SHAH KHUSHALI ARVINDBHAI



ASSISTANT PROFESSOR | ELECTRONICS & COMMUNICATION

A.D. Patel Institute of Technology, New Vallabh Vidyanagar

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PROFESSIONAL PROFILE

Electronics and Communication academician with experience in teaching, student project guidance, research and publication, technical workshops, invited lectures, academic event coordination, industrial interaction, and institutional activities. Areas of professional interest include hardware/software programming, wireless communication, IoT-based applications, and computer networks. Technical exposure includes C, HTML, MATLAB, SciLab, Arduino, Xilinx.

ACADEMIC BACKGROUND

ME (Electronics & Communication Systems) **2005–2007**

D.D. Institute of Technology, Dhramsinh Desai University, Nadiad

BE (Electronics) **2000–2004**

Biral Vishwakarma Mahavidyalaya, Sardar Patel University, V.V. Nagar

WORK EXPERIENCE

A.D. Patel Institute of Technology, New Vallabh Vidyanagar — Assistant Professor, Electronics & Communication Department

7 May – Present

RESEARCH PUBLICATIONS

1. Temperature Data Acquisition System on Chip by K. A. Shah, M. R. Gandhi, Dr. V. K. Thakar, IE(I) Journal – ET, Volume 90, January 2010, pp. 38–41. ISSN 0251-1096.
2. Performance Evaluation of AODV Routing Protocol with Link Failures by K. A. Shah, M. R. Gandhi, IEEE International Conference on Computational Intelligence and Computing Research, Tamilnadu College of Engineering, Coimbatore, 28–29 Dec 2010, pp. 277–281. ISBN 978-1-4244-5966-7.
3. Data Acquisition, Controlling and Wired Remote Data Display by Vishvjit Thakar, Khusali Shah, Chetan Bambhroliya, Darshan Barot and Bipin Patel, ADIT Journal. ISSN 973366.
4. Channel Assignment in Multi hopping Cellular Network by Mikita Gandhi, Khushali Shah, Mehfuza Holia, Ami Shah, National Conference on Recent Trends in Engineering & Technology, BVM Engineering College, V.V. Nagar, Gujarat, India, 13–14 May 2011. ISBN 978-81-921358-3-0.
5. A Theoretical Survey and Comparative Analysis of Sustainable Energy Harvesting Techniques for Smart Infrastructure by Anwwiit Barge, Khushali Shah, International Conference on “Synergetic Development through Smart Technologies & Digital Transformation-2025 (SDSTD2025)”, 25–26 June 2025. ISBN 978-93-84224-27-1.
6. A Comprehensive Review of IoT-Based Real-Time Monitoring Systems for Distribution Power Transformers by Khushali Shah, Namrata Dave, Dr. Viranchi Pandya, International Conference (hybrid mode) on Synergetic Development through Smart Technologies, Sustainability & Digital Transformations, 25–26 June 2026.

CONSULTANCY

Project Title: Auto Lighting System for Transpek Industries Pvt. Ltd., Vadodara

Consultancy Amount: ₹28,500/-

Mentors: V. K. Thakar, R. C. Joshi, Ankit Suthar, V. C. Pandya, B. R. Patel, K. A. Shah

INVITED LECTURES, WORKSHOPS & TRAINING CONDUCTED

1. Training program on "Automation and Control" for Transpek Industries Pvt. Ltd. in 2009–10.
2. Expert talk on embedded system using PSoC on 22/4/2016 at Girls Polytechnic, Surat.
3. Programmable System on Chip workshop conducted by BIT on 19 Oct 2013 at Babaria Institute of Technology, Varnama.
4. GTU & C-DAC one-day workshop for research students and professors on "Embedded System: SoC Based Approach – Application and Case Studies" on 25 Jan 2014.
5. Lecture session on interface Digital and Analog I/O devices (Arduino interfacing) for BBIT students on 26/3/2021.
6. Organized webinar, "Future Scopes of Electronics Sector in the Development of the Society", as coordinator, 10 July 2021; Speaker: Dr. Mitesh Dadhaniya.
7. Students' workshop on "Introduction to Arduino and its Application" at BBIT, EC Department, on 27/8/2021.
8. Organized Electronics Ideation workshop at IDEA LAB on 8/8/2022 to 10/8/2022.

