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with M.Tech. Alumni are the main pillars of the department's growth. I would like to offer my sincere thanks to all the Alumni for their support in guiding the students through invited lectures, supporting for internships and industry visits. Suggestions from stakeholders have added value during the reforms taken time to time. This newsletter displays the contributions by faculty & students and activities conducted in the Department from January 2024 to June 2024 (Even semester of AY 2023-24). I am happy to share that this semester department has witnessed three of the faculty have been awarded with PhD. The experience of the faculty made it possible to conduct national and international FDPs with great support from industry experts and academic intellectuals from foreign Universities, IITs and NITs. I am also proud to inform that our students have made the EEEA activities more vibrant with hands-on sessions and training programmes. I would like to offer a word of thanks to our readers, our contributors, and our editorial board for their support of the journal and its mission: to improve the quality of technical education to the students. This newsletter will provide a glimpse of faculty and student achievements in Even semester of academic year 2023-24.

-Dr. G. Rajendar  
HOD, EEED

### CHIEF EDITORIAL MESSAGE



With great pleasure and honour I write this foreword. Indeed, this newsletter has a lot to look forward. I am happy that our department started in the year 1994 with B.Tech-EEE programme has completed 30 years and is now celebrating Silver Jubilee year. During these 30 years EEE department has crossed several milestones and contributed to society in the form of education to engineering students. Started with B.Tech-EEE in 1994 with an intake of 60 later enhanced to an intake of 120 in the year 2012 and the present intake is 60. PG programme of M.Tech-Power Electronics was started in the year 2013. B.Tech-EEE program has been accredited by NBA two times under Tier-II from 2011-14 and 2016-19. I am glad to inform that now B.Tech-EEE program has been accredited by NBA under Tier-I for three years from 1st July 2019. The Department has also witnessed the strong force of faculty. At present, the Department has a faculty strength of 30 with diversity of specialization, out of which 15 of them have Doctorates, 10 are pursuing PhD and 5 are

### VISION & MISSION OF THE DEPARTMENT

**VISION:** To fulfil the needs of the industry & society through excellence in education & research in electrical engineering.

**MISSION:**

- To produce globally competent engineers in Electrical & Electronics Engineering.
- To promote scientific inclination and cultivate professional ethics.
- To serve organization and society as adaptable engineers, entrepreneurs or leaders.

## BTECH – ELECTRICAL & ELECTRONICS ENGINEERING

### Program Educational Objectives (PEOs):

Within first few years after graduation, the ELECTRICAL AND ELECTRONICS ENGINEERING graduates will be able to:

- PEO1 Technical Expertise:** Apply the knowledge of electrical and electronics engineering to develop solutions for complex problems of electrical power industry and allied engineering areas.
- PEO2 Successful Career :** Demonstrate innovation & creativity in their professional practice, work effectively as an individual and in a team in multidisciplinary areas towards sustainable development.
- PEO3 Lifelong learning:** Adapt to a constantly changing field through higher education, professional development and self-study for contributing to well-being of society.

### Program Outcomes (POs):

Engineering Graduates will be able to:

- PO1 Engineering Knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- PO2 Problem analysis:** Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- PO3 Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- PO4 Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of

experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

- PO5 Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
- PO6 The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- PO7 Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO8 Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO9 Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO10 Communication:** communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- PO11 Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- PO12 Lifelong learning:** recognise the need for and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

### Program Specific Outcomes (PSOs):

- PSO1** Apply the fundamental knowledge of electrical and electronics engineering in providing solutions for modern power industry and multi-disciplinary areas.
- PSO2** Analyse, design and simulate systems to generate, transmit, distribute, utilize and control electrical energy to meet societal and environmental needs using electrical and electronic systems.

