



### Kallam Haranadhareddy

Institute of Technology
(Affiliated to JNTUK, Approved by AICTE)



# Quality Discipline Committment





SRI KALLAM MOHAN REDDY President, KHIT

### **ABOUT US**

In an era where science and technology stand as pivotal pillars shaping the fabric of society, the demand for proficient technocrats has never been more pronounced. Recognizing this imperative, Kallam Group of Industries, under the visionary guidance of its founder and chairman, Late Sri Kallam Haranadhareddy garu, took a monumental stride towards education. Thus, emerged the esteemed Kallam Haranadhareddy Institute of Technology (KHIT) in 2010, nestled amidst the serene environs of Chowdavaram, a verdant oasis located just 10 km from Guntur along the tranquil expanse of the Chilakaluripet highway on NH-16. This institute stands as a testament to a commitment towards fostering excellence in technical education, boasting not only state-of-the-art infrastructure but also a faculty of eminent scholars and practitioners. With an unwavering dedication to nurturing technically adept professionals, it extends the legacy of success from industry to academia, ensuring that each student who graces its halls emerges not just as a graduate, but as a capable architect of tomorrow's technological landscape.



#### VISION

To be a quality
- oriented
technical
institution
known for
global
academic
excellence and
professional
human values

#### MISSSION

- To provide quality instruction with competent and knowledgeable faculty and well – equipped laboratories to meet global standards
- To achieve academic distinction through novel teaching and learning practice
- To encourage students by providing merit scholarships
- To prepare the graduates to accomplish professional practice, employability, entrepreneurial development and higher education
- To inculcate self discipline, accountability and values in the learners for effective and informed citizenship
- To focus on MOUS with premier institute and renowned industries for effective industry – institution interaction to become an R&D center through skill development, professional up-gradation and innovation

### About KHIT:

KHIT is committed to producing technically adept professionals through state-of-the-art infrastructure, a well-qualified faculty, and a robust academic framework. The campus features well-equipped departmental blocks, modern lecture halls, seminar rooms, an extensive central library, advanced laboratories, workshops, comfortable hostels, dining facilities, and excellent sports amenities. The institution takes pride in preparing



students with both academic excellence and social skills, empowering them to excel among their peers.

Inspired by the visionary leadership, industrial acumen, and philanthropic principles of its founder, KHIT redefines quality higher education and research, striving to leave a lasting impact on its students and the community at large.

# Vision of the Department

To impart quality technical education to the learners inculcating the professional skills and knowledge embedded with socio-ethical values in the field of Electronics & Communication Engineering to develop solutions for global challenges.

# **Mission of the Department**

- To impart quality education through industry-relevant curriculum, state-of-the-art laboratories, conducive teaching-learning environment with scope for continuous improvement.
- To encourage students to pursue higher education with the latest technological developments and to become entrepreneurs.
- To inculcate the consciousness among students towards ethical values while developing innovative solutions to meet societal needs and social responsibility.
- To prepare students to adopt the lifelong learning needed for a sustainable professional career.

# **About Department:**

The Department of Electronics and Communication Engineering (ECE) was established in 2010 along with the inception of Kallam Haranadhareddy Institute of Technology, with an initial intake of 60 B.Tech students. Over the years, the department has grown steadily and now offers the B.Tech programme with an intake of 180 students. The programme has been accredited by the National Board of Accreditation (NBA) under Tier II in 2018., highlighting the department's commitment to academic excellence.

The department is supported by well-equipped, modern laboratories covering areas such as Electronic Circuits, Digital Logic Design, Analog and Digital Communications, Linear IC Applications, Digital Signal Processing, Microprocessors and Microcontrollers, VLSI Design, and Microwave & Optical Communications. To strengthen learning and research, the department also provides access to the latest software tools including MATLAB, Mentor Graphics, Xilinx, and Co-design platforms. In addition, it houses a dedicated Computer Centre, Research Centre, and Project Lab to facilitate innovation and hands-on experience for both undergraduate and postgraduate students..

