

Smt. P. V. Kusuma, M.Tech. (Ph.D)

Assistant Professor (Adhoc) of ECE

Jawaharlal Nehru Technological University Anantapur College of Engineering Pulivendula–516 390, Andhra Pradesh, India

Bio-data

Name : P. V. Kusuma

Official Address : Assistant Professor (Adhoc) of ECE,

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Andhra Pradesh (India).

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Muddanur Road,

JNTUACE Pulivendula – 516 390,

Andhra Pradesh (India).

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Nationality : Indian

Religion : Hindu

Educational Qualifications:

S. No.	Qualificatio n	University/Institution	Specialization	Year of award
1	Ph. D (Pursuing)	JNTUA	Bio Medical Image Processing	Pursuing
2	M.Tech	J.N.T.U.A.C.E.P, Pulivendula	DECS	2014
3	B.Tech	K.S.R.M College of Engineering	Electronics & Communication Engineering	2011

Professional Experience

S.No.	Institution/Organization	Position held	Duration	
1	JNTUA College of	Assistant Professor (Adhoc),	2015 - till date	
	Engineering, Pulivendula	Department of ECE	2015 - till date	

Teaching Experience: 7 years of teaching UG & PG Courses

Projects:

***** 7 3D Brain Tumor Segmentation Using U-Net Network

***** Brain Tumor detection using CNN

***** Health care Analysis using ML algorithms

Dual Axis Solar Tracker Using Arduino

Subjects Taught:

Undergraduate courses	Post graduate courses
Electronic Devices and Circuits	Detection and Estimation Theory
❖ Pulse and Digital Circuits	Labs:
Switching Theory and Logic Design	
Computer Architecture and Organization	
❖ Digital IC Applications	
Microprocessors and Microcontrollers	
Cellular Mobile Communication	
❖ Wireless Communications	
Signals and Systems	
❖ Digital Signal Processing	
❖ Analog Electronic Circuits	
Network Analysis	

In addition, the laboratories of UG and PG programs in the areas of Electronics and Computers have been dealt with.

- Mixed signal design Lab
- ❖ Pulse and Digital Circuits Lab
- Microprocessors and Microcontrollers Lab
- ♦ DSP and VLSI Design Lab
- ❖ Digital IC applications Lab
- ❖ Linear IC applications Lab
- ❖ Mixed Signal Design Lab
- ❖ Analog Electronic Circuits Lab
- Semiconductor Devices and Circuits Lab
- ❖ Digital Logic Design Lab

Membership of Scientific / Engineering Bodies

❖ Member of International Association of Engineers (IAENG) (176341)

Additional Duties done:

- Department Internship Coordinator
- Socially Relevant Project coordinator from ECE
- ❖ B.Tech CRC Chairman

Number of Research publications:

International Journals : 06
International Conferences : 01
National Conferences : 04

List of publications:

- ❖ P. V. Kusuma *et al.* "Chat Bot using Machine Learning" accepted for publication in Mukt Shabd Journal (UGC CARE GROUP-I), Volume XII, Issue II, Feb 2023.ISSN: 2347-3150.
- P. V. Kusuma *et al.* "Brain Tumor using ML from MRI" accepted for publication in Juni Khyat Journal (UGC CARE GROUP-I), Volume XIII, Issue 04, No 3, April 2023. ISSN: 2278-4632.
- ❖ P. V. Kusuma *et al.*, "A Novel Approach for Edge Detection of Angiogram Images Using Classical Image Processing Technique" accepted for publication in International Journal of Electrical Electronics & Computer Science Engineering Volume 5, Issue 1 (February, 2018) ,E-ISSN: 2348-2273 , P-ISSN: 2454-1222.
- ❖ P.V. Kusuma *et al.*, "Analysis Of Variation Of The Bias Point With Volterra Series Method In Class-AB Rf Power Amplifier" International Journal of Technical Innovation in Modern Engineering & Science (IJTIMES),(UGC APPROVED) Impact Factor: 5.22 (SJIF-2017), e-ISSN:2455-2585.
- ❖ P. V. Kusuma *et al.*, "Performance Evaluation Of GIG Codes for DS-CDMA Communication Over Rayleigh Flat Fading Channel" accepted for publication in International Journal of Advanced Research in ECE (IJARECE) ,volume(6), Issue(5), May 2017,pages: 434-439, ISSN:2278-909X.
- ❖ P.V. Kusuma *et al.*, "Performance Evaluation Of Maximal Sequences In Presence Of Broadband Jammer For Band Pass BFSK System Over AWGN Channel" accepted for publication in International Journal of Advanced Research in ECE (IJARECE) ,volume(5), Issue(5), May 2016,pages:1420-1425, ISSN:2278-909X.