### MTECH-POWER ELECTRONICS

#### Program Educational Objectives (PEOs):

The Postgraduates of POWER ELECTRONICS will be able to:

- PEO1 Research and Innovation:** Engage in research, innovation and teaching in the fields related to power electronics and Drives.
- PEO2 Technical expertise and Successful career:** Excel in professional practice relevant to industry and engage in entrepreneurship with latest technologies in the areas of power converters, renewable energy, smart electric grid, industrial drives and electric vehicles.
- PEO3 Soft skills and Lifelong learning:** Exhibit professional ethics, communication skills and spirit of teamwork by carrying out research for a sustainable environment.

#### Program Outcomes (POs):

At the time of graduation, the postgraduates of POWER ELECTRONICS will be able to:

- PO1** Independently carry out research/ investigation and development work to solve practical problems.
- PO2** Write and present effective technical report/document.
- PO3** Demonstrate competence in the area of Power Electronics.

### Program Specific Outcomes (PSOs):

- PSO1** Apply knowledge of power electronics for the development of effective innovation solutions to problems pertaining to the renewable energy sources, smart electric grids and electric vehicles.

- PSO2** Analyse complex engineering problems related to power electronics industry related to power industry and develop solutions with the latest hardware and software tools.

### FACULTY CONTRIBUTIONS

#### Details of the Journal Paper Publications of the Faculty Published, during July'2023– December'2023:

S. no.	Name of the Faculty	Title	Journal
1	B. Jagadish Kumar	Certain Investigations on Modified Fuzzy-based Adaptive Controller for Mitigating the Deviations in Wind System	Grenze International Journal of Engineering and Technology

#### Conferences attended by the faculty for presenting research papers:

S. No.	Name of the Faculty	Title	Name of the Conference	Dates	Venue
1	C. Venkatesh	Five Phase Split-Source Inverter with Shifted Pulse Width Modulation	International Conf. on Emerging Advances and Applications in Green Energy	29.02. 2024	Prasad V. Potluri Siddhartha Institute of Technology, Vijayawada AP, India
2	V. Rajagopal	Truly-NTD-PLL Control Algorithm for DVR	IEEE 4th International Conf. on Sustainable Energy and Future Electric Transportation	31 July-03 August 2024	Gokaraju Rangaraju Institute of Engineering and Technology, Hyd

**Details of FDPs/ STTPs/ Workshops/Conferences organized by the Department during 2023-24:**

Sl. No	Title of FDP	Duration & Dates	Resource Person	Coordinators
1.	Arduino for EE Applications	1-Week June 24-28, 2024	Mr. Goerge Yuvaraj, Research Scholar, BITS Pilani, Hyderabad	Dr. G. Sunil Kumar
2.	IOT for EE Applications	1-Week June 29 to July 3, 2024	Dr. Rajiv Dey, Associate Professor at Central University Bilaspur Gurgaon, Haryana	Dr. G. Sunil Kumar

**Faculty visits to Industries during 2023-2024:**

Sl. No	Name of the faculty	Visited Industry	Dates	Details including purpose
1.	Dr. C.Venkatash	National Small Industries Corporation (NSIC), Kushaiguda, Hyderabad.	03.06.2024 to 17.06.2024	Completed 2 Weeks Industrial training on Energy Auditing & PV Design
2.	Dr. V. Rajagopal			
3.	Sri M. Narsimha Rao			
4.	Dr. B. Jagadish Kumar			
5.	Sri K. Ajith			
6.	Sri T. Praveen Kumar			
7.	Dr. Y. Manju Sree			
8.	Dr. G. Sunil Kumar			
9.	Sri M. Srinivas			

**EEE ASSOCIATION DETAILS**

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**SUMSHODHINI'23 STUDENT COORDINATOR**

**Shivani Donthula (IV/IV, B.Tech)**

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**R. Koushik (IV/IV, B.Tech)**

**JOINT SECRETARIES**

**Gaddam Nikhil Reddy (III/IV, B.Tech)**

**Shivaram Kommuka (III/IV, B.Tech)**

**SPOKESPERSONS**

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**Merugu Sushanth Kumar (IV/IV, B.Tech)**

