Payal Hitesh Shah

Assistant Professor, Electronics Department,
Sardar Patel Institute of Technology

Email id: payal_shah@spit.ac.in
Mobile: 9867368965

- **Date of joining the present institute: 19/07/2006**

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- **Scholastic record: (*Begin with the highest degree and end with XII*)**

Sr. No	Degree	Institute	Year of passing	Class/CGPI/percentage
1.	Ph.D (Electronics)	Sardar Patel Institute of Technology	Pursuing	
2.	Masters of Engineering (M.E.) *Automatic Control and Robotics*	The Maharaja Sayajirao University of Baroda, Vadodara	2005	70.71 (First Class with Distinction)
2	Bachelor of Engineering (B.E.) *Electrical Engineering*	The M.S. University of Baroda, Vadodara	2003	62.30 (First Class)
3	H.S.C.	Gujarat State Education Board, Gandhi Nagar	1999	81.85 (Distinction)

- **Teaching/Industry experience in totality: (16 years)**

1) Working as an assistant professor in Electronics Department of Sardar Patel Institute of Technology, Mumbai since July 2006

2) Worked as a teaching assistant in Electrical and Electronics Engineering Department of Faculty of Technology and Engineering of The MS university of Baroda from July 2005 to January 2006

- **Domain expertise and areas of interest:** Electronics devices and circuits, Artificial Intelligence, Neuromorphic engineering

- **Details of subjects taught:**

Sr. No.	Name of subject	Year and branch
1.	Basic Electrical Engineering	1st and 2nd -ETRX, EXTC, IT, Comp, CS-DS, CS-AIML
2.	CMOS VLSI Design	4th -ETRX
3.	Digital Signal Processing	4th -ETRX
4.	Basics of Electronics & Electrical Engg.	1st-ETRX, IT, COMPUTER
5.	Discrete Electronics Circuits	2nd- ETRX
6.	Electronic Measuring Instruments	2nd- ETRX
7.	Instrumentation Laboratory	3rd -ETRX
8.	Continuous Time Signals & Systems	3rd-ETRX
9.	Electrical Networks	2nd- ETRX
10.	Electronics Circuits Analysis & Design	2nd- ETRX
11.	Electronics & Electrical Measuring Instruments & Machines	2nd- ETRX
12.	Communication Systems	3rd -EXTC
13.	Microwave and Fiber Optic Communication	3rd-EXTC
14.	DLDA	2nd -IT
15.	Electrical Networks Analysis &Synthesis	2nd -COMPUTER

Workshops/Refresher courses/Training programs/Seminars attended and conducted as a resource person:

Course / Training Name (participant/organizing committee member)	Institute / Firm	Duration
NPTEL-AICTE Faculty development programme on "Effective Writing" (participant)	IIT Roorkee	Jan-Feb 2021 (4 Weeks equivalent to FDP of 0.5 Weeks)
NPTEL-AICTE Faculty development programme on "Effective Engineering teaching in practice" (participant)	IIT Madras	Jan-Feb 2021 (4 Weeks equivalent to FDP of 0.5 Weeks)
AICTE Sponsored FDP on "Insights into Intelligent Automation, Machine Learning and Data Science: Data Science and Its Applications" (Organizing committee member)	Sardar Patel Institute of Technology, Mumbai	Dec 2021 (2 Weeks)
AICTE Sponsored STTP on "VLSI Design Using Cadence Tools: Mixed Signal VLSI Design" (organizing committee member, participant)	Sardar Patel Institute of Technology, Mumbai	Nov-Dec 2021 (1 Week)
AICTE Training And Learning (ATAL) Academy Online FDP on "Biosimilar Technology" (participant)	Sardar Patel Institute of Technology, Mumbai	Nov 2021 (5 days)
AICTE Sponsored FDP on "Insights into Intelligent Automation, Machine Learning and Data Science: Artificial Intelligence and Machine Learning" (Organizing committee member)	Sardar Patel Institute of Technology, Mumbai	Nov 2021 (2 Weeks)
AICTE Sponsored STTP on ""VLSI Design Using Cadence Tools: Analog CMOS VLSI Design" (organizing committee member, participant)	Sardar Patel Institute of Technology, Mumbai	Nov 2021 (1 Week)
AICTE Sponsored FDP on "Insights into Intelligent Automation, Machine Learning and Data Science: Foundation of Data Science" (organizing committee member)	Sardar Patel Institute of Technology, Mumbai	Oct. 2021 (2 Weeks)
AICTE Sponsored STTP On "VLSI Design Using Cadence Tools: Digital CMOS Design and Verification" (organizing committee member)	Sardar Patel Institute of Technology, Mumbai	Oct 2021 (1 Week)