### Program Educational Objectives (PEOs)

- PEO1 Exhibit a strong foundation in Electronics&Communication Engineering principles, enabling them to solve complex engineering problems using analytical, computational and experimental tools in various Electronics and Communication systems.
- PEO2 Apply Electronics &Communication Engineering knowledge and innovative thinking in Contributing to the design, development and testing of systems that meet societal, industrial and environmental needs.
- PO3 Communicate effectively, demonstrate professionalism, collaboration, ethical attitude, Team spirit and pursue lifelong learning to achieve career, organizational and societal goals.

### **Program Outcomes (POs)**

- 1. **Engineering Knowledge (P01):** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to solve complex engineering problems.
- 2. **Problem Analysis (PO2):** Identify, formulate, review research literature, and analyze complex engineering problems using principles of mathematics, natural sciences, and engineering sciences.
- 3. **Design/Development of Solutions (PO3):** Design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate consideration for public health, safety, cultural, societal, and environmental factors.
- 4. **Conduct Investigations of Complex Problems (PO4):** Use research-based knowledge and research methods including design of experiments, analysis, and interpretation of data to provide valid conclusions.
- 5. **Modern Tool Usage (PO5):** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of limitations.
- 6. **The Engineer and Society (P06):** Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal, and cultural issues relevant to professional engineering practice.
- 7. **Environment and Sustainability (P07)**: Understand the impact of engineering solutions in societal and environmental contexts and demonstrate knowledge of sustainable development.
- 8. **Ethics (PO8):** Apply ethical principles and commit to professional ethics, responsibilities, and norms of engineering practice.
- 9. **Individual and Team Work (P09):** Function effectively as an individual, and as a member or leader in diverse teams and in multidisciplinary settings.
- 10. **Communication (P010):** Communicate effectively on complex engineering activities with the engineering community and with society at large, including the ability to comprehend and write reports, design documentation, make effective presentations, and give and receive clear instructions.
- 11. **Project Management and Finance (PO11):** Demonstrate knowledge and understanding of 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.
- 12. **Life-long Learning (P012):** 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)**

- **PSO1:** Apply the concepts of Electronics and Communication engineering to design and develop systems to meet current and future needs of the society.
- PSO2: Design and integrate Electronic communication systems using modern techniques and tools to meet societal needs.
- **PSO3:**Develop skills through experiential learning and able to function effectively as an individual oars a team member, fostering innovation and entrepreneurship.

### **Editorial Board**

#### CHIEF EDITOR

Dr. S. Suryanarayana Prof & HOD, ECE

#### **EDITORS**

Dr. K.Rajkamal Professor, ECE Mrs. V. Santhisri, Assoc.prof,

#### **FACULTY MEMBERS**

Dr. P.Ranjithkumar, Assoc.prof, Mr. Y.Murali krishna, Assoc.prof.

#### STUDENT MEMBERS

Guntupalli Chandrika Vipparla Kusuma Haranadh Babu Pasupuleti Venkatesh.

The Department of Electronics and Communication Engineering proudly presents **SPECTRUM**, the official newsletter of **Kallam Haranadha Reddy Institute of Technology**. This newsletter serves as a platform to showcase the academic achievements, innovative projects, research contributions, student activities, and departmental events. It reflects the vibrant spirit of the department and highlights the collective efforts of faculty, students, and alumni in advancing knowledge and technology.

- Workshops/Seminars/Guest Lectures conducted
- SOFT SKILLS PROGRAMMES
- Career Guidance Programmes
- Students Certification Programmes
- Participation in inter-institute events by students
- Professional Membership of Faculty
- Papers presented in Conferences/Journals by the faculty
- Papers Development Programs attended by the faculty
- RESULTS

