

Name : **Dr. NAGADEEPA CH.**
 Designation : Assistant Professor
 Department: Electronics & Communication Engineering
 Mail ID: nagadeepa_ch@vnrvjiet.in
 Experience : 12 years Teaching : 12 yrs Industry: 4 yrs
 Research: Nil Others: Nil



1. Educational Qualifications

| S.No | Level (UG / PG / Ph.D) | Year of passing | Specialization |
|------|------------------------|-----------------|--|
| 1 | Ph.D. | 2021 | Pattern recognition using Machine learning |
| 2 | M.Tech. | 2010 | Embedded Systems |
| 3 | B.Tech. | 2007 | ECE |

Membership in Professional Societies:

- Life Member of ISTE.
- Life Member of IETE.

2. Teaching and Learning:

2.1. Teaching Interests:

- Control system
- Embedded real time operating system
- Electronic Circuit Analysis
- Switching theory and Logic Design
- Electronic Devices and Circuits
- System On Chip Architecture
- System design with Embedded Linux

2.2. Novel Teaching & Learning Techniques adopted: WIT and WIL, Discussion Method, Brain storming, Mind mapping, POGIL.

3. Co-curricular and Extra-Curricular Activities

3.1. Interests and Hobbies

Interested in improving the presentation skills and Listening Music

3.2. CCA/ECA Organized:

Organizing Co-ordinator for Open House projects -2017

3.3. CCA/ECA Involved: NIL

3.4. Counseling and Mentoring Activity:

Mentoring for II and IV B.Tech .ECE Students.

3.5 Committees involved in:

Department level:

- Member of M.Tech. and B. Tech.- major & mini project review committee
- Involved in the Academic activities
- AICTE-INAE Distinguished Visiting Professor (DVP) Scheme- coordinator
- AICTE- Distinguished Chair Professor (DVP) Scheme- coordinator

Institute Level:

- Virtual Lab Coordinator
- IQAC - member

3.6 Member of committee at VNRVJIET: (BOS): NA

3.7. Laboratory Participation & Student Project Guidance

Involvement in Laboratories:

- Domain Laboratories: In charge for the Electronic Devices and Circuits Lab.

- Academic Laboratories: Handled EDC, ECA, PDC, BEE and MPMC labs.

3.8. Implementation of Novel Teaching Methodologies:

1. Supporting students to learn by practice: Yes
2. Guiding B.Tech. Projects and M.Tech./Ph.D. Thesis: B.Tech: 12
M. Tech: 9
3. Projects that can be pursued in various domains: Human Computer Interaction
 - a) Hybrid Model for Telugu Character recognition
 - b) Implementation of online character recognition using Machine Learning
 - c) Hand gesture Recognition
 - d) Pattern recognition using machine learning techniques.
 - e) Home automation using IoT
 - f) Human Activity recognition using Machine Learning

3.9. Industry Visit

1. Company / Industry: INCOIS in June 2022
2. Company / Industry: Sulakshana Circuits Ltd.
Area Studied: PCB Designing
Objective: how to design a PCB for an electronic circuit
Scope: Designing of multi-layer PCB Boards for the projects
3. Shadow Engineering:
Company / Industry: Suvarna Cements .Date : Oct 2013
Area Studied: SCADA software, Transducers
Objective: how to control a plant using software and know the working of various Electronic Measuring Instruments
Scope: we will understand Multi-Disciplinary works

4. Conference / Workshop / Seminar / Guest Lectures:

4.1. Short Term Training Programs Conducted:

- Guest lecture in IoT training program on "IoT and Industrial IoT " on 7-6-2021.
- Guest lecture in IoT training program on "Operating Systems used in Computing systems" on 31-5-2021
- Guest lecture in webinar about “Basics of Electronic devices” Organised by Dept. of ECE, VNRVJIET, on 22-7-2020
- Organized oneday workshop on “Virtual lab & their importance” Organised by VNRVJIET, resource persons Mr. P. Ravi Shankar and Ms. Mrudhika Damaraju from IIT Hyderabad on 4-5-2020 .
- Organized 4 day training program/ workshop on “Rapid Prototyping & System design on IoT-using ARM CORTEX M4 MCU” in collaboration with EDGATE Technologies Pvt. Ltd. Bangalore during 21st to 24th May 2018.
- Organized 3 day Faculty Development program on “Introduction to system design and IOT application using Texas Instruments Platforms” in collaboration with EDGATE Technologies Pvt. Ltd. Bangalore during 26th to 28th February 2018.
- Organizing member of the 7th IEEE International Advance Computing Conference (IACC 2017) during 5th –7th Jan.2017 by VNRVJIET along with IEEE Computer Society India Council.
- Organized four days TEQIP Sponsored workshop on “PCB Designing” in collaboration with Techno Tran, Hyderabad during 11-2-2016 to 12-2-2016 and 18-2- 2016 to 19-2-2016.
- Organized a two days TEQIP Sponsored workshop on “PCB designing of electronic circuits” in VNR Vignana Jyothi Institute of Engineering & Technology, Hyderabad from 22nd & 23rd FEB 2013.

