



# VNR Vignana Jyothi Institute of Engineering & Technology

Nizampet (S.O.), Pragathi Nagar, Bachupally, Hyderabad

Tel : 040-23042758/59/60 Fax : 040-23042761

## MTECH IN ELECTRONICS AND INSTRUMENTATION ENGINEERING

### About the Department of Electronics & Instrumentation Engineering

The department has been established with M.Tech in Electronics and Instrumentation (E&I) was started during the academic year 2010-2011 with the approval of AICTE and affiliated to JNTUH.

Instrumentation engineering is a multi-disciplinary branch focusing on the measurement, control and automation in the fields viz. the Electrical, Electronics, Manufacturing, Process Control, Chemical, Pharmaceutical, Cosmetics, Food Processing, Bio-Medical, Power Generation, etc. Application of modern instrumentation techniques greatly enhances the Productivity, Quality, Reliability of the Products, with improved Stability, Safety and Optimization of Resources. All the major R&D organizations like DRDO, ISRO, BARC, NRSC etc require the services of talented young instrumentation engineers for all their R&D activities involving highly sophisticated instrumentation systems, for all their R&D activities involving highly sophisticated instrumentation systems.

### VISION

To be a Resource Centre of **Academic Excellence** for imparting **Quality Technical Education**, meeting the need of students at National and International levels and imbibing **Strong Ethical Values**, to improve the **Standards of the Society**

### MISSION

- To impart Quality Education in the domain of Electronics and Instrumentation Engineering through effective **Learner-centric Process**.
- To provide **Industry-Specific** best-of-the-breed Laboratory Facilities beyond Curriculum, and promote diverse **Collaborative Research** for meeting the changing

## Faculty in the Department

S.No	Employee Name	Designation	Specialization
1.	Dr.R. Manjula Sri	Professor & Head	Biomedical Instrumentation
2.	Dr M. Sreedhar	Professor	Instrument Technology
3.	Dr K.Vidya Sagar	Professor	Instrument Technology
4.	Dr. S. Pranavanand	Assoc.Professor	Electronics and Control
5.	Dr.K. Sudha Rani	Assoc.Professor	Industrial Process Instrumentation
6.	Dr. M. Harikrishna	Assoc.Professor	Instrumentation and Control
7.	Mrs. Anitha Kulkarni	Assoc.Professor	Instrumentation and Control
8.	Dr. V. Nageshwar	Assoc.Professor	Electronics and Instrumentation
9.	Dr. C. Kiran	Assoc.Professor	Applied Physics
10.	Mrs. D.V. Shobana Priscilla	Sr.Asst.Professor	Medical Electronics
11.	Mr. C. Venkata Rambabu	Sr.Asst.Professor	Embedded Systems
12.	Dr. K. Vijay Chandra	Asst.Professor	Digital Systems and Computer Electronics
13.	Mr. A. Adithya Kashyap	Asst.Professor	Industrial Process Instrumentation
14.	Mr. S. Nagarjuna Chary	Asst.Professor	Process Control and Instrumentation
15.	Mrs. S. Vandana	Asst.Professor	Embedded Systems
16.	Mr. G. Vamsi Krishna	Asst.Professor	Instrumentation and Control
17.	Mrs. S.S.S. Bharati	Asst.Professor	Electronics and Instrumentation
18.	Mr. N. Akshay	Asst.Professor	VLSI Systems
19.	Mr. P.V. Gopi Kumar	Asst.Professor	Digital Systems and Computer Electronics
20.	Mrs.J. Jyothirmai	Asst.Professor	Embedded Systems
21.	Mrs.D. Srilaxmi	Asst.Professor	Electronics and Control
22.	Mrs.P. Sampurna Lakshmi	Asst.Professor	Embedded Systems
23.	Ms.D. Swetha	Asst.Professor	Electronics and Instrumentation
24.	Mrs.S. Bhargav	Asst.Professor	Electronics and Instrumentation
25.	Mr.B.Goutam	Asst.Professor	Electronics and Control Engineering
26.	Dr.B.Raja Shekar Reddy	Asst.Professor	Process Control & Instrumentation
27.	Dr.S.Senthil Kumar	Asst.Professor	Electronics and Instrumentation
28.	Ch.Venkanna	Asst.Professor	Electronic Instrumentation