MOOC Course on "Excel Skills for Business: Essentials" (participant)	Coursera	Aug-Sep. 2020 (6 Weeks- 2 to 4 hours per week)
FDP on "Interactive-Impactful E-Learning Techniques" (participant)	K.C. College of Engineering and Management Studies & Research, Thane	July 2020 (3 days)
FDP on "Research in Engineering- A way forward" (participant)	A. P. Shah Institute of Technology, Thane	July 2020 (5 days)
NPTEL-AICTE Faculty development programme on "Soft Skills" (participant)	IIT Roorkee	July-Oct. 2019 (12 Weeks equivalent to FDP of 1.5 Weeks)
AICTE Sponsored Faculty development programme on "Consumer Electronic Product Design, Testing, Reliability and Patenting" (organizing committee member)	Sardar Patel Institute of Technology, Mumbai	July 2019 (2 Weeks)
AICTE Sponsored STTP on "Front End VLSI Design and Verification" (organizing committee member, participant)	Sardar Patel Institute of Technology, Mumbai	June 2019 (1 Week)
NPTEL-AICTE Faculty development programme on " CMOS Digital VLSI Design" (participant)	IIT Roorkee	Feb-April 2019 (8 Weeks equivalent to FDP of 1 Week)
NPTEL-AICTE Faculty development programme on " Teaching And Learning in Engineering(TALE)" (participant)	IISc Banglore	Feb-March 2019 (4 Weeks equivalent to FDP of 0.5 Weeks)
Workshop on "Flipped Learning (participant)	Bhavan's College, Mumbai	Oct. 2018(2 days)
AICTE-ISTE sponsored Faculty development programme on "Innovative Teaching Learning Practices to Achive Outcome Based Education and Accreditation"(organizing committee member, participant)	Sardar Patel Institute of Technology, Mumbai	May 2018 (1 week)
AICTE-ISTE approved CAS programme on " Numerical Techniques in Engineering Research" (participant)	Sardar Patel Institute of Technology, Mumbai	Dec 2017 (1 week)
AICTE Sponsored National Seminar on " Technologies for Development of Rural Areas" (organizing committee member, participant)	Sardar Patel Institute of Technology, Mumbai	Nov. 2017 (2 days)

