

**DEPARTMENT OF ELECTRONICS & INSTRUMENTATION ENGINEERING  
KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE: WARANGAL - 15**

# **EIE ASSOCIATION ACTIVITIES**

## **2022- 2023**

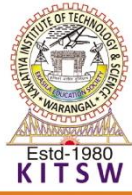
# Students Activities during 2022-23

Engineering education and practice is major driver of transformation, development, national growth and technological advancement across the globe. Reflections and rethinking were done on current educational research and teaching for engineers. Methodology adopted includes survey on level of impacts of virtual learning, knowledge acquisition, educational activities, technical and engineering practice during this pandemic.

Some challenges were identified for proper focus, rethink and reflection. It has been concluded that there is need for adequate transformation, empowerment of educational system for achievement of sustainable development goals and smooth running of education in all institutions. Parents, teachers and all stakeholders need to key into the latest technology.

The impact of this disruption is very variable and depends, first, on their ability to stay active in their academic activities. This period of disruption in education has given us a chance to bring more autonomy and self-learning, better assessments and outcomes, and more technology to the classroom. Technology-based strategies are being adopted by teachers and academic institutions to supply education and to conduct technical events as a part of association

**Executive Council body of Electronics and Instrumentation Engineering Association (EIEA & ECIA) is constituted for academic year 2022-23.**



## KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE

Opp : Yerragattu Gutta, Hasanparthy (Mandal), WARANGAL - 506 015, Telangana, INDIA.

కాకతీయ ప్రేచ్ఛాగిక్రీ అవ్ విజ్ఞాన సంస్థాన, వరంగల్ - ౫౦౬ ౦౧౫ తెలంగాణ, భారత్

కాకతీయ సాంకేతిక విజ్ఞాన శాస్త్ర విద్యాలయం, వరంగల్ - ౫౦౬ ౦౧౫ తెలంగాణ, భారతదేశము

Estd-1980  
KITSW

(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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All the students of **Electronics and Instrumentation Engineering & Electronics Communication and Instrumentation Engineering** are here by informed that the Executive Council body of Electronics and Instrumentation Engineering Association (EIEA & ECIA) is constituted for academic year 2022-23. The following are the office bearers selected for various positions of Electronics and Instrumentation Engineering Association & Electronics Communication and Instrumentation Engineering Association.

S.No	Position	Section	Name of the Student	Roll No	Phone No
1.	President1	4EIE	Raparathi Teja Phanindra	B19EI046	8340029275
2.	President2	4ECI	Daniya	B19CI004	9502922017
3.	Vice-President1	4ECI	R.Manikanta	B20CI067L	8978969731
4.	Vice-President2	4EIE	Kandakatla Vijith	B19EI020	9618781004
5.	Treasurer	4EIE	Ettadi Bala Brahmaiah	B19EI056	9182121714
6.	Secretary1	4EIE	Dua khan	B17EI029	8121899612
7.	Secretary2	4ECI	S. Sahiti	B19CI009	7330713910
8.	Joint Secretary	4EIE	Divya Joshi	B19EI013	7207172902
9.	Joint Secretary	4EIE	Saipriya Naragoni	B19EI027	7981142486
10.	General Secretary	4EIE	Koyalkar Chandrasen	B19EI032	8639402158
11.	Photography Committee	3ECI	Vemula Sai Jyothi	B20CI015	9063508262
		2ECI	Vangari Jyothi	B21CI052	9110720088
		2ECI	S Yashaswini	B21CI021	8639972537
12.	Documentation Committee	4EIE	Vaishnavi Chindam	B19EI003	6309651965
		3ECI	Erumalla Sathvika	B20CI051	7331103767
		3ECI	Shivani	B21CI069L	9381844686
		2ECI	Jouna Abhishek	B21CI024	7093936248
13.	Executive Members	3ECI	K. Ravali	B21CI066L	9177400294
		3ECI	Madhuri Chandanala	B20CI037	8341381518
		3ECI	M.Divyasri	B21CI061L	7780677729
		3ECI	Gayathri Kothi	B20CI028	7893454112
		2ECI	Manikanta	B21CI010	9951496892
		2ECI	K Vamshi	B21CI035	6281259553
		2ECI	Maryam Yasmeen	B21CI002	9341430206
		2ECI	Neha	B21CI050	8639117182

