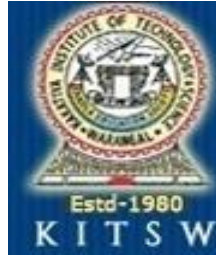


**Department of Electrical and Electronics Engineering**



**Welcome to  
The Chairman & Members of  
NAAC Expert Committee**

**KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE**  
(An Autonomous Institute under Kakatiya University, Warangal)

ISO 9001:2015

AICTE-CII: GOLD Category Institute

NAAC-'A' Grade Institute (CGPA: 3.21)

NIRF-2021 Rank : 197



## KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE

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

కాకతీయ ప్రేఘోగికీ ంవ్ విజ్ఞాన సంస్థాన, వరంగల - 506 015 తెలంగానా, భారత

కాకతీయ సాంకేతిక విజ్ఞాన శాస్త్ర విద్యాలయం, వరంగల్ - 506 015 తెలంగానా, 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)

website: [www.kitsw.ac.in](http://www.kitsw.ac.in)

E-mail: [principal@kitsw.ac.in](mailto:principal@kitsw.ac.in)

☎ : +91 9392055211, +91 7382564888

# Department of Electrical and Electronics Engineering

## **Vision:**

- ❖ **To fulfill the needs of the industry and society through excellence in education and research in electrical engineering**

## **Mission:**

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

## Programmes offered:

S. No	Programme	Specialization	Year	Intake
1	B. Tech.	Electrical & Electronics Engineering	1994	60
2	M.Tech.	Power Electronics	2013	18

## Accreditation status:

S. No	Programme	Year of Accreditation (NBA)	Date
1	M.Tech (PE)	2023	(2023 for 3 years vide letter No: F.No. 11-76-2010-NBA, Dt: 30.11.2023)
2	B. Tech (EEE)	2022	(2022 for 3 years vide letter No: F.No. 11-76-2010-NBA, Dt: 15.06.2022)
3	B. Tech (EEE)	2019	(2019 for 3 years vide letter No: F.No. 11-76-2010-NBA, Dt: 20.11.2019)
4	B. Tech (EEE)	2016	(2016 for 3 years vide letter No: F.No. 11-76-2010-NBA, Dt: 4.2.2017)
5	B. Tech (EEE)	2011	(2011 for 3 years vide letter No: F.No. 11-76/2010/NBA, Dt: 22nd September, 2011)

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

### Program Outcomes(POs) of B.Tech in Electrical & Electronics Engineering

Program Outcome		Engineering Graduates will be able to
PO1	<b>Engineering Knowledge</b>	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	<b>Problem Analysis</b>	Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO3	<b>Design/Development of Solutions</b>	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	<b>Conduct Investigations of Complex Problems</b>	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.

<i>Program Outcome</i>		<i>Engineering Graduates will be able to</i>
PO5	<b>Modern Tool Usage</b>	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	<b>The Engineer and Society</b>	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	<b>Environment and Sustainability</b>	Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO8	<b>Ethics</b>	Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9	<b>Individual and Team Work</b>	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	<b>Communication</b>	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	<b>Project Management and Finance</b>	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	<b>Life-Long Learning</b>	Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

### Program Specific Outcomes (PSOs) of B.Tech in Electrical & Electronics Engg

PSO1	Apply the fundamental knowledge of Electrical and Electronics Engineering in providing solutions for modern power industry and multi-disciplinary areas
PSO2	Analyze, design and simulate systems to generate, transmit, distribute, utilize and control electrical energy to meet social and environmental needs using electrical and electronic systems

### Program Educational Objectives (PEOs) of M.Tech.- Power Electronics

PEO1	Research and Innovation	Engage in research, innovation and teaching in the fields related to power electronics & Drives
PEO2	Technical expertise and Successful career	excel in professional practices 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, effective communication skills and spirit of teamwork by carrying out research for a sustainable development

### Program Outcomes (POs) of M.Tech. - Power Electronics

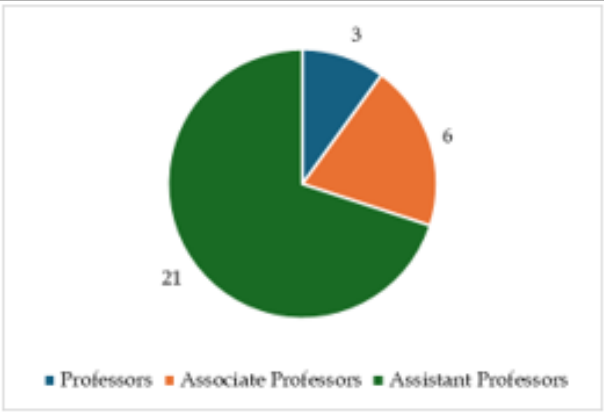

<i>Program Outcome</i>	<i>Engineering Post Graduates will be able to</i>
PO1	Independently carry out research/ investigation and development work to solve practical problems
PO2	Write and present an effective technical report/document
PO3	Demonstrate competence in the area of Power Electronics

### Program Specific Outcomes (PSOs) of M.Tech. Power Electronics

PSO1	Apply knowledge of power electronics for the development of effective and innovative solutions to problems pertaining to the renewable energy sources, smart electric grids and electric vehicles
PSO2	Analyze complex engineering problems related to power electronics industry and develop solutions with the latest hardware and software tool

# Dept. of Electrical & Electronics Engineering:

## Faculty:

Faculty Designation	Professors	3	 <p>A pie chart illustrating the distribution of faculty by designation. The largest segment is Assistant Professors with 21 members (dark green), followed by Associate Professors with 6 members (orange), and Professors with 3 members (blue).</p> <table border="1"><thead><tr><th>Designation</th><th>Count</th></tr></thead><tbody><tr><td>Professors</td><td>3</td></tr><tr><td>Associate Professors</td><td>6</td></tr><tr><td>Assistant Professors</td><td>21</td></tr></tbody></table>	Designation	Count	Professors	3	Associate Professors	6	Assistant Professors	21
	Designation	Count									
	Professors	3									
Associate Professors	6										
Assistant Professors	21										
Associate Professors	6										
Assistant Professors	21										
Faculty highest Degree	Ph.D.	15	 <p>A pie chart illustrating the distribution of faculty by their highest degree. The largest segment is Ph.D. with 15 members (orange), followed by M.Tech. with 8 members (green), and Pursuing Ph.D. with 7 members (blue).</p> <table border="1"><thead><tr><th>Highest Degree</th><th>Count</th></tr></thead><tbody><tr><td>Ph.D.</td><td>15</td></tr><tr><td>Pursuing Ph.D.</td><td>7</td></tr><tr><td>M.Tech.</td><td>8</td></tr></tbody></table>	Highest Degree	Count	Ph.D.	15	Pursuing Ph.D.	7	M.Tech.	8
	Highest Degree	Count									
	Ph.D.	15									
Pursuing Ph.D.	7										
M.Tech.	8										
Pursuing Ph.D.	7										
<u>M.Tech.</u>	8										



