

Faculty Profile

Faculty Name	Dr. Sandeep Sharma
Designation	Assistant Professor (ECE)
Qualification	PhD, M.tech, B.tech
Email	drsandeep.ece@piet.co.in
Area of Interest	Microelectronics
Work Experience (Total)	
<ul style="list-style-type: none"> ● Teaching 	2 years 6 months
<ul style="list-style-type: none"> ● Research 	
<ul style="list-style-type: none"> ● Industry 	
<ul style="list-style-type: none"> ● Others 	
Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate Diploma Level	Digital Electronics Electronics Devices and Circuits Analog Circuits VLSI Verilog HDL
Membership of Professional Bodies	IEEE
Research Publications	14
<ul style="list-style-type: none"> ● Research Papers UGC-CARE 	
<ul style="list-style-type: none"> ● Research Papers SCOPUS 	3
<ul style="list-style-type: none"> ● Research Papers WoS/SCI/ABDC 	10
<ul style="list-style-type: none"> ● List of Publications 	<ol style="list-style-type: none"> 1. Bhoop Singh, Karamvir Singh, Sandeep Sharma, Ravi Kumar, B. Prasad, and Dinesh Kumar. "Channel Engineering Assisted Performance Enhancement of Metal Gate Sub-10nm Ballistic SiNWFET for Futuristic Device Applications." Silicon (2021): 1-9 (SCI & Scopus, I.F=2.67) 2. Karamvir Singh, Sandeep Sharma, Monish Gupta, and C. C. Tripathi. "Fabrication

of serpentine and I structured graphene-CNT based highly sensitive and flexible strain sensors." *Microelectronic Engineering* 250 (2021): 111631 (SCI & Scopus, I.F=2.523).

3. Sandeep Sharma, Karamvir Singh, Sandeep Kumar, Abhimanyu Rana, Kapil Bhatt, Y Dwivedi, CC Tripathi, "Fabrication of reduced graphene oxide modified poly(3,4-ethylenedioxythiophene) polystyrene sulfonate based transparent conducting electrodes for flexible optoelectronic application." *SN Appl. Sci.* 3, 26 (2021). (ESCI, Scopus).

4. Sandeep Sharma, Karamvir Singh, Sandeep Kumar, Abhimanyu Rana, Kapil Bhatt, Y Dwivedi, Monish Gupta, CC Tripathi, "Optical and electrical investigations of rubbing assisted few-layer graphene thin film for feasibility of flexible electrode", *Optik*, 203, p.163989 (SCI & Scopus, I.F=2.187).

5. Sandeep Sharma, Sandeep Kumar, Kapil Bhatt, Shilpi, C.C. Tripathi "Alternative Transparent Conducting Electrode Materials for Flexible Optoelectronic Devices" *Opto-Electronics Review*, Volume 26, Issue 3, September 2018 (SCI Expanded & Scopus, I.F=2.045).

6. Karamvir Singh, Sandeep Sharma, Shilpi Shriwastava, Monish Gupta, and C. C. Tripathi, "Significance of Nano-Materials, Designs Consideration and Fabrication Techniques on

Performances of Strain Sensors - A Review ”, Materials Science in Semiconductor Processing (2020): 105581(SCI & Scopus,I.F=3.085).

7. V.K. Anand, A. Bukke, K. Bhatt, S. Kumar, S. Sharma, R. Goyal and, G.S. Viridi, “Highly sensitive and reusable Cu²⁺/polyaniline/reduced graphene oxide nanocomposite ink-based non-enzymatic glucose sensor”, Applied Physics A, 126, pp.1-11, 2020 (SCI Expanded & Scopus, I.F=1.81).

8. S Shrivastava, D. S. Arya, S. Sharma, K. Singh, P. Singh, and C.C. Tripathi, “A laser patterned zero bias Au/Al₂O₃/Mo metal-insulator-metal diode rectifier for RF detection” Solid-State Electronics, p.107870, 2020 (SCI Expanded & Scopus, I.F=1.437).