Smt K. Shailaja & Sri G. Raju

Dr. M. Raghu Ram

I/c EIE Association

Head, Dept. of EIE & Programme Head - ECI



DEPARTMENT OF ELECTRONICS & INSTRUMENTATION ENGINEERING  
KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE:: WARANGAL - 15

No: /EIE/KITS/2022

Date: 18.08.2022

The list of programs and activities to be conducted in the "EIEA & ECI Association"  
for the academic year 2022-2023.

<b>Semester</b>	<b><u>Date</u></b>	<b><u>Activities</u></b>
<b>I-Semester</b>	18.08.2022	Introduction to EIEA & ECI Association Committee Formation
	19.08.2022	Guest Lecture on Career through GATE/PSU & IES
	25.08.2022	Express to Impress [Mock Court]
	02.09.2022	Guest Lecture on GRE-Scholarship Test- Deliverables
	16.09.2022	Lesson u learned in your failure from childhood
	23.09.2022	Express to Impress
	07.10.2022	Importance of Instrumentation [PPT]
	21.10.2022	Proud of my Tradition in Technology Research
	28.10.2022	Workshop and Events planning Sumshodini 22
	11.11.2022	Planning for Technical symposium sumshodini 22
24.11.2022	Guest Lecture on	

		Career through GATE/PSU & IES
	1.12.2022	PPT on Bio-Medical Technologies

<b>Semeter</b>	<b><u>Date</u></b>	<b><u>Activities</u></b>
<b>II-Semester</b>	05.01.2023	Higher Education Guest lecture
	10.02. 2023	Fun stoppable Selective Participation (FST)
	16.02. 2023	A Brief study on Industries [Slide show]
	23.02. 2023	Presentation of importance of Instrumentation in daily life
	09.03. 2023	Seminar on Why UG students are getting stressed?
	16.03.2023	Guest Lecture on Higher Education
	23.03.2023	Role of Instrumentation Engineers in Industries
	06.04.2023	Alumni Talk /Guest Lecture on Higher Education
	13.04.2023	Talk by Juniors on "Persist Your Dream"
	20.04.2023	Talk on Inspirational Personalities

**Smt K. Shailaja & Sri G. Raju**

**Dr. M. Raghu Ram**

I/c EIE Association

Head, Dept. of EIE & Programme Head - ECI

25.08.2022	Express to Impress [Mock Trail]
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. Communication is the next big key to success.



To express or to impress Fortunately communication is not something we have to start learning from scratch. Life begins with a just-born infant communicating its arrival through an ear-splitting wail. And that cry is to draw attention to itself - first step in effective communication. Whether communicating with an individual or a group, we have a higher chance of success if we can quickly draw the attention of our intended audience.

As we grow, we learn to speak and then to write to communicate with others, both far and near. With words and language, we add structure to our communication. We learn to distinguish between good words and bad and right words and wrong words. Growing up, I used to wonder why many religions lay down how prayers need to be said in certain specific language(s)/ words and why is it important that they are uttered in a particular or specific manner. Then a wise old man clarified to me that when we speak to a person it is more important that we say it in a manner he can understand. In fact, we do it all the time: when we, for instance, speak to kids we change the language, accent and the words we use so that it's simple and easy for them to understand.



This is precisely what successful people practice at work or otherwise. It invariably works to their advantage.

Writing comes later than speech which indicates the natural order. The best way to communicate is to use speech but a lot of times we also communicate by writing - documenting what's discussed, elaborating what's discussed, sharing what's discussed with others, etc. The most important aspect of written communication is the choice of words. We need to remember we have a chance of instantly re-explaining/correcting in a verbal conversation, but in a written format the receiver forms an impression based on what he reads or sees. Not only the words, but the pictures, drawings and even the colors can create an unnecessary/unwanted noise in our communication. Once a manager sent an email with the text in bold font with red color. An instant impression of the group that received the email was that the manager was in an angry mood. The manager later clarified that it was just some inadvertent press of the PC keys that caused the email 'mis'-formatting and there wasn't any special meaning to it. Similarly a lot of times many of us have a tendency to "quickly" react/respond to certain emails (more importantly the ones related to problems or escalations). In my personal experience, I have seen often times such quick responses turn out incomplete, inappropriate or even incorrect, causing further damage. One approach that helps in such situations is to save a draft of our response and read it again after a few minutes to ensure it meets the purpose of communication.