## List of labs

No.	Name	Area (in sq.m)	Cost (in Rs)
1.	Basic Electrical Engineering Lab	132.2	10,99,598
2.	Networks Lab	66.6	5,03,525
3.	Electrical Measurements Lab	75.2	4,22,735
4.	Electrical Machines Lab (I&II)	201	15,42,750
5.	Control Systems Lab	66.6	7,28,451
6.	Power Electronics Lab	132.2	12, 84, 855
7.	Electric Drives Lab	132.2	11,28,256
8.	Digital Simulation Lab	75.2	38,63,223
9.	Power Systems Lab	75.2	6,62,969
10.	Renewable Energy Systems Lab	121	12,68,779
11.	Power Converters Lab	121	3,14,480
12.	Power Electronics Simulation Lab	66.6	35,23,405
13.	Research Lab	121	12,80,102
14.	Project Lab	44	Under Construction



**KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE, WARANGAL-506015**  
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**Details of Software's at Electrical & Electronics Engineering Department**



<u>Sl.No.</u>	Name of the software	Date of Purchase	<u>No.of Users</u>	Cost Rs.
1.	MiPower	08-03-04 6-7-2019 (Updated)	5 Users	2,93,696.00 +2,24,200.00 =5,17,896
2.	PSIM	15-3-04 16.09.2019 (Updated)	5 Users	2,75,000.00 +6,78,500.00 =9,53,500
3.	PSCAD	12-03-11	5 Users	1,84,480.00
4.	MATLAB R 2023 B	27-09-2019 30-9-2021, 2023 (Updated)	Unlimited	11,88,969.00 +9,73,063.00 =21,62,032







## Research & Education Centers

Sl No.	Name of the Department	Research & Education Center	Presentation Brochure
1	Electrical & Electronics Engineering	Research & Education Center – Power Electronics	<a href="#" style="color: white; text-decoration: underline;">Presentation</a> <a href="#" style="color: white; text-decoration: underline;">Brochure</a>

**Major equipments: (along with description / Cost/ photographs)**

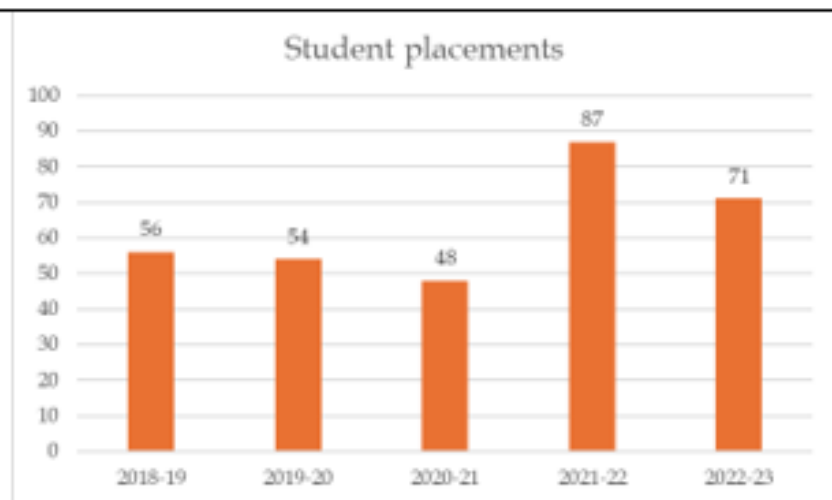
Sl.no	Name of the equipment	Cost in Rs.	photographs
1.	Computers (No.10) (students to simulate the various power converters)	292000	 <div style="font-size: 8px; margin-top: 5px;">                     GPS Map Camera                      Koukonda, Telangana, India                      303Q+H93, Koukonda, Telangana 506009, India                      Lat 18.053724°                      Long 79.538483°                      09/03/24 02:11 PM GMT +05:30                 </div>
2.	1- $\Phi$ Full Controlled Bridge Converter with R, RL Load (The rectifier is a widely used circuit in power supplies, DC motor controllers, and many other electronic circuits)	19664	 <div style="font-size: 8px; margin-top: 5px;">                     GPS Map Camera                      Koukonda, Telangana, India                      303Q+H93, Koukonda, Telangana 506009, India                      Lat 18.053724°                      Long 79.538493°                      09/03/24 02:09 PM GMT +05:30                 </div>

3.	1- $\Phi$ AC Voltage Controller (AC voltage controllers are used either for control of the rms value of voltage or current in lighting control, domestic and industrial heating, speed control of fan, pump or hoist drives, soft starting of induction motors, etc.)	11066	 <div style="font-size: 8px; margin-top: 5px;">                     GPS Map Camera                      Koukonda, Telangana, India                      303Q+H93, Koukonda, Telangana 506009, India                      Lat 18.053724°                      Long 79.538483°                      09/03/24 02:32 PM GMT +05:30                 </div>
4.	3- $\Phi$ MC Murray Bridge Inverter (With PWM, a fixed DC input voltage source can produce a sinusoidal output waveform with variable frequency and amplitude)	21282	 <div style="font-size: 8px; margin-top: 5px;">                     GPS Map Camera                      Koukonda, Telangana, India                      303Q+H93, Koukonda, Telangana 506009, India                      Lat 18.05373°                      Long 79.538479°                      09/03/24 02:31 PM GMT +05:30                 </div>

