

# **CURRICULUM VITAE**

## **PROF. (DR.) ARUN GAIKWAD**

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| <br><b>DR. ARUN NATHA GAIKWAD</b><br><b>CELL: +91- 7499982676</b><br><b>MAIL:</b> <a href="mailto:principal@vvpietsolapur.org">principal@vvpietsolapur.org</a><br><a href="mailto:arun.gaikwad@vvpietsolapur.org">arun.gaikwad@vvpietsolapur.org</a><br><a href="mailto:angaikwad61@gmail.com">angaikwad61@gmail.com</a> | <b>CAMPUS DIRECTOR AND PRINCIPAL</b><br><b>VVP INSTITUTE OF ENGINEERING &amp;</b><br><b>TECHNOLOGY, SOLAPUR</b><br><br><b>FORMER PRINCIPAL-PICT PUNE</b><br><br><b>ADDRESS</b><br>C-302, Sai-Sadan, Santnagar,<br>56/2 Parvati, Tal- Haveli Dist- Pune<br><b>Pune 411 009 (Maharashtra - India)</b><br><br><b>DATE OF BIRTH</b><br>01-06-1961<br>First June Nineteen Sixty One |
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### **EDUCATIONAL QUALIFICATIONS**

| <b>SR. NO.</b> | <b>EXAMINATION</b>                               | <b>EXAM. BOARD / UNIVERSITY</b>                              | <b>MARKS %</b>             | <b>CLASS OBTAINED</b>   | <b>YEAR OF PASSING</b> |
|----------------|--|--|----------------------------|-------------------------|------------------------|
| 1              | <b>PhD (Electronics &amp; Telecommunication)</b> | University of Pune (COEP-Govt. College of Engineering, Pune) | --                         | Successful              | November 2005          |
| 2              | <b>ME (Electronics &amp; Telecommunication)</b>  | University of Pune (COEP)                                    | <b>70.63</b><br>(777/1100) | First Class Distinction | October 1994           |
| 3              | <b>DBM- (PG Diploma in Business Management)</b>  | Dr. BAMU, Aurangabad   | <b>69.27</b><br>(381/550)  | First Class             | May 1985               |
| 4              | <b>BE (Electronics &amp; Telecommunication)</b>  | University of Pune (COEP)                                    | <b>62.53</b><br>(938/1500) | First Class             | July 1983              |
| 5              | HSC (Science-Technical)                          | HSC Board, Pune  | <b>81.00</b><br>(486/600)  | First Class Distinction | June 1979              |
| 6              | SSC (with Technical)                             | SSC Board, Pune  | <b>81.42</b><br>(570/700)  | First Class Distinction | June 1977              |