- Organized a two days TEQIP Sponsored workshop on “Electronic Board Designing” in VNR Vignana Jyothi Institute of Engineering & Technology, Hyderabad from 22nd& 23rd July 2013.

4.2. Short Term Training Programs Attended:

- Attended a webinar on "REVISITING OUR TEACHING PHILOSOPHIES IN ONLINE ENVIRONS" organised by from IEEE Education Society Chapter ,IEEE Hyderabad Section, Hyderabad Section in collaboration with IEEE WIE-AG on 22-05-2021.
- Attended a Lecture on " "Effective time management - 'Time isn't the main thing, it's the only thing'" by Mr. Anil Kumar Sharma, Director, Capgemini, organised by IIT Madras On 19-5-2021
- Attended Session a webinar on "Developing ML Applications Responsibly" by Dr. Prasad Ramanathan, Sr. Director Capgemini Technology Services India Ltd. Conducted by IIT Madras on 3-5-2021
- Attended FDP on "Internet of Things (IoT)" from 12-10-2020 to 16-10-2020 at Indian Institute of Information Technology Kota.
- Attended, online Training Programme on Digital tools for Writing, Authoring & Reviewing Manuscripts jointly organized during 21st September and 2nd October 2020. This programme is endorsed by NBA/AICTE/UGC.
- Attended One Week Faculty Development Program on "Emerging Trends in Computer Science & Engineering and their Applications" from 5th -9th August-2020 organised by Department of Computer Science and Engineering, NSAKCET and C-DAC Bengaluru.
- Attended webinar on “How to write winnable research Proposals”, organized by Dept. of CSE&RCC VNRVJiet on 28-07-2020.
- Attended International webinar on “Transforming Health care Through AI Revolutions”, organized by IEEE Computer Society on 27-07-2020.
- Attended Three Day Workshop on “ICT Tools & Techniques for Teaching, Learning Process”, conducted by Dept of IT in VNRVJiet, 16-7-2020 to 18-7-2020.
- Attended One week Workshop on “FDP: "MATLAB and its Applications in Engineering using Machine Learning and Deep Learning”, conducted by Department of ECE, G. Pulla Reddy Engineering College , Kurnool, Andhra Pradesh, from 13-7-2020 to 18-7-2020.
- Attended FDP on “Machine Learning” from 8th to 13th June 2020 conducted by CDC, VNRVJiet.
- Attended FDP on “AI and IoT for medical applications” conducted by GMRIT, Rajam, AP from 1-6-2020 to 3-6-2020.
- Attended FDP on “ATAL FDP on Artificial Intelligence” conducted by Department of Computer Science and Engineering, MANIT Bhopal MP from 27-4-2020 to 1-5-2020.
- Attended FDP on “ATAL FDP on Artificial Intelligence” conducted by MSME - Technology Development Centre (PPDC) Meerut from 27th April -1st May 2020.
- Attended AICTE Training And Learning (ATAL) Academy Online FDP on "Artificial Intelligence" from 27-04-2020 to 01-05-2020 at MSME -Technology Development Centre (PPDC) Meerut.
- NKN Summer FDP on “Embedded System and Interfacing hands-on” from 10th – 14th June 2019 jointly organized by: Electronics & ICT Academies at - MNIT Jaipur, NIT Patna & IIITDM Jabalpur.

