



Dr. Mrs. Arati .J. Vyavahare

Personal Information:

Name: Dr. Mrs. Arati Jeevan Vyavahare
Email: hodece@moderncoe.edu.in

Educational Information:

Ph.D. E&TC (Feb.2014), SGGS IET, SRTMUN.

M.E. E&TC (May 2007) from Govt. College of Engineering (COEP), Pune.

Research Area:

Image processing, Biomedical signal processing, Communication

Professional Experience:

- Total Experience - (23+04) years
 - Teaching Experience 23 years
 - Industrial Experience 04 years

Awards and achievements:

- GLOBAL INDIA BUSINESS FORUM awarded **INTERNATIONAL WOMEN LEADERSHIP AWARDS** for outstanding contribution for women Entrepreneurship.
- GLOBAL INDIA BUSINESS FORUM awarded **INTERNATIONAL WOMEN ENTREPRENSHIP AWARDS** for outstanding contribution for women Entrepreneurship
- **Best Research Paper** - Award in IEEE sponsored International Conference
- **Best Researcher Award**- Nominee DKIRF, Tamilnadu
- **Vice Chancellor** for Interview to PhD Course 2022-23 held on 1st march 23 at Zeal college of engineering and Research Pune.
- Certificate of Appreciation for the valuable contribution in the syllabus designing/framing of the subject Cyber security at TE (E&Comp.) Syllabus Revision 2019 Course.

Major Responsibilities:

- **HoD- Electronics and Computer Engineering (ECE department of MCOE)**
- **Professor** in ENTC dept. {UGC Approval no. CCO/343}
- **PhD Guide:** Recognition of Savitribai Phule Pune University (Recog.No.-BOD/ Sci&Tech/11/66)
- **P.G. Teacher:** Recognition of Savitribai Phule Pune University 2011 onwards (Recog. No.- BUTR/ Engg./ 1801-301)
- **PhD- Central Research Center Coordinator** (4 departments) of MCOE.

Academic Contribution:

1. **Grants fetched:** BCUD-RPS funded project- 'Cotton crop disease detection using Image Processing' - funds **1,20,000/-** (2014-16)
ISRO funded project with DRDO – 'Design and Development of Microstrip Patch Antenna using different dielectric substrate materials' - **60,000/-**.
2. **Consultancy services provided to companies:**
 - i) Electro medics Meditek Pvt. Ltd.,
 - ii) Jeevancare, Healthcare solutions.
 - iii) Seal India, Training sessions on Biomedical signal processing field.
3. **Workshops/seminars attended:** 54 Nos.
4. **Certification Refresher courses:** 12 Nos.
5. **Online Courses:** 18 Nos.
6. **Experience as:**
 - **Vice Chancellor** for Interview to PhD Course 2022-23 held on 1st march 23 at Zeal college of engineering and Research Pune.
 - **Vice Chancellor** at Zeal college of engineering and Research Pune nominee OPEN category for Research Centre admission.
 - **LIC- MEMBER Research committee**, at AIT, SPPU, Pune.
 - **CONVENER** of the National seminar under QIP (2 Lacs) MCOE
 - **TECHNICAL PAPER REVIEWER** of IEEE, Springer sponsored International / National Journal/conferences. During the conferences held at various colleges e.g. COEP, VIIT, AISSMS etc.
 - **SESSION CHAIR, :**
 1. In International Conference at VIIT, COE Pune
 2. In 5th IEEE International Conference held on at AISSMS college, Pune 1st to 3rd March 23
 3. In 4th IEEE International Conference held on 9th to 11th March 22 at AISSMS college, Pune
 - **SESSION REVIEWER:**
 1. In 5th IEEE International Conference held on 1st to 3rd March 23 at AISSMS college, Pune
 2. In 4th IEEE International Conference held on 9th to 11th March 22 at AISSMS college, Pune

- **SESSION JUDGE**, in Youth Parliament, conference held at **Dr. BATU, Lonere.**
- **PhD admission interview panel, subject expert.**
- **PhD presentation- external subject expert.**
- **External expert in PG, UG Project examinations.**
- **SPPU theory paper external, internal senior supervisor, coordinator of Examination**
- Paper setting, checking, Project examiner, Practical, oral examiner for: BE, ME SPPU Examinations.
- Subject HOD, Communication, Digital Electronics.
- M.E Project Guide, VIT, Pune
- **External Subject Expert- PhD Synopsis Presentation.**
- **Editor- MAT Journals**
- **Interaction with Professional Institutes- IETE, ISTE, ISRD.**

7. Two Patents: Filed /Published:

A. 'Novel method for early Diagnosis of Alzheimer Disease Using Electroencephalogram -EEG Signals'. Publication Date. 19/01/2016 (App. No. 201621001854)

Filing/Field of Invention: Biomedical Engineering.