## **EXPERIENCE PROFILE**

**[All appointments- approved by SPPU, Pune and Dr. BAMU Aurangabad]**

| <b>ASST. PROFESSOR</b>  | <b>PRINCIPAL/PROFESSOR</b> | <b>RESEARCH</b>  | <b>TOTAL</b>   |
|---|----------------------------|--|--|
| 22 years  | 18 years                   | 22 years   | <b>39</b><br>years   |
| <b>INSTITUTE</b>  |                            | <b>DESIGNATION</b>   | <b>PERIOD OF SERVICE</b>   |
| Vidya Vikas Pratishthan's<br><b>VVP Institute of Engineering &amp; Technology,</b><br>Pratapnagar, Soregaon, Solapur 413008   |                            | <b>Campus Director<br/>and Principal</b>   | Since 01-01-2024   |
| Zeal Education Society's<br><b>Zeal College of Engineering and Research,<br/>(ZCOER), Pune 411041</b><br><br><b>Approval from SPPU, Pune</b><br>(CCO/1395 Dt. 03-08-2017, CCO/2333 Dt. 05-08-2013<br>• CCO/APP-E&TC/224 Dt. 07-12-2012  |                            | <b>Professor<br/>and<br/>Principal</b><br>Pay Scale<br>(Rs.37400-67000)<br>+GP-10000   | 1 <sup>st</sup> Sept. 2012 to<br>31 <sup>st</sup> May 2021   |
| Marathwada Mitra Mandal's<br><b>College of Engineering, (MMCOE) Pune 411052</b><br><br><b>Approval from University of Pune</b><br>CCO/1852 dated 23-02-2011   |                            | <b>Principal</b><br><br>(Rs.37400-67000)<br>+GP-10000  | 1 <sup>st</sup> Oct. 2010 to<br>31 <sup>st</sup> Aug. 2012   |
| Society for Computer Technology and Research's<br><b>Pune Institute of Computer Technology,<br/>(PICT) Pune 411043.</b><br><br><b>Approval from University of Pune</b><br>CCO/487 dated 05-04-2007  |                            | <b>Principal</b><br><br>(Rs.37400-67000)<br>+GP-10000  | 1 <sup>st</sup> Feb. 2007 to<br>30 <sup>th</sup> Sept. 2010  |
| Bansilal Ramnath Agarwal Charitable Trust's<br><b>Vishwakarma Institute of Technology,<br/>(VIT) Pune 411037</b><br><br><b>Approval from University of Pune</b><br>• CCO/194 dated 15-11-2006 and CCO/2339<br>dated 21-02-2005<br>• CCO/2033 dated 20-03-2002   |                            | <b>Professor E&amp;TC</b><br>(Rs. 16400-450-<br>20400-500-22400)<br><br><b>Assistant<br/>Professor E&amp;TC</b><br>(Rs.12000-420-<br>18300)                              | 1 <sup>st</sup> Jul. 2005 to<br>31 <sup>st</sup> Jan. 2007<br><br>18 <sup>th</sup> Jul. 2000 to<br>30 <sup>th</sup> Jun. 2005  |
| Shri Tuljabhavani Temple Trust's<br><b>Shri Tuljabhavani College of Engineering,<br/>(STBCOE) Tuljapur-413 601 Dist. Osmanabad</b><br><br><b>Approval from Dr. BAMU Aurangabad</b><br><br>(Acad/Aff./Coll.Change/SRD/99-2000/55509-511, dated<br>25-11-1999, Acad/Aff./Coll.Change/87-88/31230-231<br>dated 03-02-1988) |                            | <b>Assistant<br/>Professor<br/>E&amp;TC</b><br>(Rs. 3700-5700)<br><br><b>Lecturer<br/>Electronics</b><br>(Rs. 2200-4000)<br><br><b>HoD<br/>Officiating<br/>Principal</b> | 1 <sup>st</sup> Sept. 1997 to<br>14 <sup>th</sup> July 2000<br><br>17 <sup>th</sup> Sept. 83 to<br>31 <sup>st</sup> Aug. 97<br><br>10 years<br>(87-93, 96-2000)<br>03 years(93-95) |

## **ADMINISTRATIVE AND ACADEMIC RESPONSIBILITIES HELD**

- Campus Director and Principal at VVP Institute of Engineering and Technology, Solapur
- Chairman, of PhD selection/ Admission committee, PAH Solapur University, Solapur
- Principal and Head of the Institute at Zeal College of Engineering and Research, (ZCOER) Pune
- Principal, Marathwada Mitramandal's College of Engineering (MMCOE) Pune

- Principal, Pune Institute of Computer Technology (PICT), Pune and STBCOE Tuljapur.
- PhD research center recognition from SPPU, approvals of UG/ PG programs from AICTE/ Govt.
- Accreditation from NAAC and NBA and permanent affiliation of PICT, ZCOER
- In-charge of Admission Cell, MR for ISO 9001-2000 at VIT, Pune
- Chairman of Principal and Staff selection committees, LIC for permanent affiliation/ continuation of PhD research centers SPPU, Pune. Chairman, CAC for PhD at PAH Solapur University
- VC Nominee for PhD Admissions, Recognition of research centers SPPU, Dr. BAMU etc.
- Member, Board of Studies in E &TC, faculty of Science and Technology, SPPU, Pune, University of Mumbai, Defence Institute of Advanced Technology, Pune. Development of innovative programs and courses in UG/PG programs.
- Recognized PhD Guide SPPU Pune, Dr. BAMU Ch. Sambhajinagar, Bharati Vidyapeeth University, Pune and DBATU Lonere. **Awarded PhD to 10\* students under my supervision.**
- Member of the syllabus setting committee for ME and PhD coursework at SPPU, BVDU, Pune.
- Member, Research Advisory Committee, PCCOE, SCOE, Dr. BAMU, Aurangabad and Dr. BATU.
- Reviewer of research papers for International Travel Grants, SPPU, Pune
- Convener of number of Continuing Education Programs like ISTE STIPs and Conferences.
- Director of Central Assessment Program (CAP), University of Pune for TE and ME examinations.

