

Mrs. Ashalatha M E
Professor and Head
Department of Electronics & Instrumentation
Engineering

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Work Experience : 33 Years

- Worked as Lecturer in the Department of Electronics & Communication Engineering, Bapuji Institute of Engineering and Technology, Davangere from January 1988 to May 1995.
- Worked as Assistant Professor from June 1995 to July 2007 in the Department of Electronics & Communication Engineering.
- Worked as Professor from August 2007 to December 2013 in the Department of Electronics & Communication Engineering.
- Worked as Professor and Head, Department of Biomedical Engineering, from January 2014 to June 2019.
- At present, working as Professor and Head, Department of Electronics & Instrumentation Engineering, from July 2019.

Educational Qualification:

- M.Tech [Industrial Electronics] from SJCE, Mysore University, 1990, First Class with Distinction.
- B.E [E&CE] from Bapuji Institute of Engineering and Technology, Mysore University, 1987 with First Class.
- Pursuing Ph.D. from JNTUH, Hyderabad.

Roles and Responsibilities:

- Principal Investigator for AICTE sponsored project titled “Development of Encryption/Decryption Algorithms & corresponding Hardware Implementation for Secure Speech Communication”, sponsored by AICTE, New Delhi under TAPTEC programme.
- Guide for ten projects sponsored by Karnataka State Council for Science and Technology.
- Coordinator for Faculty Development Programs, Workshops and Seminars.
- Facilitator for Infosys initiated Campus Connect Training program.
- Team Member for organizing Industry Institute Interaction programs.
- Member- Board of Examiners for UG program, Kuvempu University.
- Worked as Team Member for MOU of Institute with Applied Cognition Systems Pvt. Ltd., Bangalore - a company dealing with Biomedical Instrumentation and Healthcare Product Development. R&D Lab was established in the Department of Biomedical Engineering in the year 2014 to provide Technical Training to meet industry ambience and R&D needs.
- Coordinator for training programs and interaction sessions under MOU with Applied Cognition Systems Pvt. Ltd., Bangalore.
- Coordinator for interaction sessions and technical talk by Industry Expertise/ Academicians, through INAE Distinguished Visiting Professor scheme, AICTE, New Delhi.

- Member-Board of Examiners (BM/EI/IT/ML) VTU, Belagavi for the academic period 2017-2018.
- Mentor for the project sponsored by NAIN Center, BIET.
- Team Member for MOU of Institute with Prolific Systems and Technologies Pvt. Ltd., Bengaluru - an Advanced Automation Training provider and a leading automation solution provider. Prolific Systems is an approved training partner of NSDC (National Skill Development Council- Government of India). The MOU intends to interface academia and industry practice.

Awards:

1. Project titled “Hardware Implementation of Bit Cipher using VHDL for Secure Speech Communication” was selected for K.S.C.S.T Seminar and Exhibition 2000-2001, held at K.V.G. College of Engg, Sullia and received “Certificate of Commendation” and was awarded as “Best Project of the Year”.
2. Project titled “Power Line Communication using OFDM Technique” was selected for K.S.C.S.T Exhibition 2003-04, held at G.I.T, Belgaum.
3. Received “Best Project Award for the year 2006-07”, for the project “Eight Channel Intercom” exhibited in Open House organized under Industry Institute Partnership Cell, BIET, Davangere.
4. Received “Best Project Award for the year 2007-08”, for the project “Robotic Fire Fighter” exhibited in Open House organized under Industry Institute Partnership Cell, BIET, and Davangere and also was selected for K.S.C.S.T Seminar and Exhibition to be held at A.I.T, Chikmagalur, in August 2008.
5. Received Best Teacher Award and silver medal from Bapuji Institute of Engineering and Technology, Davangere for having obtained cent percent results in the subjects taught for the academic year 1997-98, 1999-2000, 2001-2002, 2002-2003, 2003-2004, 2006-2007 and 2007-2008.

Membership:

- Life Member of Indian Society of Technical Education (ISTE - LM 11122)
- Fellow Member of Institution of Electronics & Telecommunication Engineers (IETE – F219011L)

Core Subjects Taught:

Embedded System Design, Image Processing, Medical Imaging Systems, Medical Image Processing, Lasers and Optic Fibers in Medicine, Digital System Design using VHDL, DSP Algorithms and Architecture, Cryptography, Real Time Systems, Microprocessors, Microprocessor Applications, Microcontrollers, Signals & Systems, Digital Electronic Circuits.