**11 PhDs , 14 pursuing PhDs and 3 deputed for Phd Under QIP**

# Programs offered by Electronics & Instrumentation Engineering Department

UG: Electronics and Instrumentation Engineering

PG: Electronics and Instrumentation

## Faculty Publications in National/International Journals & Conferences

Year	International Journal	National Journal	International Conference	National Conference	Total
2017-18	06	02	04	----	12
2018-19	21	-	5	-	26
2019-20	21	-	7	1	29
2020-21	18	-	16	-	34
2021-22	21	-	12	2	35
2022-23	25	-	8	-	33

**Citations : 803**

**Highest Citations of Single paper : 105**

### List Of R&D Projects Carried Out by The Department, and Research/any Other Grants Sanctioned To The Dept.

S.No.	Title of the R&D Project or Research Grant	Sanctioning Agency, and Date of Sanction	Names of the Principal and Co-Investigators	Sanctioned Amount Rs. In lakhs	Status of the Project (Completed/ On-going)
<b>R&amp; D Projects Sanctioned</b>					
1	Real time implementation advanced control algorithm(s) on Laboratory scale plant	TEQIP-III 2019	Dr.B. Rajasekhara Reddy.	2.85	Completed
2	RotiBOT	MSME, Govt. of India, 02/12/2015	Dr. S.Pranavanand	7.35	Ongoing
3	Implementation of Biomedical Image Processing on Embedded Hardware	UGC, Govt. of India, March 2014	Dr. R.Manjula Sri	3.00	Completed
4	Design and Implementation of Algorithm for Real-Time Patient Monitoring in Ambulance While Transit	UGC , Govt. of India, March 2014	Mr. Naregalkar Akshay Rangnath	4.45	Completed
5	Weapon Locking System-	ARDE	Dr. S.Pranavanand	9.9	Completed
6	Sensor Measurement Unit	X_Design Ventures Pvt.Ltd. & VNRVJIET Hyderabad.	Dr. R.Manjula Sri	6.29	Completed

7	Identification of Actuator Dynamics and development of Electronic Circuits for Smart Materials actuated insect scale legged Robots	DRDO(CARS)	Dr. B.Raja Sekhara Reddy Dr. S.Pranavanand	9.735	Ongoing
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<b>Other Grants</b>					
1	Design and Structural Evolution of Advanced Functional Materials Suitable for Engineering Applications	AICTE-STTP, September 2020	Dr.C.Kiran	1.92	Completed
2	Applications of Laser Instrumentation (Seminar Grant)	AICTE 2017	Dr. R. Manjula Sri	1.00	Completed

### **Patents Filed/Published/Granted: I I**

### **PROGRAMS ORGANIZED**

#### **Workshops and FDPs Organized In the Department (EIE)**

<b>Title</b>	<b>Dates</b>	<b>No. of participants</b>
<b>2017-18</b>		
Brainwave Controlled Robot	5 <sup>th</sup> - 6 <sup>th</sup> February, 2018	40
AICTE Sponsored National Seminar on "Recent Trends in Laser Technology and its Applications"	29 <sup>th</sup> -30 <sup>th</sup> Nov, 2017	75
Workshop on Wireless Communication using LabVIEW	5 <sup>th</sup> January, 2017	51
<b>2018-19</b>		
Faculty development programme on Robotics & AI	24-06-2019 to 28-06-2019	40
Short Term Training Programme on MATLAB Programming (Refresher course on MATLAB)	17-12-2018 to 20-12-2018, 24-12-2018 26-12-2018.	30
Workshop on Technical Paper Writing	5-11-2018 to 22-12-2018	27
Workshop on Scientific and Technical Drafting using LATEX	12-06-2019	27
Workshop on DSP hands on session	27-03-2019 to 28-03-2019	30
Faculty development programme on Robotics & AI	24-06-2019 to 28-06-2019	40
<b>2019-20</b>		
Scheme of financial assistance for setting up of electronics and ICT academies" funded by MeitY Gov. of India. Workshop on "3D printing for industrial and biomedical applications"	02-12-2019 to 06-12-2019	49
One Day Main Workshop on Arduino	08-02-2020	24
One Week Workshop on Python for III.B.Tech EIE-I	02-12-2019 to 07-12-2019	64