### **INDUSTRY/ ACADEMIA COLLABORATIONS**

- MoUs with industries like Shrividya Infotech., SQTL, Edgate Tech., Nvidia Corporation., IBM India, Geometrics, Zensar Technologies etc. Launch of MMCOE Centre of Innovation
- MoUs with the academia and training institutes like, COEP, Aspire Knowledge and skills, Face academy, NSDC Telecom sector skill council, Sunbeam etc.
- Interaction with **Dr. Azim Premji** and participation in MISSION 10X program by WIPRO
- Establishment of AMDOCS Innovation Lab at PICT, Robotics Lab, PCB Lab, Automobile Excellence Center for skill development and joint research activities at ZCOER
- Organization/ Conduction of National/International level youth / faculty development programs

### **INTERNATIONAL EXPOSURE**

- Association with International Researchers and academicians, few of them are listed below.  
Dr. Raymond Boxman, Alumnus of MIT USA, Tel Aviv University, Tel Aviv, Israel  
Dr. Bob Schiffmann, President and Dr. Molly Poisant, Executive Director IMPI, USA  
Dr. Girija Chetty, University of Canberra, Australia  
Dr. Emanuel Grant, University of North Dakota, USA  
Dr. Apostolos Tsagaris, Alexander Technological Institute, Greece  
Dr. Pankaj Koinkar, Tokushima University, Japan
- **Presented papers in international conferences at National University of Singapore** on “Facial Expression Based Emotion Recognition through Feature Fusion Approach ” in 10<sup>th</sup> International Conference on Future Computer and Communication”, ICFCC 2018 during April 23-25, 2018. **(Member of organizing committee and received best paper award)**
- **Visited New Orleans, Louisiana, USA** to present an **Invited Paper**, “Low Power Microwave Heating to Control Insect Pests on Tomato Plants” at 48<sup>th</sup> Annual Microwave Power Symposium

organized by International Microwave Power Institute, USA (IMPI) during June 16-20, 2014.

- Member organizing committee and reviewer, ICFCC since 2018.
- Reviewer of research papers for various organizations like WSEAS, ICFCC, and IMPI etc.

## **PUBLICATIONS**

| PATENTS GRANTED/ PUBLISHED | BOOK/ BOOK CHAPTERS | PAPERS- SCI INDEXED JOURNALS | PAPERS- SCOPUS JOURNALS/ CONF. | OTHER PAPERS- JOURNALS/ CONF. | CITATIONS -277<br>h- INDEX -10<br>i10 INDEX - 12 |
|----------------------------|---------------------|------------------------------|--------------------------------|-------------------------------|--|
| 01/05                      | 04                  | 05                           | 31                             | 59                            |  |

## **PATENTS PUBLISHED**

| SR. NO. | TITLE   | APPLICATION NO./ DATE OF PUBLICATION               |
|---------|---|--|
| 1.      | Apparatus for Detecting Adulteration in Petroleum and Nonpetroleum Oils   | 201921006284<br>18-02-2019                         |
| 2.      | <b>System for Gender and Age-group Identification from Iris Images</b> (Application no. 201821029452 dated 06-08-2018)  | <b>Granted No. 501867<br/>dt.22-01-2024</b>        |
| 3.      | Throughput Improvement of IEEE 802.15.4 based Wireless Personal Area Networks using Fast Channel Access (FCA) Technique | 201621019861,<br>31 <sup>st</sup> May 2016.        |
| 4.      | Agricultural Insect Pest Control Using Electromagnetic  | 3321/MUM/2015,<br>18 <sup>th</sup> September 2015. |
| 5.      | Method for Encoding and Decoding of Images using their Symmetry   | 1687/MUM/2013,<br>16 <sup>th</sup> August 2013     |

