Faculty Profile



Mrs. B. Kalpana , B.Tech., M.E CSE., Dr Hons., (Ph.D).,
Assistant Professor- Senior Grade - CSE

HIGHLIGHTS:

- Number of Journal Publications: 53
- Books Authored : 2 - Published books: “Mastering C and C++” (2026) and “Python Made Easy” (2025)
- Teaching / Engineering Education Experience: 23 Years
- Academic distinction: DCT Gold Medalist – 97%, Rank 1/65
- B.Tech IT – First Class Distinction, 86%, Rank 1/67
- M.E CSE – First Class Distinction, CGPA 9.0
- Honorary Doctorate in Engineering – Europe, Croatia (2025)

PROFESSIONAL LINKS:

- My website: www.bkalpana.com/about
- AICTE Faculty ID: 1-44726950796
- Anna University Id : 2633941982
- LinkedIn: https://www.linkedin.com/in/bkalpanasattu

PROFESSIONAL BACKGROUND: 23 years as an Engineering Educator

- Teaching Experience till date: 20 years
- Industrial Experience: 3 years

INTERNATIONAL EXPOSURE:

- WELA Malaysia – Lecturer, Department of Computer Science and Engineering (2007–2008).
- Completed the 5-Day International FDP on AI Innovation 2025, jointly organized by SIMATS and Strazzion LLC, North Carolina, USA (10–14 Nov 2025).
- Honorary Doctorate in Engineering – Europe, Croatia (2025), conferred at Bharathiya Vidya Bhavan, Chennai (25 January 2025).
- Guest Professor at Walailak University, Bangkok.

AREAS OF SPECIALIZATION:

• Artificial Intelligence (AI)

• Machine Learning (ML)

• Dependable & Secure Computing

• Data Structures

• Intelligent Systems

• Blockchain and Cyber Security

• Computer Vision and Deep Learning

• Data Science and Big Data Analytics

• Cloud Computing and Distributed Systems

• Web Technologies and Software Engineering

COURSES CERTIFIED:

• NPTEL Certification – Foundation of Cloud IoT Edge ML, IIT Kanpur (2025).

• Capacity Building programme on CyberSecurity – IIT Madras – Malaviya Mission Teacher Training Programme – December (2025)

• AICTE ATAL FDP – High-Performance Computing (2024).

• EMC Academic Associate – Data Science & Big Data Analytics (2016).

• ICTACT FDP – Data Science & Big Data Analytics (2016).

• Python Programming Workshop, Anna University (2017).

• Python Certification, GUVI & IIT Madras (2017).

• Cisco Certified Network Associate (CCNA) (2004).

• Microsoft Innovative Educator (MIE).

• Minecraft Education Certified Trainer.

ACHIEVEMENTS AND AWARDS:

• Honorary Doctorate in Engineering, conferred at Bharathiya Vidya Bhavan, Chennai (25 January 2025).

• Best Teacher Award – Aram Seiya Virumbu Trust, Oxford University & Nithiyin Kural (14 July 2022).

• Best Entrepreneur Award – Star Golden Awards, AS Media Vision & Iswaryam Trust (3 July 2022).

• Senior Educator and Research Scholar Award – National Foundation for Entrepreneurship Development (5 September 2015).

• Certification of Appreciation – NAAM Foundation for coaching Computer Science and English to rural children (2015).

• Gold Medalist – Diploma in Computer Technology for outstanding academic performance (2000).

• Silver Medal – NPTEL Fundamentals of Algorithms and Analysis (March 2026).

• Doordarshan Interview – recognized for academic excellence.

• Chief Guest at multiple national academic conferences.

SPECIAL SESSIONS DELIVERED:

• Guest Lecture on "The New Era of Big Data" for postgraduate students at Hindusthan Institute of Technology (28 January 2014).

• Resource Person & Speaker – Saveetha Engineering College (19 November 2018).

• Chief Guest & Speaker – Jain Public School, Thirumudivakkam (2018).

• Chief Guest – Valliammal Matriculation School, Republic Day Celebration (26 January 2023).

• Chief Guest – Orchid International School, Perumbakkam, Megathlon (15 September 2024).

• Chief Guest of Honour – Natyacharyas School of Music & Dance, Convocation Ceremony (10 June 2025).

• Chief Guest of Honour – Yogi Ram Surat Kumar Educational Academy, Annual Day Celebration (15 April 2025).

CONFERENCES/SEMINARS/WORKSHOPS ATTENDED:

• International Seminar on Education, Leadership & Honorary Doctorate Values (2025).

• International FDP – SIMATS (2025).

• National FDP – Rajalakshmi Institute of Technology (2025).

• Malaviya Mission FDP (2025).

• AI & Machine Learning Webinar (2024).

• National Seminar on Career Development (2014).

• National Workshop on Optimization Techniques in Engineering Applications (2012).

• National Seminar on Artificial Intelligence & Expert Systems (2011).

• C Programming Training – Amphisoft Technologies (2012).

