

CHILUKOTI KARUN KUMAR

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Education

Program	Institute	Year	%/CGPA
M.Tech (SPCOM)	Indian Institute of Technology Tirupati	2020	7.43
B.Tech (ECE)	National Institute of Technology Warangal	2012	6.35
Class XII (MPC)	Sri Sai Chaitanya Jr. College, Eluru	2006	96.6%
Class X	K P R & JL Siddartha High School, Eluru	2004	86.33%

Academic Projects

- **M.Tech Thesis - Defect Detection in WAAM using Arc Sound** [Dec '19 - Jun '20]
(Guide 1 : Dr.Subrahmanyam Gorthi, Assistant Professor, IIT Tirupati)
(Guide 2 : Dr.Degala Venkata Kiran, Assistant Professor, IIT Tirupati)
 - **Abstract:** To detect the defects in Wire-arc Additive Manufacturing using the arc sound. In this, the defects are detected by analysing the sound signal in time and frequency domains. During training, the defects are introduced intentionally and the features are extracted from the recorded sounds and stored. During the testing phase the defects are estimated by measuring the distance between the measured features and the stored features. The features extracted are MFCC's and the matching is done using Euclidean measure.
- **Semester Project - Spectral Estimation** [Jul '19 - Nov '19]
(Guide 1 : Dr.K.M.M.Prabhu, Professor, IIT Madras)
(Guide 2 : Dr.Subrahmanyam Gorthi, Assistant Professor, IIT Tirupati)
 - **Abstract:** To design a variable size window for better spectral estimation which can be used to filter out the noise introduced during discrete signal processing of the analog signal.
- **B.Tech Thesis - Speech Control of Home Appliances** [Jul '11 - May '12]
(Guide : Dr.Prithvi Pothupogu, Assistant Professor, NIT Warangal)
 - **Abstract:** Designed a hardware system to control devices around the home. In this project, we employed MFCC procedure for extracting the features and VQ technique for increasing speech recognition accuracy. In software mode, we implemented for Fan controlling (On-Off, Speed Level), Light controlling (On-Off) and TV controlling (Channel change, On-Off, Volume Increase-Decrease). In hardware mode, we implemented for Fan controlling (On-Off, Speed Level) and Light bulbs controlling (On-Off, Bulb Number).

Experience

- **Graduate Teaching Assistant, EA1103 : Electronics Lab** [Jan '20 - May '20]
(Guide : Dr.Prashanth Vooka, Assistant Professor, IIT Tirupati)
 - Working as a Teaching Assistant for conducting undergraduate lab, grading and other logistics.
 - Guiding the students with the experiments in Analog, Digital and Instrumentation and cater their queries
- **Graduate Teaching Assistant, EE5101 : Advanced Signal Analysis & Processing** [Aug '19 - Dec'19]
(Guide : Dr.K P Naveen, Assistant Professor, IIT Tirupati)
 - Assisted in grading (assignments and quizzes) and other logistics.
 - Helping the students with the assignments and cater their queries
- **Graduate Teaching Assistant, Departmental Work** [Jan '19 - May '19]
(Guide : Dr.Rama Krishna Sai Gorthi, Associate Professor, IIT Tirupati)
 - Working as a Teaching Assistant for maintaining the computer softwares in the lab.

- **Graduate Teaching Assistant, IL4103 : Industrial Lectures** [Aug '18 - Dec '18]
(Guide : Dr.Parthajit Mohapatra, Assistant Professor IIT Tirupati)

- Assisted in conducting the Industrial Lectures and other logistics.

Relevant Courses

- Introduction to Quantum Computing
- Analog Electronics
- Digital Communications
- Advanced Signal Analysis and Processing
- Electromagnetic Fields and Waves
- Engineering Mathematics
- Electronic Devices and Circuits
- Introduction to Embedded System Design
- Digital Electronics
- Analog Communication
- Machine Learning for Image Processing
- Signals and Systems
- Linear Algebra and Probability Theory
- Network Analysis

Achievements

- Received '**Elite + Silver Certificate**' for a 4 week course 'Introduction to Quantum Computing: Quantum Algorithms and Qiskit' jointly conducted by **IIT Madras** and **IBM - India**.
- Received a '**Certificate of Merit**' in recognition of excellent performance in NPTEL MOOC Test on TI MSP430 an online contest conducted on 31st October 2020 by TI University Program of **Texas Instruments, India**.
- Received '**Elite + Silver Certificate**' for a 12 week course 'Introduction to Embedded System Design' conducted by **IIT Madras**.
- Secured a position in **Top 17** candidates qualified for JRF and Assistant Professorship among 13054 candidates applied for UGC-NET JUNE, 2020
- Received **Teaching Assistant Scholarship** at IIT Tirupati by Ministry of Human Resource Development, Government of India.
- Secured **All India Rank-1064** in **GATE**.
- Secured **All India Rank-1400 (State Rank-309)** in All India Engineering Entrance Examination (**AIEEE**).
- Secured **State Rank-1320** in **EAMCET** .

Extra Curricular activities

- Participated in the series of Networking events conducted by the Electronics and Communication Association of NIT Warangal.
- Volunteered for Hospitality at the National level technical symposium, Technozion'08 organised by NIT Warangal
- Volunteered for Accommodation Committee during Golden Jubilee Spring Spree'09 at NIT Warangal.
- Secured Winners Place in Junior Football at Zonal Level conducted by The Secondary Schools Sports Association in 2002-03.
- Secured Winners Place in Sub Junior Football at School Games and Sports, Academic and Cultural meet 2000-01.

Hobbies and Interests

- Watching Documentaries, Playing Football and Badminton

Declaration

- I hereby declare that the above-mentioned information is accurate to the best of my knowledge and belief.

Chilukoti Karun Kumar