum-Mentoring Session for ATAL Schools" for the students of Government Girls Higher Secondary School ,Thondamuthur,

Coimbatore on 24/08/2023. Around 65 school students actively participated and were greeted with participation certificate and 3 winners were awarded with momento. The headmistress of the school greeted the faculty members and students volunteer for their contribution and also thanked them for making the day more technical in recent advancements of Robotics Technology.

Ms.S.Kannaki, Dr.N.Mithran, Ms.S.Nithyapriya, Ms. R.Priyadharshini and Mr. T. Vignesh faculty members of Mechatronics Engineering along with student volunteers P. Sreehari, S. Shannon and B. Nellaiappan of IV year visited the school.

This outreach activity aimed to educate the young minds on the following topics:

- Robotics and Automation • 3D printing
- Hands on "Arduino Platform "



FINAL YEAR STUDENTS ADDRESSING



Dr. M. Lydia, HoD addressed the final year students on 26/08/2023. The following points were discussed.

- Preparation for the upcoming placement drives
- Importance of placement training and tests.
- Preparation for aptitude test and interviews.

CAREER GUIDANCE PROGRAM



Our Distinguished Alumni, Mr. Swadesh (2017-2021 batch), pursuing MS in Systems Control and Mechatronics at Chalmers University, Sweden, addressed the final year students.

Session Highlights:

- Various career options in higher studies after UG.
- Competitive exams like CAT, GMAT, GRE, IELTS and eligibility.

- Procedure & Eligibility parameters to apply German universities.
- Job opportunities after higher studies.
- Selection of courses and Internship offers in Sweden.

ASSOCIATION INAUGURATION



Department of Mechatronics Engineering inaugurated MEA association and organized Guest Lecture on "The Power of Soft Skills: Unveiling the Hidden Foundation of Career Success". The Office Bearers of MEA for the academic year 2023 - 2024 were conferred with badges.

Mr. Bala Arunagirinathan, Sr. Systems Engineer, SAS, North California, United States of America was the Resource person.

Session Highlights:

- Emotional Intelligence
- Personal Branding and professionalism
- Essentials of team work and collaboration
- Adaptability and flexibility for dynamic work environment
- Customer service and relationship building

FLICKERHIVE INTERNSHIP DRIVE INTERVIEW



Mr. Anand Bala Ganapathy (2017-21 batch), Founder and CEO, Flickerhive Coimbatore conducted internship drive interview for final year students.

- 46 students attended the interview
- 20 students were selected for the next round
- Based on the students' performance in the Technical interview, feedback was given to individual students

MCT MOCK INTERVIEW



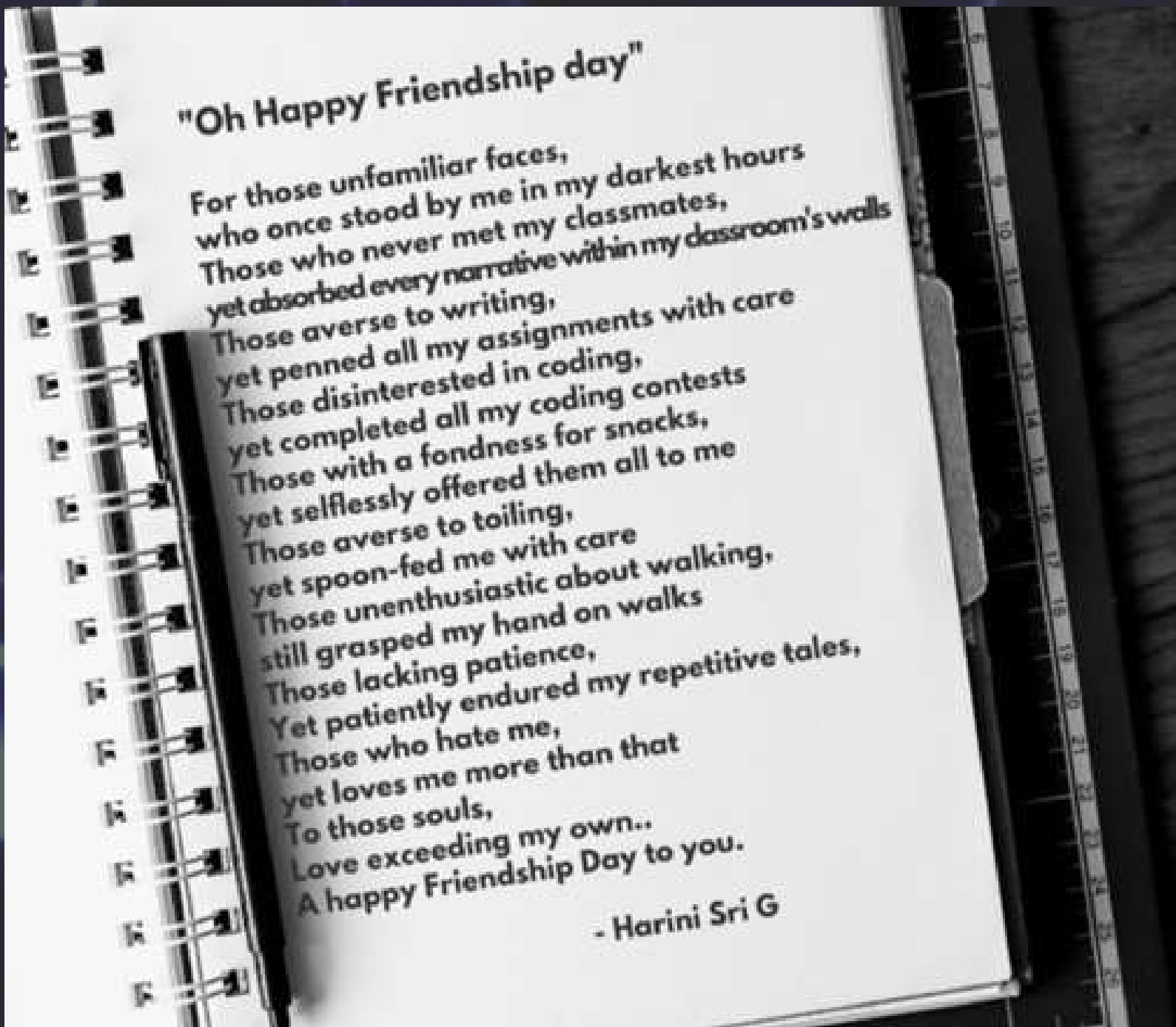
Mock Interview was conducted for final year students by our college MBA Alumni Mr. Sri Hari. P, Social Media Analyst, SaasAnt Inc., Mr. Sharukh. R, Entrepreneur, Shuttle Logistics

Mr. Ranjan Vishal. PC, Product Marketing Analyst, SaasAnt Inc. They Reviewed students resume

- Conducted company oriented interview
- Gave their valuable suggestions on how to improvise resume
- How to deliver self-introduction
- How to prepare for interview.