Faculty development programme on "Open Source Tools for Developing Innovative Things"(Co-ordinator, resource person)	Sardar Patel Institute of Technology, Mumbai	July 2017 (1 week)
ISTE STTP on " CMOS, Mixed Signal and Radio frequency VLSI Design" (participant)	IIT Kharagpur, Remote Centre SPIT, Mumbai	Dec. 2016-Feb. 2017 (2 weeks)
Troubleshooting event (TSE-2016) (Organizing committee member)	Sardar Patel Institute of Technology, Mumbai	Sept. – Oct. 2016 (3 days)
Workshop on "Open Source Simulation Software" (Resource person)	SPIT IEEE & IETE	October 2016 (1 day)
NPTEL MOOC on " Introduction to Research" (participant)	IIT Madras	July- Sept 2016 (8 weeks - 20 Hrs)
Faculty development programme on "Use of ICT in Education for Online and Blended Learning"(participant)	IIT Bombay, Remote Centre SPIT, Mumbai	May-July 2016 (4 weeks)
Faculty development programme on "Outcome Based Education-Innovative Teaching Learning Practices and Evaluation"(organizing committee member)	Sardar Patel Institute of Technology, Mumbai	May 2016 (5 days)
Faculty development programme on "Advanced Technologies in Electronics Engineering"(organizing committee member)	Sardar Patel Institute of Technology, Mumbai	Nov.-Dec. 2015(5 Weeks)
Troubleshooting event (TSE-2015) (co-ordinator)	Sardar Patel Institute of Technology, Mumbai	Sept 2015(3 days)
Faculty development programme on "Basic Electrical, Electronics and Electrical Machines"(organizing committee member, resource person)	Sardar Patel Institute of Technology, Mumbai	July 2015(1 Week)
Faculty development workshop on Embedded System Design using ARM mbed & Cypress PSoC(participant)	Sardar Patel Institute of Technology, Mumbai	May 2015(2 days)
Faculty development programme on "Elecronic System Design: From Devices to Applications"(organizing committee member, participant)	Sardar Patel Institute of Technology, Mumbai	May 2015(2 Weeks)

CEP course on "Use of Circuit Simulation In Teaching Electronics"(participant)	IIT Bombay	March- 2015(2 days)
Faculty development workshop on ARM mbed PLATFORM	Sardar Patel Institute of Technology, Mumbai	July 2013(1 day)
Workshop on Analog Electronics (participant)	IIT Kharagpur, Remote Centre SPIT, Mumbai	June 2013 (2 Weeks)
Workshop on Technical Paper Writing (participant)	Sardar Patel Institute of Technology, Mumbai	July 2011 (2 days)
Workshop on Neural Network and Fuzzy Logic (co-coordinator)	Sardar Patel Institute of Technology, Mumbai	March 2010 (2 days)
Workshop on Embedded System Design with DSP Implementation (laboratory expert)	The M.S. University of Baroda, Vadodara	Dec 2005 (2 Weeks)
Workshop on Designing with Digital Signal Processors and Controllers (participant)	The M.S. University of Baroda, Vadodara	Jun 2004 (2 Weeks)
Workshop on Mixed Programming using C/C++ and MATLAB for Engineering Applications (laboratory expert)	The M.S. University of Baroda, Vadodara	Dec 2003 (2 Weeks)
Vocational Training	Jyoti Limited, Vadodara	Jun 2002 (2 Weeks)

- **Membership of professional bodies:** ISTE [Life Member (LM 91071)]
- **Publications:**

International Conferences

Sr. No.	Publisher	Title of International conference	Title of paper/article/poster presentation	Schedule and venue of conference
1.	IEEE	TRIBES-2021	Design of Retinal Ganglion and Bipolar Cell Exhibiting Near Biological Response	IIITNR, Naya Raipur, 17th -19th Dec. 2021
2.	IEEE	ICAC3 2021	Layout of a Neuromorphic Integrated Circuit for Differential Motion Detection	Fr. CRCE, Mumbai, 3rd -4th Dec 2021
3.	IEEE	ICCCNT 2021	Automatic Detection of Bikers with No Helmet and Number Plate Detection	IIT Kharagpur, 6th -8th July 2021
4.	IEEE	ICCICT 2021	Review of Bio-inspired Silicon Retina: From	SPIT, Mumbai, 25th