# Workshops/Seminars/Guest Lectures conducted:

S.No	Name of the Event organized	Event Type	Date	Resource Person with Affiliation
1.	Career Development in VLSI Applications	Guest Lecture	19 Sept 2022	Dr.K.Srinivas Rao Professor, Dept of ECE,KLU, Vijayawada
2.	Cyber security	Seminar	22 Sept 2022	Dr. Md. Sirajuddin Assoc. Professor & Head, Dept of IT, KHIT
3.	Audio Signal Processing Techniques with MATLAB	Seminar	24 Sept 2022	Dr. Saladi Saritha Assoc. Prof , Dept. of ECE VIT-AP University Amaravathi
4.	Embedded Systems Design	Seminar	30 Sept 2022	Dr. CH.D.Umasankar University College of Engineering and Technology, Acharya Nagarjuna University, Guntur
5.	Advanced Wireless Communications	Seminar	12 Oct 2022	Dr.S.Sivareddy Professor of ECE Loyola Institute of Tech& Management(LITAM) Sattenapalli, Guntur (Dist), A.P
6.	Image Water marking using Wavelet Transforms	Seminar	15 Oct 2022	Dr.J.V.K. Ratnam Professor, Dept. of ECE Narasaraopeta Engineering College Narasaraopet, Andhra Pradesh
7.	CMOS IC Design	Seminar	19 Nov 2022	Dr.B.Nancharaiah Professor &HOD Dept. of ECE Usha Rama College of Engineering and Technology .Telaprolu, , Krishna District- 521109
8.	Satellite Communication	Seminar	23 Nov 2022	Dr.VVKDV Prasad Prof of ECE Dept. Gudlavalleru Engineering College KRISHNA DIST
9.	Recent trends in Nano Technology	Seminar	21 Dec 2022	Dr. Ch. Srinivasa Rao Professor & Dean (R&D),KHIT

# **SOFT SKILLS PROGRAMMES:**

S. No.	Program Title	Program Sponsored/Speaker	Purpose	Date	Target Group
1	"Recent Opportunities of Engineering Sector"	Mr. Ritesh Chandra, Myra Academy, Hyderabad	Orientation Session	3-11- 2022	B.Tech 3 <sup>rd</sup> Years (2020-24)
2.	"Future Prospects in the Engineering Industry"	Mr. Karthik Raja, Faceprep, Hyderabad	Orientation Session	4-11- 2022	B.Tech 3rd Years (2020- 2024)
3	"Corporate Readiness: Bridging Academics and Professional Success"	Mr. Shankaram S, Sixphrase, Banguluru	Orientation Session	5-11- 2022	B.Tech 3rd Years (2020- 2024)
4	"Employability Skills for the Future and Career Opportunities"	Mr. Sanjay Khadke, Deputy Manager, APCO	Orientation Session	10-11- 2022	All B.Tech Students

# **Career Guidance Programmes:**

S. No.	Program Title	Program Sponsored/Speaker	Purpose	Date	Target Group
1.	"Navigating the Path: Classroom Lessons to Corporate Success"	Mr. Amit Saha, Deputy Director ExceLR, Bangalore	Awareness Session	15-07-2022	B.Tech 4th Years (2019-23)
2.	"Celonis Skilling Trends Trajectories and Career Opportunity in Infosys"	1.Mr. Ngoc Anh Ngo, Academic Alliance Manager, Celonis 2.Mr. Hodson Mc Farland, Associate Client Engagement Manager, Infosys	Career Talk	22-07-2022	All B.Tech Students

3.	"Career Opportunities with Juniper Networks"	Mr. PawanMellacheruvu, Technical Training Consultant, Juniper Networks	Career Talk	01-08-2022	All B.Tech Students
4.	"Salesforce Initernship& Future Skills Prime"	Mr. Satish Datla Deputy Director NASSCOM – Future Skills Prime	Awareness Session	12-8-22	B.Tech 4th Years (2019-23)
5.	"Cyber Security Awareness Programme on Countering Cyber Attacks & Cyber Frauds"	Mr. Vedant Narayan, CERT-In, Delhi	Awareness Session	7-9-22	B.Tech 2nd Years (2021-25 Batch)
6.	"Winning Tactics for Placement Exams Across India"	Mr. V. Sreenivasa Reddy, Senior Recruitment Manager and Location Head, Vijayawada, Tech Mahindra Ltd.	Awareness Session	23-10-2022	B.Tech 4th Years (2019-23)