5.	Cyclo Converter Based AC Induction Motor Controller (A cycloconverter converts a constant amplitude, constant frequency AC waveform to another AC waveform of a lower frequency by synthesizing the output waveform from segments of the AC supply without an intermediate DC link)	21282	 <p>Koukonda, Telangana, India 3G3Q+H93, Koukonda, Telangana 506009, India Lat 18.053718° Long 79.538484° 09/03/24 02:30 PM GMT +05:30</p>	7.	3 ph rectifier circuit (Three-phase full-wave bridge rectifiers are commonly used for high-power applications because they have the highest possible utilization factor for a three-phase system)	16000	 <p>Koukonda, Telangana, India 3G3Q+H93, Koukonda, Telangana 506009, India Lat 18.053724° Long 79.538488° 09/03/24 02:29 PM GMT +05:30</p>
6.	1- $\Phi$ Full Controlled Bridge Converter with motor load (A rectifier is an electrical device used to convert alternating current (AC) into direct current (DC) by allowing a current to flow through the device in one direction only.)	19664	 <p>Koukonda, Telangana, India 3G3Q+H93, Koukonda, Telangana 506009, India Lat 18.053725° Long 79.538502° 09/03/24 02:30 PM GMT +05:30</p>	8.	Cathode ray oscilloscope (No.10) (The Cathode Ray Oscilloscope (CRO) is a versatile electrical instrument used for displaying, measuring, and analyzing waveforms and various other electrical phenomena)	148500	 <p>Koukonda, Telangana, India 3G3Q+H93, Koukonda, Telangana 506009, India Lat 18.053721° Long 79.538485° 09/03/24 02:08 PM GMT +05:30</p>
9.			 <p>Koukonda, Telangana, India 3G3Q+H93, Koukonda, Telangana 506009, India Lat 18.053701° Long 79.538455° 09/03/24 02:08 PM GMT +05:30</p>		Digital storage Oscilloscope (A digital storage oscilloscope (DSO) is an electronic instrument that measures and records electrical signals. It converts the analog signal into a digital format and stores it in its digital memory, allowing for easy recall and analysis)	314618	 <p>Koukonda, Telangana, India 3G3Q+H93, Koukonda, Telangana 506009, India Lat 18.053701° Long 79.538455° 09/03/24 02:08 PM GMT +05:30</p>

## Placement Details

Academic Year	Public Sector Units	IT/TES	Entrepreneur	Total No. of Students Placed
2018-19	07	47	01	56
2019-20	01	53	00	54
2020-21	00	48	00	48
2021-22	00	87	00	87
2022-23	00	71	00	71
2023-24	09	12	00	21



## Criterion 1 - Curricular Aspects

Curricula is developed and revised on regular basis, based on inputs from the following:

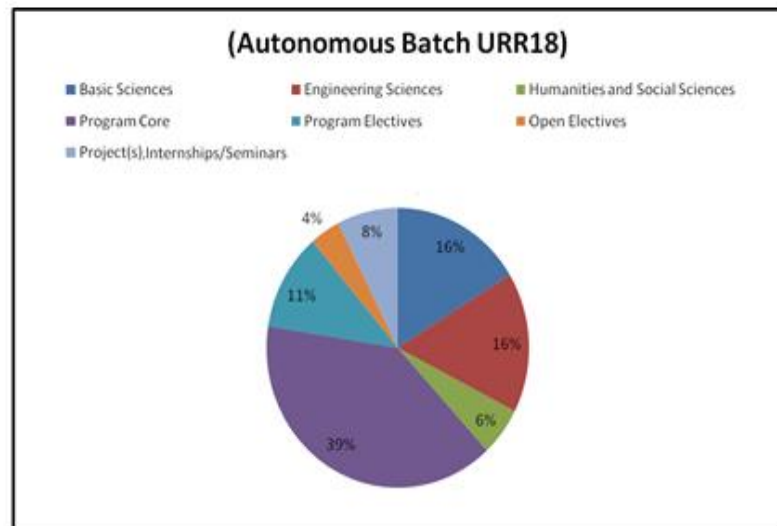
- 1.Feedback from stakeholders
2. Inputs from industry experts
- 3.Suggestions from academicians of reputed institutions

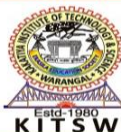
### Components in Curriculum:

- Science Component
- Humanities & Social Science
- Professional Core
- Breadth Component
- Electives - Professional & Open electives
- Internship
- Mandatory & Audit courses
- Project work & Seminar

## COMPONENTS OF THE CURRICULUM

<i>(Autonomous Batch URR18)</i>			
Course Component	Curriculum Content (% of total number of credits of the program)	Total number of contact hours	Total number of credits
Basic Sciences	16.25%	24	26
Engineering Sciences	16.25%	28	26
Humanities and Social Sciences	5.62%	13	09
Program Core	39.37%	75	63
Program Electives	11.25%	18	18
Open Electives	3.75%	15	06
Project(s)/ Internships/Seminars	7.5%	24	12
<b>Total number of Credits</b>			<b>160</b>





# KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE

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కాకతీయ ప్రేయోగికీ एवं विज्ञान संस्थान, వరంగల్ - 506 015 తెలంగాణ, భారత

కాకతీయ సాంకేతిక విజ్ఞాన శాస్త్ర విద్యాలయం, వరంగల్ - 506 015 తెలంగాణ, భారతదేశము

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website: [www.kitsw.ac.in](http://www.kitsw.ac.in)

E-mail: [principal@kitsw.ac.in](mailto:principal@kitsw.ac.in)

☎ : +91 9392055211, +91 7382564888

## LIST OF INDUSTRY EXPERTS CONTACTED

S.No	Course Name	Name of the faculty	Name of the Industry Expert	Industry Name
1.	Power System-I	Prof. V. Ramaiah	D. Samaiah	Power Grid
2.	Electrical Machines-I	Dr. V. Rajagopal	Dr. Vashist Bist	Allegro Micro
3.	Utilization of Electrical Energy	Sri M. Narasimha Rao	N. Mahender	TSNPDCL
4	Power System Operation and Control	Dr. G. Sudheer Kumar	Mr. Tadaka Srinivas	NPTCL
5	Power Semiconductor Drives	Prof .C. Venkatesh	Dr. K. Lakshman	Irrigation & CAD
. 6.	Control Systems Engineering	Dr. B. Jagadish Kumar	N Mahender	TSNPDCL
7.	AI Techniques in Electrical Engineering	Dr. D. Rakesh Chandra	Dr. C. Madhu Kishore	Wipro
8.	Advance Power System Protection	Dr. P. Nagarjuna Reddy	Ch. Chander	Siemens
9	Digital Control Systems	Dr. A. Rajasekhar	P. Madhusudhan Reddy	Larsen And Toubro Defence