One Week Workshop on Robotics for III.B.Tech EIE- II	02-12-2019 to 07-12-2019	70
<b>2020-21</b>		
AICTE-Sponsored 2 week online short term training programme	15-02-2021 to 20-02-21 & 01-03-21 to 06-03-2021	42
One Week FDP on Social Robotics & AI	28-06-21 to 04-07-21	32
<b>2021-22</b>		
Gaming contest organized by dept of EIE & ISOI student chapter	06-01-22	40
<b>2022-23</b>		
FDP on Mechanism for quality research publications	22-08-22 to 24-08-22	55

### HONOURS & AWARDS:

Title	Name of the Awardee	Name of the Awarding Agency with contact details	Year of Award	Category- Institution/teacher/research scholar/student
Outstanding paper award for paper titled "A Method of Cardiovascular Disease Prediction using Machine Learning" during ICRADL 2021 in the track of Applications of Deep Learning	Dr.K. Vidya Sagar	Department of Computer Science & Engineering, Shri Vishnu Engineering College for Women	2020-21	Teacher
Faculty Excellence Award	Dr. Kiran Chakravarthula	Ed & ImmiGo, Overseas Education, Immigration & Coaching, A company of CORP2CORP INC/USA	2021-22	Teacher
Faculty Excellence Award	Dr. Nageshwar V	Ed & ImmiGo, Overseas Education, Immigration & Coaching, A company of CORP2CORP INC/USA	2021-22	Teacher
Certificate of Appreciation for her Commendable Contribution as an Academic Administrator	Dr.R.Manjula Sri	Malla Reddy Engineering college for Women, Hyderabad	2021-2022	Teacher

### STUDENT ACHIEVEMENTS:

#### Gold Medals PG:

Description Of The Gold Medal	Donated By	Medal Being Issued For	Branch
Sri. Pidikiti Indra Prasad Gold Medal	Smt. Pidikiti Vijaya Lakshmi	Best M.Tech student in E&I	E&I (EIE)
YEAR	Student Name with Hall Ticket Number, Percentage/CGPA		Photo

2012-2013	SWARNA LATHA B, I1071D8802,89.66%	
2013-2014	ALDHANDI SURESH, I2071D8807,88.47%	
2014-2015	K SANDHYA, I3071D8813, 84%	
2015-2016	SHAIK SALMA SULTANA, I4071D8803,77%	
2016-2017	DEEPA DAS, I5071D8801, 9.38 CGPA	
2018-2019	K.SAMUEL MORRIS, I7071D8803,9.75	
2019-2020	ADNAN ABBAS I8071D8801 9.19	
2020-2021	SYED ABDUL SAMAD, I9071D8805,9.09 CGPA	
2021-2022	MALA RAJU, 20071D8806 ,9.34 CGPA	

### PG Best Projects

ACADEMIC YEAR 2013-2014				
S.NO.	BRANCH	H.T.NO.	NAME OF THE STUDENT	POSITION

1.	ELECTRONICS & INSTRUMENTATION	12071D8807	ALDHANDI SURESH	1 <sup>st</sup> Prize
2.	ELECTRONICS & INSTRUMENTATION	12071D8809	CHETLAPALLI DEEPIKA	2 <sup>nd</sup> Prize
<b>ACADEMIC YEAR 2014-2015</b>				
1.	ELECTRONICS & INSTRUMENTATION	13071D8802	R YASHWANTH	2 <sup>nd</sup> Prize
<b>ACADEMIC YEAR 2015-2016</b>				
1.	ELECTRONICS & INSTRUMENTATION (EIE)	14071D8805	K. RASHMI	1 <sup>st</sup> Prize
2.	ELECTRONICS & INSTRUMENTATION (EIE)	14071D8804	FATIMA	2 <sup>nd</sup> Prize
<b>ACADEMIC YEAR 2016-2017</b>				
1.	ELECTRONICS & INSTRUMENTATION (EIE)	15071D8801	DEEPA DAS	1 <sup>st</sup> Prize
<b>ACADEMIC YEAR 2018-2019</b>				
1.	ELECTRONICS & INSTRUMENTATION (EIE)	17071D8802	TATI BHARAT KUMAR	1 <sup>st</sup> Prize
<b>ACADEMIC YEAR 2019-2020</b>				
1.	ELECTRONICS & INSTRUMENTATION (EIE)	18071D8805	PENDAM SRUJANA	1 <sup>st</sup> Prize
<b>ACADEMIC YEAR 2020-2021</b>				
1.	ELECTRONICS & INSTRUMENTATION (EIE)	19071D8805	SYED ABDUL SAMAD	1 <sup>st</sup> Prize
<b>ACADEMIC YEAR 2021-2022</b>				
1.	ELECTRONICS & INSTRUMENTATION (EIE)	20071D8806	MALA RAJU	1 <sup>st</sup> Prize