# **Students Certification Programmes:**

S. No.	Training Program	Program Offered	Purpose	Date	SPOC (In-charge)	Target Group
1	NQT-2023	FACEPREP	PAN INDIA test preparation Phase-1	13-06-2022 To 8-10- 2022	CGT&P Cell, KHIT	B.Tech 4 <sup>th</sup> Years (2019- 23)
2	TCS Ninja Training - Internal	CGTP CELL	Company Specific	4-7-2022 To 8-10- 2022	Dr.B.Srikath	B.Tech 4 <sup>th</sup> Years (2019- 23)
3	ICC – 2023 Training	CGTP CELL	PAN INDIA test preparation Phase-2	31.10.22 To 31-12- 2022	Dr. B.Srikanth	B.Tech 4 <sup>th</sup> Years (2019-22

### Participation in inter-institute events by students:

S. No.	Roll No.	Name Of The Student	Name Of The Event	Event dates	Name of the Organizing Inst.	Award prize/ Partici pation
1.	198X1A0407	A. Swarnalatha	Workshop	16,17-12- 2022	MLWEC, Pulladigunta, Guntur,AP	Particip ation
2.	198X1A0419	B.Sirisha	Workshop	16,17-12- 2022	MLWEC, Pulladigunta, Guntur,AP	Particip ation
3.	198X1A0427	B.Krishnaveni	Workshop	16,17-12- 2022	MLWEC, Pulladigunta, Guntur,AP	Particip ation
4.	198X1A0437	Ch. Sravani	Workshop	16,17-12- 2022	MLWEC, Pulladigunta, Guntur,AP	Particip ation
5.	198X1A04E4	Sk. Neeha	Workshop	16,17-12- 2022	MLWEC, Pulladigunta, Guntur,AP	Particip ation
6.	198X1A04F4	T. Amrutha	Workshop	16,17-12- 2022	MLWEC, Pulladigunta, Guntur,AP	Particip ation

# **Professional Membership of Faculty:**

S. No.	Name of the Faculty	Designation	Professional Society	Membership No.
1	Dr. S. Suryanarayana	Prof. & HOD	IETE	F500381
2	Dr. JVK Ratnam	Professor	IETE	M215179
3	Mr. K. Srinivasarao	Professor	IETE	M500382
4	Dr. S. Suryanarayana	Prof & HOD	ISTE	LM32389
5	Dr. JVK Ratnam	Professor	ISTE	LM61126
6	Mr. K.Srinivasarao	Associate Professor	ISTE	LM112261
8	Mrs. V.Santhisri	Associate Professor	ISTE	LM73504
9	Mr. A.Manikanth	Associate Professor	ISTE	LM112264
10	Mr. M.Sudhakarreddy	Associate Professor	ISTE	LM130919
11	Mr. K.Mohan Krishna	Assistant Professor	ISTE	LM130921

# Papers presented in Conferences/Journals by the faculty:

### **CONFERENCES:**

S. No	Name of the Faculty	Title of Paper	Title of the Proceedings of the Conference	Month & Year of Publications	ISBN/ISSN
1	Mrs. V.Santhi Sri	Detection Analysis of Abnormality in Kidney using Deep Learning Techniques and its Optimization	2 <sup>nd</sup> International conference on Electrical, Electronics Information and Communication Technologies (ICEEICT) IEEE	June 2023	ISBN:979-8-3503-9763-5 DOI: 10.1109/ICEEICT56924. 2023.10157637
2	Mr. Y.Murali Krishna	An Efficient Framework to Automatic Extract EOG Artifacts from Single Channel EEG Recordings	International conference on Signal Processing and Communications (SPCOM) IEEE	August 2022	ISBN:978-1-6654-8250-9 <b>DOI: 10</b> .1109/SPCOM55316. 2022.9840849

### **FACULTY JOURNAL PUBLICATIONS:**

S.No	Name of the Author/s	Title of Paper	Name of the Journal	Month & Year of Publicati ons	ISSN /DOI Number
1	S. Suryanarayana	Low Density and Latency Optimized Scalable Binary Counter/Compressor using Efficient Sorting Network	Telematique	JULY 2022	ISSN:1856- 4194
2	S. Suryanarayana	Multi Operand Latency Efficient Binary Adder Using RNS for Low Dense Applications	Telematique	JULY 2022	ISSN:1856- 4194
3	J. V. K. Ratnam	Analysis of Emotionally Salient	JAC: A Journal of	AUG 2022	DOI:22.1800 1.AJCT.202