## Criterion 2 - Teaching-learning and Evaluation

### Teaching-Learning Process:

- **Class work as per Almanac**
- **Sharing Outcome Based Lecture Schedule (OBLs)**
- **Prior sharing of course material with outcomes - CDTs, SLTs**
- **Participative Learning through special Assignments in the form of Course Research Paper & Course Patent Paper**
- **Peer learning through Programme based Assignments**
- **Continuous internal assessment through Minor exams, Mid Semester exams, Assignments & Special Assignments**
- **Flip-classes through Tutorials followed as per tutorial matrix**
- **Course committee meetings**

## Criterion 2 - Teaching-learning and Evaluation

Programmes conducted to cater to the differential learning needs of the students:

**For Slow learners:**

- Remedial Classes, Tutorials, Class Discussion Materials, Question Bank

**For active learners:**

- Course Patent papers and Course Research Papers
- Project to paper publications
- MOOCs certifications
- Honors degree
- Minor degree
- Participation in hackathons

## Criterion 2 - Teaching-learning and Evaluation

- **Effective Mentor-Mentee (Counselor-Counselee) System:**

### Procedure -

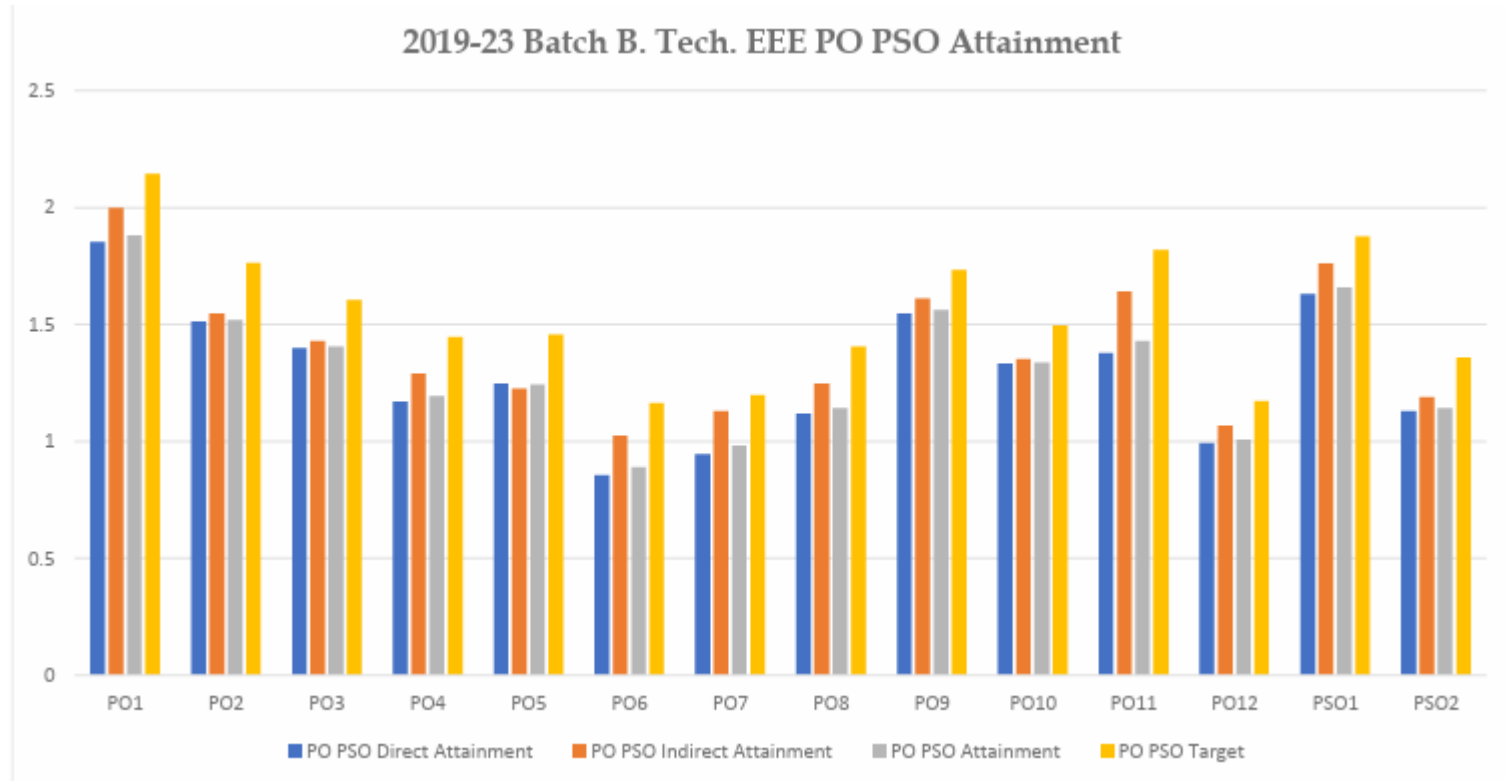
- Counsel the students every week during **Meet Your Counselor slot (MYC)**
- The faculty member who acts as counsellor maintains a Counseling record book for each counselee in which personal details of the students including their address, contact numbers, overall academic performance and progress is regularly updated.
- Monitor the attendance and marks in college management software(CMS), counsel, guide, and motivate the students in all academic matters.