## **STUDENT PUBLICATIONS:**

- Arun kumar, D.Srilaxmi, Photovoltaic water distributing system using v/f controller, International Journal of research in electronic and Computer engineering, Vol.7, Issue 2,pp. – 3030-3033.
- LR Samuel Morris, Dr. K.Sudha Rani, Improvement Of Boiler's Efficiency By Auto Combustion Control Using Ratio Control 2nd International Conference on New Frontiers in Chemical, Energy and Environmental Engineering
- T Bharat ,Anita Kulkarni , Design, development and implementation of online machine vision based system for inspection of pharmaceutical blister packs, International Journal of Research, Volume 8, Issue 6
- M.Mohan Krishna, Dr.M.Sreedhar, wireless power transfer for electric vehicle applications, International Journal of research in electronic and Computer engineering, Volume.07, Issue 02, pp. - 3034 - 3036
- Samuel morris, Dr.K.Sudharani, Hitesh dhorajia, Simulation of combustion control by tweaking air-fuel ratio , International journal of research, Volume 06 Issue 08
- Adnan Abbas, Dr.S.Senthilkumar , Performance analysis of DC-DC converter for robotic system, International Journal of Electrical, Electronics and Data Communication, Volume-8, Issue-2, pp.22-25
- D.Srilaxmi, M.Arunkumar, Efficient solar water pumping system using maximum power point tracking ,International journal of research,Vol 6, Issue No 10 , pp.65-68
- Dr.R.Manjulasri, Ms.P.Srujana, Ms.D.Srilaxmi, Prediction of severity of non proliferated diabetic retinopathy using machine learning techniques, ICRITCSA- 2019
- Md.Yaseen Baig,Naregalkar Akshay,MC-Based Topology for Bi-directional Power Flow between EV charger and Grid, ational Journal of research and analytical reviews,Vol06,Issue No:02,pp.434-442
- Mohammed Arshad Ali Khan, Rajasekhara Reddy B,Model Predictive Control using Laguerre Filters,Journal of Seybold Report,Volume 15, Issue 07, pp.1575-1580
- Adnan Abbas,SenthilKumar S,Analysis of Locomotion Robot in Non-linear surface using Intelligent controller Journal of Interdisciplinary cycle research ,Volume 12 ,Issue 07,pp 494-502
- Syed Abdul Samad, Senthilkumar S,Analysis and Implementation of DCS System in Bottle Filling Plant Using MATLAB Journal of Engineering Sciences,Volume 11, Issue 07, pp.617-622
- K Pravallika, G Vamsi Krishna,Fuzzy-PID controller for coupled two tank interacting system,International Journal of Mechanical and Production Engineering Research and Development, Vol. 10, Issue 03, pp.8817-8830
- Dr.R.ManjulaSri, Srujana P, D Srilaxmi,Prediction of NPDR using machine learning techniques,Journal of computational and theoretical nano sciences,Vol.17, Issue 9/10, pp. 4219-4222
- N.L.N.Vishnu Vardhan Acharya, Dr.K.Sudha Rani,Modern Health Monitoring And Analysis Using lot Technology,Turkish Online Journal of Qualitative Inquiry,Vol. 12 No. 3 (June 2021), pp.4961–4972
- Adnan Abbas, Dr. Senthil Kumar S,Analysis and Implementation of DCS in DC-DC Boost Converter for a Robotic System,ICSSIT 2020
- Dr.K.Sudha Rani, Priya Madhuri,Plant Leaf Disease Detection Using Machine Learning Technique,ICCNCT - 2020

## **STUDENT PLACEMENTS:**

Our MTech students are been placed in companies like TCS,CAP GEMINI, L&T TECHNOLOGY SERVICES, DIGILOGIC INNOVATIVE SOLUTIONS, FUSO GLASS INDIA PVT LTD, IPD EDUCATION INDIA PVT LTD, ALTCOGNITO SYSTEMS, EV GATEWAY INDIA PVT LTD