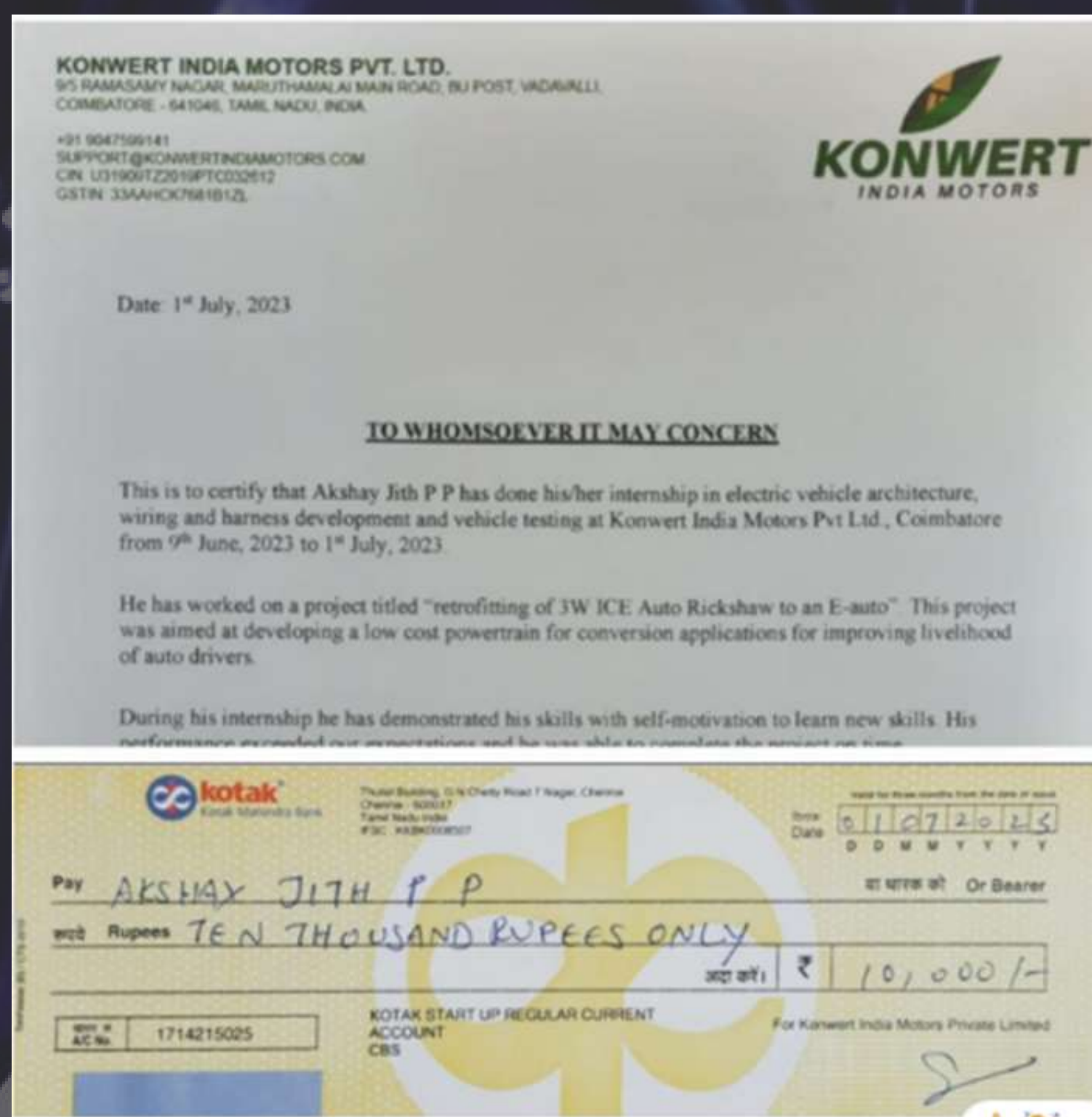
The students gained good confidence to face the interview by this mock drive.

STUDENT PUBLICATION



G.Harini Sri, student of III MCT, has received a certificate of publication for getting her work published in anthology, **“Songs of the Sky”** on 09/08/2023.

STUDENT ACHIEVEMENT



Akshay Jith, student of III year has successfully completed his internship at **Konwert India Motors Private Limited**, Coimbatore and also received a cash award of Rs.10,000 in appreciation of his excellent performance.

GOKART CHAMPIONSHIP 2023



Electric Kart Team **Brainiacs Racing** from the Department of Mechatronics Engineering has won **Overall Championships of AIMS _ National Level Gokart Championship 2023** held at Kari Motors Speed way, Coimbatore between 7th and 9th August 2023.

The team has also won awards in the following categories:

- First Prize in EV Category with the cash prize of Rs 25000
- Best Endurance with the cash prize of Rs 10000
- Best innovation with the cash prize of Rs 3000
- Best safety award with the cash prize of Rs 3000
- Best Faculty Mentor
- Best Build Quality award
- Best Aesthetics Award
- Best Driver
- Best Captain
- First Vehicle Inspection Clearance Award
- Best Virtual Presentation Award

Mentors: **Mr.T.Vignesh AP and Dr.R.Gopinathan ASP.**

ELECTRIC TWO WHEELER DESIGN COMPETITION



Team Electrovolt comprising of students from the Department of Mechatronics & Mechanical Engineering represented SAEINDIA SKCET Collegiate Club. **The team has secured 2 awards** in the SAE India ELECTRIC TWO WHEELER DESIGN COMPETITION (ETWDC 2023) organized by SAE ISS from 22.07.2023 to 23.07.2023 at Rajalakshmi Engineering College, Chennai. Mr.A.Sathishkumar, Assistant Professor, Mech has received special appreciation for his significant contribution.

- **Overall Third prize with a cash prize of Rs.25,000/-** (First place in Southern region)
- **First prize in the Maneuverability test** with a cash prize of Rs.15,000/-

Team Member:

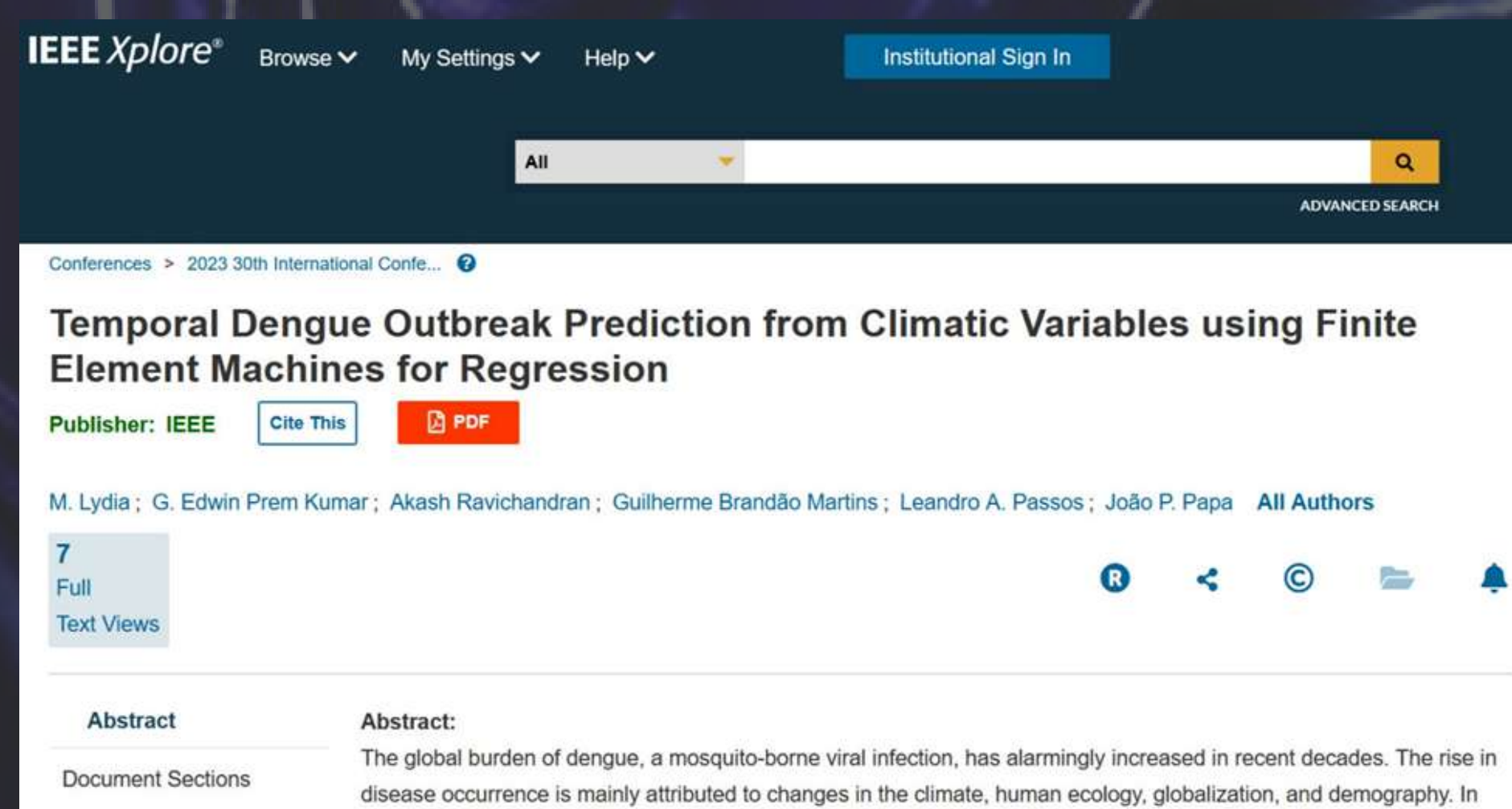
- Gurunathan L - IV MCT

JOURNAL PUBLICATION



Dr. R. Gopinathan, Associate Professor published a paper entitled **“Battery – Based Energy Storage and Solar Technologies Integrated for Power Matching and Quality Improvement Using Artificial Intelligence”** in **Electric Power Components and Systems**. It is a SCI and scopus indexed publication.

Dr. M. Lydia, HoD has published a paper entitled **“Temporal Dengue Outbreak Prediction from Climatic Variables using Finite Element Machines for Regression”** which was presented in the **30th International Conference on Systems, Signals and Image Processing** held during **27 - 29 June 2023, Ohrid, North Macedonia** and published in **IEEE Xplore**. It is a scopus indexed publication.



Dr. R. Gopinathan, Associate Professor has published a paper entitled **“Influences of various metal oxide – based nanosized particles – added algae biodiesel on engine characteristics”** in **Energy (Elsevier) journal**. It is an SCI and Scopus Indexed publication with an impact factor of 9.00.

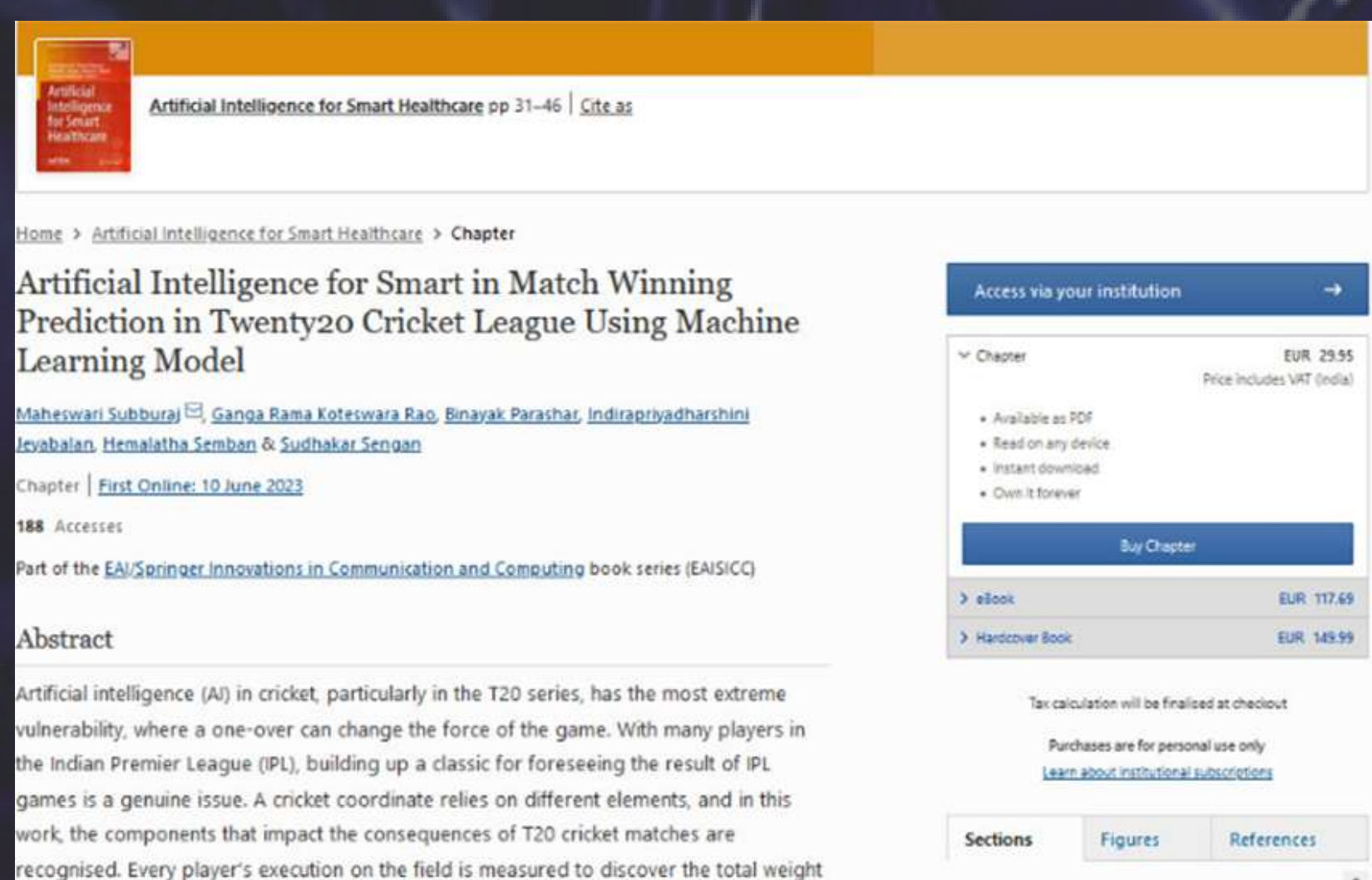
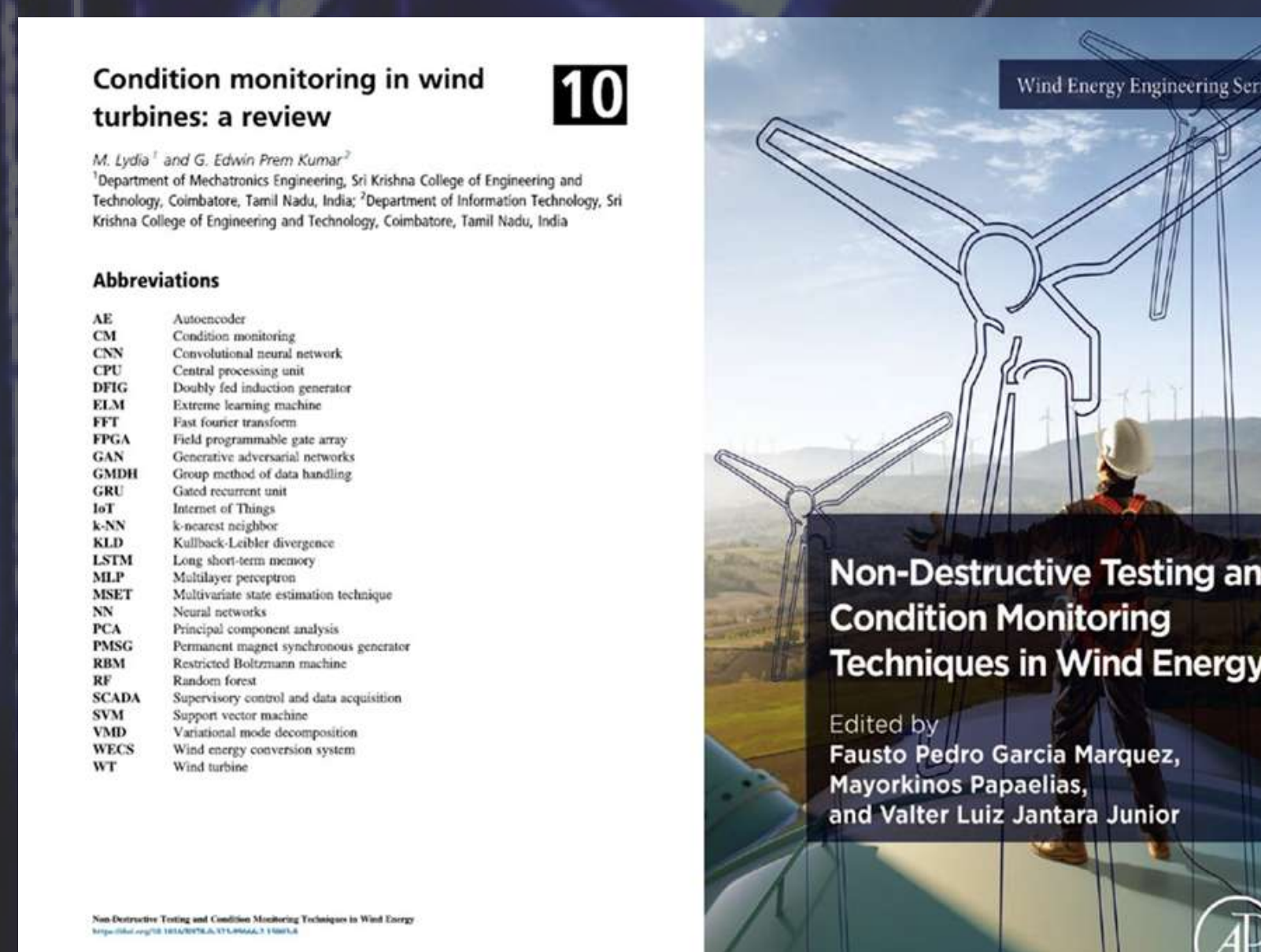