## Criterion 2 - Teaching-learning and Evaluation

2019-23 Batch B. Tech. EEE PO PSO Indirect Attainment														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
Alumni Survey	3.00	2.67	2.83	2.83	2.50	2.67	3.00	2.67	2.83	2.83	2.83	2.83	3.00	2.67
Exit survey	2.59	2.60	2.51	2.52	2.55	2.62	2.67	2.65	2.74	2.60	2.58	2.63	2.64	2.59
(Alumni + exit)/2	2.79	2.63	2.67	2.67	2.52	2.64	2.83	2.66	2.79	2.72	2.71	2.73	2.82	2.63
PO PSO Target	2.14	1.76	1.61	1.45	1.46	1.16	1.20	1.40	1.73	1.49	1.82	1.17	1.88	1.36
Indirect Attainment = Target *[(Alumni + exit)/2]/3	2.00	1.55	1.43	1.29	1.23	1.02	1.13	1.24	1.61	1.35	1.64	1.07	1.76	1.19

2019-23 Batch B. Tech. EEE PO PSO Attainment														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
PO PSO Direct Attainment	1.85	1.51	1.40	1.17	1.25	0.85	0.94	1.12	1.55	1.33	1.38	0.99	1.63	1.13
PO PSO Indirect Attainment	2.00	1.55	1.43	1.29	1.23	1.02	1.13	1.24	1.61	1.35	1.64	1.07	1.76	1.19
PO PSO Attainment	1.88	1.52	1.41	1.19	1.24	0.89	0.98	1.14	1.56	1.34	1.43	1.01	1.66	1.14
PO PSO Target	2.14	1.76	1.61	1.45	1.46	1.16	1.20	1.40	1.73	1.49	1.82	1.17	1.88	1.36

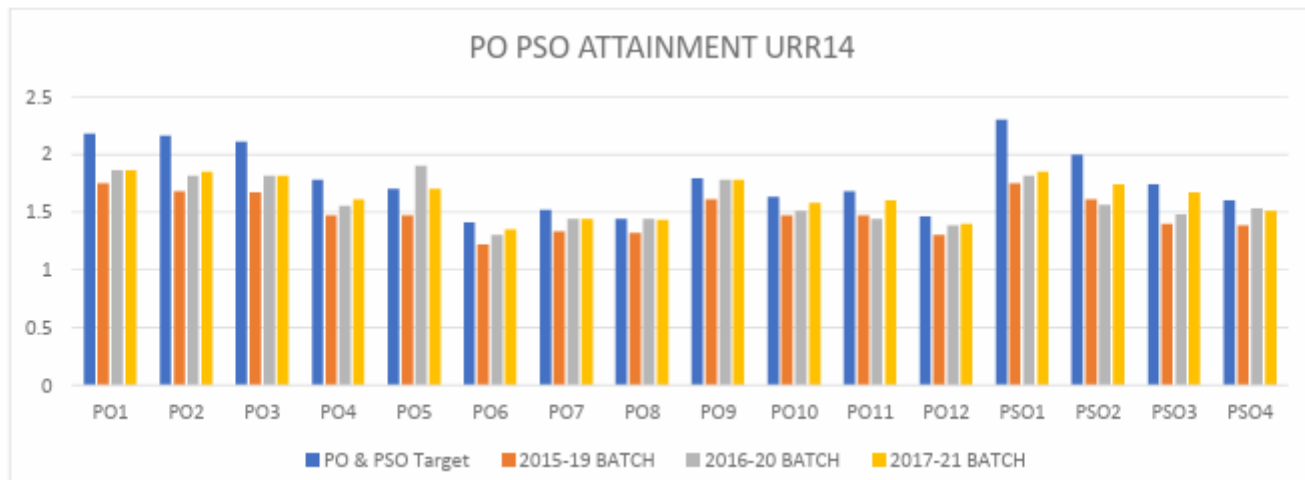
## Criterion 2 - Teaching-learning and Evaluation



## Criterion 2 - Teaching-learning and Evaluation

### COMPARISON OF ATTAINMENTS: URR-14

PO & PSO ATTAINMENT URR-14 (AUTONOMOUS)																
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
<b>PO &amp; PSO Target</b>	2.18	2.16	2.11	1.78	1.7	1.41	1.52	1.44	1.79	1.63	1.68	1.46	2.3	2	1.74	1.6
<b>2015-19 BATCH</b>	1.75	1.68	1.67	1.47	1.47	1.22	1.33	1.32	1.61	1.47	1.47	1.3	1.75	1.61	1.4	1.38
<b>2016-20 BATCH</b>	1.86	1.81	1.81	1.55	1.9	1.3	1.44	1.44	1.78	1.51	1.44	1.38	1.81	1.56	1.48	1.53
<b>2017-21 BATCH</b>	1.86	1.85	1.81	1.61	1.7	1.35	1.44	1.43	1.78	1.58	1.6	1.4	1.85	1.74	1.67	1.51

