

	<p><b>Dr. Jyoti M. Katagi</b>  <b>Associate Professor &amp; HoD</b>  Department of Artificial Intelligence and Machine Learning  Biluru Gurubasava Mahaswamiji Institute of Technology  Mudhol- 587313, Karnataka, India  <b>katagi.jyoti@gmail.com</b>  <b>+91-8095602012</b></p>
<p><b>Office Address</b></p>	<p>Department of Artificial Intelligence and Machine Learning  Biluru Gurubasava Mahaswamiji Institute of Technology  Mudhol-587313, Karnataka, India.  Office Phone: 08350 454452</p>
<p><b>Experience</b></p>	<p>19 Years Teaching Experience  08 Years of Research Experience</p>
<p><b>Qualification</b></p>	<ul style="list-style-type: none"> <li>• <b>Ph.D.</b> (<i>Electrical &amp; Electronics Engineering Sciences</i>) 2025  Visvesvaraya Technological University (VTU), Belagavi.  (Thesis Title: Effect of Speech Processing on Source Localization in Hearing Aids)</li> <li>• <b>M. Tech.</b> (<i>Digital Communication &amp; Networking</i>) 2008  KLS Gogte Institute of Technology, Belagavi  Visvesvaraya Technological University (VTU), Belagavi.  (Thesis Title: Interfacing of GSM Modules with the Micro-Controller)</li> <li>• <b>B. E.</b> (<i>Electronics &amp; Communication Engineering</i>) 2001  Basaveshwar Engineering College, Bagalkote  Karnatak University Dharwad (KUD).</li> </ul>
<p><b>My ID's</b></p>	<ul style="list-style-type: none"> <li>• Vidwan ID: 439377  (<a href="https://vidwan.inflibnet.ac.in/profile/439377">https://vidwan.inflibnet.ac.in/profile/439377</a>)</li> <li>• ORCID ID: 0000-0001-8161-8854</li> <li>• AICTE Faculty ID: 1-2300179939</li> <li>• VTU Faculty ID: 2LBEC0007366</li> <li>• IETE: M-228063</li> </ul>
<p><b>Subject Handled</b></p>	<p>Signal &amp; Systems, Digital Signal Processing, Control System, Logic Design, Network Analysis, Basic Electronics, Operational Amplifiers and Linear ICs, Microcontroller (8051), Multimedia Communication, Digital System Design using Verilog, Microprocessor (8085/8086), Microwave and Antenna, Digital Design &amp; Computer Organization.</p>
<p><b>Area of Interest</b></p>	<p>Speech Processing, Signal Processing</p>
<p><b>Professional Bodies Membership</b></p>	<p>The Institute of Electronics and Telecommunication Engineers (IETE) Member: M-228063</p>
<p><b>Mini Projects Guided</b></p>	<ol style="list-style-type: none"> <li>1) Voice Controlled Home Automation using Arduino</li> <li>2) Development of a Wrist- Mounted Obstacle Detector for Visually Impaired Individuals</li> <li>3) Automated Smart Dustbin with Bluetooth Controlled Robot</li> <li>4) Vision Aid (Smart Blind Stick)</li> <li>5) Human Following Robot using Arduino UNO</li> </ol>

	6) Patient Health Monitoring System using IoT
<b>Projects Guided</b>	1) “AAVARANAM” - A smart car parking system using IOT 2) Innovative Care: Incubator solutions for Premature Infants 3) An AI-Based Visual Aid with Integrated Reading Assistant for the Completely Blind 4) Solar Powered Water Trash Collector 5) Speech Enhancement using Modified Spectral Subtraction 6) IoT Controlled Advanced Industrial Pollution Monitoring and Controlling System 7) Enhanced Fuzzy Based Fingerprint Authentication 8) Contactless Temperature Detector and Automatic Entrance Door Opener for Covid Safety 9) Real Time Automatic Polutry Farm Management System

