

Moradabad Institute of Technology

Deptt. of Electronics & Communication Engineering

Faculty Profile

1. Name : Dr. Amit Saxena
2. Email: amitssaksena@gmail.com
3. Contact No: 9411680554
4. Academic Experience: 17 years
5. List of Subjects Taught: 12
6. List of B.Tech Project Guided : 26
7. List of Publications: 36
8. List of Books published / Monograph/ Patents : none
9. List of Workshop/Training/STC attended : 08 (attended) + 07 (organized)
10. Plan after Ph.D. / M.Tech. / B.Tech. : completed Ph.D. under the guidance of Dr. Kshitij Shinghal (Head, ECE, MIT Moradabad) from Monad University. The topic of Ph.D. is “An Efficient Adiabatic Switching Circuit Design for Low Power Applications”. Till date I have published 13 papers in international journal & 8 papers in international / national conferences.
11. Professional Membership:
 - a. Regular Member of International Association for Engineering & Technology
 - b. Life Member of ISTE. (LM-45427)
 - c. Member of IET.



List of Subjects Taught

1.	Analog integrated circuits.
2.	Automatic control systems.
3.	Microwave Engineering.
4.	Power electronics.
5.	Network and Systems.
6.	Digital electronics.
7.	Filter Design.
8.	VLSI Design.
9.	Solid State Devices and Circuits.
10.	Switching theory and logic design.
11.	Integrated Circuit.
12.	Integrated Circuit Technology

List of B.Tech Project Guided

1.	Automatic Introduction Motor Starter with programmable Timer
2.	Digital Speech Security System
3.	Intelligent miner
4.	Solar powered water pump controller
5.	Digital Speech Security System
6.	Petro chemical monitoring system
7.	Arithmetic Logic Unit Demonstration Board
8.	Digital security system
9.	Pulse width modulated inverter
10.	Controlling of robot using mobile phone
11.	The spy robot
12.	Photo Sensive Room Light Counter
13.	Wireless Sensor Network Use In Agriculture
14.	Border Security System
15.	CAR Parking with Automatic Fee Collection
16.	Automatic Security System
17.	Fingerprint Based Security System
18.	Real Time Patient Motion Monitoring System
19.	Biometric Based Secured Access
20.	RF Controller 3-Axis Robotic ARM
21.	Keyless Mobile Controlled Lock System
22.	Electricity Deneration Through Speed Braker

23.	Home Surveillance System Based on MCU+GSM
24.	Design of Low Power CMOS Cell Structures using Positive Feedback Adiabatic Switching Principle
25.	Design of Adiabatic Logic circuit for Low Power Applications
26.	Low Power Design of Inverter Using Adiabatic Logic -TSEL