Speaking and writing are most essential to our communication but there's yet another important form which is silent in nature. Our attire, body movements and facial expressions are no less significant in communicating with others in person. There's a lot of truth in the saying: "First impression is the best impression". This is more so when it comes to body language. An appropriate body language decidedly places us at an advantage when meeting new people and making new connections. It is not just about getting our own body language right. It's equally important to pay attention close to the body language of those we are interacting with. There may be individuals who are introverts by nature. They tend not to speak much. Their body language is likely to be different from those who are more out-going and demonstrative. In such situations, we need to be attentive to their body language so that we can draw them out, persuade them to share their views and opinions. The same holds true when we are presenting or speaking to a group: we need to adjust our pace and style in line with audience requirements. In other words, we need to have a good grasp of the audience, including understanding their body language.

"To be a good communicator, be a good listener first" - being good with speaking, writing and the body language is the best part of communication, but without an ear for close listening, it can easily become a one-way street. For effective communication, it is very important that we are not talking "to" someone but talking "with" someone. We must ensure that everyone in the group is engaged and equally participating to make the conversation successful.

In essence, it is important that our communication is effective. For that we should draw - and hold - the audience's attention, make the right choice of words, use them in a right manner and in the right tone, and make the right impression through appropriate body language, not forgetting to listen carefully to what others (or the audience) say. I have been lucky enough to be surrounded by many successful people and I have read a lot about various other successful people. I noticed one trait they all share: effective communication skills. With the help of the Technical Puzzle event, the students were given an opportunity to explore the technical topics

more in a better way that included the surprising prizes to motivate the active participation of the students.

Under the Guidance of Dr.M.Raghuram sir, Head of the Department; Faculty Advisors guided the students and presented the gifts for the active participants. Event was conducted by Faculty coordinators Smt.K. Shailaja and Sri G.Raju as a part of EIE Association with committed efforts of student council.

28.10.2022	Workshop and Events planning Sumshodini 22
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## Poster Launch of WORKSHOP ON DRONES

**“SUMSHODINI’22” 18th – 19th November, 2022**

### **Workshop: “WORKSHOP ON DRONES”**

As part of Sumshodhini'22, on behalf of the department, the students of B. Tech. (EIE), B. Tech. (ECI) & M. Tech. (EV) in association with ISTE student Chapter and Technical Club, KITSW are organized a technical workshop - “WORKSHOP ON DRONES” on 18th Nov 22. Drones are used for various reasons like surveillance, traffic monitoring,



firefighting, personal use, drone-based photography, etc. Now a days drones are widely used in agriculture, they can be used on nearly any kind of crop, including rice, wheat, corn, citrus trees, cotton, and much more. In addition to covering more land at a lower price, drone spraying can offer major environmental benefits.

This workshop teaches you the fundamentals of Drones that is introduction to types of UAV's, applications of UAV's, Multirotor (a helicopter having more than two rotors), fixed wing, about Hybrid UAV's. It also focuses on Introduction to the fundamentals of aerodynamics and principles of flight. It also includes the components of drones (BLDC motor, ESC, Flight controllers, Radio controllers, power distribution, gps, mavlink, BEC), Design of fuselage and frames.

Finally the workshop ended up with practical session, which consists of assembling of frames and power distribution as well as assembly and connections of propulsion system.

## **1 - Day Workshop on Drones [18<sup>th</sup> November, 2022]**

### **What will you learn after attending this Workshop:**

Here is a small description of our workshop which is conducted on drones we have learnt many things about its pros and cons

Here are some applications of drones

- Military Applications
- Helps Emergency Responders save Lives.
- Makes Inspections More Efficient.
- Helps Greatly with Scientific Research.