Expert Lectures Delivered:

1. Delivered a lecture on “Introduction to VHDL and Data Flow Description ” under Three day workshop on “Digital System Design using HDL-Synthesis & Simulation using Test Benches” , organized by E&C Department, BIET, Davangere during 16th to 18th April 2009.
2. Delivered a lecture on “Microprocessors Interfacing and Applications ” on 5th July 2006 under one week STTP on “Mechatronics” , sponsored by ISTE and organized by Department of Mechanical Engineering, Bapuji Polytechnic, Davangere during 3rd to 7th July 2006.
3. Delivered a lecture on “Embedded Systems”, under EC FORUM, Bapuji Polytechnic, Davangere on 18th Sept 2005.
4. Worked as visiting faculty for BCA programme at Bapuji Hi-tech Education, Davangere.
5. Delivered a technical talk on “Image Processing Techniques using MATLAB” on 30th Oct 2014, in FDP organized by the Department of E & CE, BIET, Davangere.

6. Delivered a technical talk on “Medical Imaging Techniques” in Lecture Series-2020 organized by R&D Cell, BIET from 19 - 26 November 2020.

Seminars/Workshops/Events Organized:

1. Coordinator for the Certification course on “VHDL Coding for Synthesis”, organized by E&C Department, B.I.E.T in association with SIMS, Bangalore from 4th to 19th Feb 2000.
2. Coordinator for the Certification course on “Embedded Systems & Design” organized by B.I.E.T and C.I.T.L. Bangalore, under Embedded Tech Park from 3rd May 2003 to 8th June 2003.
3. Coordinator for one day workshop on “Tanner Tools Pro (A Complete VLSI Design System)” organized by E&C Department in association with ISTE Chapter BIET and Sovereign Technologies, Bangalore on 16th Nov 2006.
4. Organized one day workshop on “Embedded systems Design” at BIET, Davangere on 27th April 2007 in association with IIP Cell, BIET.
5. Coordinator for three day workshop on “Digital System Design using HDL-Synthesis & Simulation using Test Benches”, organized by E&C Department, BIET, Davangere, during 16th to 18th April 2009.
6. Coordinator for two day Faculty Development Program on “ Low Power Embedded Systems using Texas Instruments MSP430 Microcontroller” in association with Cranes Software International Ltd., & Texas Instruments India University Program, Bangalore on 9th & 10th February 2012.
7. Coordinator for two day Faculty Development Program on “Labview and its applications” in association with Trident TechLabs, Bangalore on 2nd and 3rd August 2012.
8. Coordinator for two day Training Program on “SATROBO” in association with Robosapiens, RoboTryst-2013, on 22nd and 23rd September 2012.
9. Organized a Technical talk on “Recent Trends in Telecommunication” by Sri M O Prashanth, Deputy General Manger, BSNL, Davangere on 10th September 2013.
10. Organized a Technical talk by Dr T G K Murthy, an eminent scientist from ISRO on “Space Technology and its Excellence” on 13th September 2012.
11. Organized a Quiz Competition under ISTE Students’ chapter, BIET on 17th October 2012.
12. Organized a Seminar on “Career Awareness Program in the field of VLSI & Embedded System” in association with Sandeepani, a Training division of CoreEL Technologies, Bangalore on 28th February 2013.
13. Organized a two day workshop on “Multi-utility Microcontroller Board Design” in association with Orbits, SJCE, Mysore on 23rd and 24th March 2013.
14. Organized one day workshop on “New Challenges and Opportunities in Healthcare, in association with Applied Cognition Systems, Bangalore on 15th February 2014 [APCOG Systems-MOU].
15. Organized a Technical talk on “Tomosynthesis using Graphic Processor Unit” by Dr. U.C Niranjana, Director, Manipal Dot Net, Manipal, on 19th February 2014.
16. Coordinator for Workshop on “Training of Evaluators on Outcome Based Education and Accreditation” organized by BIET in association with NBA, New Delhi, during the period 22nd - 24th March 2014.
17. Organized one week Crash Course on “Project Development Lifecycle”, in association with Applied Cognition Systems Private Limited, Bengaluru, during the period 26th - 31st July 2014 [MOU].
18. Organized two day Workshop on “Smart Sensors”, in association with Department of E&IE, BIET, Davangere and Applied Cognition Systems Private Limited, Bengaluru on 17th and 18th February 2016 [APCOG Systems- MOU].
19. Organized a talk on “Scope and Opportunities of Biomedical Engineering” by Mr. Praveen Gowda, CEO and Co-founder, Arera Technology, Bengaluru, on 29th August 2016.
20. Organized an invited talk by T.G.K. Murthy, ISRO Scientist (Retired) and Paramapujya Mataji Yoganandamayi, Sadhana Ashrama, Davangere on the topics “Science of Human Excellence” and “Channelizing Youth Power”, on 21st Apr 2017.
21. Organized an invited talk by Mr. Nandish S., Assistant Professor, School of Information Sciences,