- Attended FDP on 3D Printing for Industrial & Biomedical Applications” from 2-12-2019 to 6-12-2019 in association with E & ICT Academy, NIT Patna at VNRVJIET.
- Attended Faculty Development Programme On “Robotics & Ai Hands-On” Jointly Organized By Electronics & ICT Academy, National Institute of Technology Patna from 24-6-2019 to 28-6-2019.
- Attended Two day Workshop on “IoT and Drones "conducted by Leading India at VNRVJIET, Hyderabad on 26-1-2019 to 27-1-2019.
- Attended One day workshop on Virtual lab by IIIT, Hyderabad on 11th JAN 2019.
- Attended a Faculty Development Program by Mathworks on " Signal Processing with Simulink" from 23-1-2018 to 25-1-2018.
- Attended Two day Saptahaant Shikshak Prashikshan on “Introduction to Machine Learning "conducted by Indian Institute of Technology Kharagpur at VNRVJIET, Hyderabad on 16-12-2017 to 17-12-2017.
- Attended 10-Day FDP on “Recent Trends in Signal Processing "organized by the E&ICT Academy, NIT Warangal at VNRVJIET, Hyderabad from 22nd JUNE to 1st JULY 2017.
- Attended One day workshop on “Advanced Programming Techniques with MATLAB" by JNTUH College of Engg., Hyderabad on 16-9-2016.
- Attended One week workshop on Deep learning in visual computing “WDLVC-2016" by IIT, Hyderabad from 20th -25th June 2016.
- Attended Three day TEQIP-II Sponsored workshop on “Low Power Embedded Systems using ARM Cortex-M4F based MSP 432”organized by VNR Vignana Jyothi Institute of Engineering & Technology, Hyderabad from 16th to 18th JUNE 2016.
- Attended One day workshop on “Cloud Big data analytics with Microsoft Azure Machine learning and power BI tools" by IEEE, Hyderabad section computational Intelligence Society chapter on 16-4-2016.
- Attended One day workshop on Image and Speech Processing “WISP-2015" by IIIT, Hyderabad on 19th Dec 2015.
- Attended 1-Day Electronic gadget Expo Program on “INDIA GADGET-2015”, Hyderabad on 8th Sep2015.
- Attended 6-Day Faculty Updating Program on “Embedded System Design using ARM Cortex-M3”conducted by CDAC, Hyderabad from 4-8-2014 to 9-8-2014.
- Participated a two weeks TEQIP Sponsored Faculty development program on “Real Time Embedded Systems” in VNR Vignana Jyothi Institute of Engineering & Technology, Hyderabad from 18-11-2013 to 30-11-2013.
- Attended 3-Day International Workshop on “Reviving Education by Implementing Active and Guided Enquiry Experiences in Stem Science, Technology, Engineering and Math REIMAGINE STEM” conducted in VJIET, Hyderabad from 5-8-2013 to 7-8-2013.
- Attended two day TEQIP Sponsored workshop on “Skill up-gradation on open Source Platform(Linux)” in VNR Vignana Jyothi Institute of Engineering & Technology, Hyderabad from 17-5-2013 to 18-5-2013.
- Attended 3-Day workshop on “Art of Teaching” conducted by Enhance Edu, IIIT, Hyderabad on 2-5-2013 to 4-5-2013.
- Participated in the TEQIP-II Sponsored Faculty Development Program on “ANALOG SYSTEM DESIGN USING TI ASLKV2010” in VNR Vignana Jyothi Institute of Engineering & Technology, Hyderabad from 14-2-2013 to 16-2-2013.
- Attended One day workshop on Image and Speech Processing “WISP-2012"by IIIT, Hyderabad on 17-12-2012.

4.3 Certification courses

- Coursera course completion of “Machine Learning Foundations: A Case Study Approach” a MOOC from the University of Washington , August 26, 2020 ,6 weeks of study, 5-8 hours/week, Grade Achieved: 94.35%
- Coursera course completion of “Machine Learning: Classification” on August 24, 2020,7 weeks of study, 5-8 hours/week, with Grade Achieved: 94.62%
- NPTEL online certification course completion of “Introduction to Machine Learning”, Aug-Oct 2018 with a score of 61%.
- NPTEL online certification course completion of “NBA Accreditation and Teaching-Learning in Engineering (NATE)”, JAN-APRIL 2022 with a score of 68%.

4.4 Guest Lecture:

- As a resource person in AICTE-ISTE Online Induction program on “Electronic CKT analysis with MATLAB”, during 27-12-2021 to 01-01-2022, Organised by Geetanjali College of Engineering and Technology, Cheeryal, Hyderabad.
- As a resource person in IoT training program on "IoT and Industrial IoT" on 7-6-2021.
- As resource person in IoT training program on "Operating Systems used in Computing systems" on 31-5-2021.
- As a speaker in webinar on “Basics of Electronic devices” Organised by Dept. of ECE, VNRVJIET, on 22-7-2020.