JOURNAL PUBLICATION



Mr.S.Madhankumar, Assistant Professor published a paper entitled **“A review on the latest developments in solar dryer technologies for food drying process”** in Sustainable Energy Technologies and Assessments journal. It is an Elsevier publication with an impact factor of 8.

Dr. M. Lydia, HoD has published a book chapter, entitled **“Condition Monitoring in Wind Turbines: A Review”** in the book **‘Non-Destructive Testing and Condition Monitoring Techniques in Wind Engineering’**. It is a part of the Wind Energy Engineering series published by the Academic Press, Elsevier (ISBN:978-0-323-99666-2) and is a Scopus indexed publication.



Dr. J. Indirapriyadharshini, Assistant Professor successfully published a book chapter entitled **“Artificial Intelligence for Smart in Match Winning Prediction in Twenty20 Cricket Using Machine Learning Model”** in the book -'Artificial Intelligence for Smart Healthcare'. It is a part of the EAI / Springer Innovation in Communication and Computing book series (EAISICC).

JOURNAL PUBLICATION

Study of Mechanical Behaviour of Boron Carbide and CowDung Ash Reinforced Polymer Matrix Composite

Arpa Mishra^{1,*}, T.V. Arjunan¹, R. Manikandan², Sanjeev Shriwas¹

¹Department of Mechanical engineering, Guru Ghasidasvishwavidyalaya, Bilaspur, Chhattisgarh, India, 495009

² Department of Mechanical Engineering, Sri Krishna College of Engineering and Technology, Coimbatore, Tamilnadu, India, 641008

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Abstract. In this study, a novel hybrid polymer composite of cow dung ash (CDA), B4C micro-particles, and epoxy was fabricated. Different samples of varying weight percentages of CDA and B4C from 2% to 5% and 1% to 4% respectively were fabricated. The mechanical properties such as tensile, flexural, impact, and hardness of the fabricated hybrid composite were determined and compared to neat epoxy (0% reinforcement). Scanning electron microscope was used for microstructural analysis of fabricated specimen. The result shows that the mechanical properties reached maximum value when CDA and B4C were 3% each. The maximum tensile and flexural strength of hybrid composite was 43.38% and 17.956% more than the neat epoxy composite. It is observed that the mechanical properties have increased while adding B4C-CDA reinforcements.

Keywords: CDA, Scanning electron microscope, mechanical properties

Dr.R.Manikandan, Assistant Professor of has successfully published a paper entitled **“Study of Mechanical Behaviour of Boron Carbide and CowDung Ash Reinforced Polymer Matrix Composite”** in AIP conference proceedings. This is a scopus indexed publication.

PATENT PUBLICATION

Patent titled **‘Elderly Care Robot’** with design number 387716-001 has received the Design Patent Grant with a Certificate of Registration of Design by the Patent Office, Government of India.

Team Members:

- 1.Mr. T.Vignesh, AP/MCT
- 2.Dr.R.Gopinathan, ASP/MCT



CONFERENCE PRESENTATION



Dr.V.Narasimharaj, Associate Professor has presented a paper entitled **“A Deep Learning Framework for Prediction of Heart Diseases from Clinical Observation”** in 2nd International Conference on Augmented Intelligence and Sustainable Systems organized by CARE College of Engineering, Trichy on 23rd - 25th August 2023.

FACULTY SEMINAR SERIES



The Department of Mechatronics Engineering organized the Faculty Seminar Series as a part of knowledge sharing sessions among faculty members on 23.06.2023 in MCT conference Hall at 11 am. **Dr. K. Ananthi, Associate Professor delivered a session on Amazon Web Services (AWS).**

The key takeaways are,

- AWS Cloud computing
- AWS Ecosystems
- AWS storage
- Advantages of AWS
- Applications of AWS
- AWS use cases

BOOK PUBLICATION

Dr.J.Indirapriyadharshini, Associate Professor of has published a book titled "**Sensor and Transducer**" with ISBN number 978-93-5757-354-2 in Scientific International Publishing House.