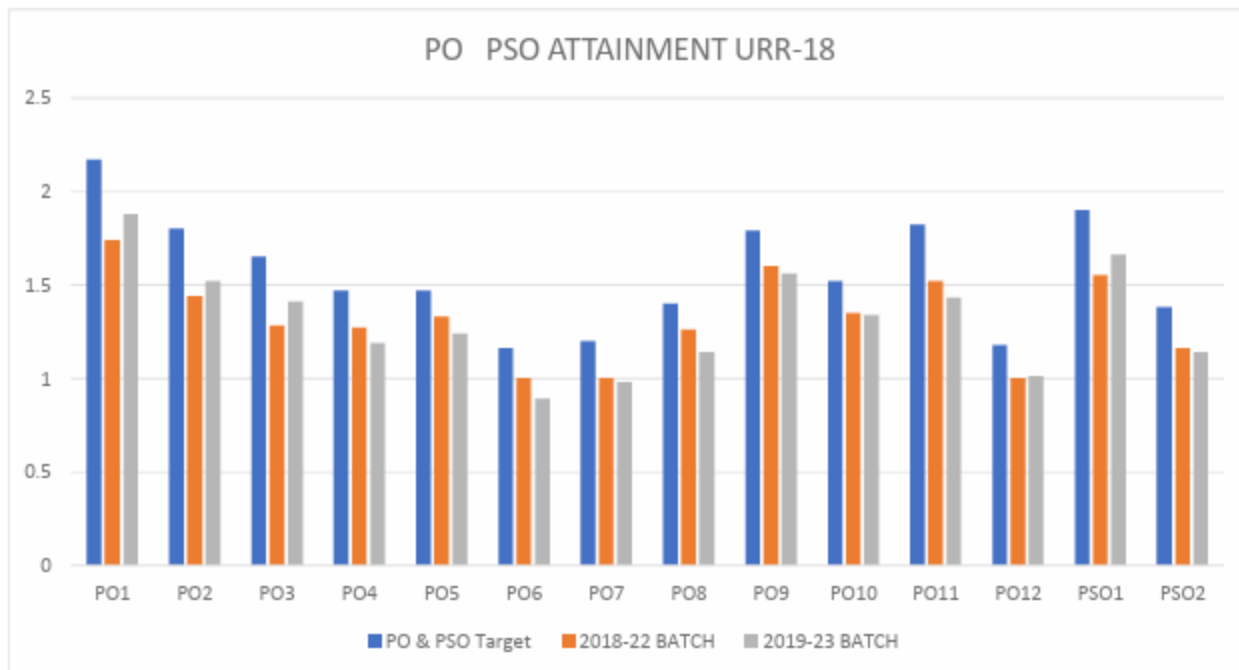


## Criterion 2 - Teaching-learning and Evaluation

### COMPARISON OF ATTAINMENTS: URR-18

#### PO & PSO ATTAINMENT URR-18 (AUTONOMOUS)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
<b>PO &amp; PSO Target</b>	2.17	1.8	1.65	1.47	1.47	1.16	1.2	1.4	1.79	1.52	1.82	1.18	1.9	1.38
<b>2018-22 BATCH</b>	1.74	1.44	1.28	1.27	1.33	1	1	1.26	1.6	1.35	1.52	1	1.55	1.16
<b>2019-23 BATCH</b>	1.88	1.52	1.41	1.19	1.24	0.89	0.98	1.14	1.56	1.34	1.43	1.01	1.66	1.14



# Criterion 2 - Teaching-learning and Evaluation

Result statistics for last five academic years (B.Tech).

Batch	I sem		II sem		III sem		IV sem		V sem		VI sem		VII sem		VIII sem		No. of students cleared all subjects (in 4 years)				
	App	Pass	App	Pass	App	Pass	App	Pass	App	Pass	App	Pass	App	Pass	App	Pass	First div. with dist.	First div.	Second div.	Total	Pass%
2019-23	116	96	116	111	130	127	129	126	129	103	129	93	129	127	129	127	50	60	0	110	85.27
2018 -22	119	100	121	98	132	115	132	128	135	135	135	134	135	130	135	130	65	63	1	129	95.56
2017-21	117	92	117	102	143	113	144	117	140	119	140	131	144	143	144	143	76	64	3	143	99.31
2016-20	119	98	117	99	143	119	142	132	143	129	143	132	141	138	141	141	59	81	1	141	100
2015-19	120	85	120	96	142	123	143	123	143	124	140	138	147	126	150	147	59	69	2	130	86.67

Result statistics for last five academic years (M. Tech).

Batch	I sem		II sem		III sem		IV sem		No.of students cleared all subjects(in 2 years)				
	App	Pass	App	Pass	App	Pass	App	Pass	First div. with dist.	First div.	Second div.	Total	Pass%
2020-22	22	20	22	16	22	19	19	19	13	5	0	18	94.74
2019-21	16	14	16	15	16	16	16	14	10	1	0	11	68.75
2018-20	16	15	18	17	19	19	19	19	15	2	0	17	89.47
2017-19	18	15	18	13	15	15	14	14	11	3	0	14	100
2016-18	16	15	17	17	17	17	16	16	13	2	0	15	93.75



## Criterion 3 - Research, Innovations and Extension

- **Research Facilities in the Department: Research lab**
- **Research supervisors: 1**
- **Research scholars: 3**
- **Seed money received: 16,98,000/-**
- **Research grants received: Two (11,68,167/-)**
- **Faculty obtained PhD:1 (Dr.B.Subhash)**

### Faculty having research Guidance/scholars

Name of the Recognised supervisor	Recognised supervisor from university	Name of the Research scholar	Year of registration of the scholar	Present Status Ongoing/Completed
Dr. V. Rajagopal	JNTUH	B. SUBHASH	2012	Completed
Dr. V. Rajagopal	JNTUH	J. BANGARRAJU	2013	Ongoing
Dr. V. Rajagopal	KLU	K. AMRITHA	2015	Ongoing

### Grants Received

S. No	Academic Year	Name of the Scheme	Funded by Organization	Details of Coordinator/ PI	Sanctioned Amount	Present status (Completed/ Ongoing)
1	2019-20	PRERANA scheme for SC/ST students GATE Coaching	AICTE	Dr G. Rajender Naik, Assoc. Professor, EEE Dept.	9,40,000/-	Completed
2	2020-21	STTP on Electric Vehicle Battery Charging System With Renewable Energy Sources	AICTE	Dr C.Venkatesh Professor, EEE Dept.	2,28,167/-	Completed

### The institution provides seed money to its teachers for Research

Name of the teacher provided with seed money	Date of grant DD-MM-YYYY	Amount granted (INR in Lakhs)
Research Lab	03-03-21	16.98

## Criterion 3 - Research, Innovations and Extension

### Summary of Faculty Research Publications

AY	WoS/SCI/SCIE	ESCI/Scopus	UGC Indexed
2018-19		3	-
2019-20	2	1	-
2020-21	5	5	-
2021-22	5	8	-
2022-23	3	4	-
2023-24	1	1	-
<b>Total</b>	<b>16</b>	<b>22</b>	<b>-</b>

#### A.Y. - 2021-22

§. No.	Publication Type	No. of Publications
1	WoS/SCI/SCIE Indexed Journal Publications	05
2	ESCI/Scopus Indexed Journal Publications	08
3	UGC Indexed Journal Publications	-
<b>TOTAL:</b>		<b>13</b>

#### A.Y. - 2022-23

§. No.	Publication Type	No. of Publications
1	WoS/SCI/SCIE Indexed Journal Publications	03
2	ESCI/Scopus Indexed Journal Publications	04
3	UGC Indexed Journal Publications	-
<b>TOTAL:</b>		<b>07</b>

#### A.Y. - 2023-24

§. No.	Publication Type	No. of Publications
1	WoS/SCI/SCIE Indexed Journal Publications	01
2	ESCI/Scopus Indexed Journal Publications	01
3	UGC Indexed Journal Publications	-
<b>TOTAL:</b>		<b>02</b>

## Criterion 3 - Research, Innovations and Extension

### Awards received by Faculty

S. No	Name of the Faculty Member	Details of the Award	Academic Year	Details
1	G Sudheer Kumar	INDIA Top Cited Author Award 2019 by IOP Publishing for paper "G Sudheer Kumar et al 2016 Nanotechnology 27 385702	2019	--
2	M. Santhosh	Outstanding reviewer award-2018	2018-19	Presented by Applied Soft Computing journal (Elsevier).
3	Y. Manjusree	Woman Researcher award	2020-21	Elsevier Woman research award

#### Faculty organized the FDPs/training activities/STTPs

AY	Number
2023-24	1
2022-23	1
2021-22	1
2020-21	4
2019-20	6
2018-19	4
<b>Total</b>	<b>17</b>

#### STTPs/FDPs/Workshops/Seminars/Symposia Attended by the Faculty:

AY	Number
2023-24	-
2022-23	13
2021-22	29
2020-21	98
2019-20	179
2018-19	32
<b>Total</b>	<b>351</b>

#### Summary of Conference Publications

AY	Conference Publications
2018-19	6
2019-20	6
2020-21	7
2021-22	4
2022-23	5
2023-24	2
<b>Total</b>	<b>30</b>

## Criterion 3 - Research, Innovations and Extension

### Consultancy

The Department of Electrical & Electronics Engineering is engaged in consultancy services (Third party Quality Check) offered to various Government and Private Organizations since 2009 through ICC.