List of Publications

1.	Amit Saxena et.al, “Design of Low Power Inverter using Positive Feedback Adiabatic Switching Principle”, in National Conference on Advances in Electronics & Communication Engineering (AECE-2014), March 27-28, 2014, pp.112-117.
2.	Amit Saxena et.al, “Pass Transistor Logic Circuit for Low Power Applications”, in National Conference on Advances in Electronics & Communication Engineering (AECE-2014), March 27-28, 2014, pp.95-99.
3.	Amit Saxena et.al, “Performance Analysis of CMOS & Adiabatic NAND & NOR Logic Circuit”, in National Conference on Advances in Electronics & Communication Engineering (AECE-2014), March 27-28, 2014, pp.90-94.
4.	Amit Saxena et.al, “Low power design inverter using adiabatic logic”, ICAEECE-2014, March 8-9, 2014.
5.	Amit Saxena et.al, “Design & Performance Comparison of Adiabatic Logic Circuits for Low Power Applications”, ICAEECE-2014, March 8-9, 2014.
6.	Amit Saxena et.al, “Low power adiabatic switching circuits: A review”, ICAEECE-2014, March 8-9, 2014.
7.	Amit Saxena et.al, “A Review of Energy Dissipation for Adiabatic Switching of CMOS based Logic Circuits”, ICAEECE-2014, March 8-9, 2014.
8.	COMPARATIVE ANALYSIS OF CONVENTIONAL CMOS & ADIABATIC LOGIC GATES - Amit Saxena, Deepti Shinghal, Arti Noor, MITJEC, Vol 4 No. 1, Jan2014, pp.39-43
9.	ADIABATIC LOGIC CIRCUITS: A RETROSPECT - Deepti Shinghal, Amit Saxena, Arti Noor, MIT International Journal of Electronics & Communication Engineering, Vol. 3, No. 2, pp. 108-114, August 2013.
10.	POWER EFFICIENT ADIABATIC SWITCHING CIRCUITS – Amit Saxena, Deepti Shinghal, Arti Noor, MIT International Journal of Electronics & Communication Engineering, Vol. 3, No. 2, pp. 98-103, August 2013.
11.	POWER EFFICIENT CMOS BASED REVERSIBLE LOGIC CIRCUIT USING ADIABATIC SWITCHING PRINCIPLES – Amit Saxena, Kshitij Shinghal, National Conference on VLSI Design & Embedded Systems (NCVDES-2011) at CSIR-CEERI Pilani, Rajasthan, Oct. 12-14, 2011.
12.	MICROPROCESSOR BASED FAULT TOLERANT MECHATRONICS SYSTEM – Deepti Shinghal, Dinesh Chandra, Kshitij Shinghal, Amit Saxena, National Conference on advances in Mechanical Engineering, NCAME-2009.
13.	SWARM INTELLIGENCE MODEL FOR – ROBOTICS APPLICATION IN MOBILE SURVEILLANCE - Amit Saxena, Dinesh Chandra, Kshitij Shinghal, National Conference on Emerging Technologies (NCET-09) at MIT, Moradabad, January 24-25, pp. 220-226.
14.	COMPRESSION AND STORAGE OF MEDICAL DATA IN PACEMAKER - Nishant Saxena, Shuchita Saxena, Deepti Shinghal, Amit Saxena, National Conference on Emerging Technologies (NCET-09) at MIT, Moradabad, January 24-25, pp. 339-346.
15.	INSTRUMENTING THE WORLD WITH WIRELESS SENSOR NETWORK: A SURVEY - Kshitij Shinghal, Arti Noor, Neelam Srivastava, Amit Saxena, , National Conference on Emerging Technologies (NCET-09) at MIT, Moradabad, January 24-25, pp. 299-302.