B. 'Automatic volume control for unwanted increase of sound with Innovative technique'. Publication Date: 15/01/2019. (App. No. 201921022399)

Filing/Field of Invention: Communication Engineering

8. Four Copyrights: Registered.

- i) Still image and moving picture compression standards. (L-84755/2019)
- ii) Automatic Ration distribution system using Barcode and GSM. (L-95588/2020)
- iii) Automatic Ration distribution system using Cloud computing. (L-9589/2020)
- iv) IOT based Flood Monitoring and Alerting system using Raspberry Pi (21280/2022-CO/L)

9. Working as Central Research center coordinator- PhD cell of Modern college of engineering and coordinating- 4 research centers of MCOE from 2014

10. Principal Investigator of BCUD-RPS funded (Rs.1.2 Lacs) Research Project.

11. 'Innovation Ambassador' of MoE'S Innovation cell AICTE, New Delhi.

12. Innovation Ambassador- Training course (Advanced level, Total 16 sessions of 30 contact hours) conducted by MoE'S Innovation cell AICTE, New Delhi (from 30th June- 30th July 2021)

13. Paper Publication more than **59** papers in National/ International Journals/conferences.

14. Paper Presented in Conferences: National-11, International-07

15. NAAC Criterion 3 central level- In charge.

Responsibilities Handled at University / College / Department level:

University level: Paper setting Paper Checking, Practical –External/Internal Examiner, External Senior Supervisor, participation in Syllabus Discussion, Electronics & Computer Engineering (New Branch) syllabusstructure coordinator, Election etc.

College level: Handling responsibility as- Ph.D. and Research Coordinator MCOE, NAAC Criterion –III in charge. 3 years as Training and Placement Officer-Modern college of Engg. (A.R.C.- Inward Section in charge, F.E. Admission, S.E. Direct Admission procedure member, AICTE, N.B.A. Work, Invigilation duty, participation in-Vidyarthini Munch committee, Housekeeping in charge, Furniture DSR, M-Pulse, Gathering activity. External Judge for SPPU Avishkhar Project Competition AY 2022-23, organized by MCA department.

Department level: Handling responsibility as- Ph.D. Coordinator (ENTC), Guardian Faculty Member (GFM), TEESA Activity in charge, Furniture in charge, Placement ENTC coordinator, Final year and second year student- Industrial Visits in charge, Organizing and participation in National/State level seminars/workshops, As Expert in university practical exams, Internal practical & project examiner, ext. seminar, project examiner.

Active participation in student's activities: As Training and Placement Officer/ counselor TEESA Activities, Arranging Industrial visits, Guidance in seminars, project guidance for BE, ME students, Inter-college paper presentation competition etc.

- 1. Senior Supervisor** of SPPU examinations (5 Times)
2. Worked as, TPO- 'TRAINING AND PLACEMENT OFFICER 'of Modern college of engineering for 3 years (Duration 2009-2012) and successfully placements of more than 218 students during campus placement drives.
3. Arranging and coordinating different seminars and presentations required for PhD curriculum heads. Also finalizing different formats required for 'Course Work 'curriculum of PhD.

Memberships of Professional bodies:

SR.No.	Name of Society	Membership type	Membership No.
1	IETE	Life Member	M500447
2	ISTE	Life Member	LM 52267
3	ISRD	FELLOW	F3140900359
4	IEEE	Member	-
5	Concern India Foundation	Member	-
6	‘Sankalp’ Rural Mahila Vikas Sanstha-Development program	Secretary	NGO

Research/ Projects completed:

Year.	Topic	Sponsored by
2021-22	‘Panchagavya’-shortlisted project under Rural development scheme- UBA.(60k)	MHRDA, Unnat Bharat Abhiyan - UBA
2014-2016 (2 -Years)	BCUD Funded project ‘Cotton crop disease detection and diagnosis using Image Processing Technique’(1.2 Lacs)	BCUD- Savitribai Phule Pune University.
2007	Development and design of rectangular patch antenna in satellite communication application(60k)	‘ISRO’ (Space communication Research Project)
2000	ECG Patient data file structure management	Concept Integrations Pvt. Ltd.
1999	Multichannel Radio Remote Control	JNEC