			Cell to System Level Implementation	-27th June 2021
5.	IEEE	ICCICT 2021	VerifyB - Students' record management and verification system	SPIT, Mumbai, 25th -27th June 2021
6.	IEEE	ICCICT 2021	Smart Parking Solutions for On-Street and Off-Street Parking	SPIT, Mumbai, 25th -27th June 2021
7.	IEEE	VDAT-2020	Modelling the Spiking Behaviour of Ganglion Cells	IIT Bhubaneswar, 23rd -25th July 2020
8.	IEEE	ICESCS 2020	An FPGA based Hardware Emulator for Neuromorphic Chip	Hindustan Institute of Technology, Coimbatore, Tamil Nadu 2nd -4th July 2020
9.	IEEE	IBSSC 2019	AgriBot - An intelligent interactive interface to assist farmers in agricultural activities	IITB, Mumbai; 26th -28th July 2019
10.	IEEE	ICECA 2019	Proportionate Study of Neuron Models for Implementation of Neural Encoder	RVS Technical Campus, Coimbatore; 12th -14th June , 2019
11.	IEEE	ICOEI 2019	Driver Assistant System using Haar Cascade and Convolution Neural Networks(CNN)	SCAD College of Engineering and Technology, Tirunelveli; 23rd -25th April,2019
12.	IEEE	ICICCS 2018	Efficient and Feasible Gesture Controlled Robotic Arm	Vaigai College of Engineering, Madurai, 14th -15th June 2018
13.	IEEE	I2C2'17	Feature Extraction and Selection Methods for Motor Imagery EEG Signals : A Review	Karpagam College Of Engineering, Coimbatore; 23rd-24th June 2017
14.	IEEE	ICIIECS'16	Range Doppler Algorithm for Ground Based FMCW X-band Synthetic Aperture Radar	Karpagam College of Engineering, Coimbatore; 17 March 2016

15.	KCCEMSR, Mumbai	ICONECT'16	Atmosphere tracking system using AVR controller	KCCEMSR,Mumbai; 10th -11th March 2016
16.	IEEE	ICTSD 2015	A low powered Auto-titrator using pH endpoint detection	DBIT, Mumbai; 4th – 6th Feb. 2015
17.	VJTI, Mumbai	INTERFACE 2014	Vehicular data acquisition system	VJTI, Mumbai; 27th -28th June 2014

▪ **Details of National and International Journal publications:**

Sr. No.	Title of Journal	Title of paper	Co-authors
1.	IOSR Journal of VLSI and Signal Processing	A Hybrid Approach for MRI Based Statistical Feature Extraction to Detect Brain Tumor	Narbada Jhalwa, Dr. Rajendra Sutar

▪ **Contribution to Corporate life and management of the Department and Institution:**

Name of institute/ Government body	Role/Position/ Name of committee	Description of service/contribution
Sardar Patel Institute of Technology	Co-ordinator for Management minor course from 2021-22	Done co-ordination for execution of minor course in management offered by SPJMIR
	Member of CodeChef training programme	Faculty Co-ordinator for ETRX department
	ICCICT 2021 Publicity Committee member	Done publicity of ICCICT 2021 on social media
	Reviewer for ICCICT 2021	Reviewer for IoT, VLSI and Embedded Systems track
	Admission Committee member	Member of Scrutiny level 2 committee for 2020-21 and 2021-22
	SMC Committee member	Co-ordinator for ETRX department from 2020-21(published department student achievements and departmental activities updates on social media)
	Co-ordinator for ABL 5	Co-ordinator for ETRX and EXTC dept for summer term 2020-21

	Co-ordinator for Workshop on "SequelApp" conducted by Dr. M. B. Patil	Worked as co-ordinator for the workshop conducted in Jan 2021.
	Member of Department library committee	Look after the issue mechanism of books
	Member of NBA committee	Updating of files regarding SFR calculation, meeting file, department library, guest lecture for ETRX department
	Co-ordinator for Mini Project 1	Handled execution of Mini Project 1 for SE ETRX from 2020-21
	CEP Co-ordinator	CEP Co-ordinator for ETRX department.
	Committee member of Syllabus setting team for autonomy	Helped in setting and revising syllabus for various courses of ETRX dept. like BEE ,EMIL, EM, AE- I, AE- II, CVD, Instrumentation
Mumbai University	Examiner	Correction, revaluation, moderation of university exam papers