9. Sandeep Kumar, Kapil Bhatt, Pramod Kumar, Sandeep Sharma, Amit Kumar, C.C. Tripathi, “Laser patterned high power graphene paper resistor with dual temperature coefficient resistance, RSC Advances, 2019 (SCI & Scopus, I.F=3.119).

10. Monika, Kapil Bhatt, Cheenu Rani, Sandeep Kumar, Ankit Kapoor, Pramod Kumar, Shilpi, Sandeep, Randhir Singh, C.C Tripathi,” A Facile approach to fabricate graphene based piezoelectric resistor on paper substrate”, Indian Journal of Pure & Applied Physics, Vol. 56, May 2018 (SCI Expanded & Scopus,I.F=0.653).

	<p>11. Kapil Bhatt, Cheenu Rani, Monika, Sandeep Kumar, Ankit Kapoor, Pramod Kumar, Shilpi, Sandeep Sharma, Randhir Singh, C.C Tripathi ,“Comparative study of graphite and graphene based field effect transistor”, Pramana Journal of Physics, June, 2018 (SCI Expanded & Scopus, I.F=1.688).□</p> <p>12. Shilpi, Kapil Bhatt, Sandeep Kumar, Sandeep Sharma and C. C. Tripathi, “Investigating PMMA as a potential insulator material for Metal-Insulator-Metal diode”. International Journal of Nanoparticles, Inder science journals, Volume 10, Issue 3, 2018 (Scopus Index).</p> <p>13. Vijay Kumar Anand, Kapil Bhatt, Sandeep Kumar, B. Archana, Sandeep Sharma, Karamvir Singh, Monish Gupta, Rakesh Goyal, and G. S. Viridi. "Sensitive and enzyme-free glucose sensor based on copper nanowires/polyaniline/reduced graphene oxide nanocomposite ink." International Journal of Nanoscience 20, no. 02 (2021): 2150020.</p>
Book and Chapter Publications	01
<ul style="list-style-type: none"> ● Books Authored published by International Publishers 	
<ul style="list-style-type: none"> ● Books Authored published by National Publishers 	
<ul style="list-style-type: none"> ● Publication of Chapter in Edited Books 	<p>Bhatt Kapil, Shilpi Shriwastava, Sandeep and Sandeep Kumar. "Terahertz Detectors: Bridging the Gap for Energy Harvesting." In Terahertz Spectroscopy-A Cutting Edge Technology. InTech open, 2017.</p>

<ul style="list-style-type: none"> ● Editor of Book by International Publishers 	
<ul style="list-style-type: none"> ● Editor of Book by National Publishers 	
<ul style="list-style-type: none"> ● Translation Work of Book 	
<ul style="list-style-type: none"> ● List of Book and Chapter Publications 	
Patents	
<ul style="list-style-type: none"> ● Published 	01
<ul style="list-style-type: none"> ● List of published patent(s) 	
<ul style="list-style-type: none"> ● Filed 	
<ul style="list-style-type: none"> ● List of filed patent(s) 	
PhD Guidance	
<ul style="list-style-type: none"> ● Degree Awarded 	
<ul style="list-style-type: none"> ● Thesis Submitted 	
M.Tech. Guidance	
<ul style="list-style-type: none"> ● Degree Awarded 	
<ul style="list-style-type: none"> ● Thesis Submitted 	
Research Project	
<ul style="list-style-type: none"> ● List of Research project 	
Consultancy	
<ul style="list-style-type: none"> ● List of Consultancy 	
Awards & Honours	
<ul style="list-style-type: none"> ● List of Awards & Honours 	
Invited lectures / Resource Person/ paper presentation in Seminars/ Conferences/full paper in Conference	10
<ul style="list-style-type: none"> ● International (Abroad) 	
<ul style="list-style-type: none"> ● International (Within Country) 	6
<ul style="list-style-type: none"> ● National 	4
<ul style="list-style-type: none"> ● List of published papers 	1. Karamvir, Bhoop Singh, Sandeep Sharma, Monish Gupta, and Chandra Charu

Tripathi. "Performance Evaluation and Analysis of CNT for Strain Sensor applications." In 2020 IEEE 17th India Council International Conference (INDICON), pp. 1-6. IEEE, 2020.