UG Project guided: 18+ Nos.**ME Project guided:** 12 Nos.**Guided-UG Project :**

Title of Project	Year
Trolligent	2020-21
Automated Attendance System	2018-19
Hydroponic cultivation	2016-17
2D to 3D converter Edge Detection Analysis	2014-15
Localization and Segmentation of optic disk in retinal images	2013-14
Segmentation of WBC and its nucleus in Study of Leukemia	
Simulator Design for PSO500 Genset Controller	2012-13
Vision Based Hand Gesture Controlled Robot	
Performance Evaluation of AIVHE on Adaptive Edge Detection by Different Operators	2011-12
Detection of Blood Cancel Cells using Adaptive Contrast Enhancement and segmentation Technique	

Guided-PG Project

Title of the project	Year Completion
GLCM Feature Extraction with Naive Bayes classification in Dietary Nutrition Application	2018
Nuclear Segmentation for Tumor cells using Multiresolution level sets	2017
Cotton Crop Disease Detection and diagnosis using image processing Technique	2016
Energy Minimization Based on Image Segmentation	2016
Multi region Image Segmentation using Zero Level Set Method & Energy Minimization of Active Contour	2016
OCR for Handwritten Devanagari Script	2016
Implementation of Hybrid SLM-PTS Technique to reduce PAPR in OFDM systems	2015
Transmits Beamforming and receiver design for MIMO Radar	2015
GPS Based Ship Borne Automatic Identification System	2015
Canny Operator Based Distance Regularization Level Set Evolution Algorithm for Medical Image Segmentation	2014
Segmentation of Medical Images using Region Growing Algorithm Based on Connected Components	2014
Automated Skin Lesion Diagnosis	2013

Journal Paper Publications: During Post and Pre PhD Course

A) Post PhD Publications: with ISSN (Year: 2014-2018): 38 nos.

B) Pre-PhD Publications: (Year: 2011-2013): 09 nos.

C) Conference Proceedings: 16 nos.

D) ME Sponsored Project Publications: 05 nos.

E) UG/PG Project based paper publications: 12 nos.

Details as mentioned below: -

A) Journals: Post PhD Publications: with ISSN (Year: 2014-2022): 38 nos.

1. Protein Structure prediction, 17 Sept 22, IEEE Joint chapter, Symposium **SYRES**
2. Deep learning modeling methods for predicting protein structure –systematic review, paper presented in (online) **symposium of Research Scholars (SYRES)** by IEEE joint chapter of AP, MTT, EMC (JCAME) and communication society, Pune, 17 September 2022.
3. Trolligent, Simply Intelligent Trolley, Feb 21, **IRJET** Journal Volume 8, Issue 2
4. Trolligent: Smart E-Trolley, July 21, GIS Journal Science Journal, Volume 8, Issue 7
5. Trolligent, Simply Intelligent Trolley, 28th May 2021, **IJCRT** & 7.97 impact factor by Google Scholar Volume 9 Issue 5
6. Literature review on wireless transmission of RS232, 7th July 2021, GIS Journal Science Journal, Volume 8, Issue 7.