The details of consultancy services offered are as follows.

#### Major Organizations Served:

1. Kakatiya Urban Development Authority, Warangal.
2. Telangana State Education Welfare Infrastructure Development Corporation ( TSEWIDC)

Income Generated through ICC		
Sl. No.	Financial Year	Amount (in Rs.)
1	2009-2016	Rs 3,50,000=00
2	2016-2018	Rs. 2,42,190=00
3	2018-2019	Rs. 1,23,615 = 00

## Criterion 3 - Research, Innovations and Extension

### MoUs/MoAs with industry / Institute partners

Name of Industry
1. TSGENCO
2. NIT W
3. CAPRICOT

### Student Association Activities conducted

AY	Student Association Activities conducted
2023-24	4
2022-23	6
2021-22	6
2020-21	11
2019-20	12
2018-29	7

## Criterion 4 - Infrastructure and Learning Resources

### **Physical Facilities:**

**No. of Classrooms: 7**

**No. of Laboratories: 14**

**No. of Computers: 92**

### **Department Library info:**

**No. of textbooks: 232**

# Criterion 5 - Student Support and Progression

S. no.	Activity	Date
1	JAM Session on trending technologies	15 Feb' 23
2	Social Media For Self-Learning	22Feb' 23
3	Gate awareness	15 Mar' 23
4	Global Tree Session	29 Mar' 23
5	Trading and stock Market awareness	12 April' 23
6	How to plan for Start-up	19April' 23
7	Awareness Program on Internships	27 April'23

EVENT PHOTOGRAPHS



## How to Plan for Start-Up

The Speaker has noted on the specific points:

1. Define the purpose and vision to be set.
2. Conduct market research.
3. Building of solid business plan.
4. Strong team to be built.
5. Funding and Brand identity.
6. Set realistic goals and milestones.
7. Develop a marketing strategy.
8. Stay agile and adaptable.
9. Motivated and confident



EVENT PHOTOGRAPHS



EVENT PHOTOGRAPHS



## Criterion 5 - Student Support and Progression

### Alumni Engagement:

S. No.	Date	Name of the activity	ALUMINI	Activity for the Branches
1	11.09.2021	VII - semester of B.Tech (EEE), T&P Registered students interaction  (COGNIZANT DRIVE)	i).Ms. Damaraju Harika (B17EE034) Programmer Analyst Trainee, CTS - Company, Bangalore  ii) Mr. Akuthota Yashwanth (B18EE132L) R&D Engineer, Medha Servo Drives, Hyderabad	2022 POB
2	04-09-2022	VII - semester of B.Tech (EEE), T&P Registered students interaction  (HYUNDAI MOBIS DRIVE)	MS.SATWIKAMAMIDI (B18EE002) Graduate Engineer Trainee  HYUNDAI MOBIS Company	2023 POB
3.	08-01-2022	Career Through GATE and Preparation Strategy	(i) R. Josna Priya Scientist in Bureau of Indian Standards AIR-10; GATE-2020 (ii) Karthik Korada (M.Tech. IIT-Delhi) Communication Engineer (25LPA) AIR-527; GATE-2020; (iii) Chinthala Ramesh Ex-IES	B.Tech. EEE (III Sem. & V Sem.) students (2023 & 2024 pass out batches).
4	08.07.2021	VI - semester of B.Tech (EEE), T&P Registered students interaction	i) Mr M. Praveen Chandra(B17EE114) Operations Executive, UnSchool - Company ii) Ms. Sanjudha Kandunuri (B17EE019) Associate Software Engineering, ACCENTURE- Company	B. Tech - EEE VI- Semester (2022 Passout) (T&P Registered students)

Year	Alumni Contributor	Amount of Contribution (Rs)	Remarks
2022	2004-08 BATCH	1,32,500/-	Modernization of Power Systems Laboratory



# Criterion 6 - Governance, Leadership and Management

## Consolidated Budget 2019-2024

Items	Budgeted in 2023-24 (Rs.)	Actual expenses in 2023-24 (Rs.)	Budgeted in 2022-23 (Rs.)	Actual expenses in 2022-23 (Rs.)	Budgeted in 2021-22 (Rs.)	Actual expenses in 2021-22 (Rs.)	Budgeted in 2020-21(Rs.)	Actual expenses in 2020-21 (Rs.)	Budgeted in 2019-20 (Rs.)	Actual expenses in 2019-20 (Rs.)
Laboratory equipment	5,56,380	53,041	23,24,142		20,17,650	21,14,319	14,30,000	3,16,240	27,95,000	14,23,005
Software		-		97,305	1,94,000	1,52,426		1,10,136	18,00,000	14,13,169
Laboratory consumable	5,07,000		5,17,964	2,17,213	50,000	45,157	1,00,000	61,872	50,000	1500
Maintenance and spares			4,65,000			2,65,000		18,520	--	3000
R & D	5,25,000		1,90,000		4,00,000	8,21,417	4,50,000	--	4,50,000	-
Training and Travel			1,30,000		1,00,000	7,725		--	-	-
Miscellaneous expenses *		22,236	20,000	54,536				18,000	-	17,600
<b>Total</b>	<b>15,88,380</b>	<b>75,277</b>	<b>36,47,106</b>	<b>3,69,054</b>	<b>30,26,650</b>	<b>31,59,564</b>	<b>19,80,000</b>	<b>5,06,248</b>	<b>50,98,000</b>	<b>28,56,774</b>