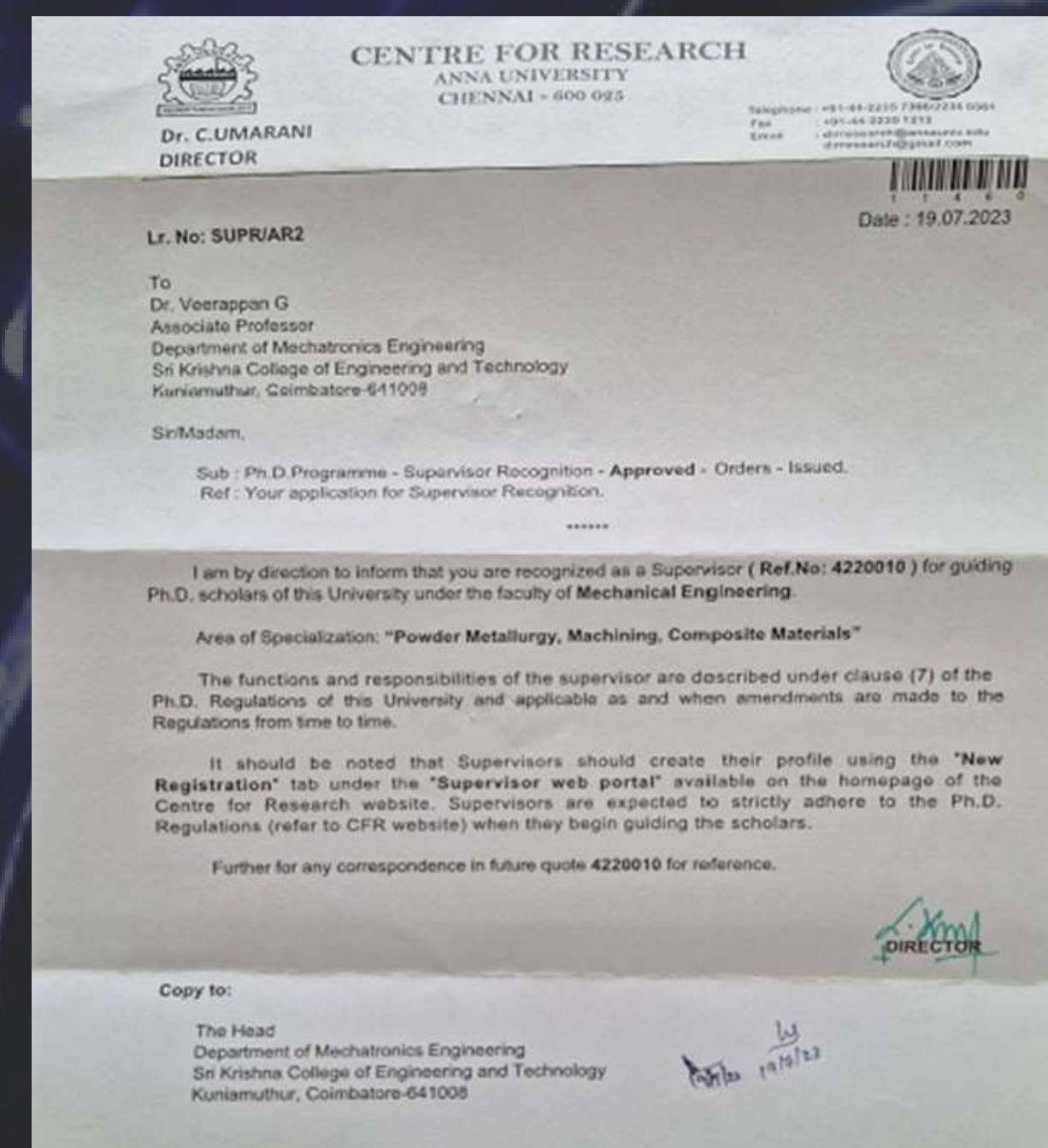


FACULTY PROGRESSION



Dr.V.Narasimharaj, Associate Professor has actively participated in 10 hours of Faculty Development Program on **“Digital Prototyping” using CATIA (Online FDP)** conducted by ICT Academy from 10th July 2023 to 14th July 2023.

Dr.G.Veerappan, Associate Professor, , has been recognized as a Research Supervisor by Anna University, Chennai.



Dr. K. Ananthi, Associate Professor, has been recognized as a Research Supervisor by Anna University, Chennai

FACULTY PROGRESSION



Dr.V.Narasimharaj, Associate Professor has successfully presented the paper entitled **“SMART FARMING: INTELLIGENT ANIMAL DETECTION FRAMEWORK IN AGRICULTURE USING IOT SENSORS”** at the 2nd International Conference on Edge Computing and Applications (ICECAA 2023) organized by Gnanamani College of Technology, Namakkal, Tamil Nadu, held on 19th - 21st , July 2023.

CONFERENCE PRESENTATION

Dr. M.Bhuvaneshwari, Assistant Professor has actively participated in Indo - US VAJRA course on **“Fundamentals of Electromagnetics” (EMF - 2023)** held during 12 - 16 June 2023, jointly organized by NIT Silchar, Jawaharlal Nehru University Delhi, and California State University Northridge in Association with IEEE Kolkata Section Antennas and Propagation Society Joint Chapter - Silchar and IEEE Silchar Subsection