7. Dual slot H shape Antenna for SAR Estimation, **IJRTE**, ISSN 2277-3878, Vol 8, Issue-5, January 2020.
8. Adaptive array design using Least Mean square algorithm, **IJRTE**, ISSN 2277-3878, Vol 8, Issue-5, January 2020.
9. Dr. Mrs. A. J. Vyavahare, Image Segmentation using Computationally Improved Active Contours Level Set Method, 2015, IETE National Journal of Innovation and Research (NJIR), vol. 3, issue 2, IETE Journal
10. Dr. Mrs. A. J. Vyavahare, High Resolution Synthetic Aperture Radar Image Segmentation Using Level Set Method, 2015, International Research Journal of Engineering and Technology (IRJET), vol. 4, issue 1, IRJET, ISSN: 2395-0072.
11. Real Time Fruit Sorting System using Computer Vision and Machine Learning, 2018, International Journal of creative research thoughts, vol. 6, issue 2, IJCRT, ISSN: 2320-2882.
12. Feature Extraction Using GLCM for Dietary Assessment Application, 2018, International Journal Multimedia and Image Processing, vol. 6, issue 3, **IJMIP**, ISSN: 2155-9577.
13. Review of Nuclei Detection Segmentation in Microscopic Images, 2017, Journal of Bioengineering and Biomedical science, vol. 7, issue 3, **IBEBS**, ISSN: 2155-9538.
14. Nuclear Segmentation of Glioblastoma Multiform Cells by Multireference Level Set, 2017, Journal of Bioengineering and Biomedical science, vol. 7, issue 6, **IJSER**, ISSN: 2155-9577.
15. Hydroponics Cultivation using PH level Control, 2017, International Journal of Advanced Research in Electronics and Communication Engineering, vol. 6, issue 6, **IJESEER**, ISSN: 2278-9091.
16. Dietary Assessment Methods Based on Image Processing: A Review, 2017, International Journal of Innovative Research in Science Engineering and Technology, vol. 6, issue 8, **IJRSTE**, ISSN: 2347-6710.
17. Multi-Region Image segmentation with zero level set function of active contour on energy minimization, 2016, International journal of electronics, electrical and computational systems, vol. 5, issue 6, **IJECS**, ISSN: 2348-1171.
18. Devanagari OCR using projection profile segmentation method, 2016, International Research Journal of Engineering and technology, vol. 3, issue 6, **IRJETE**, ISSN: (e)2395-0056 (P)2395-0072.
19. Design and Analysis of Image segmentation with efficient energy minimization function, 2016, International Journal of Scientific and Engineering Research, vol. 7, issue 5, ISSN: 2229-5518.
20. Performance analysis of efficient framework of image segmentation using energy minimization function, 2016, International journal of engineering and advanced technology, vol. 5, issue 5, ISSN: 2249-8958.
21. Devanagari OCR using projection profile segmentation method, 2016, International Research Journal of Engineering and technology, vol. 3, issue 6, ISSN: 2395-0072.
22. Multi-Region Image Segmentation with zero level set functional and evolution of active contour on energy minimization, 2016, International Journal of Electronics, Electrical and Computational System, vol. 5, issue 6, International Journal of Electronics, Electrical and Computational System, ISSN: 2348-1170.
23. OCR for hand written Devanagari script, 2016, International Journal of information and futuristic research, vol. 3, issue 10, International Journal of information and futuristic research, ISSN: 2647-1697.
24. Cotton Crop Disease Detection and Diagnosis using image processing Technique, 2016, International Journal of information and futuristic research, vol. 4, issue 4, International Journal of information and futuristic research, ISSN: 2347-1697.
25. OCR for Handwritten Devanagari Script, 2016, International Journal of Informative and Futuristic Research, vol. 3, issue 10, **IJIFR**, ISSN: 2347-1697.
26. A Review on: Image Segmentation Based on Level Set Method, 2016, International Journal of Research In Engineering Science and Technologies, vol. 1, issue 6, Science and Technologies, ISSN: 2454-664
27. Literature Review of Energy Minimization Based Image Segmentation Method, 2015, International Journal of Science and Research, vol. 4, issue 11, **IJSR**, ISSN: 2319-7064.
28. Review on Competent PAPR reduction scheme in OFDM system, 2015, International Journal of innovative research and advanced studies, vol. 2, issue 3, International Journal of innovative research and advanced studies, ISSN: 2394-4404.
29. Performance analysis of hybrid SLM-PTS system under Rayleigh fading channel, 2015, International journal of engineering trends and technology, vol. 1, issue 4, International journal of engineering trends and technology, ISSN: 2231-5381.
30. Disease Detection of Cotton crop using image processing technique: A survey, 2015, International Journal for research in applied science and engineering technology, vol. 3, issue 4, International Journal for research in applied science and engineering technology, ISSN: 2321-9653.
31. Literature Review Energy minimization based image segmentation methods, 2015, International Journal of Science and research, vol. 4, issue 11, International Journal of Science and research, ISSN: 2319-7064.

32. Traffic Estimation using image processing, 2015, International journal of Engineering technology management and applied sciences, vol. 3, issue 4, International journal of Engineering technology management and applied sciences, **ISSN:** 2349-4476.
33. Transmit Beam Forming and Receiver Design for MIMO RADAR, 2015, International Research Journal of Engineering and technology, vol. 2, issue 3, International Research Journal of Engineering and Technology, **ISSN:** 2395-0072.
34. Cotton Crop disease detection & diagnostic- 'Innovation', July 2015.
35. Emergency trends in advance communication tech. **NCETACT**- Jan 2015.
36. GPS based shipborne automatic identification System, **ICAET**- Sept 2014.
37. Dr. Mrs. A. J. Vyavahare, Canny based DRLSE Algorithm for segmentation, **IJCA**, 0975-8887, Sept. 14.
38. Dr. Mrs. A. J. Vyavahare, connected component based medical image segmentation, August 2014, **IJREEICE**, vol. 2 issue 8, **ISSN:** 2321-5526.