Here we have some disadvantages on drones

- UAVs can be hijacked or manipulated.
- Endanger wildlife and ruin tourist experiences.

We have learnt to simulate and individual parts of each component and description of each part so here;

The students have learnt to assemble the drone and learnt its importance of each and every particular part of the drone.

### **Applications you can make using this kit:**

- Aerial Photography & Videography.
- Real estate photography.
- Mapping & Surveying.
- Asset Inspection.
- Payload carrying.
- Agriculture.
- Bird Control.
- Crop spraying.





'SPARK PLUG' is a technical event which requires "speed in response, and presence of mind, spontaneity and knowledge on basic electronics components

Open for all branches



Participate in the event & know many things you don't know It consists of 3 rounds

**Date: 09-11-2022.**

**'PAPER PRESENTATION'** is a technical event in which there is an individual competition and the main motto is to bring students out of stage fear and also improve their communication skills.

Registration is open for all branches.



1.12.2022

PPT on Bio-Medical Technologies



## **What Is Biomedical Technology?**

Biomedical technology is the application of technology and engineering to living organisms, which can involve a range of activities from designing medical equipment or conducting research. Keep reading to find out more about biomedical technology and about your educational options within this field.

## **Biomedical Technology Sub-Fields**

### **Biomedical Informatics**

Biomedical informatics is the branch of biomedical technology that deals with the tracking and measuring of biomedical data by using computers and technology. As a biomedical technician, you'd use the information they gather to better understand different issues, such as how diseases spread or how well health systems are performing.

### **Biomedical Engineering**

The branch of biomedical technology concerned with the application of engineering design and principles to medical and biological issues is called biomedical

engineering. Your work as a biomedical engineer would involve developing and growing synthetic organs or creating prosthetic limbs to replace diseased or injured parts of the human body.

### **Biomedical Research**

Biomedical research is the study of various chemicals and substances used to develop and improve medicines that are used to treat disease. The research is often conducted using equipment and methods developed by people working in other branches of biomedical technology.

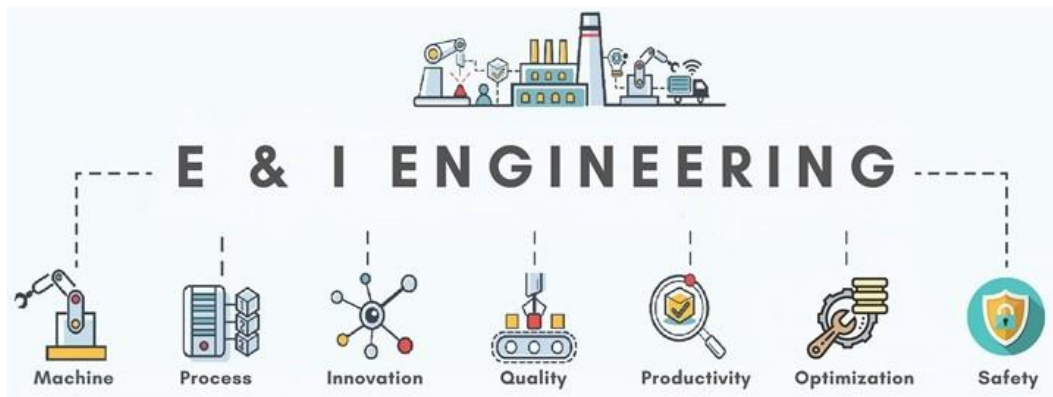
### **Biomedical Science**

Biomedical science, also known as health science, is the application of chemistry, biology, physics, engineering, and other scientific disciplines to the research and treatment of human health issues. Biomedical technology and biomedical science overlap in many aspects, but as a biomedical scientist, you'd focus more on the actual research and treatment of disease, while as a biomedical technician, you'd deal more with researching and developing technologies and methodologies used to treat disease.

Under the Guidance of Dr.M.Raghuram sir, Head of the Department; Faculty Advisors guided the students presented bio technology and its significance, and core team presented the gifts for the active participants. Event was conducted by Faculty coordinators Smt.K. Shailaja and Sri G.Raju as a part of EIE Association with committed efforts of student council.