SYLLABUS REVISED FOR MASTER OF ENGINEERING

Subject: Error Control Coding in Communication

PROJECT GUIDANCE

1. Wireless transmitter and receiver using FSK modulation technique by Bipin Patel, Chetan Bambhriloya, Darshan Barot. Guided as their semester project.
2. Multichannel data acquisition and control system on chip by Bipin Patel, Chetan Bambhriloya, Darshan Barot. Submitted to competition organized by Cypress Semiconductor.
3. Programmable Logic Controller (PLC) using PSoC by R. Jaylakshmi, Radhika Vadodariya, Bhavisha Soni. Submitted to competition organized by Cypress Semiconductor.
4. Heart beat monitor using PSoC by Kishan Raithata, Alpesh Mandani as their semester project.
5. FSK implementation on PSoC by Amar Lalwani, Sunil Patel, Darshan Vaswani as their semester project.
6. Multichannel data acquisition system using PSoC by Hitesh Solanki, Avinash Vaghasiya, Viral Valand.
7. RFID based security system by Sanjay Jalondhra, Nishant Rathore.
8. Home Appliance Control System by Sanjay Jalondhra, Nishant Rathore.
9. Wireless control of home appliances by Stuti Shelat.
10. Study of wireless protocol by Patel Tejash, Amin Digant, Aashish Shukla.
11. Automatic Car Parking Allocation System by Jay Suthar, Kishan Patel, Sneh Gandhi.
12. Navigate the Blind by Nayan Patel, Hussain N. Bhapal.
13. Fixed and variable regulated power supply by Tejas Patel, Nikunj Rajde.
14. Audio Mixer by Apurva Soni, Bhumin Thakor and Rushi Shah.
15. Home automation system with Android app by Apurva Soni, Bhumin Thakor.
16. Universal Remote using PSoC by Yash Patel, Meet Patel, Shreya Patel, Krishna Brahmbhatt.
17. Bluetooth based home automation using PSoC by Alok Ranjan, Harsh Patel.

DISSERTATION GUIDED

1. An Energy Efficient Routing For Wireless Sensor Network Using Machine Learning Technique by Mayur Bhanderi.

PROFESSIONAL ASSOCIATION

Organization: Indian Society for Technical Education (ISTE)
Membership No.: LM 111352

TECHNICAL SKILLS

Programming / Markup: C, HTML
Software / Tools: MATLAB, SciLab, Arduino, Xilinx
PCB Design: DIPTRACE

AREAS OF INTEREST

- Hardware/Software Programming
- Wireless Communication
- IoT based Application
- Computer Networks

WORKSHOPS, CONFERENCES, FDPS & ACADEMIC ACTIVITIES ATTENDED / ORGANIZED

1. Attended Certificate course in communication skills through Technology from 14th May to 19th May 2007 at CDC.

2. Attended short term school on "Teaching learning process" on 28th May to 31st May 2007 at ADIT.

3. Attended one day symposium on "Adaptive Signal Processing" on 1st March 2008 at GCET.

4. Attended one day symposium on Gujarat Technological University Prospect & Retrospect on 23rd February 2008.

5. Attended three day workshop on "Advanced Network Technology with Linux, Windows and Microtik" during 12th June to 14th June 2008 by IT Department at GCET.

6. Attended two days workshop on Analog-digital design and PSoC on 25–26th September 2008 jointly organized by IEEE Student Branch ADIT and SLS Corporation, V.U. Nagar.

7. Attended one day symposium on signal processing and communication on 5th December 2008 at ADIT.

8. Attended Recent trends in Embedded system & its application on 1–3 January 2009 at SVIT, Vasad.

9. Attended one day symposium on signal processing, Image processing and communication on 18th April 2009 at ADIT.

10. Attended one day symposium on Antenna, Microwave and Communication on 1st August 2009 jointly organized by IEEE Gujarat Section and IEEE Student Branch ADIT.