# Criterion 6 - Governance, Leadership and Management



KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE, WARANGAL-015  
An Autonomous Institute under Kakatiya University, Warangal  
DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

## STATEMENT SHOWING ACTUALS FOR 2023-2024 & BUDGET ESTIMATES FOR 2024-2025

### A. Non-Recurring:

Sl. No.	Item	Budget Sanctioned for 2023-24 (Rs. in lakhs)	Budget Estimates 2024-2025 (Rs. in lakhs)	Detailed Notes in the Form of Annexure
1.	Laboratory Equipment	6.5288	21.08	
2.	Software purchase	1.62		
3.	Others (specify)			
Total (Rs. in lakhs)		8.1488	21.08	

### B. Recurring:

Sl. No.	Item	Budget Sanctioned for 2023-24 (Rs. in lakhs)	Budget Estimates 2024-2025 (Rs. in lakhs)	Detailed Notes in the Form of Annexure
1.	Laboratory consumables	1.2	4.9968	
2.	Expert/Guest Lectures		1.00	
3.	Paper presentations (Registration)			
4.	Travel (guests, conference presentations by faculty & others if any)	0.8	1.00	
5.	Maintenance & Spares		0.75	
6.	Student Project works			
7.	Miscellaneous expenses for academic activities (including Newsletters & Technical Magazines)	0.05	0.10	
Total (Rs. in lakhs)		2.05	7.8468	

### C. Research & Development:

Sl. No.	Item	Actual for 2023-24 (Rs. in lakhs)	Budget Estimates 2024-2025 (Rs. in lakhs)	Detailed Notes in the Form of Annexure
1.	FRSS	3.00	3.00	-
2.	FRIS	1.00	1.00	-
3.	Other Special Projects	1.25	1.00	-
Total (Rs. in lakhs)		5.25	5.00	

## Short Term Goals

- ❖ To attract funding from government research organizations and to establish industry sponsored labs in the area of renewable energy sources and plug-in hybrid vehicles.
- ❖ To establish research centre under Kakatiya University/other Universities to enhance research culture and innovations.

## Long Term Goals

- ❖ To establish collaborations with International Institutions / Universities for MS & Ph.D programmes.
- ❖ To produce patents in the emerging areas of power electronics to develop know-how & new product development.



# Dept. of Electrical & Electronics Engg.

KITS Warangal

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[EQUIVALENT COURSES under URR-18](#)

[FDP/STTP/Workshops etc.](#)

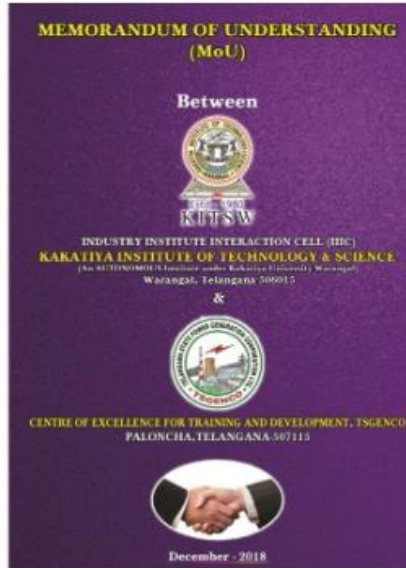
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**Group Photograph during the Industrial Visit at JK  
Paper Industry 01.04.2023**



**Two weeks Intensive Training Programme for students from  
27.06.2022 to 08.07.2022 at Kothagudem Thermal Power Station  
(KTPS), Paloncha.**





**Visit of Prof. D. M. Vinod Kumar, Dept. of EEE,  
NIT Warangal to our Department**












**Industrial Visit PGCIL,  
Ogulapur-2018**

## Prominent Alumni

S.No	Name of the Alumni	Photograph	Year of Passing	Job Description & Working Location
1	<b>J S Rajender Kumar</b>		1998	Director-Data Engineering Lead at GSK, London, United Kingdom.
2	<b>Jyothsna Palwai</b>		1998	Technical Program Manager at Quantiphi, AI/MI Cloud Solutions Consulting, Lincolnshire, Illinois, United States
3	<b>Vinay Lakkakula</b>		1998	Cloud Infrastructure Architecture/ Cloud Solutions Architect/DevOps Architect, Farmington, Michigan, United States
4	<b>Dr. P. Srinivas</b>		1998	Professor in Electrical Engineering, Jt. Director of Evaluation (UG), Osmania University, Hyderabad.
5	<b>Ravikiran Ghattu</b>		2000	Lead System Engineer at Huf Group, Framington, Michigan, United States
6	<b>S. Krishna Chaitanya</b>		2002	IAS(2013), Rank 143, CEO of district panchayath, Shadol, Madhya Pradesh
7	<b>P. Prem Reddy</b>		2003	Senior Manager, NTPC, Noida, Uttar Pradesh, India

Contd..

## Prominent Alumni

8	M. Kiran Kumar		2005	Power Network Studies Engineer, Abu Dhabi Transmission & Despatch Company, United Arab Emirates
9	Calatur Sushanto		2005	Senior Director HR Manager, Brampton, Ontario, Canada
10	G. Soumya Rupa		2007	Staff Verification Engineer at Marvel Semiconductor, Santa, Clara, California, USA
11	B. Ranjith		2008	Indian Police Service (2016), Telangana Cadre, UPSC Rank 555
12	G. Balajose		2008	Software Development Manager at Oracle, Hyderabad, Telangana
13	V. Praneeth		2009	Technical Lead at Tetraton Analytics, Palo Alto, California, United States.
14	CH. Rupesh		2013	Indian Police Service(2016), Telangana Cadre, UPSC Rank 527

## Prominent Alumni



KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE, WARANGAL-15

*(An Autonomous Institute under Kakatiya University)*

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

### PROMINENT ALUMNI

S. No	Name of the Alumni	Photograph	Year of Passing	Job Description & Working Location
1.	Shiva Krishna		2009	Associate Manager, Adani Power Limited, Udupi
2.	Sumesh Madishetty		2015	Senior Software Engineer, Kroger Digital, Cincinnati, USA
3.	PSV Sai Sri Krishna		2018	Senior Engineer, Toshiba Transmission & Distribution Systems (India) Pvt. Ltd., Hyderabad

**Thank you**