16.	DESIGN OF SYSTEMS ON A CHIP: AN INTRODUCTION - Kshitij Shinghal, Arti Noor, Amit Saxena, Deepti Shinghal, , National Conference on Emerging Technologies (NCET-09) at MIT, Moradabad, January 24-25, pp. 280-283.
17.	SYSTEM-ON-A-CHIP VERIFICATION: A SURVEY - Kshitij Shinghal, Amit Saxena, Deepti Shinghal, Shuchita Saxena, Nishant Saxena, National Conference on Emerging Technologies (NCET-09) at MIT, Moradabad, January 24-25, pp. 275-279.
18.	SOC DESIGN WITH FPGAS USING HDLS - Deepti Shinghal, Amit Saxena, Kshitij Shinghal, Shuchita Saxena, Nishant Saxena, National Conference on Emerging Technologies (NCET-09) at MIT, Moradabad, January 24-25, pp. 266-268.
19.	FAULT TESTING AND DIAGNOSIS OF MICROPROCESSORS - Deepti Shinghal, Dinesh Chandra, Kshitij Shinghal, Amit Saxena, National Conference on Emerging Technologies (NCET-09) at MIT, Moradabad, January 24-25, pp. 249-252.
20.	REDUCTION OF DELAY IN EXECUTION OF FLOATING POINT QUANTITIES IN DLX PROCESSORS – Tushar Pandey, Amit Saxena, Kshitij Shinghal, National Conference on Emerging Technologies (NCET-09) at MIT, Moradabad, January 24-25, pp. 262-265.
21.	SoC DESIGN WITH PROGRAMMABLE LOGIC IP CORES – Deepti Shinghal, Dinesh Chandra, Kshitij Shinghal, <u>Amit Saxena</u> , National conference on Emerging Trends in Embedded Technology, at SGIT, Ghaziabad, February 14, 2009.
22.	ROBOT SMART VISION SENSORS-A MECHATRONICS APPLICATION- Kshitij Shinghal ¹ , Amit Saxena ² , Nishant Saxena ³ , Deepti Shinghal ⁴ , Shuchita Saxena ⁵ , National Conference on advances in Mechanical Engineering, NCAME-2009.
23.	EMBEDDED SYSTEM BASED SWARM SURVEILLANCE ROBOT – Amit Saxena ¹ , Dinesh Chandra ² , Kshitij Shinghal ³ , Shuchita Saxena ⁴ , National conference on Emerging Trends in Embedded Technology, at SGIT, Ghaziabad, February 14, 2009.
24.	MICROCONTROLLER BASED HANDHELD ECG LOGGER - Nishant Saxena, Shuchita Saxena, Kshitij Shinghal and <u>Amit Saxena</u> , National Symposium on Emerging Trends in Engineering & Technology (NSETET-07), at MIT, Moradabad, July 20-21, 2007.
25.	RISC-MICROPROCESSOR WITH SINGLE FAULT TOLERANCE - Kshitij Shinghal [*] , Shuchita Saxena [#] and <u>Amit Saxena</u> [#] , MIT Transactions.
26.	SWARM INTELLIGENCE ROBOTICS APPLICATION FOR MOBILE SURVEILLIANCE – <u>Amit Saxena</u> , Deepti Shinghal, Kshitij Shinghal and Nishant Saxena, National Symposium on Emerging Trends in Engineering & Technology (NSETET-07), at MIT, Moradabad, July 20-21,2007.
27.	SYSTEM ON CHIP - Deepti Shinghal, <u>Amit Saxena</u> , Nishant Saxena, and Kshitij Shinghal, National Symposium on Emerging Trends in Engineering & Technology (NSETET-07), at MIT, Moradabad, July 20-21,2007.
28.	HOW TO PROTECT IC DAMAGE FROM ELECTROSTATIC DISCHARGE - Tushar Pandey, <u>Amit Saxena</u> , Deepti Shinghal and Kshitij Shinghal, National Symposium on Emerging Trends In Engineering & Technology (NSETET-07), at MIT, Moradabad, July 20-21,2007.
29.	SWARM INTELLIGENCE - PCC MODEL FOR ROBOTICS, - Kshitij Shinghal [*] , Nishant Saxena [#] , <u>Amit Saxena</u> [#] , National Conference on Power Electronics & Intelligent Control, at MNIT, Jaipur, March 17-18, 2007.
30.	SINGLE FAULT TOLERANT MICROPROCESSOR – Deepti Singhal, <u>Amit Saxena</u> , Shuchita Saxena, Design Techniques for modern electronic devices, VLSI and Communication Systems DTVC-2007, NIT Hamirpur, Himachal Pradesh, 14-15 May 2007.
31.	SWARM INTELLIGENCE- DCC MODEL FOR ROBOTICS - Kshitij Shinghal [*] , Nishant Saxena [#] , <u>Amit Saxena</u> [#] , National conf. at GLA Mathura.25-27 Feb 2007.
32.	DESIGN AND IMPLEMENTATION OF ADIABATIC BASED LOW POWER LOGIC CIRCUITS - Amit Saxena, Deepti Shinghal, Kshitij Shinghal, International Research Journal of Engineering and Technology (IRJET), Volume2, Issue-2, pp-498-504, May 2015.
33.	A STUDY OF TWO WHEELER & RIDER SAFETY SYSTEM – Aman Mishra, Amit Saxena, Akansha Rajput, Aman Bhatia, Achint Agarwal, Imperial Journal of Interdisciplinary Research (IJIR), Vol-2, Issue-11, pp. 993-998, Nov. 2016.