5. Academic Contribution and Research & Consultancy:

5.1. Invited Lectures : Nil

5.2. Articles/Chapters published in Books:

- Choppakatla N., Balaji N., Padmaja V. (2021) A Novel 3D Hand Gesture Based Telugu Alphabet Dataset Creation for Text Input and Analysis of Hybrid Filtering Technique with Accelerometer Sensor Data. In: Soft Computing and Signal Processing. Advances in Intelligent Systems and Computing, pp.717-726, vol 1325, Springer, Singapore. https://doi.org/10.1007/978-981-33-6912-2_65
- Kolluri P., Chilamkuri P., NagaDeepa C., Padmaja V. (2021) Classification of Human Postural Transition and Activity Recognition Using Smartphone Sensor Data. In: Sharma H., Saraswat M., Yadav A., Kim J.H., Bansal J.C. (eds) Congress on Intelligent Systems. CIS 2020. Advances in Intelligent Systems and Computing, vol 1335. Springer, Singapore. https://doi.org/10.1007/978-981-33-6984-9_35

5.3. Books published as single author or as editor: Nil

5.4. Projects Guided :

- a) UG : 12
- b) PG : 10

5.5. Research Interests: Pattern recognition using Artificial Intelligence,
Human computer Interaction, IoT

5.6. Ph.D students : NA

- a) Enrolled :
- b) Submitted:
- c) Awarded:

Remote Internship Program:

As mentor in the TCS Remote Internship program form March 2021 to June 2021

As mentor in the TCS Remote Internship program form 28-12-2016 to 21-04-2017.

5.7. Papers published in reviewed journals

| S.No | Title of the Paper | Journal Name Vol.No. PP | ISBN/ISSN No. | UGC Approved | Impact Factor/ Citation Index | National/ International |
|------|--|---|---------------------|--------------|----------------------------------|----------------------------|
| 1 | Embedded Real Time Video Monitoring System using ARM | IOSR Journal of Engineering (IOSRJEN) Vol. 3, Issue 7 (July. 2013), V6 PP 14-18 | 2278-8719 | YES | 1.8896 | International |
| 2 | FPGA Implementation of A Cryptography Technology Using Pseudo Random Number Generator | International Journal of Engineering Research & Technology (IJERT) Vol. 2 Issue 11, November – 2013, page No.2036-2040. | 2278-0181 | YES | 1.76 | International |
| 3 | Interactive Character Recognition Technique for Mobile Based Systems: An Application for Autistic People | International Journal of Advanced Computational Engineering and Networking (IJACEN), Vol.1, Issue-9, Nov-2013. | 2320-2106 | YES | 1.49 | International |
| 4 | Real Time Implementation of Telugu Character Recognition using Raspberry Pi | International Journal of Science and Research (IJSR) Vol. 3 Issue 12, December 2014 , Pg No: 722-726, | (Online): 2319-7064 | NO | 3.358 | International |
| 5 | Implementation of Gesture Recognition System for Home Automation using FPGA and ARM Controller | International Journal of Science and Research (IJSR), Vol.4 Issue 2, Feb2015, Pg No: 2099-2105 | (Online): 2319-7064 | NO | 4.438 | International |

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| 6 | Analysis of Inertial Sensor Data Using Trajectory Recognition Algorithm | International Journal on Cybernetics & Informatics (IJCI) Vol. 5, No. 4, August 2016 | 2277-548X (Online) ; 2320-8430(print) | | | International |
| 7 | Online English character recognition using Raspberry pi | International Journal of Scientific Engineering and Technology Research (IJSETR), Vol.6 Issue 20, June 2017, Pg. No: 3978-3981 | 2319-8885 | NO | 5.7 | International |
| 8 | AGRD Real Time Hand Gesture Controlled Assistive System using IoT for Elderly People | International Journal of Advanced Science and Technology (IJAST) Vol-128-Issue-1-July-2019 | E-ISSN:2207-6360 | | Impact Factor: 0.41 H-index: 4 | International |
| 9 | Real Time Hand Gesture Recognition With A Novel Distance Measure GPD For IoT Based Controlled Assistance System | International Journal Of Scientific & Technology Research (March 2020) | ISSN 2277-8616 | Scopus | 0.3 | International |
| 10 | HVAC and Audio Control System using Gesture Recognition in Cars | International Journal of Innovative Technology and Exploring Engineering (IJITEE) | ISSN: 2278-3075 | Scopus | 0.6 | International |