11. Attended one day refresher course on radio frequency & Microwaves held on 17/2/2010 at ADIT.

12. Attended two days workshop designed and developed by Cypress Semiconductor at GEC Chandkheda, GTU, in the module working Capsense during 4–5 December 2010.

13. Attended IEEE International Conference on Computational Intelligence and Computing Research on 28–29 December 2010.

14. Organized: contributed as an organizing committee member in International Conference on Information, Signal and Communication on 5–6 February 2011.

15. Attended National Conference in "Recent Trends in Engineering and Technology" on 13th & 14th May 2011.

16. Attended one day regional seminar on XXI Century: Priorities in Technical and Higher Education organized by CVM in association with ISTE & GTU on 3/8/2011.

17. Organized one day workshop on "Antennas, RF Circuits and Satellite Communications" on 25/8/2012 at ADIT.

18. Attended three days faculty development program on NI LabVIEW and applications from 12/9/2012 to 14/9/2012 with technical support from National Instruments, Bangalore at ADIT.

19. Attended one day seminar on MATLAB & Simulink for engineering education conducted by MathWorks on 12/07/2013.

20. Organized International workshop on sensor network and wireless communication as a program committee member on 9, 10, 11 Oct 2013.

21. Conducted Programmable System on Chip workshop conducted by BIT on 19 Oct 2013 at Babaria Institute of Technology, Varnama.

22. Conducted GTU & C-DAC one day workshop for research students and professors on embedded system: SoC based approach – Application and case studies on 25th Jan 2014.

23. Conducted workshop on PSoC for five days for third year EC students on 1/2/2014, 15/2/2014, 1/3/2014, 15/3/2014, 29/3/2014.

24. Organized two days workshop on MATLAB on 27–28/9/2014 at ADIT.

25. Organized first invited talk on "Efficient Clustering Algorithms for Cell Phone Based Sensor Networks" by Dr. Mehul Shah under Mobile & Wireless Technology Club on 19/9/2014 at ADIT.

26. Attended expert talk on disaster assessment using geo spatial technique on 15th Oct 2014 at ADIT.

27. Organized expert lecture on Probability and Random Process for PG students on 27th Dec 2014. Lecture was conducted by Dr. Yogesh Trivedi, Nirma University.

28. Organized as a program committee member on Electronics & ICT: "Marching Towards Smart Society" on 24th Jan 2015.

29. Organized expert lecture on "Network Fundamentals" under Mobile & Wireless Technology Club on 5/3/2015 & 31/3/2015 at Room No. 141, ADIT. Lecture was conducted by Sudarshan N. Patel.

30. Organized PCB design workshop for 1st and 2nd year students in TECH-FEST 2015 on 8–9/4/2015 at ADIT.

31. Event coordinator in ENGG DAY event TECHNIX'15 for 12/9/2015, 13/09/2015 and 15/09/2015.

32. Attended Spectrum 2016 event coordinator of Digilog event for 22/2/2016, 23/2016, 24/2/2016.

33. Attended symposium on women empowerment program organized by CWDC of MBICT in collaboration with ADIT, SMAID, & IICP sponsored by GUJCOST on 15th March 2016.

34. Attended one week FDP on recent trends in wireless & communication and networking, February 29–5th March 2016 at BVM.

35. Organized as event co-ordinator of Android app development by Prakash Gajjar on 1/4/2016 at ADIT.

36. Delivered an expert talk on embedded system using PSoC on 22/4/2016 at Girls Polytechnic, Surat.

37. Volunteer committee incharge in event Electronics 2020 & Beyond, 16th July 2016.

38. Videography coordinator and made press note in Halla Bol Season–II, 8/8/2016.

39. Attended one day organ donation awareness program on 9th Sep 2016.

40. Industrial Visit at Circuit Systems India Ltd. at Gandhinagar with Sem-3 students on 10th Sep 2016.

41. Attended entrepreneurship and health awareness for women in Engineering on 17th Sep 2016 organized by Women in Engineering Affinity Group.

