

Name: **Dr. L. Padma Sree**

Designation: Professor

Department: Electronics & Communication Engineering

Mail ID: padmasree\_l@vnrvjiet.in

Experience (in years): Teaching: 25 years    Research: 13 years    Others (If ar



### 1. Educational / Technical qualifications:

| S.No | Level (UG / PG / Ph.D) | Year of passing | Specialization                          |
|------|------------------------|-----------------|---|
| 1    | B.Tech.                | 1989            | Electronics & Communication Engineering |
| 2    | M.Tech.                | 1997            | Digital systems & computer electronics  |
| 3    | Ph.D .                 | 2010            | Computer security                       |

### 2. Teaching and Learning:

2.1. Teaching Interests:

Electronic Devices & Circuits, Analog circuits, Electronic Circuit Analysis, EM Waves & Transmission lines, Digital Communications, Digital System Design, Design of Fault Tolerant Systems

2.2. Novel Teaching & Learning Techniques adopted: Chalk and talk, WIT and WIL, Presentations, Group discussion, Surprise Tests

2.3. Involvement in curriculum updating / Design: Design of Course structure and syllabus updating

### 3. Co-curricular and Extra-Curricular Activities

3.1. Interests and Hobbies: Yoga

3.2. CCA/ECA Organized:

3.3. CCA/ECA participated: practicing Yoga

3.4. Counseling and Mentoring Activity: Day-to-day

3.5. Committees involved in:

Department level: BOS member, NBA Co-Ordinator

Institute Level: Library Committee member

### 4. Conference / Workshop / Seminar / Guest Lectures:

4.1 Conducted:

- AICTE Sponsored Faculty Development programme on “Trends in Wireless communication Technology & Evolution of Simulation tools” from 11th May to 23rd May 2015.

.2 Attended:

- One-week Online Faculty Development Programme on “Design Thinking – Problem Discovery to Real Solutions” conducted during 31st Aug. – 4th Sept, 2021.
- One-week Online Faculty Development Programme on "Challenges in adapting Machine Learning towards 5G/6G Communications" from 9<sup>th</sup> Aug to 13<sup>th</sup> Aug, 2021.
- Program on Prof Kesav Nori's memorial service by IIITH on 2.6.21
- lecture program on State-of-the-art Silicon VLSI: Industrial Face of Nanotechnology. Organized by IEEE Hyderabad Section CAS/EDS Joint Society Chapter, supported by IEEE VNRVJIET SB, IEEE MJCET SB, and IEEE Vardhaman SB on 1<sup>st</sup> June, 2021.
- webinar on “5G technology and deployment across the globe” organized by AICTE on 28<sup>th</sup> May, 2021.
- webinar on "REVISITING OUR TEACHING PHILOSOPHIES IN ONLINE ENVIRONS" organised by IEEE Education Society Chapter, IEEE Hyderabad Section, Hyderabad Section in collaboration with IEEE WIE-AG on 22nd May, 2021