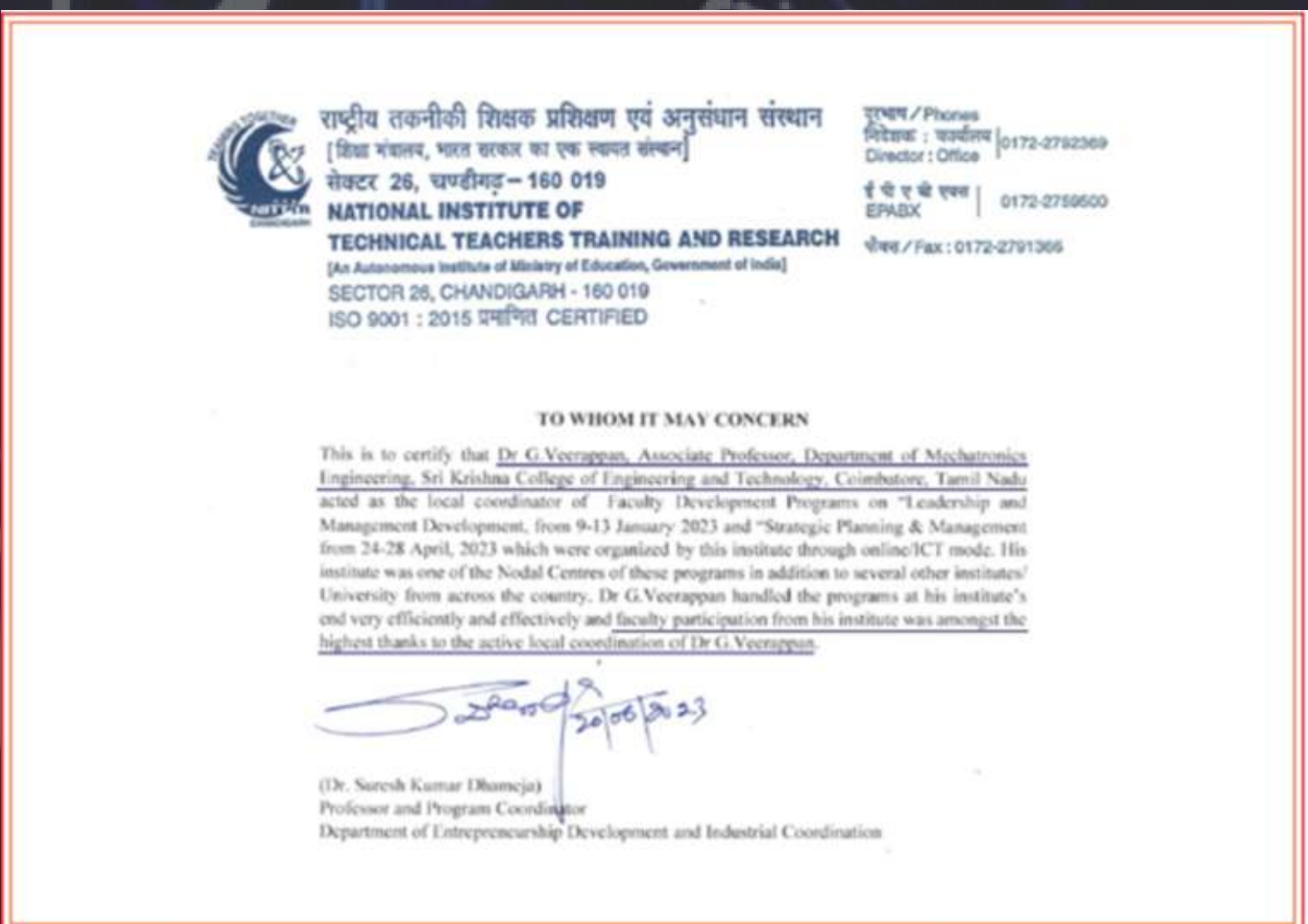


and sponsored by Science & Engineering Research Board (SERB) under VAJRA scheme hosted at Dept. of ECE, NIT Silchar.



Dr.S.Balasubramani, Associate Professor has received a certificate of appreciation in recognition of his role as mentor for the NPTEL Online Certification Course.

FACULTY CERTIFICATION



Dr. G. Veerappan, Associate Professor has received a certificate of appreciation for being the local coordinator for **Faculty Development Programs “Leadership and Management Development**, from 9th – 13th January 2023 and “ Strategic Planning and Management from 24th – 28th April 2023 which were organized by National Institute of Technical Teachers Training and Research through online / ICT mode. The NITTTR also appreciated his effective conduction of short term training programs by ensuring maximum participation from SKCET



Dr. J. Indirapriyadharshini and Dr. K. Ananthi, Associate Professors have received a certificate of appreciation in recognition of their role as mentor for the NPTEL Online Certification Course

FACULTY CERTIFICATION



Dr. M. Bhuvanewari and Mr. S. Madhan Kumar, Assistant Professors have actively participated in the 5 days workshop on **“VLSI to System Design: Silicon to End Application Approach”** organized by All India Council for technical Education (AICTE) Arm Education and ST Microelectronics from 31st July to 4th August 2023.



Dr. M. Bhuvanewari, Assistant Professor has actively participated in 5 days Faculty Development Program on **“Advanced Communication Systems”** through online mode conducted by Department of ECE, Lakireddy Bali Reddy College of Engineering, Andhra Pradesh from 05.06.2023 to 09.06.2023.

FACULTY CERTIFICATION



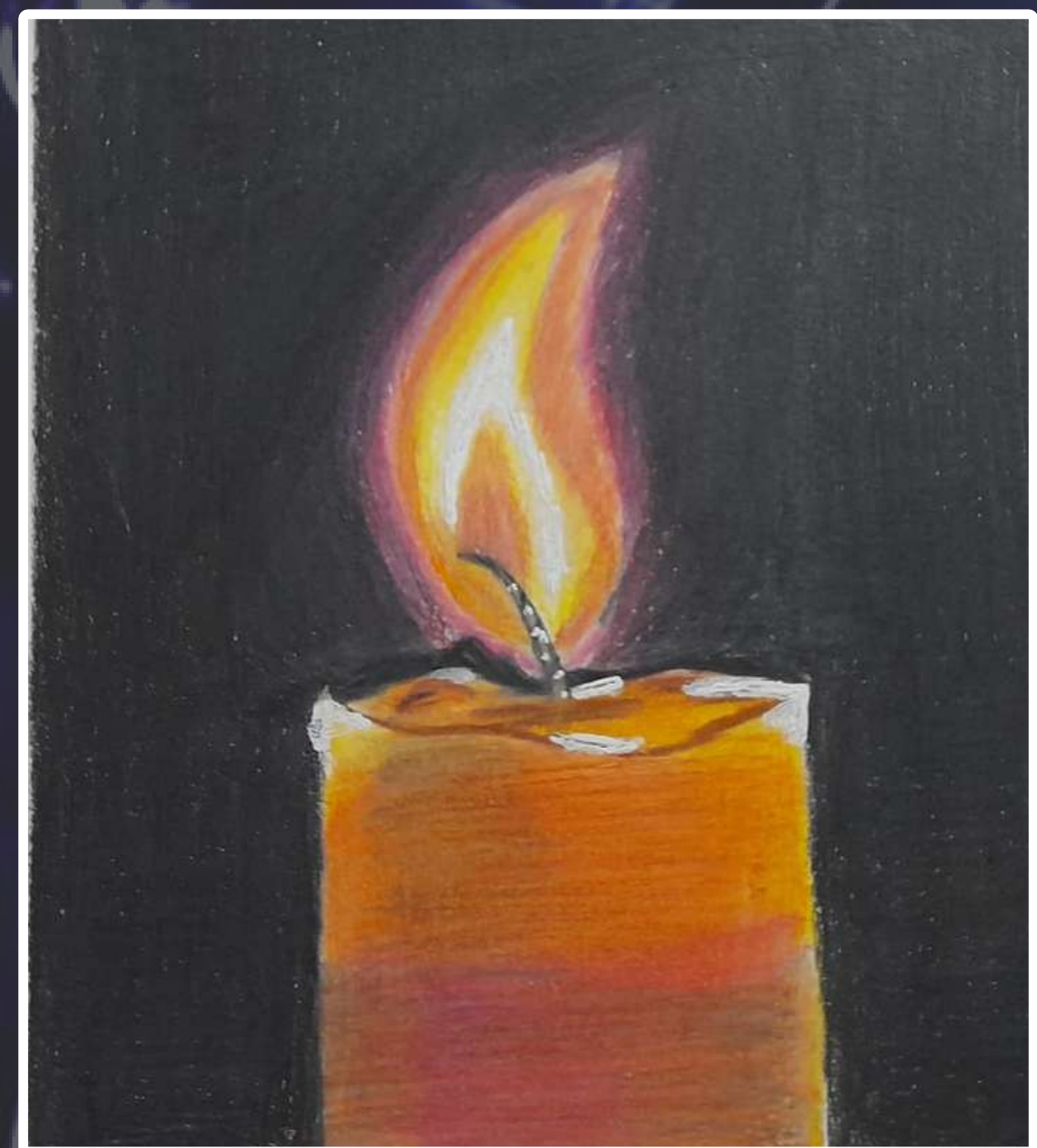
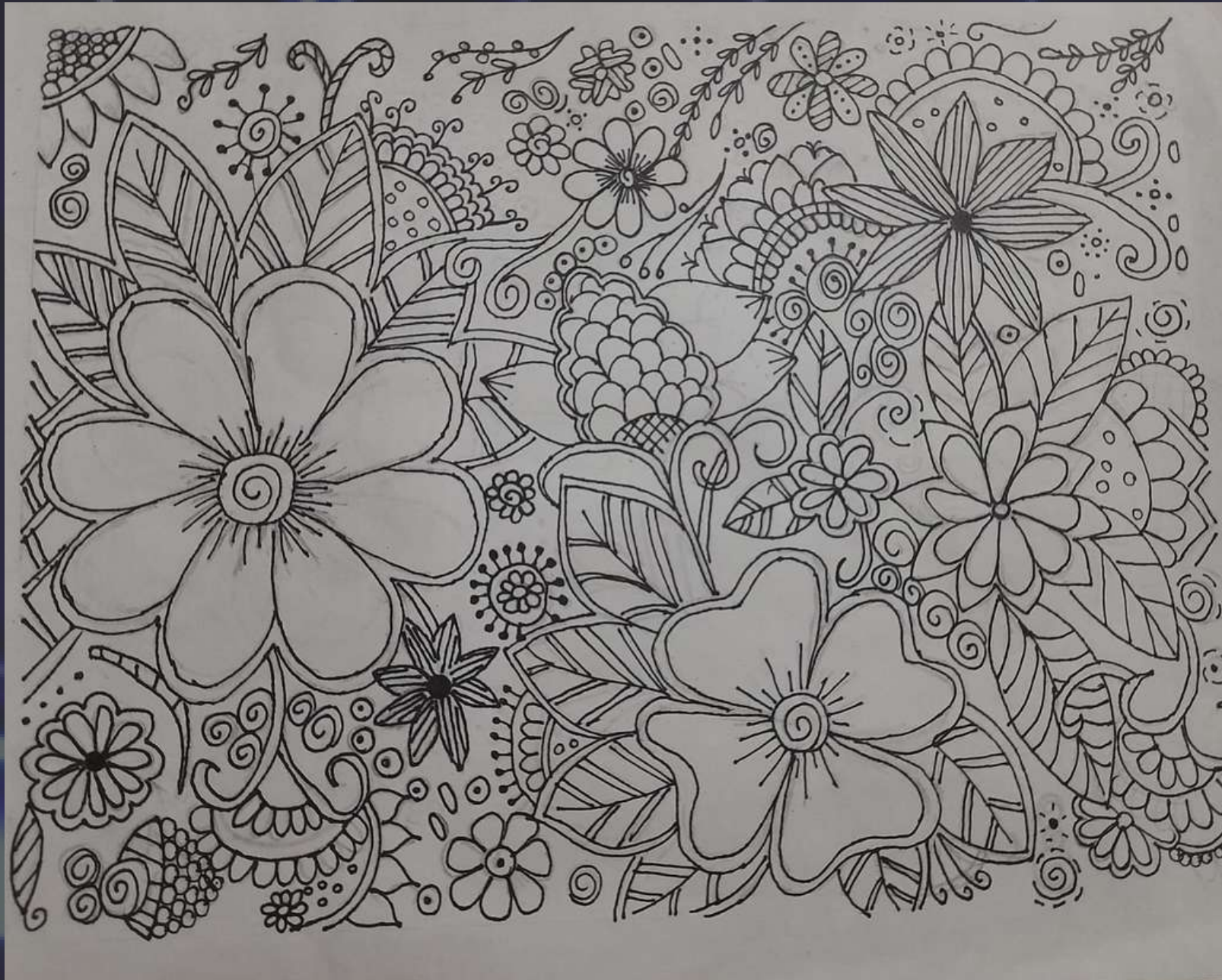
Dr. M. Bhuvanewari, Mr. S. MadhanKumar and Dr.J.Justin Maria Hillary, Assistant Professors have participated in the One Week Online Short Term Training Program on **"Sustainable Energy Technology for Hydrogen, Solar, Wind and Biomass Energy"** from 4th July 2023 – 8th July 2023 at G H Raison College of Engineering, Nagpur organized by Center of Excellence in Energy, Department of Mechanical Engineering in association with Sustainability Solution, Pune and AICTE IDEA Lab.



