Faculty Profile

1. Name: Amar Prakash Sinha

2. Department: Electronics and Communication Engineering

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5. Office Address: Department of ECE, BIT Sindri, Dhanbad, 828123

6. Qualification: PhD

S. No	Degree(UG, PG, PhD)	Specialization	Institute	Year
1	PhD	Electronics Engineering	IIT (ISM), Dhanbad	2018
2	M.Tech	Micro-Electronics	Panjab University, Chandigarh	2002
3	M.Sc.	Electronics	Devi Ahilya Viswa Vidyalay, Indore	2000

7. Area of Specialization: VLSI, Microelectronics, Communication Systems, Semiconductor Devices, Quantum Computation and IoT.

8. PhD (Guided): 3 ongoing

9. Subjects Taught:

I) UG:- Communication System Engineering, VLSI Technology, VLSI Design, Semiconductor Devices, Basic Electronics, Signals & Systems, Analog Electronics, Optical Fiber Communication, Digital Signal Processing, IoT etc.

II) PG:- DSP, Probability and stochastic process.

10. Professional Experience:

I) Teaching Experience:

Sl. No.	Position held	Name of Organization	from	to
1.	Associate Professor	BIT SINDRI	03.02.18	WORKING

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2.	Assistant Professor (8000 AGP)	BIT SINDRI	19.12.16 Notification	02.02.1809.01.18
3.	Assistant Professor (7000 AGP)	BIT SINDRI	19.12.11 notification	18.12.16 22.02.17
4.	Assistant Professor (6000 AGP)	BIT SINDRI	19.12.06	18.12.11
5.	Lecturer	Asansol Engineering college	23.08.05	18.12.19
6.	Lecturer	RPSIT, Patna	03.12.02	22.08.05
7.	Lecturer	GLAU, Mathura	19.07.02	02.12.02

II) Research Experience:

Sl. No.	Position held	Name of Organization	from	to
1.	M.Tech Scholar	Semiconductor Complex Ltd.	July 2001	Dec. 2001
2.	Ph.D. Scholar	IIT(ISM)	Aug. 2009	Aug. 2016

III) Industrial Experience:

Sl. No.	Position held	Name of Organization	from	to
1.	M.Tech Project	Semiconductor Complex Limited, Mohali, Punjab	July 2001	December 2001

11. Publications:

I)International Journal:

Sl. No.	Title of the paper	Name of the journal in which publication has been made	Vol/No.	Publication Year	Pages
1.	Effect of Separation and Electric Field on Single Electron States of Lateral Quantum Dots	*Journal of Nanoelectronics and Optoelectronics*	vol. 10	October 2015	616-622
2.	Refractive Index and Electronic Polarizability of Ternary Chalcopyrite Semiconductor	*Chinese Physics Letters*	vol. 32, no. 12	December 2015	227701-1-5
3.	QCNOT Gate	*Global Journal of Engineering Science and Researches*		March 2016	67-75
4.	Towards the design of hybrid QCA tiles targeting high fault tolerance	*Journal of Computational Electronics*	vol. 15	June 2016	429-445
5.	Investigation of Quantum Dot Controlled Not Gate	*International Journal of Innovative Research in Science Engineering and Technology*	*Vol. 5*	*September 2016*	15939-15946
6.	Process Selection for	*International Journal of*	Vol. 5	September	56-60

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	Automation of Photolithography in Microchip Fabrication	*Engineering Inventions*	Issue 8	2016	
7.	ECG Signal processing using Adaptive filters	*International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (IJAREEIE)*	Volume 7, Issue 5	May 2018	2781-2786
8.	A Review of ECG Signal Processing"	*International Journal of Innovative Research in Science, Engineering and Technology*	Volume 7, Issue 6	June 2018	7542-7551
9.	Self Consistent Quantum Mechanical Modelling of QCA	*International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET)*	Vol. 9 Issue 9	September 2020	9972-9978
10.	Effect of Shape of Quantum Dots on the Energy Levels of Electrons	*International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)*	Volume 1, Issue 7	October 2020	668-675
11.	Controlled NOT GATE using Quantum Dots	*International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (IJAREEIE)*	Volume 9, Issue 10	October 2020	2769-2778
12.	Process Selection of Photolithography in VLSI	*International Journal of Innovative Research in Computer and Communication Engineering (IJIRCCE)*	Volume 8, Issue 10	October 2020	3917-3921
13.	Simple Quantum Mechanical Modeling of Single Electron Fault in QCA	*International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET)*	Volume 9, Issue 10	October 2020	10085-10094
14.	Base Line Wander, Breathing, Power Line Interference Noise Suppression and QRS Detection in Scilab	*International Journal of Computer Applications (IJCA)*	Volume 175, Issue 29	November 2020	24-28
15.	Base Line Wander, Power Line Interference Noise Suppression and QRS Detection in ECG Signal using SCILAB	*International Journal for Research in Applied Science & Engineering Technology (IJRASET)*	Volume 8, Issue 11	November 2020	359-363
16.	Digital Control & Readout of MEMS Gyroscope using Second Order Sliding Mode Control	*IEEE SENSORS JOURNAL*	vol. 22, no. 21	November 2022	20567–20574