B) Journals: Pre-PhD Publications: (Year: 2011-2013): 09 nos.

1. **Arati J. Vyavahare**, Dr. R.C. Thool, Automatic Detection of Acute Lymphoblastic Leukemia based on HIS color space., **Springer**, Advances in recent technology in communication and computing, **ARTCOM-2012**, by the association of computer electronics and electrical engineers. October 2012 Bangalore, **ACEEE** a division of Institute of Doctors, Engineers and Scientists (IDES)-(D.L.) **Springer**, page no. 446-449.
2. **Arati J. Vyavahare**, Dr. R.C. Thool, Segmentation using Region Growing Algorithm based on CLAHE for Medical Images., Springer, Advances in recent technology in communication and computing, **ARTCOM-2012**, by the association of computer electronics and electrical engineers. October 2012 Bangalore, **ACEEE** a division of Institute of Doctors, Engineers and Scientists (IDES)- (D.L.) Springer, page no. 310-315.
3. **Arati J. Vyavahare**, Dr. R.C. Thool, Edge Detection Algorithm based on AIVHE for Retinal Images., **Springer**, Advances in recent technology in communication and computing, **ARTCOM-2012**, by the association of computer electronics and electrical engineers. 19-20 October 2012 Bangalore, **ACEEE** a division of Institute of Doctors, Engineers and Scientists (IDES)- (D.L.) Springer, page no. 296-301.
4. **Arati J. Vyavahare**, Dr. R.C. Thool, Canny operator based Distance Regularization level set evolution algorithm for medical image segmentation, **IJGIP**, International Journal of graphics and image processing, Vol.3, Issue-4 Nov. 2013.
5. **Arati J. Vyavahare**, Dr. R.C. Thool, Segmentation of medical images using image processing with region growing algorithm, Vol.3, Issue-4 Nov. 2013.
6. **Arati J. Vyavahare**, Dr. R.C. Thool, Transmitter beam forming design model for MIMO Radar, **IJAREEIE**, Vol.2, pp. 4615-4679, **ISSN** (print) 2320-3765,
a. Online-2278-8875, Issue-10, Oct 2013
7. **Arati J. Vyavahare**, Dr. R.C. Thool, Canny operator based distance regularization level set evolution algorithm for medical image segmentation international journal of graphics & image processing vol.3 issue 4 Nov. 13
8. Comparison of different segmentation techniques for color image processing, International Journal of graphics and image processing, page no. 321-324, **IJGIP**, vol.2, September 2011.
9. Region Growing : A Cutting Edge Approach for Color Image Segmentation, International Journal of Computing, page no. 541-545, **IFRSA**, vol.1, issue 3, July 2011.

C) Conference Proceedings: 16 no's

1. Comparison of segmentation techniques for different type of images: Review, National conference on signal and image processing applications 19-20 September 2009, The IET (UK) Mumbai, COE Pune.
2. Application for noise immunity and operational complexity using region growing and edge based methods, National conference on Futuristic Applications in electronics engineering (**NCFAEE-2011**), 10-11 March, 2011, **AISSMS IOIT** and Pune.
3. Comparison of region growing and ACC for efficient and fast execution of algorithms, National conference on Futuristic Applications in electronics engineering (**NCFAEE-2011**), 10-11 March, 2011, **AISSMS IOIT**, Pune.