Mrs. S. Nithyapriya and Dr. K. Ananthi, Assistant Professors have actively participated in Five days Virtual Faculty Development Program on **"Recent Trends and Challenges in Power Generation and Power Quality Improvement Techniques"** organized by Department of Electrical and Electronics Engineering, JCT College of Engineering and Technology from 17.07.23 to 21.07.23.



*By,
Ineetha P
III Year*



By,
Sangamithra Sivakumar
I YEAR



**ABDUL RAZEEM K,
MCT (2023 BATCH),
Accenture**

I am Abdul Razeem K, and I graduated from the Department of Mechatronics Engineering in the year 2023. My experiences at SKCET have helped me shape my interests in both research and development. The college provides wholesome development in academia, leadership, and extra-curricular activities. In the Department, we received a vast and an in-depth learning experience helping one to develop practical knowledge of the subjects. The college has lots of opportunities for students to expand not only their technical acumen, but more importantly, develop approaches for problem solving, and analysis, which aids in career growth. I would like to specially thank the placement cell for guiding me and providing me a good platform for my career. I am very much grateful to my parents for choosing SKCET. Thanks to our Principal Madam and entire SKCET faculty team.



**ADHIRA M,
MCT (2023 BATCH),
L&T INFOTECH**

I am ADHIRA M and I graduated from the department of Mechatronics Engineering in 2023. It was my immense luck and fortune to be a part of SKCET. My leadership, interpersonal skills, team skills and various other technical skills have grown from strength to strength here. My four years at SKCET was full of learning and grooming oneself. It gave me an opportunity to meet different kind of people and had a lot of memorable experiences. The relationship between department faculty members and student is very cordial, which gave me an opportunity to choose my area of interest. The regular guidance of placement cell also encouraged me to excel in my interview and developed skills that are required for the future. I would like to thank the management, Principal, my department faculty and the entire SKCET family for providing various opportunities and creating a sense of confidence to face the different challenges of life.



**JAYADEEP J,
MCT (2023 BATCH),
Accenture**

I am JAYADEEP J of Mechatronics Engineering, 2019-23 Batch. I had an amazing experience in SKCET. The faculty members in my department were highly knowledgeable and experienced. They were very helpful in improving my technical skills, communication skills and even problem-solving skills which were essential in shaping my career. I am immensely grateful to the placement team, who provided me with various opportunities during my placement interviews. I was able to attend interviews for many good companies and also had a chance to meet and interact with people with good influence, which helped me secure a job in Accenture. I convey

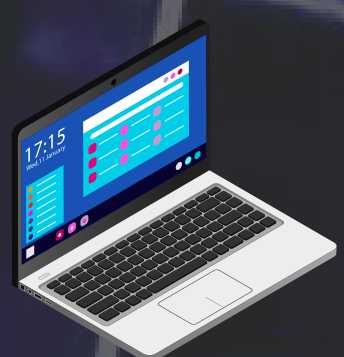
my sincere thanks to our Principal Madam, my department faculty and the entire SKCET family for providing me with excellent opportunities in building my career.



**ABHIJITH P R,
MCT (2023 BATCH),
TEMENOS**

The 4 years I spent in SKCET, in the department of Mechatronics Engineering was indeed an amazing experience. Thanks to SKCET for giving me an opportunity to learn and grow and to hone my communication skills, technical skills and management skills, enabling me to have a successful career. SKCET has assisted me in developing my interests in both research and development. My department provided me with numerous and in-depth learning opportunities and the industry-based curriculum and expert faculty members assisted me in developing practical knowledge of the subjects.