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II) International Conference:

Sl. No.	Title of the paper	Name of the Conference in which publication has been made	Vol/No.	Publication Year	Pages
1.	Effects of Separation and Electric Field on Laterally Coupled Quantum Dots	2nd International Conference on Nanotechnology, HIT Haldia.	-	2015	129
2.	Adder and Subtractor Design Suitable for Quantum-dot cellular automata	4th International Conference on Nanoelectronics , Circuits & Comm. System (NCCS-2018) at ARTTC, Ranchi on 03.11.18	-	2018	-
3.	Reviewer	International Conference on "Recent Trends in Electrical and Computer Technologies" 27th Jan. 2018	-	2018	
4.	Reviewer	International Conference on "Data Science and Application" 2-3 Dec. 2019	-	2019	
5.	Silicon Based Quantum Dots	International conference on "Data Science and Application" ICDSA-2019 2-3 Dec. 2019	-	2019	
6.	QCA Adder-Subtractor	International Symposium on 5G & Beyond for Rural Upliftment 09.02.20	Proceeding on the conference	2020	237-242
7.	Gait Analysis and optimization of Locomotion Using Wearable Sensors and Actuators through IoT	1ST International Conference on Advanced Optimization Techniques and Applications (AOTA-2023)	-	2023	

III) National Journal :

Sl. No.	Title of the paper	Name of the journal in which publication has been made	Vol/No.	Publication Year	Pages

IV) National Conference :

Sl. No.	Title of the paper	Name of the Conference in which publication has been made	Vol/No.	Publication Year	Pages

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1.	An Introduction to MEMS	National workshop on technological Challenges of 21st Century the Road Ahead. (BIT SINDRI)	Proceedings on the Workshop	2008	323-333
2.	High Efficiency Photo Voltaic Cells: the demand of modern era.	National Seminar on Environmental issue on Geotechnics & Mineral Industries. (BIT SINDRI)	Proceedings on the Conference.	2008	284-286
3.	IPTV, A new technology for bandwidth starved home.	Frontiers in Electronics, Communication, Instrumentation and Information Technology. (ISMU)	Proceedings on the Conference.	2008	204-209
4.	Advanced Study & Evaluation of Dielectric Constant for RF Applications.	National Conference on Recent Trends and Advancements in Computing. (JNCDLMC of Engineering, Sirsa)	Proceedings on the Conference.	2009	80-84
5.	Evolution of Quantum Dots	National Seminar on Recent Trends in Emerging Frontiers of Physical Sciences. (BIT Sindri)	Proceeding on the seminar	2010	97
6.	Effect of Shape of Quantum Dots on the Energy Levels of Electrons	Zonal Seminar on Nanotechnology, Invent the Future, Ranchi	Proceeding on the seminar	2012	23-28
7.	Electronics Waste Management In India	National Seminar on Energy and Environment for Sustainability (BIT Sindri)	Proceeding on the seminar	2013	287-292
8.	Green Environment Revolution India & World	National Seminar on Energy and Environment for Sustainability (BIT Sindri)	Proceeding on the seminar	2013	309-314
9.	Green Energy Sources for Green Environment	National Seminar on EIPCM (BIT Sindri)	Proceeding on the seminar	2016	220-226
10.	E-waste Hazard for Health And Environment	National Seminar on EIPCM (BIT Sindri)	Proceeding on the seminar	2016	291-295
11.	IoT-based Sensor Data Fusion for Better Energy Management for Smart Buildings	National Conference on Sustainable Energy, VNIT, Nagpur Maharashtra & SATI, Vidisha, MP 22-24 Feb2018	Proceeding on the Conference	2018	35-40
12.	Micro Electro Mechanical Systems	Workshop on "Manufacturing Automation, Robotics & Factory of Future"(MARFF) 07, Oct. 2018	-	2018	-
13.	Pollutant Profile Estimation using Unscented Kalman Filter	National Conference on Control, Signal, Processing and Energy Systems (CSPES 2018) at B. P. Poddar Institute of Management & Technology. 16th Nov. 2018	Proceeding on the conference	2018	45-47
14.	Simulation of Majorana Based Quantum Computation	National conference on "Role of Technology in Smart City Infrastructure" 9th March 2019	Proceeding on the conference	2019	