- work shop on Developing on E-content organized by vaagdevi engineering college 18th-19th June, 2020
- FDP on Design thinking in Engineering education organized by CPADT, VNRVJIET 15-20th June, 2020
- FDP on Artificial Intelligence and Machine learning for Engineering applications organized by CSE, IT, ECE Dept, VNRVJIET from 8-12th June, 2020
- International Webinar on "How to get Research Grants from UGC, AICTE (Minor or Major Research Projects Application Process)" organized by S&H dept, COVID -19 cell, MBITS on 9th June, 2020.
- Webinar on Image processing with artificial intelligence organized by LNCT, Bhopal on 8th June, 2020
- Python 3.4.3 training organized at Vaagdevi College of Engineering from 1.06.2020 - 6.06.2020
- AICTE ATAL FDP on Internet of things organized by JNU, Delhi from 31.05.2020 - 04.06.2020
- Hands on session on Latex-A Scientific Documenting Tool organized by VNR IEEE SB on 21st May, 2020
- webinar on How the AGRI and IOT get connected organized by PANTECH on 19th May, 2020
- FDP on Python for machine learning organized by CSE Dept, VNRVJIET, Hyderabad from 18th-23rd May, 2020
- Recognizing and coping with mental challenges: An overview organized by IEEE Hyderabad section, WIE and VNRVJIET SB on 16th May, 2020
- webinar on Research work flows, Research metrics & excellence in academic institutes organized by AICTE & Elsevier on 14th May, 2020
- online session with international Art of living Faculty organized by Mr. Vamsi Kosuri on 29th-30th April, 2020
- Webinar on A Panel discussion on work from home and its challenges organized by IEEE Hyderabad section, WIE and Education society chapter on 25th April, 2020
- "Python programming with Industry Perspective" organized by Electronics and ICT Academy, NIT Patna, and Dept. of ECE&EIE in Association with IEEE&ISTE, VNRVJIET, Hyderabad from 2nd-6th Dec, 2019
- Sensor Networks and IOT organized by E& ICT Academy NIT Warangal, at VNRVJIET, Hyderabad from 26th-31st Aug, 2019
- VLSI Chip Design Hands on using open source EDA organized by E& ICT Academy IIT Guwahati at VNRVJIET, Hyderabad from 8th-12th July-2019.
- AICTE Sponsored Faculty Development programme on "Trends in Wireless communication Technology & Evolution of Simulation tools" from 11th May to 23rd May 2015.
- AICTE sponsored FDP on Real Time Embedded System Development at VNRVJIET.
- AICTE sponsored FDP on VLSI design at VNRVJIET.
- AICTE sponsored FDP on DSP Processor Architecture and programming at VNRVJIET.
- UGC sponsored refresher course on VLSI Design and Embedded systems at JNTU, Hyderabad.
- AICTE sponsored FDP on Real time signal and Image processing at VNRVJIET.
- Workshop on stochastic variables and stochastic processes at VNRVJIET.
- Workshop on VLSI and Design for Testability at Enhance Edu, IIIT, Hyderabad.
- Workshop on VLSI Design using FPGA's at VNRVJIET.
- Workshop on DSP processors at VNRVJIET.
- Workshop on Embedded systems at VNRVJIET.
- Work shop on Multi rate signal processing at VNRVJIET.

- Work shop on Lower power Embedded system using MSP 430 at VNRVJIET.

## 5. Academic Contribution and Research & Consultancy:

### 5.1. Invited Lectures:

- Lecture on “overview of digital modulation Techniques in 2 week AICTE Sponsored Faculty Development programme on “Trends in Wireless communication Technology & Evolution of Simulation tools”
- Session on Curriculum Design in Professional Development Program - NBA in a nutshell from 27.07.2020-31.07.2020 organized by ECE department, VNRVJIET

### 5.2. Articles/Chapters published in Books: One

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

### 5.4. Projects Guided:

a) UG: 45

b) PG: 30

### 5.5. Research Interests: Computer Security, Neural Networks, Digital Systems, Communications, Wireless Sensor Networks

### 5.6. Ph.D students:

a) Enrolled: Seven scholars

b) Submitted: Two

c) Awarded: One

### 5.7. Papers published in reviewed Journals:

| S.No | Title of the Paper  | Journal Name<br>Vol.No. PP   | ISBN/ISSN No.                           | Impact Factor/<br>Citation Index | National/<br>International |
|------|---|--|---|----------------------------------|----------------------------|
| 1.   | Mining Multidimensional Rare Association Rules                    | IOSR Journal of Computer Engineering, Volume 24, Issue 2, PP 15-21                               | e-ISSN: 2278-0661,<br>p-ISSN: 2278-8727 | Mar –Apr. 2022                   | International              |
| 2.   | Dynamic Support Range based Rare Pattern Mining over Data Streams | International Journal of Advanced Computer Science and Applications, Vol. 13, No. 3, pp.660-667. |   | 2022                             | International              |
| 3.   | Eclat_RPGrowth : Finding Rare Patterns Using Vertical Mining      | Lecture Notes on Data Engineering and Communications Technologies                                | 978-981-16-0964                         | June 2021                        | International              |

