

Faculty Profile

1. Name: Dr. Praveen Kumar Sahu, Assistant Professor



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6. Qualification:

S. No.	Degree (UG, PG, PhD)	Specialization	Institute	Year
1	Ph. D	Microelectronics Engineering	IIT (BHU), Varanasi	2020
2	M. Tech	Microelectronics Engineering	IIT (BHU), Varanasi	2013
3	B.E	Electronics & Communication Engineering	Oriental Institute of Science & Technology, Bhopal	2011

7. Area of Specialization: Microelectronics Engineering

8. PhD (Guided): NIL

9. Subjects Taught:

I) UG:

1. Solid State Devices & Physics
2. Analog Electronics
3. Analog & Digital Communication
4. VLSI Design

II) PG:

10. Professional Experience:

I) Teaching Experience:

Sl. No.	Position held	Name of Organization	from	to
1	Assistant Professor	BIT Sindri	18.02.2022	Till date
2	Assistant Professor	MCE Motihari	17.04.2018	17.02.2022
3	Assistant Professor	BIT Sindri	02.01.2018	16.04.2018
4	Assistant Professor	GITM Farrukhnagar	August,2013	April, 2014

II) Research Experience:

Sl. No.	Position held	Name of Organization	from	to

III) Industrial Experience:

Sl. No.	Position held	Name of Organization	from	to

11. Publications:

I)InternationalJournal:

Sl. No.	Title of the paper	Name of the journal in which publication has been made	Vol/No.	Publication Year	Pages
1	"Air-stable vapor phase sensing of ammonia in subthreshold regime of poly(2,5-bis(3-tetradecylthiophen-2yl)thieno(3,2-b)thiophene) based polymer thin-film transistor"	<i>Sensors and Actuators B: Chemical</i>	Vol. 246	July 2017	243-251
2	"Optimized hydrogen sensing characteristic of Pd/ZnO nanoparticles based Schottky diode on glass substrate"	<i>Materials Research Express</i>	vol. 4, no. 10	Oct. 2017	105014
3	"Electrical and NO ₂ sensing characteristics of Pd/ZnO nanoparticles based Schottky diode at room temperature"	<i>Materials Research Express</i>	vol. 4, no. 12	Dec. 2017	125017
4	"Fast grown self-assembled polythiophene/graphene oxide nanocomposite thin films at air-liquid interface with high mobility used in polymer thin film transistors"	<i>Journal of Materials Chemistry C</i>	vol. 6, no. 37	Sept. 2018	9981-9989
5	"Sol-gel spin coating	<i>Journal of Sol-Gel</i>	vol. 88, no. 2	Oct. 2018	322-333

	assisted room temperature operated nanostructured ZnO ethanol sensor with behavior transformation"	<i>Science and Technology</i>			
6	"Influence of alumina and silica addition on the physico-mechanical and dielectric behavior of ceramic porcelain insulator at high sintering temperature"	Boletín de la sociedad española de cerámica y vidrio		2018	
7	"Effect of ZrO ₂ on the sintering behavior, strength and high-frequency dielectric properties of electrical ceramic porcelain insulator"	<i>Materials Research Express</i>		2018	
8	"Fast Development of Self-Assembled, Highly Oriented Polymer Thin Film and Observation of Dual Sensing Behavior of Thin Film Transistor for Ammonia Vapor"	<i>Macromolecular Chemistry and Physics</i>	vol. 220, no. 11	Apr. 2019	1900010
9	"Polymer/Graphene oxide nanocomposite thin film for NO ₂ sensor: An	<i>Scientific Reports</i>	vol. 10, no. 1	Feb. 2020	

	in situ investigation of electronic, morphological, structural, and spectroscopic properties”				
10	“MoS ₂ Assisted Self-Assembled Poly(3-hexylthiophene) Thin Films at an Air/Liquid Interface for High-Performance Field-Effect Transistors under Ambient Conditions”	<i>The Journal of Physical Chemistry C</i>	vol. 124, no. 15	Mar. 2020	8101-8109

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	“High performance Multi Threshold voltage level converter for multi-V _{DD} systems”	<i>Students Conference on Engineering and Systems, SCES 2013, MNNIT Allahabad.</i>		2013	
2	“Clock distribution networks-A case study using multi V _{DD} and multi threshold level converters”,	<i>IEEE International Conference on Signal Processing, Computing and Control (ISPCC), 2013, JUIT Shimla.</i>	no. 2	2013	1-4
3	“Ground bounce noise minimization using Multi-V _{DD} Level Converter”	<i>IEEE International Conference on Electronics, Computing and Communication Technologies, 2014, IISc Bangalore.</i>		2014	