4. Comparison of Segmentation Techniques for Acute Leukemia Detection, An International conference on precision, meso, micro and Nano engineering, 10-11 December 2011, COE, Pune.
5. E04: Color image segmentation methods: Overview National conference on Advances in engineering and management, (A.E.M. 2011) 13-15 January 2011, UOP, Indira college of Engineering and management, Pune.
6. E05: Comparison of image segmentation methods A review on region growing and ACC, National conference on Advances in engineering and management, (A.E.M. 2011) 13-15 January 2011, UOP, Indira college of Engineering and management, Pune.
7. Canny operator based level set segmentation, Bhaba Atomic Research Centre- National Conference on Machine vision and image processing, (MVIP-2011) 7-9 December 2011, IEEE, IET Pune, COE Pune.
8. Effect of filtering on sobel edge detection operator for noise images Bhaba Atomic Research Centre- National conference on Machine vision and image processing, (MVIP-2011) 7-9 December 2011, IEEE, IET Pune, COE Pune.
9. A novel region growing segmentation algorithm based on CLAHE for medical images Bhaba Atomic Research Centre- National conference on Machine vision and image processing, (MVIP-2011) 7-9 December 2011, IEEE, IET Pune, COE Pune.
10. Region growing and Ant colony clustering: A review of image segmentation methods, National conference on Advances in signal processing and communications sponsored by University of Pune 18- 19 February 2011, G.S Moze COE, Pune.
- 11.** Beamlet Transform: New approach in image segmentation, National conference on Advances in signal processing and communications sponsored by University of Pune 18-19 February 2011, G.S. Moze COE, Pune.
12. CLAHE based R.G. algorithm for medical images, International conference on Electronics and communication engineering IR Net, (ICECE) 15 July 2012, Pune.
13. 2D to 3D Image Conversion & Disparity Map Estimation using PSO Algorithms
14. The effect of Butterworth filter on sobel edge detection operator International conference on Advances in computing and management 2012(ACM- 2012) 6-8 January 2012, Dr.D.Y. Patil, Pune.
15. Segmentation technique for Brain Tumor Images, International conference on Electronics and communication engineering IR Net, (ICECE) 15 July 2012, Pune.
16. Transmits Beam forming Design Model for MIMO Radar Vol.2 Issue 10 Oct.2013 IIAREEIE ISSN (Print): 2320-3765 ISSN(Online) 2278-8875.

D) Publications: 07 nos'. : M.E.(E&TC) Course: COEP, ISRO Sponsored project

M.E. (E&TC) - Microwave: Design and Development of an Array of Micro Strip Patch Antenna using Different Dielectric Substrates.

IEEE Sponsored Papers published on M.E.(E&TC) Microwave dissertation, which is tested and completed at Defense Institute of Armament Technology(DIAT), Khadakwasla, Girinagar, Pune.

1. Novel Protein Structure Prediction Model Using Fused Pipit Adapted Deep Convolutional Neural Network, the 5th IEEE International Conference on Emerging Smart Computing and Informatics, (1st to 3rd March 23) at Pune.
2. Contribution of Women Scientists in the Discipline of Predicting Protein Structure, in an International Conference on Gender Equality and Women Empowerment 2023(8th and 9th March) organized by PVG's college of Engineering in association with department of Education and Extension Savitribai Phule Pune University.
3. Micro strip Rectangular Patch Array Antenna Using Different Substrates for Satellite Communication Application. The Fifth **International Association of Science and Technology for Development (IASTED)** International Conference on Antennas, Radar, and Wave Propagation Baltimore, Maryland, USA (April 16-18, 2008).
4. Design of Two Elements Array with and without Delay Line for Beam Steering the Asia-Pacific Microwave Conference, APMC-2007, the most prestigious microwave conference in the Asia Pacific at The Grand Hyatt Erawan, **Bangkok**, Thailand, (December 11-14, 2007).
5. Multiple Element Rectangular Micro Strip Patch Antenna with and without Delay Line using Different Substrates Sensors, Signal Processing, Communication, Control and Instrumentation (SSPCCIN) Vishwakarma Institute of Technology (VIT), Bibwewadi, Pune- 411037, Maharashtra, India (January 3-5, 2008).
6. Satellite communication for beam steering application using antenna D. Y. Patil COE, Pimpri Pune (NCWT-08, 29-31, 2008).
7. Design of Rectangular Patch Antennas using Different Dielectric Materials as Substrate and their Comparative Study Recent Trends in Material Science (RTMS-2006) by University Grants Commission, New Delhi, North Maharashtra University, Jalgaon, INDIA (March 24-25, 2006).

E) UG/PG Project based paper publications: 12+ nos.

some of them are mentioned below: -

- Adaptive Array Design using Least, Square Algorithm International Journal of Recent Technology and Engineering Mean
- Review of Nuclei Detection Segmentation in Microscopic Images, Journal of Bioengineering and Biomedical science
- Trolligent: Smart E-Trolley, GIS Science Journal Volume 8, Issue 7, July 2021.
- Literature review on wireless transmission of RS 232. GIS Science journal Volume 8, Issue 7, July 2021.
- Intelligent Trolley, IRJET, Volume 8 Issue 2, Feb 2021.
- Trolligent, simply Intelligent E trolley. IJCRT, Google scholar, Volume 9, Issue 5, May 2021.
- OCR for hand written devnagri script International Journal of information and futuristic research
- Performance analysis of efficient framework of image segmentation using energy minimization function, International Journal of Engineering and Advanced technology

