

## Faculty Profile

Name: Usha K Patil  
Designation: Assistant Professor  
Department: Computer Science and Engineering

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### **About me:**

Ms. Usha K. Patil is an Assistant Professor in the Department of Computer Science and Engineering at The National Institute of Engineering (NIE), Mysuru. She has over 15 years of teaching experience in Computer Science and Engineering, having served in various reputed engineering colleges.

She has extensive experience in teaching core Computer Science subjects and has consistently maintained excellent academic results. Her research interests include Machine Learning and its integration with Food Technology, with a focus on developing intelligent solutions for food quality improvement, safety, and data-driven food analysis.

She has published research papers in various national and international journals and has presented and participated in several national and international conferences. She is actively involved in teaching, mentoring student projects, and contributing to academic and research activities, with a strong commitment to quality education and interdisciplinary research addressing real-world challenges.

### **Qualification:**

- **Ph.D. (PURSUING VTU, Belagavi)**
- **MTech (CNE, VTU),**
- **B.E. (SRTMU University. NANDED, MAHARASHTRA),**

### **Courses Taught:**

- C programming
- Data Structures and Applications
- Database Management Systems
- Computer Networks
- Python Programming
- System Software & Compiler Design
- Automata Theory of Computability
- Data Mining
- OOPS with C++
- Logic Design
- Object Oriented Modelling and Design
- Software Architecture
- Software Engineering
- Discrete Mathematical Structure
- Cryptography and Network Security
- Management and Entrepreneurship
- Artificial Intelligence (PG)

### **Publications:**

#### **Journal Publications:**

**Usha K Patil** “Survey on Quantum Cryptography” in the International Journal of Research in Electronics and Computer Engineering (IJRECE) Volume 07, Issue 02; April-June 2019 [ISSN:2393-5028 Print] [ISSN: 2348-2281 Online].

**Usha K Patil** “Extension to Dijkstra’s Algorithm Using C” at the National Conference on Recent Trends in Information and Communication Technology (NCRTICT-2016)[ISSN-1457].

**Usha K Patil** “Solving Linear Problems Using Simplex Method” in the International Journal of Recent Trends in Engineering & Research (IJRTER), Volume 02, Issue 05; May2016[ISSN:2455-1457].

**Usha K Patil** “Cancer Diagnosis Using Naïve Bayes Algorithms” in the International Journal of Recent Trends in Engineering & Research (IJRTER) Volume 02, Issue 05; May2016[ISSN:2455-1457].

**Usha K Patil**” A Hybrid Hierarchical Control Plane for Software Defined Network” National Level PG Project Symposium on Electronics & Communication, Computer Science at GSSSIETW MYSURU 23 April 2016.

**Usha K Patil** “Application and Security Issues Specific to Software Defined Network: A Survey” at 5th National Conference on Emerging Trends in Engineering Technologies, ETET 2016 11th &12th March2016.

**Usha K Patil** “A Survey Data Migration Strategies in Heterogeneous Databases”2nd National Conference on Signal Processing, Computing Networks and Power Engineering.

**Usha K Patil** “Evaluation of Road Condition in Dense Fog Using In-Vehicle Cameras” National Level PG Project Symposium on Electronics & Communication, Computer Science at GSSSIETW MYSURU 23 April 2016.

**Usha K Patil** “Survey on Detection Using In- Vehicle Cameras For Evaluation of Road Condition” at National Conference on Information and Communication Technology (NCICT-16) ISBN:978-93-84935-74-0 on 17th &18th Feb 2016.

**Usha K Patil** “Survey on Different Types of Methods Used in Segmentation of Liver from Abdominal CT Images” at National Conference on Information and Communication Technology (NCICT-16) ISBN:978-93-84935-74-0 on 17th &18th Feb 2016.

**Usha K Patil** “An Efficient Extraction of Liver Tumour with Reference to Backbone Using SVM Classification “Proceeding of International Conference on Computers, Communications, Control and Applied Science, 2016.

**Usha K Patil** “Building SDN Framework Using Open Day Light Controller” National Level PG Project Symposium on Electronics & Communication, Computer Science at GSSSIETWMYSURU 23 April 2016.

**Usha K Patil** “Survey on Performance of Software Defined Networking” at 5th National Conference on Emerging Trends in Engineering Technologies, ETET 2016 11th 12th March 2016.

### **Conference Proceedings:**

1. **Sumana K. M., Usha K. Patil**, “A Hybrid Quantum Deep Learning Framework for Rice Yield Prediction Using Optical Remote Sensing Data,” in Proceedings of the 2025 International Conference on Computing Technologies (ICOCT), Jyothy Institute of Technology, Bengaluru, India, June 13–14, 2025.  
**DOI:** 10.1109/ICOCT64433.2025.11118754.
2. **Usha K. Patil**, Navneet, Chinmayee, Chaitra , “Enhancing Accessibility and Communication Through ML-driven Sign Language Recognition and Assistive Virtual Interaction,” in *Proceedings of the 14th International Conference on Recent Challenges in Engineering & Technology (ICRCET)*, IFERP, **Bangalore, India, 26–27 April 2025.**
3. **Usha K. Patil**, “The Need for Intrusion Detection System for MANET,” International Journal of Computer Science Information & Engineering Technologies (IJCSIET), ISSN: 2277-4408, Vol. 1, Issue 4, Series 4, April 2014.

### **Key Responsibilities:**

- Project Coordinator 2024-2026
- NBA Criteria -1 Coordinator
- TLC Member
- Squad Member
- Member of Anti-ragging and Flying Squad
- Member of Board of Studies -2023-24
- Student Counselling
- Test Coordinator
- NBA Coordinator Criteria 4 & Criteria 5 (2023,2016)
- Timetable Coordinator
- Forum Coordinator
- Class Coordinator
- Different Lab in charge
- Geethayaana coordinator for MAGIC RASOI
- DEBET coordinator for CSI
- For Geethayaana HINDI ANTAKSHARI coordinator

### **professional membership:**

- ISTE - PROFESSIONAL BODIES- LM96887
- IFERP (LIFETIME Membership)
- Orcid ID- 0000-0002-4793-0067

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