4	"Design and Simulation of Low Leakage SRAM CELL"	<i>Third International Conference on Devices, Circuits and Systems (ICDCS'16), 2016, Karunya University, Coimbatore.</i>		2016	73–77
5	"Synthesis of Na Doped ZnO Nano-Particles for Detection of Reducing Gases"	<i>IEEE Uttar Pradesh Section International Conference on Electrical, Computer and Electronics Engineering (UPCON), 2016, IIT (BHU), Varanasi.</i>		2016	102–105
6	"Development of nanocrystalline ZnO-SnO ₂ composite based platform for gas sensing applications"	<i>IEEE Uttar Pradesh Section International Conference on Electrical, Computer and Electronics Engineering (UPCON), 2016, IIT (BHU), Varanasi.</i>		2016	142–145
7	"Development of highly stable non-invasive ammonia sensor for the detection of sub-ppm level concentration of ammonia"	<i>ICNME 2016, Japan.</i>		2016	
8	"Design of DRAM sense amplifier using 45nm technology",	<i>International Symposium on Devices, Circuits and Systems (ISDCS), IEST Shibpur.</i>		2018	
9	"Enhanced Sensing Performance of Nanostructured	<i>IEEE SENSORS, New Delhi, India.</i>		2018	

	SnO ₂ Sensor Through Oxygen Plasma Treatment”				
10	“Design and Analysis of Low Leakage SRAM cell at 45nm Technology”	<i>GUCON 2019, Greater Noida, India.</i>		2019	

II) 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

12. Patents (Filed / Granted)

S. No.	Name of the Inventor	Title of the Invention	Application / Patent No. (As applicable)	Year	Status (Filed / Granted)
1	P. K. Sahu, Devesh Mishra, Gopal Rawat, C. S. Singh Chandal	“(PETS-NET) IOT enabled petroleum sensor network for detecting and locating leakage of a pipeline in environmental application”	Indian Patent application no. 202131007171 A	2021	Publication Date: 19.03.2021
2	Gopal Rawat, C. S. Singh	“Development of a modular hall effect-based sensor	Australian Patent application no.	2021	Publication Date:

	Chandal, Devesh Mishra, P. K. Sahu	network for pipeline integrity monitoring”	2021101442		28.04.2021
3	Devesh Mishra, Supriya Jaiswal, C. S. Singh Chandal, Gopal Rawat, P. K. Sahu	“(PETS-NET) IOT enabled petroleum sensor network for detecting and locating leakage of a pipeline in environmental application”	Indian Patent application no. 202111036906 A	2021	Publication Date: 03.09.2021

13. Conference/ Workshop/Seminar/ Organized

Sl. No.	Title of Seminar / Conferences / Short – term Courses	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses
1.	Industry Relevant Embedded System Design using Proteus VSM Software	TEQIP-III, MCE Motihari	18 th – 19 th Sept. 2018.

14. Symposium/ Workshop/Seminar/ Attended

Sl. No.	Title of Symposium/ Workshop/Seminar/ Short – term Courses	Date	Organizing Institute
1.	Summer Training Program on Active Learning for Senior Faculty	02-06 th June, 2018	IIT Kanpur
2.	Smart Sensors and Systems: From Simple Sensing to Internet of Things (IoT) & Cyber Physical Systems (CPS)	22-27 th October, 2018	IIT (BHU), Varanasi
3.	Materials Characterization for Engineers	24-29 th December, 2018	IIT (BHU), Varanasi
4.	STTP on “ Induction Phase - I ”	13-24 th January, 2020.	NITTTR, Bhopal
5.	STTP on “ Induction Phase - II ”	29-07 th July, 2020.	NITTTR, Bhopal
6.	Management Development Programme on “ Professional Development Training Programme for TEQIP institutions ”	25-30 th January, 2021.	IIM Kozhikode

15. Administrative Position Held:

Sl. No.	Position held	Name of Organization	from	to
1	Nodal officer finance, TEQIP-III	MCE Motihari	25.01.2018	17.02.2022
2	BURSAR CUM CFMS CHECKER	Do	14.05.2020	17.02.2022
3	Assistant Registrar (Finance)	Do	24.08.2020	17.02.2022
4	APIO	Do	24.08.2020	17.02.2022
5	Coordinator, IQAC	BIT Sindri	August, 2012	Till date

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

- **Qualified in** Graduate Aptitude Test in Engineering (GATE) - 2011. All India rank was 881 in the Subject EC (Percentile: above 99).
- **Qualified** UGC-NET held on **Dec. 2012** for the post of **JRF**.
- **Secured second rank** the class in **Xth and XIIth standard**.
- **Junior Research Fellowship (NET-JRF)** from University grant commission (UGC), India, 2014.
- **Teaching Assistantship (TA)** from Indian Institute of Technology (BHU), Varanasi, India.
- **Successfully completed** eight (08) module MOOC certification courses from NITTT as prescribed by All India Council for Technical Education (AICTE) for new faculty members.

REVIEWER:

IEEE Transaction on Nanotechnology,
Nanotechnology (IOP Publishing),
Physica Scripta (IOP Publishing).

17. Members of Professional Bodies: