

CURRICULUM VITAE

Dr. Deepika K C

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Objective:

Be affiliated with a prestigious institution in improving the standards of profession and empowering them with necessary skills, qualities, knowledge, attitude, and value of time.

Technical Strength

- Proficient in Signal Processing & Image processing.
- Optical Fiber and Microwave Communication.
- Antenna & wave Propagation.
- Proficient in VLSI circuits.
- Familiar with Digital, Analog and Linear Integrated circuits.
- Machine Learning and Deep Learning.
- Artificial Intelligence.

Research Areas of Interest

- Machine Learning
- Artificial Intelligence
- Deep Learning
- Pattern Recognition

Academic Qualification

Qualifications	Specialization	College/ University	Year of passing	Percentage
Ph.D	AI&ML	VTU, Belgaum	2023	
M.Tech.	DECS	VTU, Belgaum	2011	76.66%
BE	E&C	UVCE, Bangalore.	2009	71.41%
PUC	PCMB	Government Independent PU College, C.N. Halli.	2005	91.50%
SSLC	State Board	D.V.P.B.H.S, C.N. Halli	2003	87.91%

- **Ph.D.** (Electrical and Electronics Engineering Sciences): Visvesvaraya Technological University. Advisor: Dr. G Shivakumar, Vice Principal & Professor, Dept. of E&C, AMC Engineering College, Bangalore. Research Center: Dept. of E&I, Malnad College of Engineering, Hassan.

Thesis Title: Touchless 3D Finger Image Analysis using Deep Learning Architecture. (2017-2023)

- **M.Tech (FCD):** (Digital Electronics And Communication Systems) (VTU), Malnad College of Engineering, Hassan (2009-2011)
- **B.E (FCD):** Electronics and Communication Engineering, University Visveswaraya College of Engineering (UVCE), Bangalore University, Bangalore (2005-2009).

Work Experience (Teaching-12 Years 9 months)

Sl. No.	Name of the Institute	Designation	No. of Years
1	Malnad College of Engineering, Hassan	Associate Professor	1 Year 2 Months June-2025 to till date
2	Malnad College of Engineering, Hassan	Assistant Professor	10 Years 9 months Sep-2014 to May-2025
3	Malnad College of Engineering, Hassan	Assistant Professor	10 months Sep-2011 to June 2012

Research Experience (8 Years)

- Research Center: **Dept. of E&I, Malnad College of Engineering** - Worked as a Research Scholar in the research center Dept. of E&I, Malnad College of Engineering, Hassan in the research area of “Image Analysis using Deep Learning” for **7 years** from July-2016 to Nov-2023. Published research papers in various Scopus and WOS indexed journals.

Industrial Training

- Completed 15 days of Industrial Training in KMF, Hassan.

Patents

1. Title: **AI based Automatic Whether Prediction system to predict rainfall using machine learning algorithms systems using cloud and machine learning algorithms.** Application No. 202421022719.Indian Patent, Publication date: 19/03/2024.
2. Title: **Surgical Waste Collection Robot for OTs**, United Kingdom Design - UK.D.A. No.: 6362660, Grant date:7/05/2024
3. Title: **Gesture-Controlled Robotic Vehicle using an Arduino or smartphone sensors.** Application No. 202541133164 A. Indian Patent, Publication date: 09/01/2026.
4. Title: **A Low-Cost Radio Based System for Direct Reception - Processing of NOAA Satellite Weather Signals.** Application No.202641046253 A. Indian Patent, Publication date: 24/04/2026.
5. Title: **A Machine Learning-Based System and Method for Short-Term Weather Forecasting Using Satellite Image Sequences.** Application No.202641046315 A. Indian Patent, Publication date: 24/04/2026.

Journal Publications

1. **“Smarter Help and Seamless Experience of Automated User Responsive Assistant (AURA) Robot using NLP”** Published in **Tuijin Jishu Journal of Propulsion Technology** ISSN: 1001-4055 Vol. 46 No. 2 (2025). (Q3).
2. **“Secure and Efficient PAPR Reduction in OFDM using PTS based Nonlinear Variation Convergence Factor with Spotted Hyena Optimization”** published in the **International Journal of Intelligent Engineering & Systems**, Vol.17, No.6, 2024, Scopus indexed (Q2) Impact Factor:7.95 H Index:30. DOI: 10.22266/ijies2024.1231.99.
3. **“Local Pre-Conditioning and Quality Enhancement to Handle Different Data Complexities in Contactless Fingerprint Classification”** published in the Journal-**International Journal of Advanced Computer Science and Applications**, Vol. No 13, Issue No 8, Page No. 653-661, Impact factor 1.16, **Scopus indexed (Q3)** and year of publication 2022 published by thsai.org with DOI: <http://dx.doi.org/10.14569/IJACSA.2022.0130875>
4. **“A Study on Structural and Textural Feature Extraction for Contactless Fingerprint Classification”** published in the Journal-**Indian Journal of Science and Technology**, Vol. No 15, Issue No 44, Page No. 2375- 2385, Impact factor 0.8, **Web of Science indexed** and year of publication 2022 published by thsai.org with DOI: <https://doi.org/10.17485/IJST/v15i44.1471>
5. **“A Robust Deep Features Enabled Touchless 3D Fingerprint Classification System.”** published in the Journal **SN Computer Science**, **Scopus indexed (Q2)** Vol. No 2, Issue No 263, and year of publication 2022 published by Springer with DOI: <https://doi.org/10.1007/s42979-021-00657-x>.
6. **“Design of Microwave Planar Bandpass Filter for Application In Wireless Communication”** published in the **Journal of Emerging Technologies and Innovative Research (JETIR)** ISSN- 2349-5162 July 2025, Volume 12, Issue 7. UGC Care Journal.
7. **“Mode Patterns, S-parameters and Dispersion Analysis of a Circular Waveguide”** Published in the **International Journal for Research in Applied Science & Engineering Technology (IJRASET)** ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538 Volume 13 Issue VI June 2025. DOI: [10.22214/ijraset.2025.71998](https://doi.org/10.22214/ijraset.2025.71998)
8. **“Design and Analysis of a Microstrip Patch Antenna Operating at 38 GHz”** Published in **International Journal of Scientific Research in Modern Science and Technology** ISSN: 2583 - 7605 Vol. 4. Issue 6, June 2025 with DOI: <https://doi.org/10.59828/ijrmst.v4i6.330>.
9. **“Tilted Fiber Bragg Grating Biosensor with Peak Tracking for Troponin-T Based Heart Disease Detection”** Published in **International Journal of Innovative Research in Technology**, ISSN: 2349-6002 Vol. 12. Issue 8, January 2026.
10. **“VisionDx: Automated COVID-19Detection using VGG16, ResNet50, and Custom CNNs on Chest X-Rays”** Published in **International Journal of Innovative Research in Technology**, ISSN: 2349-6002 Vol. 12. Issue 1, June 2025.
11. **“Comparative Multi Domain Vibration Analysis of Dual Sensors for Structural Health Monitoring”**, **Journal of Trends in Computer Science and Smart Technology** (ISSN: 2582-4104), **Q3** September 2026, Volume 8, Issue 3, Pages 687-702, DOI: <https://doi.org/10.36548/jtcsst.2026.2026.3.013>.

Book Chapters

1. **“Towards More Accurate Touchless Fingerprint Classification Using Deep Learning and SVM”** published in the Journal **Data Science and Computational Intelligence Communications in Computer and Information Science**, Vol. No 1483, Chapter No 20, Impact factor 0.49, **Scopus indexed (Q4)** and year of publication **2021** published by Springer with DOI: https://doi.org/10.1007/978-3-030-91244-4_20

Paper publication in Conferences

1. **“Touchless 3D Fingerprint Classification: A Systematic Survey”**. 2018 Third International Conference on Electrical, Electronics, Communication Computer Technologies, and Optimization Techniques (ICEECCOT), 14-15 December **2018**. GSSS, Mysore.
2. Deepika k C, G. Shivakumar, **“Touchless 3D identification using SSIM Template matching technique”**, National Conference on Emerging Trends in Engineering Science for Future Technology, 5th August, 2020, SSIT, Tumkur.
3. **"Hybrid CNN-Ensemble based Classifier for Touchless Fingerprint Classification,"** 2021 IEEE Mysore Sub Section International Conference (**MysuruCon**), **2021**, pp. 482-486, doi: 10.1109/MysuruCon52639.2021.9641718
4. **“Tilted Fiber Bragg Grating Based Biosensor for Detection Troponin-T In Blood to Find Heart Damage”** International Scientific and Technical Conference "Microelectronic Implantable Neural Interfaces"-MIN-2025, International (Abroad).
5. **“Design and Analysis of Circularly Polarized Microstrip Patch Antenna for IRNSS S-Band Applications”** International Conference on Smart Electronic Devices and Intelligent Systems (ICSEDIS-2026), DOI: 10.1109/ICSEDIS68157.2026.11518445, ISBN:979-8-3315-8824-3, PP.360-365, 2026
6. **“Hybrid LSTM-Based Forecasting for Efficient Workload Distribution in Multi-Tenant Clouds”** 2026 4th International Conference on Integrated Circuits and Communication Systems (ICICACS), ISBN:979-8-3315-8019-3DOI: 10.1109/ICICACS68679.2026.11578713.
7. **“Deep Learning–Aided Adaptive MIMO-OFDM Receiver with Real-Time Channel Estimation and Hardware-in-the-Loop Validation on Embedded Raspberry Pi Platforms”** Proceedings of the 6th International Conference on Inventive Computation and Information Technologies (ICICIT-2026), IEEE Xplore Part Number: CFP26UU7-ART; ISBN: 979-8-3315-5011-0. DOI: 10.1109/ICICIT69063.2026.11633946.
8. **“High-Gain Compact Dual-Band (28/38 GHz) mm Wave MIMO Antenna for 5G: Design and Analysis”**, 2026 International Conference on Intelligent and Sustainable AI Systems (ICOSAAS), ISBN:979-8-3315-7975-3, 2026, pp. 72-76, Bali, Indonesia, DOI: 10.1109/ICOSAAS68663.2026.11648928.

Workshops/Conferences Attended

1. Participated in workshop on **“India’s Achievement in Space Technology and Social**

Development in Technical Education” organized by Department of Electronics and Communication, Malnad College of Engineering, Hassan, on 16th October 2014.

2. Participated in workshop on **“Hands on Experience on ANSYS HFSS”** organized by Department of Electronics and Communication, Malnad College of Engineering, Hassan, on 28th October 2014.
3. TEQIP-II sponsored three days faculty development programme on **“Pedagogical Training Programme for Faculty Members”** organized by Department of Electrical & Electronics Engineering, MCE, Hassan, held during 15th to 17th December 2014.
4. TEQIP-II sponsored five days faculty development programme on **“Storage Area Networks and Data Management”** organized by Department of Computer Science And Engineering, MCE, Hassan, held during 22nd to 26th December, 2014.
5. Participated in workshop on **“Recent Trends in Antenna Research & Communication Technology”** organized by Department of Electronics and Communication & E & I Engg , Malnad College of Engineering, Hassan, on 6th & 7th April 2015.
6. Participated in TEQIP-II Sponsored workshop on **“Two days hands on training on DSP TMS320C6713”** on 21st and 22nd March 2016 Organized by Department of Telecommunication Engineering, Dr. Ambedkar Institute of Technology, Bengaluru.
7. Participated in TEQIP-II Sponsored one week workshop on **“Pedagogical training- FEEL TEACHER”** on 6th and 11th June 2016 Organized by MCE Hassan.
8. Participated in TEQIP-II and SPFU Component 1.2 Sponsored one week workshop on **“Pedagogical training programme”** on 11th and 15th July 2016 Organized by MCE Hassan.
9. Participated in FDP on **“Digital Signal, Image processing and Pattern Recognition using SCILAB”** from 27th - 29th of September 2016 Organized by Department of Electronics and communication Engineering, PESUniversity, Bengaluru.
10. Participated in TEQIP-II Sponsored workshop on **“Sensor Design and Implementation”** organized by Department of Electronics and Communication, Malnad College of Engineering, Hassan, on 4^h & 5th Feb 2017.
11. Participated in TEQIP-II Sponsored workshop on **“Virtual Laboratory”** organized by Department of Electronics and Communication, Malnad College of Engineering, Hassan, on 16th Feb 2017.
12. Participated in TEQIP-II Sponsored workshop on **“Internet Of Things on Real Time Applications”** organized by Department of Electronics and Communication, Malnad College of Engineering, Hassan, on 13th & 14th March 2017.
13. Participated in TEQIP-II Sponsored workshop on **“Hands on training on Cadence VLSI design tool”** organized by Department of Electronics and Communication, Malnad College of Engineering, Hassan, on 18th & 19th March 2017.
14. Participated in TEQIP-II Sponsored workshop on **“Robotics and Embedded Systems”**

organized by Department of Electronics and Communication, Malnad College of Engineering, Hassan, on 23rd & 24th March 2017.

15. Participated in TEQIP-II Sponsored workshop on **“Image Processing and Pattern Recognition Techniques”** organized by Department of Electronics and Communication, Malnad College of Engineering, Hassan, on 24th & 26th March 2017.
16. Participated in TEQIP-II Sponsored workshop on **“Hands on training on NETSIM”** organized by Department of Electronics and Communication, Malnad College of Engineering, Hassan, on 27th March 2017.
17. Participated in TEQIP-III Sponsored one week FDP on **“MEMS & MOEMS”** organized by Department of Electronics and Communication, Malnad College of Engineering, Hassan, from 30th of April to 4th of May 2018.
18. Participated in TEQIP-III Sponsored one week FDP on **“Machine Learning”** organized by Department of Electronics and Communication, Malnad College of Engineering, Hassan, from 28th of June to 2nd of July 2018.
19. Participated in TEQIP-III Sponsored one-week Interdisciplinary FDP on **“Recent Developments in solar & Wind Energy system for on/off Grid Applications”** organized by Department of Electrical and Electronics Engineering, Malnad College of Engineering, Hassan, from 9th to 13th of July 2018.
20. Participated in TEQIP-III Sponsored 2- day workshop on **Outcome-based Education [OBE]** organized by Malnad College of Engineering, Hassan, from 4-5 August 2018.
21. Participated in TEQIP-III Sponsored workshop on **“Machine Learning”** organized by Department of Electronics and Communication, Malnad College of Engineering, Hassan, on 29th & 30th September 2018.
22. Participated in TEQIP-III Sponsored FDP on **“Being a Great Teacher”** organized by Department of Mechanical Engineering, Malnad College of Engineering, Hassan, from 3rd & 4th November 2018.
23. One day programme on **“FEEL Teacher – Developing, Counseling, mentoring”** organized by MCE, Hassan and conducted by College of Leadership and HRD, Mangalore at MCE Hassan on 2nd November 2019.
24. TEQIP-III sponsored one day workshop on **“Application of Probability in Engineering”**, organized by the Department of Mathematics and Department of Electronics and Communication Engineering, at Malnad College of Engineering, Hassan, on 5th November 2019.
25. Participated in AICTE Sponsored two weeks FDP on **“Green, Smart, 5G Technologies”** organized by Department of Electronics and Communication, Malnad College of Engineering, Hassan, from 9-12-2019 to 21-12-2019.