		Aspects of Fundamental Frequency for Emotion Detection	Composition Theory		2.V15I08.22. 2824
4	J. V. K. Ratnam	Skin Disease Detection using Sequential and Inception V3 Models,	JAC: A Journal of Composition Theory	AUG 2022	DOI:22.1800 1.AJCT.202 2.V15I08.22. 2827
5	J. V. K. Ratnam	Removal of Motion Artifacts from Single Channel using SSA-GMETV	Science, Technology and Development Journal	AUG 2022	DOI:22.180 01.STD.202 2.V11I08.22. 36036
6	J. V. K. Ratnam	Diagnosis of Breast Cancer Using Multi- Layer Artificial Neural Networks	Science, Technology and Development Journal	AUG 2022	DOI:22.180 01.STD.202 2.V11I08.22. 36037
7	K.Srilatha	A multiband frequency Reconfigurable and BifunctionalMetasur face	International Journal of Electronics Letters	SEP 2022	ISSN:2141- 2626 DOI:10.1080 /21681724.2 022.2118841

# Faculty Development Programs attended by the faculty:

S.N O	Name of the Faculty	FDP/ Workshop/Se minar/STTP	Title of the Program	Da	te(s)	Organization
1	Dr.S. Surya narayana	FDP	A 5-DAY Faculty Development Program on "Advanced VLSI system Design & Challenges"	22-08- 2022	26-08- 2022	Narasaraopeta Engg. College (A), Narasaraopeta
			A 5-DAY Faculty Development Program on "Advanced VLSI system Design & Challenges"	22-08- 2022	26-08- 2022	Narasaraopeta Engg. College (A), Narasaraopeta
2.	Mr.K. Srinivasa Rao	FDP	A 3-DAY Faculty Development Program on "Applications of Deep Learning of Deep Learning techniques to 5G beyond 5G wireless Communication Technologies"	19-09- 2022	21-09- 2022	Bapatla Engineering College, Bapatla

3	Mrs.V. Santhi Sri	FDP	A 3-DAY Faculty Development Program on "Applications of Deep Learning of Deep Learning techniques to 5G beyond 5G wireless Communication Technologies"	19-09- 2022	21-09- 2022	Bapatla Engineering College, Bapatla
4	Mr.Y. Murali krishna	FDP	A 3-DAY Faculty Development Program on "Applications of Deep Learning of Deep Learning techniques to 5G beyond 5G wireless Communication Technologies"	19-09- 2022	21-09- 2022	Bapatla Engineering College, Bapatla
5	Mr. B.Rama Chandraiah	FDP	A 5-DAY Faculty Development Program on "Advanced VLSI system Design & Challenges"	22-08- 2022	26-08- 2022	Narasaraopeta Engg. College (A), Narasaraopeta
6	Mr.T. Ravi Kanth	FDP	A 3-DAY Faculty Development Program on "Applications of Deep Learning of Deep Learning techniques to 5G beyond 5G wireless Communication"	19-09- 2022	21-09- 2022	Bapatla Engineering College, Bapatla
7	Mr.G. Pavan kumar	FDP	A 3-DAY Faculty Development Program on "Applications of Deep Learning of Deep Learning techniques to 5G beyond 5G wireless Communication Technologies"	19-09- 2022	21-09- 2022	Bapatla Engineering College, Bapatla

### **RESULTS**

\*May this achievement be the beginning of many more milestones in your journey ahead. Keep striving, keep shining!

The Department of Electronics and Communication Engineering proudly congratulates all the students of IV-II, III-II, II-II, and I-II semesters for their excellent performance in the examinations. Your dedication, consistent efforts, and commitment have brought commendable results.