### **Student Project Grants:**

- 1. KSCST: 2024-25** **Rs. 4500**  
**Project Title: “AAVARANAM” - A smart car parking system using IOT,**  
From Karnataka State Council for Science and Technology (KSCST)  
Department of Information Technology, Biotechnology and Science and Technology  
(Dept. of IT & BT),  
Government of Karnataka
- 2. KSCST: 2020-21** **Rs. 5000**  
**Project Title: Real Time Automatic Polutry Farm Management System,**  
From Karnataka State Council for Science and Technology (KSCST)  
Department of Information Technology, Biotechnology and Science and Technology  
(Dept. of IT & BT),  
Government of Karnataka

### **Publications:**

<b>Journals</b>	<b>02</b>
<b>Conferences</b>	<b>02</b>

### **Journals**

- 1. Jyoti M. Katagi, Pandurangarao N. Kulkarni, “Sound Source Localization Ability in Hearing Aids: A Survey”, International Journal of Image, Graphics and Signal Processing (IJIGSP), Vol.13, No.6, pp. 30-44, 2021.DOI: 10.5815/ijigsp.2021.06.04 (Ranking: Q3)**
- 2. Jyoti M. Katagi, Pandurangarao N. Kulkarni, “Combined Effect of Noise Reduction, FBS-based Spectral Splitting, and Dynamic Range Compression of Speech Signal on Source Localization in Binaural Hearing Aids”, International**

### **National and International Conferences**

1. **Jyoti M. Katagi**, Pandurangarao N. Kulkarni, “**Combined Effect of Noise Reduction and Multiband Frequency Compression for Improving Speech Perception in Monaural Hearing Aids on Source Localization**”, International Conference on Sustainable Solutions in Engineering and Technology, Bagalkote, India, 2024.
2. **Jyoti M. Katagi**, Pandurangarao N. Kulkarni, “**Effect of Multi-band Frequency Compression for Improving Speech Perception in Monaural Hearing Aids on Source Localization**”, IEEE North Karnataka Subsection Flagship International Conference, pp. 1-6, Vijaypur, India, Nov. 2022.

### **Training/Courses**

1. AICTE approved NPTEL certificate course (8 week) on “**Discrete Time Signal Processing**”, organised by IIT Kharagpur, in association with SWAYAM & MHRD, Govt., of India, from 18<sup>th</sup> January 2021 to 12<sup>th</sup> March 2021.
2. AICTE approved NPTEL certificate course (12 week) on “**Microprocessors and Microcontrollers**”, organised by IIT Kharagpur, in association with SWAYAM & MHRD, Govt., of India, 18<sup>th</sup> January 2021 to 9<sup>th</sup> April 2021.
3. AICTE approved NPTEL certificate course (12 week) on “**Principles of Signals and Systems**”, organised by IIT Kanpur, in association with SWAYAM & MHRD, Govt., of India, 18<sup>th</sup> January 2021 to 9<sup>th</sup> April 2021. (Result: Elite)
4. AICTE approved NPTEL certificate course (12 week) on “**Digital Circuits**”, organised by IIT Kharagpur, in association with SWAYAM & MHRD, Govt., of India, 14<sup>th</sup> September 2020 to 4<sup>th</sup> December 2020. (Result: Elite, Silver Medal, Topper)

### **AICTE/IIT/IIT/NIT**

### **FDP/Seminars/Workshops**

1. Six days National Level FDP on “**Generative & Agentic AI-Tools & Demo’s**” organized by Department of CSE, Sardar Vallabhbhai National Institute of Technology (SVNIT) Technically Co-sponsored by IEEE-Gujarat Section & partnered with Pantech Solutions Pvt., Ltd., from 16<sup>th</sup> – 21<sup>st</sup> February 2026.
2. AICTE Training And Learning (ATAL) Academy Online FDP on “**Speech Processing using Deep Learning**” organized by Indian Institute of Technology Dharwad, 28<sup>th</sup> December 2020 to 1<sup>st</sup> January 2021.
3. Online STTP on “**Learning Management System: Moodle**”, Organized by Department of Mechanical Engineering, NIT, Warangal, 10-14 August 2020.
4. TEQIP-III Sponsored Webinar on “**Transforming Pedagogy in India**”, Organized by NIT, Jamshedpur, 1-3 August 2020.