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|----|---|---|-----------|-------------|-----|---------------|
| | | Volume-9 Issue-3, January 2020 | | | | |
| 11 | A Survey on Handwriting Recognition | Alochana Chakra Journal(June 2020) | 2231-3990 | UGC care | 6.3 | International |

5.8. Papers Presented in International Conferences:

| S. No. | Title of the Paper | Names of the Conference/ Seminars | National/ International | Period |
|--------|---|--|----------------------------|----------------------------|
| 1 | Artificial Intelligence based Cervical Cancer Risk Prediction Using ML Algorithms | IEEE International Conference on Emerging Smart Computing and Informatics (IEEE- ESCI) | International | 9-3-2022 to 11-3-2022 |
| 2 | Social Distance Alert System to Control Virus Spread using UWB RTLS in Corporate Environment | IEEE International Conference on Advent Trends in Multidisciplinary Research and Innovation (ICATMRI-2020) | International | 30-12-2020 |
| 3 | Human Activity Classification using Machine Learning Techniques with Feature Selection | International Conference on Advanced Informatics for Computing Research (ICAICR-2020) | International | 26-12-2020 & 27-12-2020 |
| 4 | Classification of Human Postural Transition and Activity Recognition Using Smartphone Sensor Data | Congress on Intelligent Systems CIS 2020 | International | 5-9-2020 & 6-9-2020 |
| 5 | A Novel 3D Hand Gesture based Telugu Alphabet Dataset Creation for Text input and Analysis of Hybrid Filtering Technique with Accelerometer Sensor Data | Springer 3rd International Conference on Soft Computing and Signal Processing 2020, Malla Reddy College of Engineering & Technology, HYDERABAD, India, | International | 21-08-2020 & 22-8-2020 |

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|----|--|--|---------------|-------------------------|
| | | ICSCSP20 | | |
| 6 | Implementation of IoT Based Ambient Assisted Living Using Raspberry Pi | ICRIEECE-2018 | International | 27th -28th JULY 2018 |
| 7 | Inertial Wristband based Hand Gesture Control for Virtual Environment | IACC-2017 | International | 5th -7th JAN 2017 |
| 8 | Analysis Of Inertial Sensor Data Using Trajectory Recognition Algorithm | ICECE 2016 | International | 29th JULY 2016 |
| 9 | An Efficient Framework for 2-Dimensional Gesture based Telugu Character Recognition | IEEE-2016 6th International Advance Computing Conference, IACC 2016 978-1-4673-8286-1/16 \$31.00 © 2016 IEEE DOI 10.1109/IACC.2016.89 | International | 27th -28th FEB 2016 |
| 10 | Hand Gesture recognition system using accelerometer and Gyroscope | 4th International Conference on Computing, Communication and Sensor Network',CCSN2015. | International | 24th DEC 2015, |
| 11 | Development of Touch Screen Device Driver for Online character recognition based on OMAP3530 Processor | Elsevier Proceedings of 8th International Conference on Image and Signal Processing (ICISP-2014) | International | July 24th to 25th 2014. |
| 12 | Interactive Character Recognition Technique for Mobile Based Systems: An Application for Autistic People | International Academic Conference on Electrical, Electronics and Computer Engineering (IACEECE-2013) | International | September 2013. |

6. Awards / Honors received:

- Received Certificate and Memento for Organizing DrishTI online contest 2019 conducted from 4-9-2019 to 10-9-2019 by Texas Instruments India University Program.
- Secured Second prize in Women's Tug of War during Teacher's Day Celebrations in the month of Sep 2019 in VNRVJIET.

- Received Certificate and Memento for Organizing DrishTI online contest 2019 conducted from 2-4-2019 to 6-4-2019 by Texas Instruments India University Program.
- Got Best Paper Award for The Paper entitled Analysis of Inertial sensor data using Trajectory recognition Algorithm in ICIECE-2016 Organized by University college of Engineering, JNTUK Vizianagaram, AP, India.

7. Motto: Hard work makes anyone perfect.