

# KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE

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

काकतीय प्रौद्योगिकी एवं विज्ञान संस्थान, वरंगल - ५०६ ०१५ तेलंगाना, भारत

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

(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 ELECTRONICS & INSTRUMENTATION ENGINEERING

### DEPARTMENT PROFILE

#### Programmes Offered

B.Tech. - Electronics Communication & Instrumentation Engineering (ECI)

B.Tech. - Electronics & Instrumentation Engineering (EIE)

M.Tech. - Embedded System & VLSI (EV)

Ph.D.- Electronics & Instrumentation Engineering (EIE)

### Milestones

2021-22	B.Tech.(EIE) Programme re-accredited under Tier-I for three years w.e.f. A.Y. 2021-22 E&I Engg. Research centre renewed by Kakatiya University, Warangal for three years w.e.f. A.Y. 2021-22
2020-21	Started M.Tech.- Embedded system & VLSI (EV) programme Introduced Honors in Electronics Communication & Instrumentation Engineering (HECI) programme Introduced Minor in Electronics Communication & Instrumentation Engineering (MECI) programme UGC renewed Autonomous status for KITSW under Kakatiya University for six years w.e.f. A.Y. 2020-21
2019-20	Started B.Tech.- Electronics Communication & Instrumentation Engineering (ECI) programme Introduced Course web portal for effective implementation of outcome based education (OBE) Introduced Innovation, Incubation, Research & Entrepreneurship (I2RE) as part of course teaching Introduced Honors in B. Tech E&I Engineering program (HEIE) Introduced Minor in B. Tech E&I Engineering program (MEIE)
2018-19	Received Rs. 15,00,000/- under MODROBS of AICTE for Modernization & Automation of Process Control Laboratory Received Rs. 3,00,000/- from AICTE to conduct online STTP on "VLSI Design: Bridging Concepts to Practice" B.Tech.(EIE) Programme re-accredited under Tier-II for three years w.e.f. A.Y. 2018-19 E&I Engg. Research centre renewed by Kakatiya University, Warangal for three years w.e.f. A.Y. 2017-18
2017-18	Mr. Vydihik, Class of EIE-2016 secured AIR 72 in GATE 2018 and selected as GET in PSU-ONGC
2016-17	B.Tech.(EIE) Programme re-accredited under Tier-II for two years w.e.f. A.Y. 2016-17
2014-15	B.Tech.(EIE) Programme re-accredited under Tier-II for three years w.e.f. A.Y. 2014-15 UGC granted Autonomous status for KITSW under Kakatiya University for six years w.e.f. A.Y. 2014-15
2012-13	Received grant of Rs. 9,90,000/- from AICTE under Research Promotion Scheme (RPS) Project
2011-12	B.Tech.(EIE) Programme re-accredited under Tier-II for three years w.e.f. A.Y. 2011-12 Received individual UGC grant of Rs 1,00,000/- under UGC-International Travel Grant (ITG) scheme by both the faculty Sri K. Venu Madhav & Sri M. Raghu Ram to attend IEEE-I2MTC conference at Graz, Austria
2010-11	Received Rs. 8,00,000/- under MODROBS of AICTE for Modernization of Measurements & Instrumentation Laboratory
2009-10	Department recognized as Research Centre by Kakatiya University (KU), Warangal
2008-09	B.Tech.(EIE) Programme re-accredited for three years w.e.f. A.Y. 2008-09
2001-02	B.Tech.(EIE) Programme got First time accreditation status w.e.f. A.Y. 2002-03, awarded by National Board of Accreditation (NBA), New Delhi
2000-01	The Department of Electronics and Communication Engineering was bifurcated from Department of Electronics & Instrumentation Engineering Department started with B.Tech. programme in Electronics & Communication Engineering with an intake of 60
1981-82	Department started with B.Tech. programme in Electronics & instrumentation Engineering with an intake of 60.

## Prominent Guests Visited

1. **Prof. V. Ram Gopal Rao**, Director IIT Delhi, visited on 11.07.2018.
2. **Dr. Y. Jagan Mohan Reddy**, Senior Engineering Manager, Honeywell Pvt. Ltd., Hyderabad, visited on 16.09.2020.
3. **Mr. G. Suresh Reddy**, Managing Director, Jaladhi Automations Pvt. Ltd., Verizon visited on 16.09.2020.