Manipal on the topic “ Opportunities and Challenges in Biomedical Imaging” on 27th May 2017.

22. Organized Essay competition for Girl Students of BIET on the occasion of International Women’s Day on 7th March 2018.
23. Organized Technical sessions for final year students of Biomedical Engineering as a part of Internship/Professional Practice, during the period 9th – 14th July 2018. Mr. Sandeep Patil, Project Manager, Applied Cognition Systems Private Limited, Bengaluru and Mr. Nandish S, Assistant Professor, School of Information Sciences, Manipal University, coordinated the event.
24. Organized Essay competition for Girl Students of BIET, on the occasion of International Women’s Day on 23rd March 2019.
25. Organized workshop on Internet of Things (IoT) for faculty and students of Biomedical Engineering, on 11th and 12th May 2019.
26. Organized workshop on PLC and SCADA Tool for faculty and students of Electronics and Instrumentation Engineering, on 11th and 12th May 2019.
27. Organized workshop on Internet of Things (IoT) for faculty and students of Electronics and Instrumentation Engineering, 27th to 29th February 2020.

Workshops/ Seminars Attended :

Workshops:

1. Workshop on “Logic Synthesis Testing & Design for Testability”, organized by Zeta Infotech Private Limited, Manipal, from 7th to 11th June 1999.
2. Workshop on “Microcontrollers & DSP Processors”, organized by Motorola & VTU, at MSRIT, Bangalore, on 5th November 1999.
3. National Level Workshop on “VLSI & CAD for VLSI”, organized by Industrial Consultancy & Research Center of BIT Bangalore, from 4th to 9th September 2000.
4. Workshop on “Processor Architecture & Embedded Control System Design” organized by SDMCE, Dharwad, on 18th May 2002.
5. “VLSI Design and Test Workshops 2002” from 29th to 31st August 2002 at IISc, Bangalore.
6. Workshop on “Embedded Microcontrollers” organized by M.S Ramiah School of Advanced studies, Bangalore from 20th to 23rd March 2003.
7. Attended a programme on “Learning Management Systems”, organized by Indian Institute of Science, Bangalore, from 2nd to 4th March 2006.
8. Workshop on “Digital Image Processing”, organized by BVBCET, Hubli from 16th to 22nd August 2005.
9. Workshop on “Tanner Tools. Pro- A complete VLSI design”, organized by E&C Dept., BIET, Davangere and Sovereign Technologies, Bangalore on 16th November 2006.
10. Workshop on Embedded System Design, organized by IIPC, E&C Dept, BIET, Davangere and Advanced Electronic Systems , Bangalore 27th April 2007.
11. Workshop on “Soft Skills” organized by Infosys Technologies, Bangalore, from 24th to 28th September 2007.
12. Workshop on ‘Image and Speech Processing’ on 17th December 2011 at International Institute of Information Technology, Hyderabad.
13. Workshop on “Research Add-ons” organized by Department of Computer Science & Engineering, B.I.E.T Davangere held on 19th March 2014.
14. Workshop on Soft Computing in Healthcare Applications (SOFF-COMP 2014) hosted by the Department of Biomedical Engineering, Manipal Institute of Technology, Manipal on 28th & 29th March 2014.
15. Workshop on “Women Empowerment” held on 18th & 19th Dec 2014, organized by IS &E Dept, BIET jointly under WPLP programme of ISTE, Delhi.
16. Workshop on “Research Methodology” organized by Research and Development cell of BIET,