34.	A REVIEW PAPER ON EVOLUTION OF SMART GLOVE - Harmeet Kaur, Amit Saxena, Abhishek Tandon, Keshav Mehrotra, Khushboo Kashyap, International Journal of Scientific Research and Management Studies (IJSRMS), Volume 3 Issue 3, pp. 124-128, Oct. 2016.
35.	A REVIEW PAPER ON SMART GLOVE – CONVERTS INDIAN SIGN LANGUAGE (ISL) INTO TEXT AND SPEECH - Abhishek Tandon, Amit Saxena, Keshav Mehrotra, Khushboo Kashyap, Harmeet Kaur, International Journal for Scientific Research & Development (IJSRD), Vol. 4, Issue 08, pp. 269-272, Oct. 2016.
36.	DESIGN OF AUTOMATIC & INDIGENOUS ECRADLE -Nitin Bhatnagar, Kshitij Shinghal, Amit Saxena, Niket Tiwari, Shubham Bhatnagar, Shushant Kumar, Imperial Journal of Interdisciplinary Research (IJIR), Vol-2, Issue-6, pp. 328-333, Apr. 2016.

List of Workshop/Training/STC attended

1.	“Teaching Methods and Improvement of Teaching Learning Process” conducted by Centre for continuing education, Indian Institute of Technology, Roorkee, on January 31 – February 01, 2004.	Attended
2.	“Faculty Development Programme” conducted by Centre for continuing education, Indian Institute of Technology, Roorkee on December 04 – 05, 2004.	Attended
3.	Trends in Microwave Engineering, conducted by scientists of DRDO at MIT Moradabad.	Attended
4.	Two Days Workshop on Trends in VLSI Design conducted in JSS, Noida in association with CDAC , Noida.	Attended
5.	Four Weeks Summer Training on Embedded Systems from 11 June 2011 to 8 July 2011 by CETPA INFOTECH PVT. LTD. at MIT Moradabad.	Attended
6.	Application of MATLAB, OrCAD / SPICE Simulation tools in Engineering (MOS-2008) conducted by NIT, Hamirpur from 30 th June- 11 th July, 2008.	Attended
7.	One week Induction training Program through ICT conducted by NITTTR Chandigarh from 20 January 2014 to 24 January 2014.	Attended
8.	Five Days Short Term Course on VLSI through ICT conducted by NITTTR Chandigarh from 10 March 2014 to 14 March 2014.	Attended
9.	Two days workshop on robotics “ROBOBEAM” in collaboration with Robosoft Systems, Mumbai on 21-22 March’2009 in MIT Campus.	Organized
10.	Two days workshop on “Integrated Circuits and VLSI Design” conducted by Deptt. of E&C Engg. in association with C-DAC, Noida & CEERI, Pilani, on 20-21 Nov’2009 in MIT Campus.	Organized
11.	Two days workshop on PSPICE SOFTWARE conducted by Deptt. of EI/EN Engg. in association with CDAC Noida on 10-11 April,2009 at MIT Moradabad.	Organized
12.	Four days short term training program (STTP-2010) on “MATLAB & SIMULINK” at MIT Campus on 23-26 January’2010.	Organized
13.	One day workshop for faculty & non teaching staff titled “Hands on training of Instruments” on 27th March’2010 in collaboration with FIBCOM India.	Organized
14.	Two days workshop on robotics “SWARM ROBOTICS” in collaboration with Robosoft Systems, Mumbai on 27-28 March’2010 in MIT Campus.	Organized
15.	Two days workshop on “PSPICE 9.1 SOFTWARE” in association with CDAC Noida on 20-21 Nov,2010 at MIT Moradabad.	Organized
16.	Two days workshop on robotics “ROBOBEAM” in collaboration with Robosoft Systems, Mumbai on 21-22 March’2009 in MIT Campus.	Organized

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