5. Online FDP on "Python", Organized by Department of Electronics & Communication Engineering, JSS Academy of Technical Education, Noida & Spoken Tutorial Project IIT Mumbai, 22nd June to 4th July 2020.
6. Online FDP on "Scilab", Organized by Department of Electrical & Electronics Engineering, Prakasam Engineering College, Kandukur in association with Spoken Tutorial Project, IIT-Bombay, 4-10 June 2020.
7. Winter School on "Speech and Audio Processing", Organized by IISC Bangalore, 26-29 January 2017.

### **FDP/Seminars/Workshops/Symposiums/Webinars**

1. Faculty Development Program on "Introduction to AI and its Applications", organized by VTU on 30th August 2025.
2. AICTE Sponsored FDP on "Hands on Project-Based Approach for Biomedical Signal Analysis using MATLAB", organized by the Department of Electronics and Communication Engineering at Kakatiya Institute of Technology & Science, Warangal, Telangana, 1-13 February 2021.
3. Webinar on "Role of Faculty in Implementation of NEP", Organized by Bharatiya Shikshan Mandal and NITI Aayog in collaboration with Basaveshwar Engineering College (Autonomous), Bagalkot, 20th February 2021.
4. AICTE Training And Learning (ATAL) Academy Online FDP on "Control Systems & Sensors Technology" organized by University Visweswaraya college of Engineering, 5-9 October 2020.
5. AICTE-QIP Sponsored Online Short Term Course on "Computational Techniques in Image and Signal Processing", organized by Department of Electrical & Instrumentation Engineering (EIE) and Department of Electronics & Communication Engineering (ECE), SLIET Longowal, Punjab, 28th September to 3rd October, 2020.
6. AICTE Sponsored online STTP on "Data Analytics and Machine Learning", Organized by Amal Jyothi College of Engineering, Kanjirappally, Kottayam, 3-8 August 2020.
7. AICTE Sponsored online STTP on "Wireless Communications & Machine Learning Algorithms", Organized by Department of Electronics & Communication Engg., Vardhaman College of Engg., Hyderabad, 27th July to 1st August 2020.
8. Webinar on "Fundamentals of Domain Name System (DNS): Decentralizing the DNS", organized by VTU FOSS Group, VTU Belagavi, 24th July 2020.
9. Online FDP on "LaTeX & its Applications for Researchers", Organized by Department of Information Science and Engg., Vidyavardhak College of Engg., Mysuru, 20-24 July 2020.
10. Online Workshop on "Virtual Labs: Hands on Workshop", Organized by PVG's COET, Virtual Labs Regional Center (Pune) RCID 01 Jointly with AISSMS COE, Nodal Center in Coordination with BoS (E & TC) Savitribai Phule Pune University (SPPU) & Virtual Labs-Indian Institute of Technology Bombay, Mumbai, 18th July 2020.
11. TEQIP-III Sponsored online FDP on "Six Sigma", Organized by Department of Electronics & Instrumentation Engineering, BEC, Bagalkot, 6-10 July 2020.