- jointly with ISTE-BIET chapter, Davangere on 28th October 2015
17. Workshop on “Intellectual Property Rights” organized by Research & Development cell of BIET, Davangere on 6th Apr 2017.
 18. Workshop on “System Design using Vivado Design Suite and Zynq -7000 SOC” on 15th and 16th June 2017, organized by the Department of E&CE, BIET, Davangere.
 19. AICTE sponsored National level Seminar on “IoT's in Transforming Rural Healthcare System & Point of care Testing” on 8th and 9th December 2017, organized by the Department of Electronics & Instrumentation Engineering, University BDT College of Engineering, Davangere.
 20. Invited talk on “Education in today’s scenario and Role of Educators” by Dr. Gururaj Karajagi, Chairman, Academy of Creative Teaching, on 19th December 2017 at BIET.
 21. Attended the K-GIS Academia Interaction Meet organized by Karnataka State Remote Sensing Application Centre, Bengaluru on 18th December 2017.
 22. Workshop on “ARM Cortex M3 Microcontroller” at BIET, Davangere organized in association with ISTE, BIET Chapter and Advanced Electronic Systems, Bengaluru, on 23rd and 24th January 2018.
 23. Lecture Series-2020 organized by R&D Cell, BIET, from 19-26 Nov 2020.
 24. Invited talk on “Role of Placement Coordinators for Enhancing Campus Placements”, organized by Placement and Training Cell, BIET. Speaker: Dr. Ranganath D, Dean-Placement and Training, RVCE, Bengaluru, on 9 January 2021.

Short Term Training Programme/FDP:

25. A short term course on “Microprocessor Interface & Programming”, organized by VTU and RVCE, at RVCE, Bangalore, from 6th to 10th April 2000.
26. AICTE-ISTE sponsored short term course on “DSP Processors: Architecture and Trends” at NMAM Institute of Technology, NITTE, from 27th January to 1st February 2004.
27. AICTE-ISTE Sponsored Two weeks short term training program on “Fuzzy Logic & its Applications to Power Systems” organized by Electrical & Electronics dept , B.I.E.T Davangere from 15th to 26th March 2004.
28. AICTE-ISTE Sponsored One week short term training program on “Quality of Service on Internet “organized by Computer science and Engineering department, B.I.E.T Davangere from 4th July to 9th July 2005.
29. One week STTP on ‘Linear Algebra and its Applications’ from 24th to 28th January 2011 at JNNCE, Shimoga.
30. Faculty Development Program on ‘Advanced Image Processing & Pattern Recognition’ from 26th to 30th July 2011 at SJB Institute of Technology, Bengaluru.
31. Four days Faculty Development Program on “Advances in Biomedical instrumentation for quality Healthcare” from 23rd - 26th July 2014 organized by the Department of E & IE, UBDTCE, Davangere sponsored by VTU Belgaum & VGST, Government of Karnataka.
32. One Week online Faculty Development Programme on “Concepts, Methods, Challenges and Future directions in Medical Image Analysis using Machine learning”, organized by the Department of Electronics and Instrumentation, SJCE, JSS S&TU, Mysuru, from 10 -14 August 2020.
33. AICTE Training and Learning (ATAL) Academy online FDP on "Artificial Intelligence and Machine Learning Applications in Biomedical Engineering" from 21 - 25 September 2020, at University BDT College of Engineering, Davangere
34. AICTE Training and Learning (ATAL) Academy online FDP on "Artificial Intelligence and Machine Learning”, organized by MVJCE, Bengaluru, from 18 - 22 January 2021.
35. One Week online Faculty Development Programme on “Introduction to Microchip FPGA” from 19 - 23 July 2021, organized by the Department of Electronics & Communication Engineering, Bapuji Institute of Engineering and Technology, Davangere, in association with Tecnomic Components Pvt. Ltd. Bengaluru, ISTE Faculty Chapter, BIET, Davangere and IETE Shivamogga Center.