15.	Reviewer	National conference on "Role of Technology in Smart City Infrastructure" 9th March 2019	-	2019	
16.	Introduction to an Automated Chest Compression Device for Out Hospital Cardiac Arrest (OHCA)	37th Indian Engineering congress	IEC/2022/013/ET02	2022	399-405

12. Patents (Filed / Granted): NA

S. No.	Name of the Inventor	Title of the Invention	Application / Patent No. (As applicable)	Year	Status (Filed / Granted)

13. Conference/Workshop/Seminar Organized

Sl. No.	Title of Seminar / Conferences / Short – term Courses	Name of Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses	No. of Participants
1.	A workshop on VLSI Laboratory Course	Amar Prakash Sinha and Dr. Ashok Kumar	TEQIP-I	25TH -26th July 2006	30
2.	VLSI Chip Design using open source EDA	Amar Prakash Sinha & Jagveer Singh Verma	National Knowledge Network, NIT Patna	08th -12th, July 2019	24
3.	Workshop on IoT	Amar Prakash Sinha (Convener)	TEQIP	14th -18th October 2019	35
4.	Workshop on "Design and Analysis of Microwave Systems using ANSYS HFSS"	Amar Prakash Sinha, A Kumar, S K Verma	TEQIP	02-06 Nov. 2020 one Week	62

14. Symposium/ Workshop/Seminar/ Attended

Sl. No.	Title of Symposium/ Workshop/Seminar/ Short – term Courses	Date	Organizing Institute
1.	A Concise Course on The Design and Analysis of VLSI Circuits	December 13-17, 2005 (1 week)	Dept. of Electronics and Telecommunication Engg. Jadavpur University, Kolkata.

2.	A Short Term Training Program on Fundamentals of Mechatronics.	June 26-30, 2006, July 17-21, 2006 (2 weeks)	1.Kalyani Govt. Engineering College and 2. Asansol Engineering College
3.	A workshop on VLSI Laboratory Course	July 25-26, 2006	Dept of ECE, Asansol Engg. College.
4.	Short Term Course on Soft Computing Techniques & Application.	September 5-8, 2006. (1 week)	Asansol Engineering College, Asansol.
5.	Short Term Course on Recent Advances in Control Systems & Application.	October 16th - 20th 2006 (1 week)	Dept. of Electrical Engineering, Asansol Engg College.
6.	Short Term Course on Embedded System & Technology	June 25th -30th 2007 (1 week)	Continuing Education Programme, IIT Kharagpur.
7.	National Workshop on Industry Institute Interaction.	July 13th - 14th, 2007	BIT Sindri
8.	Training Program on Microelectronics & VLSI Design	October 09-11 2007	BIT Sindri
9.	National workshop on technological Challenges of 21st Century the Road Ahead.	February 8-9, 2008	BIT Sindri
10.	Training Cum Workshop Program on 'Lab View'	March 7–8 2008	BIT Sindri
11.	Workshop on Parallael & Distributed computing	March 28, 2008	Dept. of CSE ISMU Dhanbad
12.	National Seminar on Environmental issue on Geotechnics & Mineral Industries.	April 4-5, 2008	BIT Sindri
13.	Certified PLC Programmer	April 7th – 12th 2008 (1 Week)	Prolific System & Technological Pvt. LTD. BIT Sindri
14.	Summer School on 'Recent Advances in Electronics & Communication'	June 16th -29th 2008 (2 Weeks)	Dept. of Electronics & Communication Engineering, NIT Patna
15.	Frontiers in Electronics, Communication, Instrumentation and Information Technology.	Oct. 13-15, 2008	ISMU, Dhanbad
16.	Recent Trends and Advancements in Computing	Feb.27-28, 2009	Jan Nayak Ch, Devi Lal Memorial College of Engineering, Sirsa, Rajsthan
17.	National Workshop on VLSI & Embedded System Based Design.	March 6-8, 2009	NIT Jamshedpur
18.	Recent Trends in Emerging Frontiers of Physical Science.	Nov. 2-3, 2009	BIT Sindri
19.	Industry Academia workshop on "Transportation of Oil and Gas through Pipelines"	June 15-18, 2011	Petrofed and NIT Patna.
20.	Performance Enhancement Skills.	July 23 to Aug. 03 2012 (2 weeks)	BIT Sindri
21.	Zonal Seminar on Nanotechnology by IETE	Sept. 2–3, 2012	IETE
22.	INUP Familiarization workshop on Nanofabrication Technologies	Oct. 29-31, 2012	INUP, IISc Banglore