## Faculty Achievements in 5 years

Year	SCI Journals	SCOPUS Journals	WOS Journals
2023-24	01	-	-
2022-23	06	04	01
2021-22	03	-	-
2020-21	-	01	-
2019-20	-	01	-
2018-19	-	03	-

## Student Achievements in 5 years

Year	Conference Proceedings	SCOPUS Journals
2023-24	-	-
2022-23	01	-
2021-22	09	-
2020-21	-	-
2019-20	-	01
2018-19	-	-

## Alumni Interactions

1. **Prof. V. Ram Gopal Rao** (*Class of 1981-EIE*), Director, IIT Delhi, Proud Alumnus of the Department, visited the Department and motivated faculty towards Research & Consultancy on 11.07. 2018.
2. **Sri Shyam Mallela** (*Class of 1989-EIE*) delivered a lecture on "The role of Instrumentation in industries" as a part of Induction program at KITSW on 21.07.20218.
3. **Dr. Y. Jagan Mohan Reddy** (*Class of 1997-EIE*), Principal Engineer, Air Company, USA handled IoT theory course for B.Tech (ECI) students during A.Y. 2022-23.
4. **Mr. G. Suresh Reddy** (*Class of 1997-EIE*) Managing Director, Jaladhi Automations Pvt. Ltd., Verizon motivated students towards Industry Internships on 16.09.2020.

## Accreditation

Programme	Accreditation Status	Period of Accreditation	NBA Letter
<b>B.Tech. - Electronics &amp; Instrumentation Engineering</b>	Re-accreditation - 7 (Tier-1)	3 Years	F.No. 11-76/2010/NBA. Dt.17 th Feb. 2022
	Re-accreditation - 6	1 Years	F.No. 11-76/2010/NBA. Dt. 21 st Aug. 2020
	Re-accreditation - 5	3 Years	F.No. 11-76/2010/NBA. Dt.29 th Mar. 2018
	Re-accreditation - 4	2 Years	F.No. 11-76/2010/NBA. Dt. 08 th July. 2016
	Re-accreditation - 3	2 Years	F.No. 11-76/2010/NBA. Dt. 09 th oct. 2014
	Re-accreditation - 2	3 Years	F.No. NBA/11-76/2010/NBA, Dt. 22 nd Sept.,2011
	Re-accreditation - 1	3 Years	F.No. NBA/ACCR-15/2001, Dt. July 19,2008
	Accreditation	3 Years	F.No. NBA/ACCR-190/ 2003, Dt. 20/ 05/ 2003

Year	Placements	Higher Education
2023-24	13 (till date)	NA
2022-23	12	03
2021-22	39	06
2020-21	19	15
2019-20	17	11
2018-19	23	07

- ✦ Strong student mentoring system
- ✦ Students are encouraged to take up Mini & Major projects related to social concern
- ✦ Lecture material, Lecture PPTs, Lecture videos, Tutorial sheets and assignment sheets are posted on KITSW course web portal
- ✦ Student internships are encouraged
- ✦ Students are trained in core areas to support placement drives
- ✦ Faculty & Students are encouraged to complete NPTEL Certifications on Industry 4.0 technologies
- ✦ Industrial visits/Alumni interactive sessions and technical events are organized under IEEE/IETE/ISTE student chapters

### Vision

- To provide quality education in Electronics & Instrumentation Engineering by nurturing the students with strong technical analytical, practical skills and ethics to make them engineering professional who cater to the societal needs with a high degree of integrity and social concern.

### Mission

- To provide progressive and quality educational environment with the help of dedicated faculty and staff by fully utilizing the information technology aiming at continuous teaching and learning process.
- To produce engineering graduates fit for employability with a competence to design, develop, invent and solve instrumentation engineering problems.
- To make the students ethically strong by inculcating sense of brotherhood.

### Funding Grants

- 2018-19** Rs. 15,00,000/- from AICTE under MODROBS for *Modernization of Process Control Laboratory* (Lr. No. 9-73/RIFD/MOD/POLICY-1/2018-19)
- 2018-19** Rs. 3,00,000/- from AICTE to conduct online STTP on "*VLSI Design: Bridging Concepts to Practice*" (Lr. No. 34-65/197/RIFD/STTP/Policy-1/2018-19)
- 2012-13** Rs. 9,90,000/- from AICTE under *Research Promotion Scheme (RPS)* Project (Lr.No. 20/AICTE/RIFD/RPS/(POLICY-VI) 29/2012-13)  
RPS Title: *Development of Novel Algorithms for Reduction of Motion Artifacts and extraction of Respiratory Activity from Artifact Corrupted PPG signals in Pulse Oximeters*
- 2011-12** Rs 1,00,000/- to Dr. K. Venu Madhav from UGC-International Travel Grant (ITG) to visit Graz, Austria  
Rs 1,00,000/- to Dr. M. Raghu Ram from UGC-International Travel Grant (ITG) to visit Graz, Austria
- 2010-11** Rs. 8,00,000/- under MODROBS of AICTE for *Modernization of Instrumentation Laboratory*