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|----|---|---|------------------|---------------|---------------|
|    | and Rare Pattern Tree   |   |                  |               |               |
| 4. | Deep Learning For Biological Cell Tracking In Microscopy Images: A Recent Survey                                    | GIS science journal ,Volume 8,Issue 2, (Scopus) Page No: 183-194                  | 1869-9391        | 2021          | International |
| 5. | Efficient Hamming Code Encoder & Decoder Using True Random Number Generator   | Turkish Online Journal of Qualitative Inquiry , Volume 12, Issue5, pp: 3609- 3618 | e-ISSN 1309-6591 | May 2021      | International |
| 6. | Real Time Vision System for Autonomous Vehicles   | International Information andEngineering Technology Association                   | 0392-8764        | December,2020 | International |
| 7. | Incremental learning for Text Categorization using Rough set boundary based Optimized Support Vector Neural Network | Data Technologies and Applications  | 25149288         | June,2020     | International |
| 8. | A new text categorisation strategy: prototype design and experimental analysis                                      | International Journal of Knowledge and Learning (InderScience)                    | 1741-1017        | April,2020    | International |

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|-----|--|---|-------------|---------------|---------------|
| 9.  | Development of Text to Speech Conversion System for Low Vision and Blind People                | International Journal of Innovative Technology and Exploring Engineering      | 2278-3075   | April 2020    | International |
| 10. | Multi-stage Key Management Scheme for Cluster based WSN  | International Journal of Communication Networks and Information Security      | 2076-0930   | December,2018 | International |
| 11. | Performance Analysis of Carry Skip Adder using FinFET and CNTFET” ,                            | International Journal of Technical Innovation in Modern Engineering & Science | 2455- 2585  | August-2018   | International |
| 12. | Implementation of Clustering Algorithms for real Data Sets in Medical Diagnostics using MATLAB | Journal of soft computing and applications                                    | 2195-576X   | June 2017     | International |
| 13. | VLSI Implementation of Eye Detection System".  | International Journal of Advanced Engineering Research and Science            | 2349-6495   | Jan, 2017     | International |
| 14. | Improvement of clustering by modification of degrees of fuzziness                              | Journal of Nechetkie Sistemy i Myagkie Vychisleniya                           | 1819-4362   | Dec 2016      | International |
| 15. | Survey of Text Mining Techniques, Challenges and their Applications                            | International journal of computer applications                                | 2250-1797   | 2016.         | International |
| 16  | An Optimized Device Sizing Of  | International Journal on  | 2320 - 8430 | August 2016   | International |

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|-----|--|---|-------------|--------------|---------------|
|     | Two stage Cmos Op-Amp Using Multi-objective Genetic Algorithm  | Cybernetics & Informatics   |             |              |               |
| 17  | Key Management Schemes in Wireless Sensor Networks: A Survey   | International Journal of Wireless Communication                                       | 2231-1254   | May 2016     | International |
| 18  | A Novel Methodology of Simulation and realization of various OPAMP topologies in 0.18 $\mu$ m CMOS Technology using MATLAB | International Journal of VLSI Design & Communication Systems                          | 0976 - 1357 | October 2015 | International |
| 19  | Implementation of ON chip Network protocol AMBAAHB   | International Journal of Advanced Research in Computer and Communications Engineering | 2278-1021   | 3.885        | International |
| 20  | Probabilistic Rough Classification in Information Systems with Fuzzy Decision Attributes                                   | International Journal of Science and Research   | 2319-7064   | 4.438        | International |
| 21. | Design of low-voltage, high-gain operational amplifier for data converters   | Progress In Science and Engineering Research Journal                                  | 2347-6680   | 3.565        | International |
| 22  | Design, Comparison and Implementation of Multipliers on FPGA   | International Journal of Engineering and Technical Research                           | 2321-0869   | 1.315        | International |
| 23  | Design and Development of accelerometer based system for   | International Journal of Science Engineering and                                      | 2278-7798   | 2.753        | International |

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|-----|--|--|-----------|-------|---------------|
|     | driver safety  | Technology Research  |           |       |               |
| 24. | An efficient implementation of Floating point multiplier using vedic mathematics | International Journal of Science Engineering and Technology Research | 2319-8885 | 2.453 | International |
| 25. | CHIPSCOPE Implementation of CRC circuit architecture                             | IOSR Journal of VLSI and Signal Processing                           | 2319-4200 | 0.64  | International |
| 26  | FPGA implementation of Interrupt Controller using Verilog HDL                    | International Journal of Computer Applications                       | 0975-888  | 0.814 | International |
| 27. | Anomaly Detection Using Signature File Method And Temporal Relations             | Indian Journal of Current Sciences                                   | 0972-6101 | 1.2   | National      |
| 28. | Vendor Management in Digital Libraries   | GITAM Journal of management  | 0972-740  | 1.5   | National      |

#### 5.8. Papers presented at National / International Conferences:

| S.No | Title of the Paper  | Names of the Conference/ Seminars   | National/ International | Period          |
|------|---|---|-------------------------|-----------------|
| 1    | Comparative Analysis of Simulation and Formal Verification for an Arithmetic Logic Unit | International Conference on Emerging Trends in Information and Communication Technology | International           | June 4-5,2021   |
| 2    | Dynamic and probabilistic key management for distributed wireless sensor networks       | IEEE International Conference on Computational  | International           | 15-17 Dec. 2016 |

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|----|---|--|---------------|---|
|    |   | Intelligence and Computing Research  |               |   |
| 3  | Rough set based Feature Selection based Text Mining   | 2nd International Conference on Contemporary Computing and Informatics                               | International | Dec 14, 2016                                |
| 4  | An automated Synthesis of various Opamp topologies in 0.18 $\mu$ m CMOS Technology using MATLAB | IEEE International Advance Computing Conference  | International | 27-28 Feb 2016                              |
| 5  | A Multi Objective Genetic Algorithm for the Optimization of CMOS Operational amplifier          | International conference on Communications, Signal processing Computing and Information Technologies | International | October 2015.                               |
| 6  | Intrusion Detection Using Dynamic Neural networks   | International conference on Current Trends of Information Technology                                 | International | 1 <sup>st</sup> -3 <sup>rd</sup> Oct 2005   |
| 7  | Signature based Duplicate detection   | International Conference on universal Digital Libraries  | International | 18-20 <sup>th</sup> Nov, 2006               |
| 8  | Host Intrusion Prevention System Using Signature File Method                                    | IEEE International Advance Computing Conference  | International | 6 <sup>th</sup> -7 <sup>th</sup> Mar, 2009  |
| 9  | Minimized Damage Cost Approach for Host Based Intrusion Detection                               | International Conference on Electronic Design and Signal Processing                                  | International | 10th-12 <sup>th</sup> Dec, 2009             |
| 10 | An Interactive System for Paralysed Patients Based on Eye Blink                                 | International Conference on 'Computing, Communication and Sensor Network                             | International | Dec-24 <sup>th</sup> -25 <sup>th</sup> 2015 |

|    |  |   |               |      |
|----|--|---|---------------|------|
| 11 | Rare association rule Mining for data stream | International conference on Computer and Communication technologies | International | 2014 |
|----|--|---|---------------|------|

5.9. Sponsored research Projects:

| S.No | Title   | Agency                             | Period                         | Grant amount   | Ongoing / Completed |
|------|---|------------------------------------|--------------------------------|----------------|---------------------|
| 1.   | Design and Development of Knowledge based expert system to assist farmers for maintenance of Agricultural field using aerial data acquisition | TSCOST-DST                         | One year (March 2022-Mar 2023) | Rs. 4,00,000/- | Ongoing             |
| 2.   | Development and Implementation of Algorithm for real time home automation system to assist paralyzed patients using Eye blinking              | University Grants Commission (UGC) | 2 Years (Aug.2014-Aug 2016)    | Rs. 3,00,000/- | Completed           |

5.10 Consultancy Projects:

| S.No | Title | Agency | Period | Sanctioned Amount | Ongoing / Completed |
|------|-------|--------|--------|-------------------|---------------------|
|      |       |        |        |                   |                     |

6. Awards / Honors received: Nil

7. Motto: Hard work