• AICTE ATAL FDP on High-Performance Computing (16–21 Dec 2024).

• 5-Day International FDP on AI-Driven Image Processing: Multimodal Fusion, Secure Analytics, and Emerging Applications (8–12 Dec 2025).

• Capacity Building Programme on Cybersecurity – Intermediate conducted by IIT Madras and IITM Pravartak under the Malaviya Mission Teacher Training Programme, Ministry of Education, Government of India (11–15 Dec 2025).

PROFESSIONAL MEMBERSHIPS:

- Orchid ID: 0009-0005-3297-7267
- Google Scholar ID: https://scholar.google.com/citations?user=PH5sY4MAAAAJ
- AICTE Faculty ID: 1-44726950796
- LinkedIn: https://www.linkedin.com/in/bkalpanasattu
- OWASP membership: 3933131 Lifetime Membership
- ResearchGate ID: https://www.researchgate.net/profile/Kalpana-Balu

EDITORIAL & REVIEWER ROLES

• Editor, Editorial Review Board – International Journal of Advanced Research in Management, Engineering and Technology (Since March 2016).

• Associate Editor – International Journal of Entrepreneurship and Small & Medium Enterprises (IJESMES), Kathmandu, Nepal (Since June 2015).

• Reviewer – International Journal of Advances in Engineering & Scientific Research (Since February 2016).

RESEARCH & PROJECT GUIDANCE for UG students

• Artificial Intelligence & Machine Learning: Career Guidance and Job Recommendation Systems; Crop Yield Prediction; Mental Health Risk Detection; Driver Fatigue Detection; Personal AI Voice Assistant; Vehicle Recognition; Attention Span Detection; Power Sector Regulatory Compliance using AI.

• Computer Vision & Deep Learning: OCR-Based PDF Search System; Multilingual OCR Applications; Object Detection and Multi-Object Tracking; Driver Monitoring Systems; Image Processing Applications; Feature Fusion and Cross-Camera Tracking.

• Blockchain & Cyber Security: Secure Document Verification using Blockchain; Cloud-Based Secure Health Records; Dependable and Secure Computing; Privacy-Preserving Mobile Location Services; Regulatory Compliance Systems.

• Data Science & Big Data Analytics: Hadoop & MapReduce Applications; Data Virtualization; Business Analytics; Predictive Analytics; Cloud Data Management.

• Cloud Computing & Distributed Systems: Cloud Health Record Management; Distributed Computing; Secure Cloud Storage; Paxos-Based Distributed Data Stores.

• Web Technologies & Software Engineering: AI Career Portal; Food Surplus Management System; Rural Food Delivery Platform; E-Commerce for Tribal Products; GPS-Based Academic Monitoring System; Reporting Frameworks.

BOOKS AUTHORED

• "Mastering C and C++" – Cheyran Publications, 2026, available on Flipkart and Amazon.

• "Python Made Easy" – IIP Karnataka, 2025, available on Flipkart and Amazon.

NPTEL Courses Completed

Research Methodology in Natural Sciences	**Jan – Apr 2026**	**72%**
Foundation of Cloud IoT Edge ML	**Feb- Apr 2025**	**72%**
Fundamental Algorithms: Design and Analysis	**Jan- Feb 2026**	**76% Silver Medal**
Deep Learning - IIT Ropar	**Jan – Apr 2026**	**70%**
Data Analytics with Python	**Jan – Apr 2026**	**70%**
Artificial Intelligence: Knowledge Representationand Reasoning	**Jan – Apr 2026**	**75%**

OTHER DETAILS

• Founder-CEO – ILDC Academy of Learners.

• Chief Editor – ILDC Kids Magazine.

• Motivational Speaker | Corporate Trainer | Guest Lecturer | Technical Presenter | Public Speaker (Tamil & English).

• Featured in Dina Thanthi for empowering women entrepreneurs (2026).

• Featured in Dina Thanthi (Ilangar Malar) for educational and social contributions (2025).

• Featured in Dina Thanthi Muthu Charam for guiding skills through coding (2022).

• Featured in Dina Thanthi for guiding students to choose the right path after 12th grade (2021).

• Interviewed on Doordarshan Chennai – Virundhinar Pakkam (6 August 2018).

Research Publications

- **45+ International Journal Publications**
- **40+ Google Scholar Indexed Papers**

- Research in AI, Machine Learning, Deep Learning, Blockchain, Computer Vision, Cyber Security, NLP, Data Analytics, and Software Engineering.
- Guided numerous UG research projects resulting in peer-reviewed publications.
- Currently working toward publishing in Scopus and SCIE-indexed journals.

Research Project	**Publications**
AI Career Guidance Platform	Literature Survey + Framework
Driver Fatigue Detection	Literature Survey + Implementation
OCR Search System	Literature Survey + System Development
Blockchain Document Verification	Survey + Application
Mental Health Analytics	Survey + Model
Port Automation	Survey + AI System