## **BOOK / BOOK CHAPTERS**

- [1] **A N Gaikwad**, S A Patil, S B Somani, *TELEMATICS - A textbook for Electronics and Telecommunication Engineering*, published by Nishant Prakashan, Pune, October 2001
- [2] B. A. Dixit and **Dr. A. N. Gaikwad** “Non Verbal Approach for Emotion Detection”, *Recent Developments in Intelligent Information and Database Systems*, by Springer International Publishing Switzerland, DOI: 10.1007/978-3-319-31277-4, pp. 377-386, 2016. (**SCOPUS**)
- [3] R. A. Vatti, **Dr. A. N. Gaikwad**, “Frame Converter for Cooperative Coexistence between IEEE 802.15.4 Wireless Sensor Networks and Wi-Fi”, *Springer Link –Proceedings of 3<sup>rd</sup> International Conference on Advanced Computing, Networking and Informatics*, Chapter no: 16, pp. 1-7, Sept. 2015.
- [4] Deshmukh P.R., **Dr. Gaikwad A.N.**, “Automatic Diabetic Ratinopathy Detection and Classification using Machine Learning and Texture Features”, Copyright from Copyright office Govt. India No. L-153506/2024, Dated: 11/09/2024.

## **LIST OF SCI/SCOPUS INDEXED JOURNAL/ CONFERENCE PAPERS**

- [1] Aarti Salunke, **Dr. Arun Gaikwad**, “Decentralized User to User communication Architecture for Unstructured Ad-Hoc Mobile Networks”, *International Journal of Creative Research Thoughts*, E-ISSN: 2320-2882, vol.12, issue 10, October 2024
- [2] Deshmukh P.R., **Dr. Gaikwad A.N.**, “Comprehensive Modality Integration for Diabetic Retinopathy Image Analysis”, *Journal of Communication on Applied Nonlinear Analysis*, 31(7s): 685-695, DOI: 10.52783/cana.v31.1472, 2024.

- [3] Pallewar M.G., **Dr. Gaikwad A.N.**, “Deep learning based multistage approach for anomaly detection”, *Ingenierie des Systemes d'Information*, Vol.29, No. 5, pp. 2031-2038, 2024
- [4] Pallewar M.G., **Dr. Gaikwad A.N.**, “Human Anomalous Activity detection with CNN-LSTM Approach”, *Journal of Integrated Science and Technology*, 12(1), 704, 2023
- [5] Deshmukh P.R., **Dr. Gaikwad A.N.**, “Cross Modality Feature Fusion Framework for Diabetic Retinopathy Image Classification”, *International Journal on Recent and Innovation Trends in Computing and Communication*, vol. 11, no. 9, pp. 2039–2045, Nov. 2023. DOI: <https://doi.org/10.17762/ijritcc.v11i9.9202>
- [6] Deshmukh P.R., **Dr. Gaikwad A.N.**, “Machine Learning Based Approach for Lesion Segmentation and Severity Level Classification of Diabetic Retinopathy”, *Journal of Integrated Science and Technology*, vol. 11, no. 4, pp. 576, July 2023.
- [7] Deshmukh P.R., **Dr. Gaikwad A.N.**, (2022). “Deep Learning Based DR Medical Image Classification” CVIP 2021, *Communications in Computer and Information Science*, vol 1568. Springer, Cham. [https://doi.org/10.1007/978-3-031-11349-9\\_41](https://doi.org/10.1007/978-3-031-11349-9_41)
- [8] Megha Pallewar, **Dr. Arun Gaikwad**, “Intelligent Video Surveillance: Comprehensive Review”, *Gradiva Review Journal ISSN- 0363-8057*, vol. 7, issue 7, pp. 138-149, July 2021 (**UGC CARE**)
- [9] Arati Salunke, **Dr. Arun Gaikwad**, “Unstructured Architecture for Mobile ad-hoc Networks using Hybrid Protocol”, *International Journal for Research in Engineering Application & Management*, ISSN- 2454-9150, volume 5, issue 9, pp. 137-141, December 2019.
- [10] Anagha Kunte, **Dr. Arun Gaikwad**, “Dielectric Constant Measurement of Low Loss Liquids Using Stacked Multi Ring Resonator”, *Sadhana Academy Proceedings in Engineering Sciences - Springer*, vol.43, issue 12, 43:212, December 2018 (**SCI, SCOPUS**)
- [11] S. V. Gaikwad, **Dr. A. N. Gaikwad**, “RF and Microwave Low Power Dielectric Heating using Parallel Plate Applicator to Control Insect Pest on Tomato Plant”, *Progress In Electromagnetic Research*, vol.49, pp 81-89, August 2016. (**SCI, SCOPUS**)
- [12] **A. N. Gaikwad**, Prof. N. B. Pasalkar, “Vector Distance Approach for Minutiae Matching in Fingerprint Verification” *IETE Jour. of Research*, vol.7, no.3, pp. 116-21 Oct.'05. (**SCI, SCOPUS**)
- [13] **A. N. Gaikwad**, Prof. N. B. Pasalkar, “Biometric Person Identification: Methods, Advances and Performance Evaluation' *Institution of Electronics and Telecommunication Engineers (IETE), Technical Review*, vol.21, no.3, pp.183-189, May-June 2004. (**SCI, SCOPUS**)
- [14] B. A. Dixit, **Dr. A. N. Gaikwad**, "Facial Features Based Hybrid Methods for Emotion Recognition", *International Journal of Recent Technology and Engineering*, Vol. 8 Issue-2S10, pp. 385-389, ISSN: 2277-3878, September 2019. (**SCOPUS**)
- [15] B. A. Dixit, **Dr. A. N. Gaikwad**, “Facial Affect Recognition and Impact of Affect Arousal on Health Data”, *Journal of Engineering and Applied Sciences*, Vol. 14, Issue 16, ISSN:1816-949x, E-ISSN: 1818-7803, pp. 5733-5742, June 2019. (**SCOPUS**)
- [16] Bharati Dixit, **Dr. Arun Gaikwad**, “Hybrid approach for Facial Cues based Emotion Profile Generation”, *Journal of Theoretical and Applied Information Technology*, vol. 97, issue 2, pp. 692-703, ISSN: 1992-4645, E ISSN: 1817-3195, February 2019 (**SCOPUS**)
- [17] Anagha Kunte, **Dr. Arun Gaikwad**, “Boxed ring resonator for liquid dielectric constant measurement”, *International Journal on Communication, Antenna and Propagation*, vol.8, no. 6, pp. 477-483, ISSN 2039-5086, December 2018. (**SCOPUS**)
- [18] P. N. Kota and **Dr. A. N. Gaikwad**, “Firefly Algorithm based Optimal Scrambling to Reduce PAPR in SFBC based MIMO-OFDM,” *International Journal on Communication, Antenna and Propagation*, vol. 7, no. 7, pp. 626-634, December 2017. (**SCOPUS**)
- [19] P. N. Kota and **Dr. A. N. Gaikwad**, "Analysis of Detection Methods for Space Frequency Block Code MIMO-OFDM System in Fast Fading Channels," *International Journal on Communication, Antenna and Propagation*, vol. 7, no. 7, pp. 635-640, Dec. 2017. (**SCOPUS**)