**Sunkoju Srinath (III/IV, B.Tech)**

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**D. Nikhil (IV/IV, B.Tech)**

**REPORTER**

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**Thallapally Nelson (III/IV, B.Tech)**

**Yuvaraj Chowhan (III/IV, B.Tech)**

### STUDENT ACTIVITIES

S. no.	Activity	Date
1	Advancements in Electric Vehicle (EV) Technologies	26.02.2024
2	Awareness on Higher Education Examinations	28.02.2024
3	Awareness on Gate Examination Preparation	06.03.2024
4	Awareness By T&P activities	13.03.2024
5	Pre placement talk and career guidance	20.03.2024
6	One day Training on MATLAB awareness	15.04.2024

#### Advancements in Electric Vehicle (EV) Technologies on 26.02.2024:

Electrical and Electronics Engineering Department has organized One day Workshop on “Advancements in Electric Vehicle (EV) Technologies” by Mr. Sandeep Madishetti, on 26-02-2024 in Block-IV, Civil Seminar Hall. This session provided greater insights for the attendees regarding the future of EV.



ISO 9001:2015 AICTE-CII: GOLD Category Institute NAAC-'A' Grade Institute (CGPA: 3.21)

**KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE**  
Opp : Yerragattu Gutta, Hasanparthy (Mandal), WARANGAL - 506015, TELANGANA, INDIA  
काकतीय प्रौद्योगिकी एवं विज्ञान संस्थान, वरंगल - ५०६०१५, तेलंगणा, भारत  
కాకతీయ సాంకేతిక విజ్ఞాన శాస్త్ర విద్యాలయం, వరంగల్ - 506 015 తెలంగాణ, భారతదేశం  
(An Autonomous Institute under Kakatiya University, Warangal)  
(Approved by AICTE, New Delhi Recognised by UGC under 2(f) & 12(B); Sponsored by EKASILA EDUCATION SOCIETY)

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**DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING**

**Industry-Student Interaction**

One Day Workshop on  
**Recent Trends in Electric Vehicles:  
Advancements, Challenges, and Future Outlook**

Date : 26.02.2024 (Monday)  
Venue : Civil Seminar Hall,  
Block-IV

**Dr. Sandeep Madishetti**  
Principal Engineer  
LITE-ON, Singapore, Pvt. Ltd

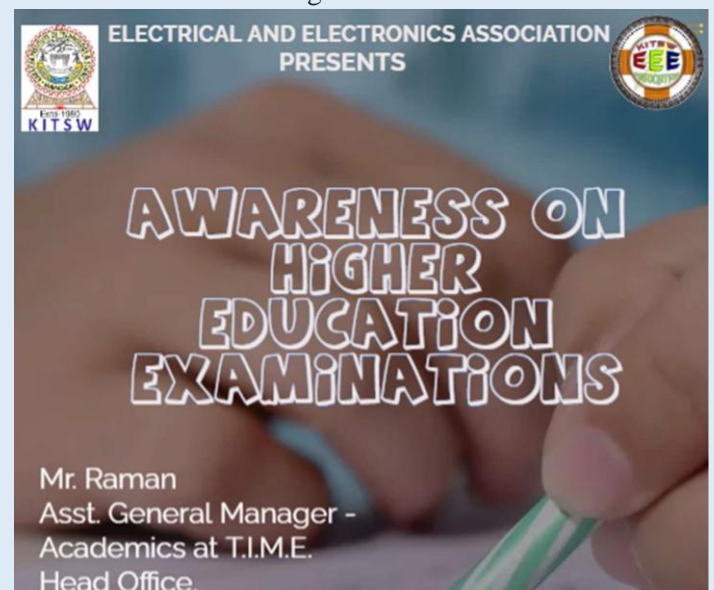
The session on "Advancements in Electric Vehicle (EV) Technologies" provided a comprehensive overview of the transformative innovations shaping the automotive industry. Attendees gained insights into various aspects of

EV technology, including breakthroughs in battery technology, advancements in electric motors, and the evolution of charging infrastructure. The session highlighted the significance of lithium-ion batteries with higher energy densities and faster charging capabilities, as well as the role of efficient electric motors in enhancing performance and extending driving range.