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23.	National Seminar on Energy and Environment for Sustainability	Mar. 16-17, 2013	BIT Sindri
24.	All India Seminar on RAMM	Feb. 07-08, 2014	BIT Sindri
25.	Emerging Trends in VLSI	Feb. 17 -21, 2014 (1 week)	NIT Durgapur
26.	Personality Development	Oct. 26 to Nov. 06 2015 (2 Weeks)	BIT Sindri
27.	National Seminar on EIPCM	Feb.26-27, 2016	BIT Sindri
28.	ICT Skills for Teachers	June19-24, 2017	NIT Patna
29.	TTW for Student induction	Sept15-17, 2017	IIT (BHU)
30.	International conference on Microwave and Photonics (ICMAP)	Feb. 9-11, 2018	IIT (ISM)
31.	Science and Technology of Special Steels and Nanomaterials	Feb.17-18, 2018	BIT Sindri
32.	5G Communication	June 11-15, 2018 (1 Week)	MeitY Govt. of India, IIT Guhati (online at BIT Sindri)
33.	Summer Training Program on Active Learning	June 18-22, 2018 (1 week)	IIT Gandhinagar
34.	Advancement and Application of Soft Computing in Electrical Systems	July 13-17, 2018 (1 Week)	MeitY Govt. of India, (online at BIT Sindri)
35.	Real-World Applications of Distributed Constraint Optimization Techniques and Autonomous Systems (RADCOPAS-2018)	Sept.24-28, 2018 (1 Week)	BIT Sindri
36.	Workshop on "DSP and Sensors"	Dec. 10-14, 2018 (1 Week)	MeitY Govt. of India, (online at BIT Sindri)
37.	Workshop on "VLSI Chip Design Hands on using open source EDA"	July 08 -12, 2019 (1 Week)	MeitY Govt. of India, (online at BIT Sindri)
38.	Workshop on "Deep Learning and Applications"	Dec. 09-13, 2019 (1 Week)	MeitY Govt. of India, (online at BIT Sindri)
39.	Workshop on "Multiphysics Simulation for Teaching and Research"	Nov. 22, 2019	TEQIP, BIT Sindri
40.	Workshop on IoT	Oct. 14-18, 2019 (1 Week)	TEQIP, BIT Sindri
41.	Digital Transformation in Teaching Learning Process	March 16-30, 2020 2 Weeks	TEQIP, SWAYAM
42.	The Introduction to Quantum Computing	04 May-08 June 2020 5 Weeks	Coursera
43.	Learning How to Learn	28 May -25 June 2020 (4 Week)	Coursera
44.	ATAL FDP on "Internet of Things"	Sept. 07 -11 2020(1 Week)	AICTE TEQIP

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45.	Design and Analysis of Microwave Systems using ANSYS HFSS	Nov.02-06 2020(1 Week)	TEQIP
46.	ATAL FDP on "Cloud Technology"	Nov. 09-13 2020(1 Week)	AICTE TEQIP
47.	Professional Development Training Programme for Senior Faculty of TEQIP Institutes	Feb. 01-05 2021 (1 Week)	TEQIP

15. Administrative Position Held:

S. No.	Position Held	From (date/month/year)
1.	Chief coordinator of Dept. of ECE, CSE and IT, BIT Sindri.	Jan. 2007 to 02.08.11
2.	Head Department of ECE, BIT Sindri	03.08.2011 to 17.01.17
3.	Nodal Officer TEQIP-III Project, BIT Sindri	14.02.17 working
4.	Hostel Superintendent, Hostel No. 20, BIT Sindri	16.02.17 to 18.01.19
5.	Member R & D Cell, BIT Sindri	17.03.17 Working
6.	Coordinator 8th Semester	08.01.19 to 04.08.19
7.	PG Program Coordinator	13.03.19 Working
8.	Coordinator 3rd Semester	05.08.19 to 25.11.19
9.	UG Coordinator	26.11.19 Working

16. Award/ Recognition Bestowed on Faculty (State/ National/ International): NA

17. Members of Professional Bodies: AMIE (AM 098508-5), ISTE (LM 825605).

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