- [20] Aarti R. Salunke, **Dr. A. N. Gaikwad**, “Development of Unstructured Architecture for Voice and Data Services in Mobile Communication”, *Elsevier International Journal - Procedia Computer Science*, vol. 92, pp. 84-90, December 2016. **(SCOPUS)**
- [21] R. A. Vatti, **Dr. A. N. Gaikwad**, “Variable Rate and Adaptive Traffic Tuning Technique to Improve Throughput of IEEE 802.15.4 Based Wireless Networks,” *SRATE-International Journal of Research in Application Technologies*, vol.6, no.1, pp.15-20, June 2016. **(SCOPUS)**
- [22] P. R. Deshmukh, **Dr. A. N. Gaikwad**, “A Review on Automatic Diabetic Retinopathy Detection and Gradation using Machine Learning, submitted to 2nd *Int. Conf. on Data Science and Applications (ICDSA 2021)*, Jadavpur University, Kolkata April 10-11, 2021. **(SCOPUS)**
- [23] A. A. Kunte, **Dr. A. N. Gaikwad**, “Adulteration Detection in Petroleum Liquids using Stacked Multi-ring Resonator”, *3<sup>rd</sup> IEEE Int. Conf. on Communication, Computer Technologies and Optimization Techniques (ICEECCOT- 2018)*, Mysuru, 14-15 Dec. 2018. **(SCOPUS) (Best Paper Award)**
- [24] B. A. Dixit, **Dr. A. N. Gaikwad**, “Facial Expression Based Emotion Recognition through Feature Fusion Approach ” *Proceedings of 10<sup>th</sup> International Conf. on Future Computer and Communication, ICFCC-‘18, NUS Singapore*, pp. 258-263, Apr. 23-25 2018. **(SCOPUS) (Excellent oral presentation award, Travel Grant SPPU)**
- [25] R. A. Vatti, , **Dr. A. N. Gaikwad**, “ Throughput Improvement of Health Care Networks in Retirement Communities”, *IEEE International Conference on Current Trends towards Converging Technologies (ICCTCT)*, 2018. **(SCOPUS)**
- [26] J. Soares, **Dr. A. N. Gaikwad**, “Fingerprint and Iris Biometric Controlled Smart Banking Machine Embedded with GSM for OTP”, *IEEE Int. Conf. on Automatic Control and Dynamic Optimization Technique*, ISBN: 978-1-5090-2080-5, pp-409 – 414, 9-10 Sept. 2016. **(SCOPUS)**.
- [27] J. Soares, **Dr. A. N. Gaikwad**, “A Self Banking Biometric Machine with Fake Detection Applied to Fingerprint and Iris along with GSM, *5th IEEE Int. Conf. on Communication and Signal Processing*, ISBN: 978-1-5090-0396-9, pp.0508 – 0512, 6-8 April 2016. **(SCOPUS)**
- [28] P.N. Kota, **Dr. A. N. Gaikwad**, “BER analysis &PAPR reduction techniques in SFBC OFDM System”, *Proc. of IEEE Conf. on Information Processing*, pp. 108-113, Dec. 2015. **(SCOPUS)**
- [29] S. V. Gaikwad, **Dr. A. N. Gaikwad**, “Simulation Modeling and Implementation of RF and MW System to Control the Insect Pests in Agriculture” *IEEE- INDICON 2015*, 17<sup>th</sup> to 20<sup>th</sup> Dec. 2015, Delhi. **(SCOPUS) (Best Paper Award)**.
- [30] B. A. Dixit, **Dr. A. N. Gaikwad**, “Statistical moments based Facial Expression Analysis” *Proceedings of IEEE conference on Advance Computing LACC 2015*, Bangluru, pp 552-557. **(SCOPUS)**
- [31] A. R. Salunke, **Dr. A. N. Gaikwad**, “Review of Unstructured Architecture for Voice and Data Services in Mobile Communication” *IEEE International Conference on Electrical, Computer and Communication Technologies ICECCT*, pp. 1486-1492, Coimbatore, December 2015. **(SCOPUS)**
- [32] A. A. Kunte, **Dr. A. N. Gaikwad**, S.G.Kulkarni, “Investigation of Transmission Line Modeling Method for Dielectric Characterization using Ring Resonator”, *IEEE International Applied Electromagnetic Conference. AEMC 2015*, pp. 1-2, December 2015. **(SCOPUS)**
- [33] Aarti Rahul Salunke, **Dr. A. N. Gaikwad**, “Review of unstructured architecture for voice and data services in mobile communication”, *IEEE International Conference on Electrical, Computer and Communication Technologies (ICECCT)*, 2015. **(SCOPUS)**
- [34] R. A. Vatti, **Dr. A. N. Gaikwad**, “Modeling and Throughput Analysis of Randomly Deployed IEEE 802.15.4 Networks.” *IEEE – ICPC 2015*, Pune, 8-10Jan.2015. **(SCOPUS)**
- [35] R. A. Vatti, **Dr. A. N. Gaikwad**, “Throughput Improvement of High Density Wireless Personal Area Networks”, *IEEE International Conference on Computational Intelligence and Communication Networks – 2014*, pp.506-509. **(SCOPUS)**

- [36] R. A. Vatti, **Dr. A. N. Gaikwad**, "WPAN based Preventive Condition Monitoring for Solar Wind Energy Converters in Rural Electrification", *5<sup>th</sup> IEEE International Conference on Computational Intelligence and Communication Networks - 2013*, pp. 565-568. **(SCOPUS)**
- [37] R. A. Vatti, **Dr. A. N. Gaikwad**, "Throughput Improvement of Randomly Deployed Wireless Personal Area Networks", *International Conference on Applied Computing, Computer Science, and Computer Engineering*, Elsevier pp. 42-48, 2013. **(SCOPUS)**
- [38] V. R. Pawar, **Dr.A.N. Gaikwad**, "Multistage Recognition for Handwritten Devanagari Script Recognition", *IEEE Explorer Proceedings of WICT-2012*, pp. 651-656, Jan.2013. **(SCOPUS)**
- [39] K. K. Sawant, R. Kumar, **Dr. A. N. Gaikwad**, "A novel CPW-FED circular square-corner fractal antenna with varying notch-band for UWB applications", *IEEE International Conference on Communication, Information & Computing Technology (ICCICT)*, 2012. **(SCOPUS)**
- [40] S. P. Narote , A. S. Narote, **Dr. A. N. Gaikwad**, "An Iris recognition based on dual tree complex wavelet transform", *IEEE region 10 conference TENCON*, 2007. **(SCOPUS)**
- [41] S. P. Narote, **Dr. A. N. Gaikwad**, "An Automated Segmentation Method for Iris Recognition", *Proceedings of IEEE Conference TENCON 2006*, Hong Kong No. IEEE-1-4244-0549, pp. 14-17, November 2006. **(SCOPUS)**

### **FUNDED RESEARCH PROJECTS**

| SR. NO. | TITLE OF THE PROJECT   | FUNDING AGENCY                          | AMOUNT      |
|---------|--|---|-------------|
| 1.      | Development of RF and MW heating system to control insect pests in agriculture. <b>(Selected in Inter-University State level Competition: Avishkar 2017) (2015-2017)</b> | <b>Savitribai Phule Pune University</b> | Rs. 2 Lac   |
| 2.      | PAPR reduction technique in orthogonal frequency division multiplexing system. (2012-2014)   | SPPU, Pune                              | Rs. 2.1 Lac |
| 3.      | To design, develop & test various micro strip resonators for mathematical modeling of resonators using parallel approach on CUDA C. (2012- 2014)                         | SPPU, Pune                              | Rs. 3 Lac   |
| 4.      | Medical Image Compression System. (2007- 2009)   | SPPU, Pune                              | Rs. 1.5 Lac |
| 5.      | Handwritten Script Recognition. (2006-2008)  | SPPU, Pune                              | Rs. 1 Lac   |

### **PhD/ ME STUDENTS GUIDED / THESES EVALUATED**

|            | COMPLETED  | PURSUING  | TOTAL     | THESIS EVALUATED |
|------------|------------|-----------|-----------|------------------|
| <b>PhD</b> | <b>10*</b> | <b>02</b> | <b>12</b> | 26               |
| <b>M E</b> | 15         | --        | 15        | 46               |

### **LIST OF SCHOLARS GUIDED FOR PhD [Awarded-9, Pursuing - 3]**

| SR. NO. | NAME OF THE SCHOLAR AND RESEARCH TOPIC  | UNIVERSITY                  | PROGRESS                              |
|---------|---|-----------------------------|---------------------------------------|
| 1.      | <b>Mrs. Aarti R. Salunke</b> - Development of Unstructured Architecture for Voice and Data Services in Mobile Communication           | Dr. BAMU, Ch. Sambhajinagar | <i>Awarded</i><br><b>25 July 2025</b> |
| 2.      | <b>Mrs. Preeti Deshmukh</b> - Automatic Diabetic Ratinopathy Detection and Classification using Machine Learning and Texture Features | SPPU, Pune                  | <i>Awarded</i><br><b>25 Apr. 2025</b> |

|     |   |                             |                                |
|-----|---|-----------------------------|--------------------------------|
| 3.  | <b>Mrs. Megha Pallear-</b> Anomalous Activity Detection using Distributed Deep Learning Model for Intelligent Video Surveillance System | SPPU, Pune                  | <i>Awarded</i><br>24 Apr. 2025 |
| 4.  | <b>Mrs. Bharati A. Dixit</b> - Intelligent Interpretation of Affective Health Data Through Recognition of Emotion Profiles              | SPPU, Pune                  | <i>Awarded</i><br>14 Jul. 2020 |
| 5.  | <b>Mrs. Anagha A. Kunte</b> - Dielectric Characterization Using Micro Strip Resonator Sensor By TLM                                     | SPPU, Pune                  | <i>Awarded</i><br>3 Mar. 2020  |
| 6.  | <b>Prabhakar N. Kota</b> - Reduction of Peak Power and Bit Error Rate in MIMO OFDM System using Scrambling Technique.                   | SPPU, Pune                  | <i>Awarded</i><br>17 Nov. 2018 |
| 7.  | <b>Sandeep V. Gaikwad</b> - Development of RF and Microwave Energy Radiation Sources to Control Insects and Germs in Agriculture.       | SPPU, Pune                  | <i>Awarded</i><br>13 Apr. 2017 |
| 8.  | <b>Rambabu A. Vatti</b> - Throughput Improvement of High density Randomly deployed IEEE 802.15.4 Based Wireless PAN                     | SPPU, Pune                  | <i>Awarded</i><br>24 Mar. 2017 |
| 9.  | <b>Mrs. Vijaya. R. Pawar</b> - Artificial Neural Network Based Hand Written Script Recognition by using Vector Quantization Method.     | BVDU, Pune                  | <i>Awarded</i><br>7 Dec. 2015  |
| 10. | <b>Ganesh S. Sable</b> - Adaptive Iterative Transformation Based Super Resolution Reconstruction of Medical Image Sequences.            | Dr. BAMU, Ch. Sambhajinagar | <i>Awarded</i><br>28 Apr. 2013 |
| 11. | <b>Mrs. Snehal Ghodake</b> - Deep Air Learning: Prediction, Interpolation and Feature Analysis of Air Quality                           | SPPU, Pune                  | <b>Pursuing</b>                |
| 12. | <b>Yuvraj B. Hembade</b> - Multi-Label Architecture for Road Scene Recognition using Machine Learning                                   | SPPU, Pune                  | <b>Pursuing</b>                |

### **MEMBERSHIPS OF PROFESSIONAL SOCIETIES**

| INSTITUTION   | MEMBERSHIP              |
|---|-------------------------|
| <b>IETE</b> - Institution of Electronics and Telecommunication Engineers, New Delhi | <b>Fellow</b> , F108246 |
| <b>Vice Chairman, IETE Pune Center</b>  | <b>2010-12</b>          |
| <b>ISTE</b> - Indian Society for Technical Education, New Delhi                     | Member, LM 15400        |
| <b>Member of National Executive Council of ISTE, New Delhi</b>                      | <b>1999-2000</b>        |
| <b>IE</b> - Institution of Engineers (India), Kolkata                               | Member, M/110136/       |

### **CONFERENCES/ SEMINARS/ PROGRAMMES**

Worked as Convener/ Session Chair/ Invited Speaker/attended more than 100 **conferences** and **rograms**. Resource person for online webinars on Syllabus Revision, National Education Policy, Post COVID Scenario on higher Education etc.

### **AWARDS AND RECOGNITIONS**

- **ICON OF MAHARASHTRA AWARD 2024** by TV Maharashtra News Channel on 23 Sep 2024
- **Board rank and first rank** at center at SSC and recipient of National Merit Scholarship. First rank, Pandharpur center at HSC and prizes for top rank in the individual subjects.
- **Best Student award** at school and Junior College. Y.P Powar Prize for **first rank** at FE in Shivaji University, Kolhapur. Prizes for Sports and rowing at intercollegiate tournaments, Secretary for Indian Games and R. C. M. of Boat club, Captain of the College team at COEP.
- Best Teacher Employee award at STBCOE-Foundation Day.

- Special recognition award by Rotary Club of Tuljapur Dist- Osmanabad.
- National Achievement Award for Education excellence, by Association for Economic Growth and Social development, New Delhi.
- **Member of the Expert Committee by UGC, New Delhi** for evaluation of the research papers for travel grants for International Conferences abroad, also worked as **Member, Screening Committee of DST**, New Delhi for giving awards to R & D work in industries
- Member of Expert Committee of **AICTE** for Inspection of Degree and Diploma Institutions and Member of staff selection committee of **MPSC**, Govt. of Maharashtra

### **HONORS, ACHIEVEMENTS AND SOCIAL OUTREACH**

- Elected Member, National Executive Council of **ISTE New Delhi**, Vice-Chairman, IETE, Pune
- Worked on the managements of education societies like Excel Edu. Soc. Pune, SVERI Pandharpur
- Member of Governing Council and academic advisory committees of Navodaya Vidyalaya, AIT Pune, MIT Pune, TPC COE Osmanabad, PCCOE Pune etc.
- Public addresses at Tilak Smarak Mandir Pune, MCCIA Pune and many other district places on the topics like Admission process of Engineering, employability and skill courses etc. by Sakal, MCCIA
- Chief Guest for Engineers Day by Builders Association of India, Solapur Branch 15 Sep 2024

**PUNE – August 2025**

**PROF. (DR.) ARUN N. GAIKWAD**

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