#### Awareness on Higher Education Examinations on 28.02.2024:

Electrical and Electronics Engineering Association along with IT Engineering Association has organized a session about “Awareness on Higher Education Examinations” by Mr. Raman Asst. General Manager, T.I.M.E on 28-02-2024 in Block-II, New Seminar Hall. This session helps students to know the exams for higher education.



**ELECTRICAL AND ELECTRONICS ASSOCIATION PRESENTS**

**AWARENESS ON HIGHER EDUCATION EXAMINATIONS**

Mr. Raman  
Asst. General Manager -  
Academics at T.I.M.E.  
Head Office.

K. V. Raman, Asst General Manager Academics MSc (Mathematics), PGDBM from Hyderabad Central University. Over 31 years of Experience in Teaching, Training and student counselling. He has trained not less than 50000 plus hours of teaching steering the faculty training wing of T.I.M.E pan India for over 16 years. Avid public speaker with relentless enthusiasm in motivating students with expert in customizing the nuances of academic teaching to suit test preparation.



The speaker highlighted about few important points:

1. Opportunities present for higher studies.
2. Higher education field selection
3. Purpose and objective for studies
4. Planning and execution
5. Preparation and practice
6. Exam format and syllabus.
7. Study resources
8. Time management
9. Benefits of Training for Exam.
10. Follow up after admission.

#### **Awareness on Gate Examination Preparation on 06.03.2024:**

Electrical and Electronics Engineering Department has organized a session about “ Awareness on Gate Examination Preparation” by Mr Sai Charan, Member of Techno Gate on 06-03-2024 in Block-VI, Room No. 206.

This session provided greater insights for the attendees regarding the Gate.



The GATE awareness session provided participants with a comprehensive understanding of the Graduate Aptitude Test in Engineering (GATE) and its significance in the realm of engineering education and career advancement. Through an overview of the exam's structure, syllabus coverage, and preparation strategies, attendees gained insights into effective techniques for success. Emphasizing the importance of time management and avoiding common pitfalls, the session equipped participants with the tools necessary to navigate the exam with confidence. Additionally, recommendations for reference materials, support resources, and career opportunities underscored the broader implications of GATE beyond its role as an admissions test. With a focus on clarity, preparation, and informed decision-making, the session empowered participants to approach the GATE exam with strategic intent and purposeful direction in their academic and professional journeys.

#### **Awareness By T&P activities on 13.03.2024:**

Electrical and Electronics Engineering Department in collaboration with Training and Placements has organized a session about “Awareness By T&P” by Dr. T. Chandrabai, on 13-03-2024 in Block-IV, Civil Seminar Hall. This session provided insights for the attendees regarding the placements.

The speaker highlighted about few important points:

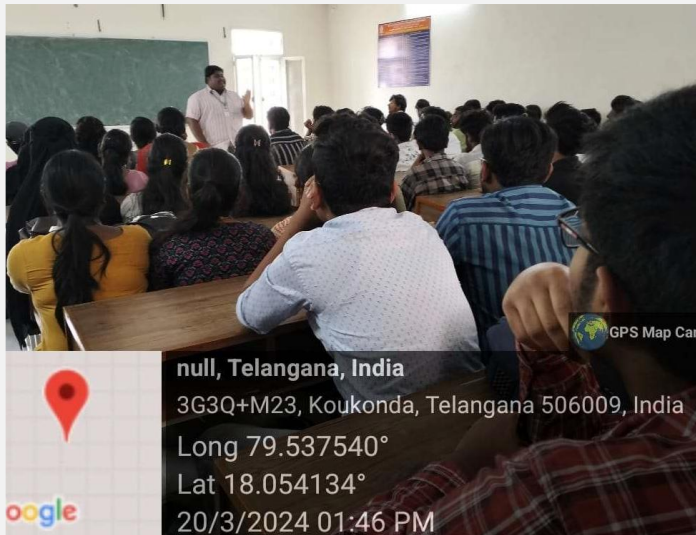
1. Understanding the Placement Landscape
2. Crafting a Standout Profile
3. Leveraging Networking
4. Mastering Interview Skills
5. Showcasing Transferable Skills

6. Continuous Learning and Development
7. Persistence and Resilience



#### Pre placement talk and career guidance on 20.03.2024:

Electrical and Electronics Engineering Department has organized a guest lecture about “Pre placement talk and career guidance”, on 20-03-2024 in Room no.206 Block-VI by Mr. G. Dhanush, Trainer, T&P, KITSW. This session provided insights for the attendees regarding their career.



The speaker highlighted about few important points:

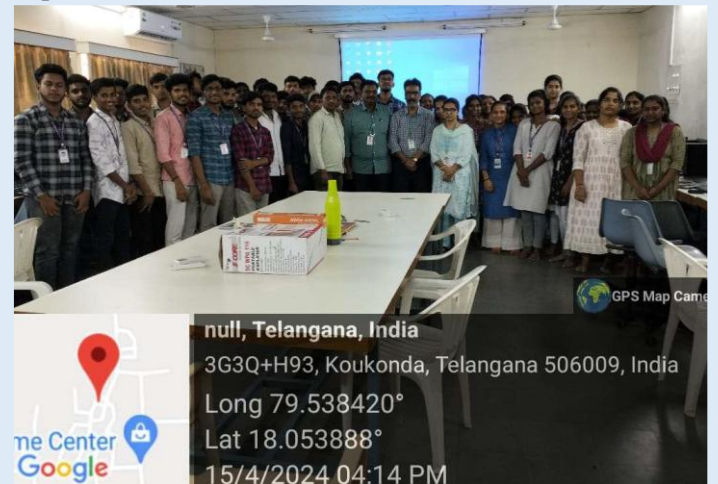
1. Introduction to Pre-Placement Talks
2. Components of a Pre-Placement Talk
3. Importance of Career Guidance
4. Tips for Effective Career Guidance
5. Resources for Career Development

In conclusion, the session on pre-placement talks and career guidance provided valuable insights and resources to assist individuals in navigating their career paths effectively. By understanding the components of pre-placement talks and the importance of career guidance,

participants gained clarity and confidence in their career aspirations. They emphasized the significance of self-assessment, research, networking, and skill development in the career exploration process. Encouraging individuals to leverage online platforms, counselling services, workshops, and seminars will enable them to access job opportunities, acquire new skills, and expand their professional networks. At the end they thanked all the participants for attending the session.

#### One day Training on MATLAB awareness on 15.04.2024:

Electrical and Electronics Engineering Department has organized a session on “One day Training on MATLAB awareness”, on 15-04-2024 in DSL LAB & PES LAB, Block-III. This session provides the first years a hands-on experience on MATLAB.



The objective of the one-day MATLAB awareness training session was to introduce participants to the fundamentals of MATLAB, providing them with a basic understanding of its features, capabilities, and applications in various fields. The session started by welcoming all the participants. The speaker of the session Mr. M. Srinivas started the session by telling the importance of MATLAB.

List of applications in EEE domain:

- Signal processing
- Control system
- Power system analysis
- Circuit design and analysis
- Electromagnetics
- Renewable energy systems
- Power electronics
- Fault diagnosis and condition monitoring

List of Students attended the Workshop outside institute during AY 2023-2024:

Sl. No	Roll No	Name of the Student	Name & Place of the workshop
1.	B21EE131L	P. Sai Santhosh	Workshop on "Design and Selection of Traction Motors and Drives for Electrified Transportation" at National Institute of Technology Tiruchirapalli, 11.03.2024 to 17.03.2024
2.	B21EE132L	M. Sai Varshitha	
3.	B21EE141L	B. Varun	
4.	B21EE148L	M. Preetham	



Group Photograph during the valedictory event



Certificate presentation during the valedictory event

No. of Guest / Expert lectures arranged during 2023-24:

Sl.No.	Date	Topic	Delivered by
1.	26.02.2024	Advancements in Electric Vehicle (EV) Technologies	Mr. Sandeep Madishetti, Principal Engineer at LITE-ON Singapore
2.	28.02.2024	Awareness on Higher Education Examinations	Mr. Raman, Asst. General Manager, T.I.M.E, Hyderabad
3.	06.03.2024	Awareness on Gate Examination Preparation	Mr Sai Charan, Member of Techno Gate, Hyderabad
4.	20.03.2024	Pre-Placement talk and career guidance	Mr. G. Dhanush, Trainer, Training & Placement Section, KITSW
5.	15.04.2024	Training on MATLAB Software for B.Tech., I Year Students	Mr. M. Srinivas, Assistant Professor, EEED, KITSW

Workshops arranged during 2023-2024:

Sl. No.	Date	Workshop Title	Delivered by
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1.	02.02.2024	<p>One day hands-on practical Workshop on “DESIGN OF PCB” during Sumshodhini’23. The following points covered during the session:</p> <ol style="list-style-type: none"> <li>1. PCB’s History</li> <li>2. Types of PCB which include Single sided, Double sided, Multi sided</li> <li>3. Common Board styles used.</li> <li>4. Active and Passive Components which used in the board.</li> <li>5. Package types</li> <li>6. PCB Material Options</li> </ol>	<p>Mr. V. Rajashekar Reddy, President of the Electrical and Electronics Engineering Association (EEEE), B.Tech., IV Year, EEE-I</p>
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8.	Varun Boddula	B21EE141L	AGI Glasspac
9.	Thoudaboina Sai Vikas	B21EE142L	HBL Power Systems
10.	C Akshay Khanna	B21EE143L	QSPIDER
11.	Challuri Vinay	B21EE144L	QSPIDER
12.	S Uma Maheswari	B21EE145L	QSPIDER
13.	K Amulya	B21EE146L	Hindustan Coca-Cola Beverages Pvt. Ltd.
14.	L Purna Priyadarshini	B21EE149L	ACCENTURE
15.	Kaluvala Vinay	B21EE153L	VEM Technologies
16.	P.Manichandana	B21EE157L	GENPACT

### STUDENT ACHIEVEMENTS

#### Students placement details:

Sl.No	Name of the student	Roll No.	Name the company
1.	Mood Sathwik Raj Chowhan	B20EE096	HBL Power Systems
2.	A Sangeetha	B20EE098	FOXCONN INTERNATIONAL
3.	D Rushiraj	B20EE102	GENPACT
4.	M Nikhitha	B20EE118	QSPIDER
5.	B Sai Teja	B21EE122L	Kaveesha Engineers
6.	Chandupatla Sai Balaji	B21EE128L	ZEN TECHNOLOGIES LIMITED
7.	Mamidala Sai Varshitha	B21EE132L	GENPACT

**No. of students enrolled for Higher Studies during 2023-24: 01**

S. No.	Name of the student	Roll Number	University enrolled
1.	P Vaishnavi Reddy	B20EE075	University of Texas

**Details of Students/Faculty participation in I2RE activity in AY 2023-24:**

S. No	Event/ Activity	Date(s)	Type of Activity	Organized by
1.	YUKTHI Innovation Challenge 2024 during the IIC regional meet	06.01.2024	YUKTHI Innovation Challenge - Prototype exhibition contest	KL University, Vijayawada