42. Industrial Visit at Polycab Limited, Halol with Sem-5 students on 22nd Sep 2016.

43. Organized: organizing committee member in the organization of 147th Gandhi Jayanti celebration-2016 on 2nd Oct 2016 at ADIT.

44. Mentoring group of 7 students in Women's Day celebration organized by IEEE Women in Engineering, IEEE Student Branch on 8th March 2017 at ADIT.

45. Conducted expert lecture on embedded system using PSoC for lab assistants and faculties from different department on 16th Dec 2017 in Room No. 305.

46. Attended ISTE State Annual Faculty Convention 2017 at ADIT on 30/12/2017.

47. Organized expert talk on "Future Scope After Engineering" by Kunjan Shah on 6th Jan 2018 under IEEE Student Branch.

48. Committee member of FDP on "Faculty Development Programme on Entrepreneurship Development" at ADIT during 5th–7th March 2018.

49. Brain storming session on how to identify real world problem on 27th June 2018 and role of faculty advisor in student counselling on 30th June 2018.

50. KIA workshop on skills for student parenting and Team Creativity @ Workplace on 13/12/2018 and 17/12/2018.

51. Webinar on Netsim software on 1/2/19 organized by ADIT.

52. Event faculty coordinator in Circuit Chakravyuh in Spectrum '19 National Level Techfest on 20 & 21 Feb 2019.

53. Women's Day celebration on 8/3/19.

54. GUJCOST sponsored workshop on Applications of MATLAB software in other engineering disciplines by MBIT on 18/6/2019 and 19/6/2019.

55. KIA workshop on domain knowledge organized by H. M. Patel Career Development Centre on 21/6/2019 and 22/6/2019.

56. FDP on Universal Human Values organized by AICTE at BVM, 1, 2, 3/7/2019.

57. Attended unboxing GITHUB (A beginner's guide to GITHUB).

58. Talk on "From your Ph.D./ Masters Thesis to a start-up" in MIC Driven Activity of Quarter 3 by 23 April 2021 (Friday).

59. Organized Electronics Ideation workshop at IDEA LAB on 8/8/2022 to 10/8/2022.

60. Invited as a judge on Toyathon in IMAZE'23 on 13th Dec '23.

61. Local Advisory Committee Member in "3rd International Conference on Women in Science & Technology: Creating Sustainable Career" during 28–30 December 2023.

62. Attended one day FDP on “Innovative Practices to Enhance Learning” organized by Electrical Engineering Department, Government Polytechnic, Palanpur on 17-02-24.

63. Attended one day webinar on Leveraging Technology for Better Educational Outcomes on 2/8/2024.

64. Attended FDP on Outcome Based Competency-Focused Curriculum Design on 3rd Aug 2024.

65. Attended One-Week FDP on Semiconductor Chip Design and Applications on 25th November 2024 to 30th November 2024.

66. Invited as a judge at the Digital Fundamental Project Competition 2024 at GCET on 15/11/2024.

67. Participated in one day Seminar on “Effective Journal Paper Writing” on December 21, 2024.

68. Participated in International Conference on Synergetic Development through Smart Technology and Digital Transformation (SDSTD-2025) during 25–26 June 2025.

69. Participated in one day workshop on LaTeX organized by MBIT IEEE-SB on 6th Sept 2025.

70. Attended one week ATAL FDP on “IoT-Driven Embedded Technologies for Real World Automation” at Arunachala College of Engineering for Women from 19/01/2026 to 24/01/2026.

71. Attended one week National FDP on “Multidisciplinary Application of Semiconductor Technologies Using EDA Tools” on 20/4/2026 to 24/4/2026.

72. Attended Academic Enrichment Program “Brain to Bot: Cognitive Neuroscience and Generative AI for Next Generation Teaching & Research” on 22/6/2026 to 27/06/2026.