36. AICTE Training and Learning (ATAL) Academy online FDP on "AI applications in Biomedical Engineering" from 2 - 6 August 2021, at National Institute of Technology Calicut.
37. AICTE Training and Learning (ATAL) Academy online FDP on "ASIC Design for Driving Digital Innovations in Next Gen Platform" from 23 - 27 August 2021, at Acharya Institute of Technology.

Seminar:

38. Two days Seminar on “Advances in VLSI Design” sponsored by TEQIP, organized at UBDTCE, Davangere, on 13th & 14th March 2007.
39. One day Seminar on “MATLAB for Engineering Education” organized by MathWorks India, on 20th June 2013 at Hubli.
40. One day Seminar on “Markov Chain and its Applications” organized by the Department of MCA, at BIET on 22nd April 2016.
41. One day Seminar on “Role of Women in Societal Reforms” organized by Dept. of IS&E in association with ISTE Faculty Chapter, NSS, YRCW, BIET, Davangere on 10th March 2017.

Webinars/Virtual Workshops:

42. IEEE WIE Seminar series organized by IEEE Bangalore section, from 8th to 11th May 2020.
43. Webinar on “Remote Lab Platform for Hardware Circuit Experiments” on 10 November 2020 organized by the Department of Electronics and Communication Engineering, BIET in association with Institution of Engineers (India), Davangere Local center.
44. Webinar on “Scientific Writing for Journals for VTU and its Consortium Member Institutes” organized by VTU Consortium in collaboration with Springer Nature on 30 Sept 2020.
45. Two day IEEE Webinar series on “Recent Technologies”, organized by St. Joseph's Institute of Technology, Chennai and IEEE Photonics Society, 9-10 December 2020.
46. Webinar on “Assistive Technology for Empowerment of Persons with Disability”, conducted on 11 December 2020, organized by the Department of E&CE, BIET, Davangere, in association with Composite Regional Centre (CRC) for Skill Development, Rehabilitation & Empowerment of Persons with Disabilities (Under Administrative Control of National Institute for the Empowerment of Persons with Intellectual Disabilities, Secunderabad), Department of Empowerment of Persons with Disabilities (Divyangjan) & Ministry of Social Justice & Empowerment, Government of India.
47. Three days Virtual workshop on “Immunity boosting- A Wellness Program” organized by Department of Medical Electronics and Department of Biotechnology, B.M.S. College of Engineering, Bangalore, from 28 - 30 December 2020.
48. “Employability Skills for Women Empowerment in the Changing Scenario”, organized by Women Cell, VTU, Belagavi, on 5 February 2021.
49. “Outcome Based Education and Accreditation for Engineering Colleges and Deemed to be Universities in Karnataka” organized by VTU, Belagavi on 16 February 2021.
50. “Implementation of National Education Policy” organized by VTU, Belagavi, on 23 February 2021.

Conference:

51. Conference on Virtual Instrumentation in Engineering Education organized by National Instruments India Ltd., Bangalore, on 10th Oct 2003.
52. Conference on Embedded Microsoft Windows organized by Microsoft on 10th June 2003 at Bangalore.
53. Presented a paper in International Conference on Advances in Computer, Electrical and Electronic Engineering (ICACEEE) on 26th March 2012, organized by Universal Association of Computer and Electronics Engineers (UACEE), Bombay.
54. Presented a paper in International conference on Circuits, Controls Communication and Computing at MSRIT, Bangalore on 22nd Nov 2014.

55. International Conference on Applied and Theoretical Computing and Communication Technology, organized by the Department of Computer Science and Engineering, BIET, 29th to 31st October 2015.