26. Successfully completed **IUCEE International Engineering Educator Certification Program**, Spring 2020.
27. Participated in Five days AICTE Training and Learning (ATAL) Academy online FDP on '**Computer Science & Biology**' from 2021-1-19 to 2021-1-23 at Malnad College of Engineering, Hassan.
28. Participated in AICTE sponsored one week online short-term training program entitled '**Empowering the Moral values, Ethics and Behavioral attitude in teaching skills among the teachers**' from 2021-2-19 to 2021-2-23 organized by Department of E&C Engineering, Dr. N.G.P Institute of Technology, Coimbatore.
29. AICTE Training And Learning (ATAL) Academy Online FDP on **Quantum and Photonics** from 29th Nov to 3rd Dec 2021 Institute: Malnad College of Engineering Hassan.
30. AICTE Training And Learning (ATAL) Academy Online FDP on "**Real Time Problems And Solutions With Ai & ML Using R Programming**" from 06/12/2021 to 10/12/2021. Institute: Galgotias University.
31. One Week AICTE – VTU Joint Training Programme for Teachers on "**An Overview of Teaching Techniques in Basics of Electronics and Communication Engineering**" on 13th to 17th December 2021 Organized by VTU Human Resource Development Centre (VTU - HRDC), Centre for PG Studies, VIAT, Muddenahalli, Chikkaballapur (Dist.)
32. AICTE Training and Learning (ATAL) Academy Online FDP on "**Research Challenges in Atmospheric Sciences with a Computing Edge**" from 20/12/2021 to 24/12/2021. Institute: M S Ramaiah Institute of Technology.
33. Participated in Five days online FDP on '**Analog and Digital IC Design: Semiconductor Industry Approach**' jointly organized by Atria Institute of Technology and Entuple Technologies from 26th-30th September 2022.
34. Participated in one day workshop on '**Intellectual Property Rights and Cyber Law**' organized by Department of Electronics and Communication Engineering, Malnad College of Engineering, Hassan on 17th October 2022.
35. Participated in one-week online workshop on '**National Energy conservation week**' organized by Energy Club in association with Institution's Innovation Council from 14th-20th December 2022.
36. Participated in One Week National Level Online Faculty Development Program on **Societal Applications of Machine Learning** from 26th-30th December 2022 organized by the department of CSE at Shri Vishnu Engineering College for Women (A), Bhimavaram.
37. Participated in One Week National Level Online Faculty Development Program on **Recent Advances in Data Science, Data Analytics and Cyber Security** from 1st-5th March 2023 organized by the department of CSE at Shri Vishnu Engineering College for Women (A), Bhimavaram.
38. Participated in 5 Day Faculty Development Program on **Salesforce Platform Developer 1** conducted by ICT Academy from 29th May 2023 to 2nd June 2023 at Malnad College of

Engineering, Hassan.

39. Participated in **3 weeks** workshop on **Empowering Aspiring Women Entrepreneurs in: Sustainable & Eco-Friendly, Digital & E-Commerce Sectors** organized by JSSATEB STEP supported by Department of Science & Technology, Govt. of India from 7th Feb to 23rd Feb 2024.
40. Participated in one Day training Program on **Scaling New Heights: A Comprehensive Training Programme to Enhance Overall Institutional Diligence** jointly organized by Department of Mechanical and Civil Engineering on 20th September 2024, MCE, Hassan.
41. Participated in FDP on **Entrepreneurship and Incubation** in association with DST at SIT, Tumakuru held from 24th-25th Sep 2024.
42. Participated in Workshop on **Introduction to 7-series Architecture FPGA Design Flow, Analog IC and Digital Design flow** in association with CoreEL Technologies (I) Pvt Ltd. held from 9th Oct to 10th Oct 2024.
43. Participated in Workshop on **Advanced Manufacturing Technology** organized by **AMTDC** governed by **IIT Madras** during 23rd-24th DEC 2024.
44. Participated in One Week International Faculty Development Program on "**Technovations in Smart Grid and Smart Cities: The Role of AI, IoT, and Embedded Systems**", organized by SR University Warangal, Telangana, from 07/04/2025 to 11/04/2025.
45. Participated in One Week Faculty Development Program on "**Resilient and Sustainable Power Networks in the Era of Electric Transportation**" organized by SR University Warangal, Telangana from 21/04/2025 to 25/04/2025.
46. Participated in Two-week Faculty Development Program on "**Smart Integration: Advancing IoT, AI/ML, Photonics, 5G, and Nanodevices**" Sponsored by Ministry of Electronics and Information Technology (MEITY), Government of India organized by HUB E & ICT Academy NIT Warangal, Telangana State in Association with Spoke E & ICT Academy, IIITDM Kurnool, Andhra Pradesh Coordinated by Indian Institute of Information Technology, Surat during 19th May – 30th May 2025.
47. Participated in One Week National Faculty Development Program on "**Generative & Agentic AI-Tools & Demo's**", organized by Department of CSE, Sardar Vallabhbhai National Institute of Technology (SVNIT), from 16/02/2026 to 21/02/2026.
48. Participated in Two-Week Short-Term Training Program on "**Building Intelligent Systems: Data to Deployment**", organized by Department of AI&ML, Dayanand Sagar College of Engineering, Bangalore, from 25/02/2026 to 12/03/2026.

Conferences/Symposiums Organized

1. Co-ordinated **National Symposium** organized by IEEE ComSoc chapter, IEEE student chapter in association with science association hosted by Department of E & C, Malnad

college of Engineering, Hassan from 20th February 2024 to 24th February 2024.