Organized QIP/FDP/Seminars/Workshops:

- 1 Convener-QIP-Funded by SPPU (2 Lacs)Enrichment of faculty skills in higher education(17-18Feb.2017).
2. IEEE Pune section Funded Seminar- Research Methodology its real time applications.
- 3 FDP Workshop- 'Make office easier'- Latex, computer fundamentals-2 days' Workshop (22-23 Dec.2014)

8. FDP/Workshops/seminars attended: Some of them by latest, mentioned below:-

FDP/ Seminar /workshop Attended- (2023):

Sr. No.	Title	Duration	Organized by
1	Successfully Participated in the WORLD RECORD for “Largest Attendance in Virtual Yoga Class” on International Yoga Day	21 st June 2023	Organized by Habuild
2	For participating in a Webinar on “GATE Preparation and Exam taking strategies”	12 th April, 2023	GATE Club CS/IT wing of VIIT, Pune, India.
3	For actively participating in 5days Faculty Development Program on “Deep Learning Application Development, Tools and Research”	28 th February- 4 th March 8, 2023	Organized by Department of Artificial Intelligence and Data Science, VIIT, Pune, India.
4	Attended two days National Level Workshop on “Adoption of Guidelines on NHEQF and Curriculum Framework and Credit System for Four Year Undergraduate Program (FYUP)”	February 23 th and 24 th , 2023	Organized by PES’s Modern College of Engineering, Pune-05, under Quality Improvement Program(QIP) of Savitribai Phule University, Pune
5	Data science	6 th -10 th Feb 23	Dept. of AIDS & AIML, Computer Engg, Dr. D.Y. Patil Institute of Engineering & Management Research, Akurdi.
6	Two days national conference on Implementation of National Education Policy 2020	14-15 th Jan 23	PES modern college of arts and science and QIP

FDP/ Seminar /workshop Attended- (2020-21-22):

Sr. No.	Title	Duration	Organized by
1	Cloud Computing using AWS and GCP	19-23 rd Sept 22	KJCOEAMR, Kondhawa, Pune
2	Signal and Information Processing- 2022	26 th - 27 th August 2022	Electronics & Telecommunication Engineering Department, COEP Technological University Pune
3	Data Analysis and Machine Learning for Engineering Research using Python	8 th -12 th Aug 2022	Dept. E&TC, K.J.C.M .Research, Pune
4	Stress Management	5 th August 2022	ICFAI Business School Pune
5	Workshop on Revised Guidelines for NAAC Accreditation	5 th March 2022	A Quality Initiative Programme By IQAC, Modern Law College
6	Innovative and Inventive Problem Solving	13 th -18 th July 2021	AICTE QIS sponsored AISSMSCOE.
7	Innovation Ambassador Training	30 th June- 30 th July 2021	MoE’s Innovation Cell & AICTE PES MCOE,Pune
8	Artificial Intelligence, Machine Learning and Deep Learning for Remote Sensing, G.I.S and GNSS Application Areas	23 th to 27 th March 2021	Kolhapur Institute of Technology's College of Engineering, Kolhapur
9	Two week online AICTE sponsored FDP Phase-1	15 th March to	Konkan Gyanpeeth Rahul