National Conferences:

- ❖ P. V. Kusuma *et al.*,, Assistant Professor (Adhoc) in ECE Department, JNTUA College of Engineering Pulivendula, Presented a paper titled "Dual Axis Solar Tracker Using Arduino" in "National Conference on Recent Trends in Engineering and Technology 2021 (RTET 2021) "organized by the Department of Electrical and Electronics Engineering, KSRM College of Engineering (Autonomous) in virtual mode on December 29th, 2021.
- * P. V. Kusuma *et al.*, Assistant Professor (Adhoc) in ECE Department, JNTUA College of Engineering Pulivendula, Presented a paper titled "IOT Based Wireless System For Deaf and Hard for Hearing" in

National Conference on Sustainable Electronics and Applications" (NC'SEA-21) on 21st August 2021 organized by Department of ECE, in Technical Collaboration with the Professional Bodies (IEEE, ISTE and IEI)

- ❖ P. V. Kusuma *et al.*, "Analysis Of Variation Of The Bias Point With Volterra Series Method In Class-AB RF Power Amplifier" National Conference on Innovative Technologies in Electrical Engineering (NCITEE2K19) Volume 5, Special Issue 05, May-2019.
- ❖ P. V. Kusuma *et al.*, "A Mobile based Health care application for Heart rate and Body Temperature monitoring system using Arduino UNO," National Conference on Emerging trends in information, Management and Engineering Sciences, AITS, Rajampet, Feb 2018, ISSN: 2395-1303, pp.01-04.

International Conferences:

❖ P. V. Kusuma *et al.*, Presented a paper titled "Brain tumor detection from MRI images using Deep Learning techniques" in "International Conference on Emerging Trends in Electronics & Communication Engineering (ICETEC-2023)" organized by the Department of Electronics and Communications Engineering, Rajeev Gandhi Memorial College of Engineering & Technology (Autonomous), Nandyal during 15th -17th April, 2023.

Patents Published:

S.No.	Application Number	Title of the Patent	Date applied	Date published
1	202041029576	Smart Parking and Vehicle Name Plate Detection	12/07/2020	31/07/2020
2	2021104394	Design of Solar Energy system with Effective Extraction with Lab view Environment	21/07/2021	02/09/2021
3	339783001	Compact Washing Machine	26/02/2021	

Workshops attended:

- ❖ Five Day National Level Online Faculty Development Program on "Effective Pedagogy For Science" from 29-11-2022 to 03-12-2022 organized by JMJ College for women, Tenali.
- ❖ Five Day National Level Online Faculty Development Program on Current Research Trends in Artificial Intelligence and Machine Learning from 7th to 11th March 2022 organized by Department of Computer Science and Engineering of GATES Institute of Technology, Gooty, Ananthapuramu 515401.
- ❖ One Week Online Faculty Development Programme on, "Machine Learning Algorithms for Dead Time Systems (MLADTS)", organized by the Department of Electronics and Communication Engineering, Geethanjali College of Engineering and Technology, Hyderabad, in association with Indian Society for Technical Education, during 24 29 January, 2022.

- Six Days Faculty Development Program on "Advancements on Artificial Intelligence and Machine Learning" held from 12th-17th July 2021 organized by Information Science and Engineering Department of the Oxford College of Engineering, Bangalore.
- one week national level virtual faculty development program on "Data Science and Applications" organized by the Department of Computer Science and Engineering ,SKSR Engineering College from 10th-15th June,2021.
- Two day Workshop on "IoT: Firmware & Hardware Design and Development" during 26th & 27th March 2021.
- ❖ AICTE-ISTE approved Orientation/Refresher Programme on "Advanced Emerging Trends in CSE & IT" held during 23.02.2021 to 01.03.2021 organized by Usha Rama College of Engineering and Technology, Telaprolu, Krishna Dist., Andhra Pradesh.
- ❖ FDP on "Frugal Innovations and Social Entrepreneurship" held during 25th-30th January 2021 at NIT Mizoram in collaboration with AICTE.
- ❖ Online FDP on "Quantum Computing and Machine Learning" held from 30-11-2020 to 05-12-2020 organised by JNTU College of Engineering, Pulivendula and Directorate of Faculty Development & IQAC, JNTUA, Ananthapuramu.
- ❖ AICTE, New Delhi under AQIS sponsored Six Days Online Short Term Training Programme on "Intellectual Property for Engineers & Scientists" Phase 2 from November 23th 2020 to November 28th 2020.
- AICTE Sponsored One Week Online Faculty Development Program(Phase-II) on "Research Areas in Biomedical Signal Processing" Organized by Department of Electronics and Communication Engineering, Sri Vasavi engineering College (Autonomous) During 16-21st November 2020.
- ❖ 20 Days of Faculty/Student Development Program on R Programming Held from 7th Sep 2020 to 5th Oct 2020 .
- One day webinar on "National Educational Policy" held on 19/09/2020.
- Two Day Online National Level Workshop on "Communication, Vlsi, Image Processing and Design of Antennas" –(COVID) from 03-09-2020 to 04-09-2020 organized by Department of ECE, UCEV, JNTUK.
- Three-Day FDP on Enhancement of Professional Communication Skills organized by the Department of Humanities & Sciences, AnanthaLakshmi institute of Technology & Sciences, Ananthapuram during 20-22 August, 2020.
- Online One Week Faculty Development Programme on Recent Advances in Embedded Systems Organised by Department of Electronics & Communication Engineering, MGIT, Hyderabad, from

07th to 11th August, 2020.

Short term training program on "Paper and Article Writing with LATEX" during 17st to 19th March

2017 at JNTUACE, Pulivendula.

Two day National level Workshop on "Empowering Teaching Faculty on Professional Skills" at

JNTUACE, Pulivendula during 30th to 31st March 2017 Sponsored by TEQIP II

❖ Ten days FDP on "Embedded Real Time Systems" during 01st to 10th February 2017 at JNTU

Anantapuram organized by NIT Warangal.

Four day Professional development program on "Internet of things (IoT) for digital world" at Tirupathi

on 19th and 22nd December 2016, Organized by ESCI.

Two day National Workshop on "Research Methodology in Science and Technology" at JNTUACE,

Pulivendula during 17th to 18th October 2016 Sponsored by TEQIP II

Two day National level FDP on "Digital Image Processing and its applications" at JNTUACE,

Pulivendula during 19th to 20th September 2016 Sponsored by TEQIP II.

* Two day National level FDP on "Graphical System Design approach in Engineering and Research" at

JNTUACE, Pulivendula during 19th to 20th August 2016 Sponsored by TEQIP II.

Two day National level hands- on training program on "VLSI design Advancements using Xilinx"

tools "at JNTUACE, Pulivendula on 26th and 27th August 2016 Sponsored by TEQIP II

Two day National level hands- on training program on "MSP 430 and TIVA Microcontrollers" under

Texas instruments university program from 23rd to 24th July 2016 at JNTUACE, Pulivendula

Two day National level FDP on "Entrepreneurship Development Initiative in India" at JNTUACE,

Pulivendula during 16th to 17th March 2016. Sponsored by ED II-16 in collaboration with IEEE

Hyderabad.

❖ A Hands-on workshop on "Linear Integrated Circuits: A Systems Approach" Pulivendula during 25th

& 26 th September 2015.Organized by JNTUACE, Pulivendula, Sponsored by Texas Instruments-Ti

University.

Declaration:

I hereby declare that the information furnished above is true to the best of knowledge.

P. V. Kusuma

(P. V. Kusuma)

Date: 15-06-2023

Pulivendula.