23.03.2023	Role of Instrumentation Engineers in Industries
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Role of Instrumentation professional in industries is quite diverse in nature and important as well. Instrumentation (also described as Automation) is ubiquitous in all types of industries; be it process plant or manufacturing industry. This article focuses on the role of Electronics and Instrumentation (E & I) Engineers in various industries. The major responsibilities of the E & I engineers are to ensure product quality and productivity. In addition to this, the scope of E & I Engineers also covers the optimization, environment regulation, safety, and plant commissioning and maintenance.



### **Product Quality and Productivity:**

For any industry the product quality and productivity are two most important aspects for the profitability of the company. Proper implementation of Instrumentation ensures these. To maintain the value of various parameters (like pressure, temperature, level, etc.,) at the required set point values are key for operation of any plant.



### **Optimization:**

Globalization had opened many opportunities in the country. Although the stiff competition in pricing and quality requirement from customers created threat on many companies. In this situation, optimized plant operation is the key to maintain the profit. Today, E & I Engineer can think his role more than just to keep the normal operation of the plant. To think and implement offline or online optimization



strategies is expected from the E & I engineer. In this context to have an accurate and reliable monitoring of plant operation is very important.

### **Environment Regulation:**

The last decade has witnessed substantial change in the awareness about the environment protection. Every industry emits the effluent (in solid, liquid or gas form) in less or more quantity. Monitoring and conditioning of these hazardous effluent is very important. Effective measurement and automation systems play very vital role to keep the value of these effluent within the regulatory limit. Development of novel sensors and reliable instrumentation systems are the important role of automation professions in this field.

### **Safety:**

The economical constrain has forced to increase the single location large size and integrated plant. Handling of hazardous material in such plant makes the real concern of the safety of plant and personal. Development of stringent interlocks and trip systems adhering to various safety standards is the prime responsibility of Electronics and Instrumentation engineer.

Under the Guidance of Dr.M.Raghuram sir, Head of the Department; Faculty Advisors guided the students presented bio technology and its significance, and core team presented the gifts for the active participants. Event was conducted by Faculty coordinators Smt.K. Shailaja and Sri G.Raju as a part of EIE Association with committed efforts of student council.

### **INDUSTRIAL VISIT TO INCOIS, HYDERABAD on**

**31<sup>ST</sup> MARCH 2023. The III-year students along with 2 Faculty Coordinators Mrs.K. Shailaja and Mr.G. Raju to visit the INCOIS data center.**



## ESSO- Indian National Centre for Ocean Information Services



As a part of Industry Institute Interaction, the students (40 No.) of B.Tech. (ECI)VI semester visited esteemed organization Indian National Centre for Ocean Information Services (INCOIS), Hyderabad, to get a practical insight of

industrial requirements. Objective of the industrial visit is to make students learn about industry requirements and make them industry ready.

The Department of EIE & ECI, KITSW College arranged an Industrial Visit for 3<sup>rd</sup> year students. We are happy to send our students to visit INCOIS on 31<sup>ST</sup> MARCH 2023. The III-year students along with 2 Faculty Coordinators Mrs.K. Shailaja and Mr.G. Raju to visit the INCOIS data center.

We have been facilitated with scientists, Dr. Siddhartha Sahoo. Knowledge Resource Centre (KRC), ESSO, INCOIS, Ministry of Earth Sciences, Govt. of India. They gave information on how the Ocean and Earth Quake information is analyzed to take preventive actions, which motivated all the students who are aspiring to do software and instrumentation



ESSO-INCOIS was established as an autonomous body in 1999 under the Ministry of Earth Sciences (MoES) and is a unit of the Earth System Science Organization (ESSO). INCOIS is mandated to provide the best possible ocean information and advisory services to society,

industry, government agencies and the scientific community through sustained ocean observations and constant improvements through systematic and focussed research.