	“Importance of Innovation and Research Culture to Inculcate Startup and Entrepreneurship ”	26 th March 2021	Dharkar College of Pharmacy & Research Institute, Karjat, Dist. Raigad
10	Emerging Smart Computing & Informatics 3rd	5 th -7 th March 2021	AISSMS ,Institute of information Technology,Pune
11	Innovation Ambassador Training	16 th Feb 2021	MoE’s Innovation Cell & AICTE, New Delhi
12	FDP on E- Content Development and Delivery, Research Methodology & Autonomy	27 th July to 1 st August	Kamala Nehru Mahavidyalaya Nagpur
13	E-Content Development and Delivery, Research Methodology and Autonomy	27 th July- 1 st 2020	IQAC, Kamla Nehru Mahavidyalaya, Nagpur, Modern College of Arts, Science and Commerce(Autonomous), Shivajinagar, Pune.
14	IEEEExploring Digital library: Orientation Workshop	9 th June 2020	Library,MIT,WPU E-KRC Kothrud
15	Participated in “COVID-19 Awareness Campaign-Quiz”	May-2020	Institutional Social Responsibility(ISR) Cell National Service Scheme (NSS)
16	E content development and E learning and tools in teaching learning	28 th May to 3 rd June2020	Progressive Education Society, Shivajinagar, Pune-05
17	“ MOODLE LEARNING MANAGEMENT SYSTEM”	26 th to 30 th May	Dept of E&TC, PICTE, Pune. Association with Spoken tutorial, IIT Bombay
18	Webinar on IoT and Enabling Technologies: An Overview	26 th May 2020	Dept. of E&TC, PVG’s College of Engineering in association with Copper Cloud IOTech
19	Training Program on how to balance Academics and Administrative work	25 th May	Skillslate and Powered by Zovy Studios,Pune
20	Webinar on “Evolve: A shift thinking “	25 th to 26 th June 2020	In association with BrahmaKumaris/ Modern College of Engineering MBA Department
21	Roles of IOT on Industrial application	21 st May 2020	Hosted by Sethu Institute of Technology in association with PANTECH Solution
22	Webinar on “ ML FOR HEALTH CARE APPLICATION”	21 st May 2020	SREYAS Institute of Engineering and Technology in association with PANTECH E learning.
23	Future of AI	20 th May 2020	Hosted by IETE-Mumbai in association with PANTECH
24	How Agri and IOT get connected	19 th May 2020	Mohamad Sathak College of Engineering in association with Pantech E learning.
25	Online FDP on Learning ,Pedagogy & effective Use of Case Methodology	17 th to 21 st May 2020	ASM Group of Institutes
26	Webinar on”New Higher Education &Digitization of Education	17 th May 2020	Dr. Babasaheb Ambedkar Technolical University, BATU- Lonere & R.C. Patel Institute of Technology ,Shirpur Under TEQIP-III
27	One Week online FDP “ Effective Proposal writing for Research Funding	13 th May to 18 th May 2020	Sandip Institute of Technology & Research Center Nashik in association

			with IEEE Women in Engineering
28	Programme on 'I AM CHANGE'	14 th May 2020	Skillslate and Powered by Zovy Studios,Pune
29	Emerging Smart Computing & Informatics 2nd	12th- 14th March 2020	AISSMS,Institute of information Technology,Pune
30	Image Processing using PHYTON	12 TH may 2020	Hosted by Mount Zion College of Engineering and Technology Pudukkottai in association with PANTECH
31	Webinar on "Machine Learning	12 May 2020	Department of Electrical Engineering, Maulana Mukhtar Ahmad Nadvi Technical Campus Malegaon
32	National Level FDP on Decoding Examination During and Post Covid-19	8 th May 2020	Skill slate and Powered by Zovy Studios, Pune
33	"How to Overcome Challenges & Boost Admission During COVID19"	5 th May 2020	Skillslate and Powered by Zovy Studios ,Pune
34	National Level Webinar Identifying Weaker Students & Remedial Actions	2 nd May 2020	Inpods
35	Planning and Writing Effective Grant Praposal	No Date on Certificate	P.E.S.'s MCOE IQAC in association with IIC & MCA Department
36	Institutions Innovation Council Online Sessions	28 th April to 22 nd May	IIC of MHRD's Innovation cell ,New Delhi
37	Artificial Intelligence &Machine Learning	24 th -25 th January 2020	IEEE SPS Chapter pune
38	Webinar on"New Higher Education &Digitization of Education	17 th May 2021	Dr. Babasaheb Ambedkar Technolgical University, BATU- Lonere & R.C. Patel Institute of Technology ,Shirpur Under TEQIP-III
39	Innovation Ambassador Training	30th June- 30thJuly 2021	PES MCOE,Pune
40	Innovative and Inventive Problem Solving	13-18 July 2021	AICTE QIS sponsored AISSMSCOE.
41	Workshop NAAC acriditation,IQAC	5 th March	IQAC, Modern Law college, Pune.
42	ISTE-One week STTP-Data Analysis and Machine Learning using Python and Matlab	8 th -12 th Aug 2022	K.J.C.M.Research,Pune
43	Signal and Information Processing- 2022	26th- 27th August 2022	Electronics & Telecommunication Engineering Department, COEP Technological University Pune
44	Stress Management	5th August 2022	ICFAI Business School Pune
45	Cloud Computing using AWS and GCP	19-23 rd Sept 22	KJCOEAMR,Kondhawa,Pune
46	IOT and enabling technology's	26 th May 2022	PVG, COE, pune
50	State level workshop, Planning and writing Effective grant proposal	19,20 Sept. 2022	MCA dept. MCOE