2. Sandeep, Sandeep Kumar, Shilpi, , C.C. Tripathi, "Novel Organic Light Emitting Diode Materials, Their Fabrication and Characterization for High Performance Applications"

International Conference on Materials Science & Technology, Delhi University, 2016.

3. Sandeep, Sandeep Kumar, Dinesh Kumar, C.C. Tripathi, "Review paper on display technology" National Conference On Converging Technologies Beyond 2020, UIET, KUK, 2014.

4. C.C. Tripathi, Kapil Bhatt, Ankit Kapoor, Pramod Kumar, Shilpi, Sandeep, Sandeep Kumar, Randhir Singh," Flexible devices in the horizon of graphene". Emerging Trends in Applied Materials Science and Surface Engineering, BML Munjal University, Gurgaon, 2018.

5. Shilpi, Sandeep, Kapil Bhatt, Sandeep Kumar and C.C. Tripathi. "Potential challenges and issues in implementation of MIM diodes for rectenna application." In Inventive Communication and Computational Technologies (ICICCT), 2017 International Conference on, pp. 83-88, IEEE, 2017.

6. Shilpi, Kapil Bhatt, Sandeep Kumar, Sandeep and C.C. Tripathi, "Fabrication and characterization of Al/PMMA/Cr metal-insulator-metal diode," 2017 Devices for Integrated Circuit (DevIC), Kalyani, 2017, pp. 17-19.doi:

10.1109/DEVIC.2017.8073897.

7. Shilpi, Kapil Bhatt, Sandeep Kumar, Sandeep and C.C. Tripathi, "A study on design aspects of MIM diodes for high frequency applications",

DOI.10.1109/I2CT.2017.8226226, In 2nd International Conference for Convergence in Technology (I2CT), 2017.

8. Sandeep Kumar, Sandeep, Shilpi, Randhir Bhoria, C.C. Tripathi, Dinesh kumar, Sandeep Kakran, Shubhankar Chakraborty "Synthesis of Graphene Ink for Flexible Electronic Applications Using Vibroshaker" International Conference on Materials Science & Technology, Delhi University, 2016.

8. Kapil Bhatt, Shilpi, Sandeep Kumar, Sandeep and C.C. Tripathi "MIM diodes for energy harvesting" "Nanoscience and Instrumentation Technology" (NCNIT-2016), NIT, Kurukshetra.

9. Shilpi, Kapil Bhatt, Sandeep Kumar, Sandeep and C. C. Tripathi, "Investigating Design Aspects of Metal Insulator Metal Diode for Rectenna Based Energy Harvesting",

	<p>Nanoscience and Instrumentation Technology (NCNIT-2016), NIT, Kurukshetra.</p> <p>10. Sandeep Kumar, Sandeep, Dinesh Kumar, C.C. Tripathi, “A review paper: Flexible and printable electronics” National Conference on Converging Technologies Beyond 2020, UIET, KUK, 2014.</p>
Organizing National Conference/ International Conference/ FDP/STTP	3
<ul style="list-style-type: none"> List of Conference/FDP/STTP committee 	<ol style="list-style-type: none"> Hands-on workshop on Clean Room Practices, Device Fabrication & Characterization at UIET, Kurukshetra University, 2017. Short term course on Printable Electronics at UIET, Kurukshetra University, 2017. Workshop on Flexible Electronics at UIET, Kurukshetra University 2016.3
Social Contributions and Sports	
<ul style="list-style-type: none"> List of Social Contributions and Sports 	