2. Co-ordinated **IEEE MysuruCon 2023** being a co- chair hosted by Department of E & C, Malnad college of Engineering during 1st and 2nd of December 2023.

Workshops/Events Organized

1. Co-ordinated TEQIP-II Sponsored workshop on “**Hands on training on Cadence VLSI design tool**” organized by Department of Electronics and Communication, Malnad College of Engineering, Hassan, on 18th & 19th March 2017.
2. Co-ordinated TEQIP-II Sponsored workshop on “**Hands on training on NETSIM**” organized by Department of Electronics and Communication, Malnad College of Engineering, Hassan, on 27th March 2017.
3. Co-ordinated TEQIP-III Sponsored one week FDP on “**Machine Learning**” organized by Department of Electronics and Communication, Malnad College of Engineering, Hassan, from 28th of June to 2nd of July 2018.
4. Co-ordinated TEQIP-III Sponsored workshop on “**Machine Learning**” organized by Department of Electronics and Communication, Malnad College of Engineering, Hassan, on 29th & 30th September 2018.
5. Conducted 1 week (30 hrs) **value added course** for first year ECE students on 8051 Microcontroller from March 2nd to March 7th 2024.
6. Co-ordinated DST-SERB Sponsored workshop on “**Advances in Photonic Crystal and FBG applications**” organized by Department of Electronics and Communication, Malnad College of Engineering, Hassan, on 5th March 2025.

Certification (MOOC) Courses

- “Deep Learning” 12 weeks NPTEL Swayam course with 73% from July-October 2023.
- Completed Module 1 and Module 2 of National Initiative for Technical Teachers Training (NITTT) Registration No: 20251130511
- Completed IUCEE International Engineering Educator Certification Program, Spring 2020.

Responsibilities Held

College Level

- Academic Council Member
- Lit club Convenor
- Make in MCE Admin
- PG Coordinator
- NSS Co-Ordinator
- First year Coordinator
- Anti-ragging team member
- Stock verifier

Department Level

- Time Table Coordinator

- IQAC coordinator
- NBA co co-ordinator
- NAAC co co-ordinator
- BOS & BOE Member

PROFESSIONAL ACTIVATES

- PG Seminar, Internship, mini project and main Project Coordinator.
- Guided more than 20 UG main projects/miniprojects
- Resource person for value added course for first year ECE students on 8051 Microcontroller.
- Judge For “**Prastuti**” Technical Paper Presentation Competition organized by Dept. Of E&I, MCE, Hassan.
- Judge for “**Enigma**” National level Technical Paper Presentation Competition organized by Malnad College of Engineering.
- Worked as External Examiner for Practical Examination in the dept. of E&I.
- Question Paper Setting for Autonomous Institutions.
- Session chair for ICDSIS-2024 organized by the dept. of IS & Engg., MCE, Hassan.
- Talk about **5G network** in Tantara Sudha tech series to the general public on Akashavani Hassan in Collaboration with Malnad College of Engineering.
- Delivered a lecture as a Resource person on the topic “**The role of Artificial Intelligence Machine Learning in Healthcare**” as a part of faculty development programme held on 24/10/2025 at Rajeev Institute of Ayurvedic Medical Science and Research Center, Hassan.

Review Activity

- Peer reviewer for two articles for **ICRTEC 2023**-International Conference on Recent Trends in Electronics and Communication, hosted by the Department of Electronics and Communication. The National Institute of Engineering in Association with IEEE Bangalore Section and Musuru subsection, held from 10th to 11th February 2023.
- Peer reviewer of article “A Comparative Study of Feature Extraction Technique for Image Processing using CNN and SVM” for AICTE Sponsored IEEE International Conference on Networks, Multimedia and Information Technology (**NMITCON**) is organized at Nitte Meenakshi Institute of Technology, Bengaluru INDIA during 1st and 2nd September 2023 in association with IEEE Bangalore Section.
- Peer reviewer for two articles for **ICDSNS-2023** IEEE International Conference on Data science and Network Security organized by KIT, Tiptur, 28th -29th July 2023.
- Peer reviewer for two articles for **ICST-2025** International Conference on Sustainable Technology organized by NIE, Mysuru, 19th -20th Feb 2025.

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