We appreciate the guidance of our faculty and the support of parents in shaping this success. Wishing our students continued achievements in their academic and professional journey ahead!  $\blacklozenge^*$ 

### IV B.TECH II SEMESTER (R16)EXAMINATIONS, JUNE-2022

S.No	Roll.No	Name	Branch	SGPA	RANK
1	188X1A04E6	VANJA RAKESH	ECE	9.125	1
2	188X1A0401	ADRANGI SAI CHANDU	ECE	9.00	2
3	188X1A0412	CHALLAGUNDLA KALPANA	ECE	9.00	2
4	188X1A0409	BODDULURI NAVYA	ECE	8.88	3
5	188X1A0410	BONAM JYOTHI KALYAN	ECE	8.88	3
6	188X1A0448	MARREDDY DHANA LAKSHMI	ECE	8.88	3
7	188X1A0450	MEDA SUCHITRA	ECE	8.88	3
8	188X1A0476	POTHURAJU UDAYA TEJA	ECE	8.88	3
9	188X1A0495	TAMMA LIKITHA REDDY	ECE	8.88	3
10	188X1A04A4	VANGA RAMYA	ECE	8.88	3
11	188X1A04A6	VISHTAMSETTY KEERTHY	ECE	8.88	3
12	188X1A04D0	MUPPA VENKATA SRUTHI	ECE	8.88	3

### II B.TECH II SEMESTER (R20) Regular Examinations, July2022

S.No.	Hall Ticket No.	Student Name	Branch	SGPA	Rank
1	208X1A0442	KUPPALA PUJITHA	ECE	9.02	1
2	208X1A04F2	POLAKAM ASRITHA VIDYA	ECE	9.02	1
3	208X1A04F1	PERUGU KRISHNA PRIYA	ECE	8.79	2
4	208X1A04D4	CHAKKA SIVA POOJITHA	ECE	8.74	3
5	208X1A0454	DRONADULA VENKATA HARI GOPI	ECE	8.74	3
6	218X5A0402	AMIRNENI RAMYA	ECE	8.74	3

### III B.TECH II SEMESTER (R19)EXAMINATIONS, JUNE-2022

S.No	Ht.No	Name	Branch	SGPA	RANK
1	198X1A04B4	PARASA KUSUMA	ECE	8.64	1
2	198X1A0449	DUPPATI NAVYA SRI	ECE	8.07	2
3	198X1A04E1	SHAIK MANEESHA	ECE	8.00	3
4	198X1A04G0	UPPU JYOTHIKA	ECE	8.00	3
5	198X1A0425	BHAIKATLA MEGHANA	ECE	7.64	4
6	198X1A0427	BHOOMIREDDY KRISHNAVENI	ECE	7.64	4

I B.TECH II SEMESTER () Regular Examinations, August 2022

S.No.	Hall Ticket No.	Student Name	Branch	SGPA	Rank
1	218X1A0450	CHIMATA PRAMEELA	ECE	9.08	1
2	218X1A0468	MOHAMMAD ARSHADULLA KHAN	ECE	9.08	1
3	218X1A04E8	MAMIDALA PAVANI	ECE	8.92	2
4	218X1A04G8	VELITHOTA YAMINI	ECE	8.77	3
5	218X1A04I9	KALISETTY REVANTH	ECE	8.77	3
6	218X1A0492	REPALLE RAJYALAKSHMI	ECE	8.69	4
7	218X1A04A1	SHAIK NAGULMEERA	ECE	8.62	5
8	218X1A0499	SHAIK KAMAL	ECE	8.62	5
9	218X1A0403	BANDI ASHOK KUMAR	ECE	8.62	5
10	218X1A0433	KOLLIBOYINA BHARGAV	ECE	8.62	5
11	218X1A04G0	TELLAMEKALA NAGA SUCHARITHA	ECE	8.62	5

"Where logic meets creativity, Electronics and Communication Engineering begins."

"Every circuit tells a story, and every signal carries a possibility."

"ECE is the backbone of a connected world, empowering progress with every innovation."

"Designing circuits, transmitting ideas, and powering the future that's the spirit of ECE."

"In ECE, small signals create big impacts."

"Electronics is the art of controlling the invisible, and communication is the power of making it meaningful."

"ECE engineers don't just build devices; they build the future of human connection."

<sup>&</sup>quot;From electrons to information, ECE engineers shape the pulse of modern technology."



# ECE DEPARTMENT