### Other department highlights

### NPTEL Certifications

#### NI LabVIEW CLAD Certifications

Sl. No.	Year	Faculty	Students
1	2019-20	02	04

Year	Faculty	Students
2023-24	18	04
2022-23	19	06
2021-22	04	04

### Career Opportunities for B.Tech.(ECI) & M.Tech.(EV):

- Most of the students of the department have been placed on campus and off campus every year in reputed Software, Core and Public and Government sector companies like TCS, Infosys, Tech-Mahindra, Musigma, Accenture, Google, Reliance Power, L&T, BOSCH, Caterpillar Electronics, IBM, BARC, IOCL, ISRO, DRDO, SAIL, NTPC, KTPS, JKP, etc.
- The students also have opportunities in Industries related to IoT, Artificial Intelligence, Power, Petrochemicals, Pharmaceuticals, Chemical and Food processing, Plastic- Rubber molding, VLSI, Optical and Laser based communications, Wireless communications, Telecommunications and Embedded Systems etc.



NI Lab View Training conducted at E&IE Dept.



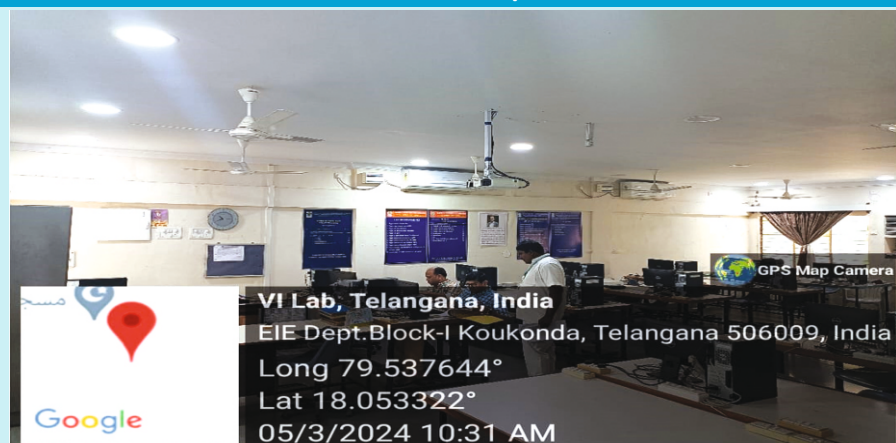
## Department Research & Education Centres and Laboratories

- Industrial IoT • VLSI • Embedded Systems • Research Laboratory • Basic Electronics & Integrated Circuits Laboratory
- Virtual and Biomedical Instrumentation Laboratory • MPMC Laboratory • Measurements Laboratory
- Instrumentation Laboratory • E-CAD Laboratory • Process Control Laboratory • Project Works Laboratory

## Major Facilities

- BIOPAC - A standard research Platform for recording and analyzing of Biomedical signals
- National Instruments (NI) Virtual Instrumentation Platform with SCXI modules, NI- USB-6001 DAQ & LabVIEW 2018 Software • MATLAB R2023b Software • XILINX Spartan FPGA Development Systems • Active HDL and Multisim Software • DSP and Embedded System Modules • NI ELVIS II with FPGA • NI myRIO, NI myDAQ • Universal IC Programmers • Digital Storage Oscilloscopes
- Four Trace Oscilloscopes • ARM, AVR, PIC and 8051 Microcontroller Development Platforms
- Arduino Robotic Development Platform • Microprocessor Trainer kits • Process Control Trainers for Temperature, Flow, Level and Pressure, Cascade & Ratio controllers • Programmable Logic Controllers (PLC) • Siemens - AS410 SMART Controller Based DCS Trainer • Transducers and Signal conditioning modules • ECG, Respiration and Pulse rate measurement kits

NI Lab view Center of Excellence at E & I Dept. will conduct Lab view Core 1&2 courses along with issuing official NI Certificates.



## Students Activities

Kits Warangal has organized SUMSHODINI'22 a yearly technical symposium conducted on 18th & 19th November 2022, 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.

Department of EIE and ECI has organized following events:

- |                       |                    |                    |                   |
|-----------------------|--------------------|--------------------|-------------------|
| 1. Workshop on Drones | 2. Arcadathon 2.0  | 3. Viserion        | 4. Hidden Circuit |
| 5. Enigma 2.0         | 6. Sparkplug       | 7. Mind Bloggers   | 8. Quiz Buzz      |
| 9. Paper Presentation | 10. Placement Heat | 11. Concentrix 2.0 |                   |