Publications:

1. S.R. Mahadeva Prasanna, Ashalatha M.E, Nirmala S.R. and K.N Hari Bhat, “A Comparison of Private Key Algorithms of Analog Speech Security”. *Proceedings of the 5th National Conference on Communications*, I.I.T. Kharagpur, pp. 808-816, January 1999.
2. S.R. Mahadeva Prasanna, Ashalatha M.E, Nirmala S.R. & K.N Hari Bhat, “Study of Permutations in the Context of Speech Privacy”, *Proceedings of International Conference on Evolutionary Computing for Computer Communications, Control and Power*, Crescent Engg. College, Chennai, pp. 99-106, January 2000.
3. S.R. Mahadeva Prasanna, Ashalatha M.E, Nirmala S.R. & K.N Hari Bhat, “An Efficient way of Computation of Maximum Shift Factor”, *Proceedings of International Conference on Evolutionary Computing for Computer Communications, Control and Power*, Crescent Engg. College, Chennai, pp. 86-90, January 2000.
4. Dr. Mallikarjun S. Holi and Ashalatha M.E, “Design and Implementation of Plethysmography Techniques and Wearable Bio-Sensors for Continuous Cardiovascular Measurement”, *National Conference on Instrumentation for Biomedical Engineering*, Bharath Institute of Higher Education and research (Deemed University), Chennai, , March 2005.
5. Krishnamurthy G.N, V. Ramaswamy, Leela.G.H and Ashalatha M.E , “Performance Enhancement of CAST-128 algorithm by modifying its function”, *Proceedings of International Conference in CISSE 2007*, University of Bridgeport, Bridgeport, CT, USA, Springer.
6. Krishnamurthy G N, V Ramaswamy, Leela G H, Ashalatha M.E, “Performance enhancement of Blowfish and CAST-128 algorithms and Security analysis of modified Blowfish algorithm using Avalanche effect”, *IJCSNS*, ISSN : 1738-7906, Vol.8, No.3, pp. 244-250, March -2008, Korea.
7. Krishnamurthy G N, V Ramaswamy, Leela G H, Ashalatha M E, “Blow-CAST-Fish, a New 64-bit Block Cipher”, *IJCSNS*, ISSN : 1738-7906, Vol. 8, No.4, pp. 282-290, April -2008, Korea.
8. M. E. Ashalatha, Mallikarjun S. Holi, “Implementation of Pose Invariant Face Recognition using Eigenface Approach”, *International Journal of Advances in Electronics Engineering*, ISSN : 2278-215x, vol.2, issue 2, Aug 2012, pp. 83-88.
9. Shubha V Patel, Deepa & Ashalatha M.E published a paper titled “Human Fall Detection using MEMS Accelerometer” in *International Journal of Emerging Technology & Advanced Engineering (IJETAE)*, Vol 4, Issue 5, May 2014, pp.370-373.ISSN 2250-2459,ISO 9001:2008.Certified Journal.
10. Deepa, Shubha V Patel, Mallikarjun S Holi & Ashalatha M.E published a paper titled “Design & Development of Stress Detector & Sleep Inducer” in *International Journal of Engineering Research*

11. M. E. Ashalatha, Mallikarjun S. Holi, Praveen R. Mirajkar, “ Face Recognition using local features by LPP approach”, *Proceedings of IEEE International Conference on Circuits, Control, Communication and Computing -2014*, 20st -22nd November 2014, MSRIT, Bangalore. Paper is published IEEE Digital Library. ISSN: 978-1-4799-6546-5/14, pp. 382-386.
12. Praveen R Mirajkar, ArunVikas Singh, Dr. Kishan Ashok Bhagwat, Ashalatha M E, “Acute Ischemic Stroke detection using Wavelet based Fusion of CT and MRI Images”, *Proceedings of IEEE International Conference on Advances in Computing, Communications and Informatics*, pp. 1123-1130, 12th – 13th August 2015. SCMS School of Engineering and Management, Kochi, India. Paper is published IEEE Digital Library. ISSN: 978-1-4799-8792-4/15, pp.1123-1130.
13. M. E. Ashalatha, Mallikarjun S. Holi, Performance Evaluation of Gabor Wavelet Features for Face Representation and Recognition “*IOSR Journal of VLSI and Signal Processing (IOSR-JVSP)*” Volume 6, Issue 2, Ver. I (Mar. -Apr. 2016), pp. 47-53 e-ISSN: 2319 – 4200, p-ISSN No. : 2319 – 4197 www.iosrjournals.org DOI: 10.9790/4200-0602014753 www.iosrjournals.org 47 | Page

Books/Monograph:

A course material titled “PIC Microcontroller : Introduction, Architecture & Programming”, submitted to Center for National Academic Network for Continuing Education, AICTE , New Delhi, during the academic year 2001-2002.