12. TEQIP-III Sponsored Webinar on "Applications of IoT & Emerging Business Models", Organized by Department of Electronics & Instrumentation Engg., BEC, Bagalkot, 4th July 2020.
13. Webinar on "Women Rights under Constitution" and "Vishaka Guidelines on Sexual Harassment" organized under Women Cell, Visvesvaraya Technological University, "Jnana Sangama", Belagavi on 4th July 2020.
14. International Webinar on "Emerging trends in Electronics, Communication and Information Technology", Organized by Department of Electronics & Communication Engineering, JSS Academy of Technical Education, Noida, 2-7 July 2020.
15. Webinar on "Deep Learning for Automatic Speech Recognition", Organized by Department of Electronics and Telecommunication Engineering, AISSMS, Pune, 26th June 2020.
16. AICTE Sponsored Webinar on "Effective Usages of Educational Technology in Teaching-Learning Process as a part of NBA Accreditation", Organized by Department of Computer Science & Engg., Electronics & Communication Engg. and Medical Electronics Engg. MSRIT, Bengaluru, 22- 26 June 2020.
17. Webinar on "How to write effective Research paper", Organized by SGPPPSM, Surat, Gujarat, 21st June 2020.
18. TEQIP-III sponsored online FDP on "Recent Advances in Automation and Networking", Organized by Department of Electronics & Communication Engg., BEC, Bagalkot, 18-20 June 2020.
19. Two days Webinar on "Recent Trends in Electronics and Communication Engg.", Organized by Department of Electronics & Communication Engineering, BEC, Bagalkot, 11-12 June 2020.
20. Webinar on "Recent Trends in Computer Science and Technology", Organized by Department of Computer Science and Engineering, KLE College of Engineering & Technology, Chikodi, 4-6 June 2020.
21. Webinar "Recent Research in Speech Processing with a Demo of Products Developed", Organized by Wiley, 3rd June 2020.
22. Webinar on "Decoding DNA for Professional Success: Uncertainty to Certainty", Organized by Institute of Management Studies, Bagalkot, 3rd June 2020.
23. Webinar on "Data Science for Engineers", Organized by Department of Computer Science Engineering, KIT, Coimbatore, 30th May 2020.
24. TEQIP-III sponsored workshop on "Sensor Network", Organized by Basvaeshwar Engineering College (Autonomous), Bagalkot, 8-9 January 2018.
25. Faculty Development Program on "Control System", Organized by BEC Bagalkot, 26-27 Feb 2017.
26. International Symposium on "Green Technologies for Sustainable Development", Organized by BEC Bagalkot, 24- 25 Feb 2017.
27. "Out Come Based Education", Organized by BEC Bagalkot, 2017.
28. "Channel Coding for wireless Communication", Organized by University college of Engineering, Osmania University, Hyderabad, 9th October 2010.
29. "Digital Communications", Organized by Vasavi College of Engineering, Hyderabad, 12-16 July 2010.

## Judge/Expert/Research/Talks

1. Invited expert talk on “Digital Electronics”, organized by Department of Physics, Shri S. R. Kanthi, Arts, Commerce and Science College, Mudhol, on 7<sup>th</sup> August 2023.

## Professional Activities

- Organized Faculty Development Program on “Lab Pedagogy and Best Practices” at Electronics & Communication Engineering Department, Biluru Gurubasava Mahaswamiji Institute of Technology, Mudhol-587313, from 27-01-2025 to 29-01-2025.
- Organized Induction Program for first year students at Biluru Gurubasava Mahaswamiji Institute of Technology, Mudhol-587313, from 08-09-2025 to 13-09-2025.
- Organized webinar on “Role of Teachers in Implementing National Education Policy in Higher Education”, by Dr. M.P. Chandrika, Principal, S.C.Nandimath Law College Bagalkot on 21st June 2021, at Biluru Gurubasava Mahaswamiji Institute of Technology, Mudhol-587313.
- Organized webinar on “Software Developer Life Cycle” by Er. Santosh Karki, Senior Program Manager, Mercedes Benz Research and Dev. Bengaluru on 13th November 2020, at Biluru Gurubasava Mahaswamiji Institute of Technology, Mudhol-587313.
- Organized webinar on “Electro Encephalo Gram (EEG)” by Dr. Channappa B. Akki, Professor, Department of Computer Science and engineering, IIIT Dharwad on 5th September 2020, at Biluru Gurubasava Mahaswamiji Institute of Technology, Mudhol-587313

## College Assignments

- **Head of the Department of AIML** from January 2026 to till date.
- **First Year Coordinator** from July 2025 to Dec 2025.
- **Head of the Department of E&C Engg.** from Dec 2022 to Sep 2024.
- **Academic Coordinator** from 2014 to 2019.
- **Head of the Department of E&C Engg.** from 2014 to 2018.
- **All India Survey on Higher Education (AISHE) Coordinator** from 2014 to till date.
- **Scholarship Coordinator** from 2019 to till date.
- **Anti-Sexual Harassment Committee & Squad Chairman** from 2014 to till date.
- **VTU, AICTE Affiliation Coordinator** at department level from 2019 to 2020.