### Activities of INCOIS:

- ✚ Provides round-the-clock monitoring and warning services for the coastal population on tsunamis, storm surges, high waves, etc. through the in-house Indian Tsunami Early Warning Centre (ITEWC). The Intergovernmental Oceanographic Commission (IOC) of UNESCO designated ITEWC as a Regional Tsunami Service Provider (RTSP) to provide tsunami warnings to countries on the Indian Ocean Rim.
- ✚ Provides daily advisories to fisher folk to help them easily locate areas of abundant fish in the ocean while saving on both fuel and time used to search for the same. These advisories called Potential Fishing Zone Advisories are issued in Hindi, English and 8 vernacular languages. Currently more than one lakh fisher folk successfully use these advisories obtained through SMS Village Information Centers, local radio, local TV, Electronic Display Boards at fish landing centers, NGO websites, the ESSO-INCOIS website etc.



- ✚ Short term (3-7 days) Ocean State Forecasts (waves, currents, sea surface temperature, etc.) are issued daily to fisher folk, the shipping industry, the oil and natural gas industry, the Navy, the Coast Guard, etc. These forecasts inform users about the expected sea conditions during the next few days and help them to plan their activities at sea.
- ✚ Deploys and maintains a suite of Ocean Observing Systems in the Indian Ocean to collect data on various oceanic parameters to understand the processes in the ocean and to predict their changes.
- ✚ Conducts systematic quality checks and archives all observational, satellite and other oceanic data at the ESSO-INCOIS Data Centre and then makes such data available to students, researchers and any other users. ESSO-INCOIS has been designated as the 'National Oceanographic Data Centre' by IOC/IODE of UNESCO and is also identified as the 'Regional Argo Data Centre for the Indian Ocean'.



- ✚ Generates Global Ocean Analysis data using mathematical models and observations on a daily basis to provide the initial conditions to ocean-atmosphere coupled models used for the prediction of the monsoon and to understand oceanic processes.
- ✚ Carries out Research and Modeling to optimize the performance of mathematical models used for ocean state forecasts, prediction of tsunami waves, storm surges, etc. along the coast.
- ✚ Established a national network (Indian Seismic and GNSS Network (ISGN)) that integrates Seismic and GNSS stations and provides high quality data for research and operational use.
- ✚ Established a VSAT aided Emergency Communication System (VECS) (a fail-safe satellite-based communication system) to provide tsunami warnings with the least possible time delay even when there is a failure in conventional communication systems.
- ✚ Established high performance computing systems and data communication networks at ESSO-INCOIS with 100% redundancy and reliability to support the computational requirements of ocean state forecast models etc.
- ✚ Training and capacity building for students, young researchers in India and Indian Ocean Rim Countries through short and long duration training courses in Operational Oceanography at the International Training Centre for Operational Oceanography (ITCOcean) established at ESSO-INCOIS. ESSO-INCOIS signed a MoA with IOC/UNESCO in July 2013 to collaborate in training and capacity development activities.



Students enlighten by INCOIS team for their continuous encouragement and guidance to know the dynamics of National Disaster Management Particularly Earthquakes and other ocean Disasters, which helps to build the industry ready concepts.



**Awareness about Abroad Studies/Scholarships by  
GLOBAL TREE CONSULTANCY WARNGAL**

**On 06-04-2023**

## **Seminar on Awareness about Abroad Studies/Scholarships**

Seminar on awareness about Abroad Studies/Scholarships is organized by dept of ECE, EIE& ECI on 06-04-2023 at NSH,Block II, KITSW.

The Seminar was hosted by Lekhana Prasad of III-year ECE.Sri B.Srikanth, Business Development Executive, GLOBAL TREE interacted with students and highlighted the features provided by GLOBAL TREE consultancy.

Global Tree is the best abroad consultancy in Warangal, providing expert training, study materials, sample papers, personalized one-on-one guidance, practice questions, old test papers, mock examinations, and expert faculty recommendations for students pursuing higher education abroad.

Global Tree consultancy provides professional services which can assist students in pursuing higher education in universities or colleges outside of their home country. They provide guidance and support to students throughout the entire process of selecting and applying to colleges or universities abroad, including preparing for entrance exams, submitting applications, and applying for visas.







Nearly 80 students participated in the program. The faculty coordinators of ECEA Dr K.Sowjanya, Sri S.Pradeep Kumar, Md.AbdulMuqueem and faculty coordinators of EIE&ECI Smt K.Shailaja ,G.Raju also attended the program.