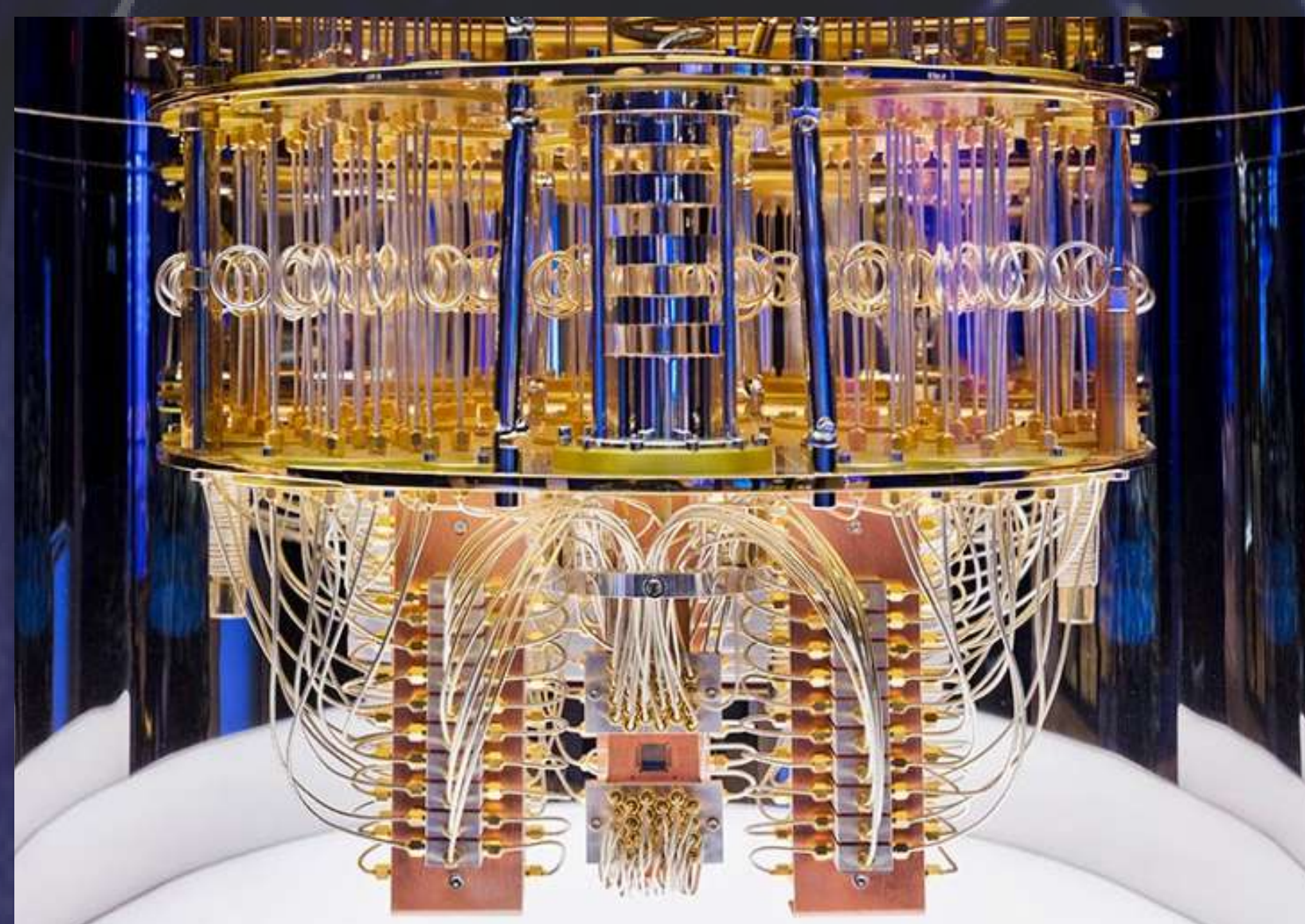
Placement opportunities in SKCET are plenty and with right guidance, I was able to secure my placement and my future. I am very happy that I chose SKCET back in 2019. I convey my sincere thanks to our Principal Madam, my department faculty and the entire SKCET family for providing me with adverse opportunities in building my career.



QUANTUM COMPUTING: UNLEASHING THE POWER OF THE QUBIT

So, What's Quantum Computing Anyway?

Think of a classical computer as a library with countless books. Each book represents a bit, which can be either a 0 or a 1. It's like reading a story with a simple binary plot. Quantum computing, on the other hand, is like entering a library where each book can simultaneously tell multiple stories. Instead of bits, quantum computers use quantum bits or qubits. These qubits can exist in a superposition of states, meaning they can be 0, 1, or both 0 and 1 at the same time. It's as if you're reading multiple books all at once!



Quantum Magic: Superposition and Entanglement

The real magic happens with superposition and entanglement. Superposition allows qubits to explore multiple possibilities at once. It's like having a compass that points in every direction simultaneously. Entanglement is like having two compasses that mysteriously always point in the same direction, no matter how far apart they are. These properties make quantum computers mind-bogglingly powerful.

The Quantum Speed Boost: Shor's Algorithm

Imagine you have a lock with a billion possible combinations. A classical computer would need a very long time to crack it by trying each combination one by one. Now, enter Shor's algorithm on a quantum computer. It can explore all possible combinations at once and unlock the lock in the blink of an eye. This is a game-changer for cryptography and security.

src : <https://www.ibm.com/topics/quantum-computing>

By,
Nandha krishnan P
I YEAR

APOLLO; THE 'iPhone' OF HUMANOID ROBOT

Contrary to doomsayers' predictions, robots have yet to become our overlords – but they could soon become our coworkers.

Apollo's Appearance:

Apollo is 5 feet 8 inches (1.7 meters) tall and 160 pounds (72.6 kilograms), It has two arms and legs, dexterous fingers and a "human-like countenance" with small black eyes to facilitate "friendly interactions" with coworkers.

Apollo's Ability:

Apollo can lift 55 pounds (25 kilograms) and has been designed to be mass-produced and safely work alongside humans. The robot utilizes electricity, rather than hydraulics that aren't considered to be as safe, and has a four-hour battery that can be changed out so it can operate for a 22-hour workday.

Reason for Apollo Evolved:

That's the goal of electronics maker **Appttronik**, creator of Apollo, a mass-producible humanoid robot. The droid, which was unveiled in August, is designed to work seamlessly alongside humans in warehouses and manufacturing plants, taking up hard-to-fill jobs at companies grappling with labor shortages.

"We believe that Apollo is one of the most advanced tools humanity has ever created – how we apply it will change the way that we live and work," Jeff Cardenas, co-founder and CEO of Appttronik, said

src : <https://spectrum.ieee.org/humanoid-robot>



By,
Madhesh B
I YEAR

"As the echoes of our mechatronic journey reverberate through these pages, we extend our deepest gratitude to our readers. Each word, a resonance of innovation; each page, a testament to the synergy of mechanics and electronics. Your engagement has amplified our narrative, turning static ideas into dynamic realities. As we bid farewell to this edition of 'Echo,' we look forward to the next symphony of discovery and mechatronic marvels. Thank you for tuning in, for being the harmonious notes in our melody of progress. Until the next echo, let the vibrations of inspiration persist on."

- TEAM ECHO

Innovate, Integrate, Automate!