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PATENTS GRANTED

1. Title: Microfabrication Annealing Furnace with Integrated Magnetic Field and Electric Field Application and Affixable Hall Measurement Setup therein

Status: Granted **Grant Date:** 01/06/2022

Inventors: Mr. Brijesh Kumar Singh, Dr. Shweta Tripathi and Prof. P. Chakrabarti

Application No.: 201611018593 **Filing Date:** 30/05/2016

2. Title: A method for attaining p-type zinc oxide (ZnO) thin film

Inventors: Brijesh Kumar Singh, Lucky Agarwal and **Shweta Tripathi**

Status: Granted **Grant Date:** 21/12/2023

Filing Date: 13/12/2017 **Application No.:** 201711044846

List of Publications

Publication	No.
Publication in IEEE Journals	27
International Publication in other reputed SCI/SCOPUS INDEXED journals	41
Publication in Conferences	23

INTERNATIONAL JOURNALS (SCI/SCOPUS):

2024

1. Ajay Kumar Dwivedi, Lucky Agarwal, Satyabrata Jit, and **Shweta Tripathi**, "Performance Analysis of CuO/MoS₂/SnS₂ Multilayer Broadband Photodetector," in IEEE Sensors Letters, vol. 8, no. 8, pp. 1-4, Aug. 2024, Art no. 3501804, doi: 10.1109/LSENS.2024.3421560. **(I.F 2.2)**
2. Ajay Kumar Dwivedi, Lucky Agarwal, Tulika Bajpai and **Shweta Tripathi**, "Er doped ZnO/SnS₂/PEDOT:PSS Double Heterostructure Photodetector and its Application as Optocoupler," in IEEE Sensors Journal, doi: 10.1109/JSEN.2024.3421572. **(I.F 4.325)**
3. Tulika Bajpai, Ajay Kumar Dwivedi, Rajendra Kumar Nagaraiya, and **Shweta Tripathi**, "High Performance Er doped ZnO(EZO)/WSe₂ Heterostructure based Wideband Photodetector" in *IEEE Journal on Flexible Electronics*.

4. Tulika Bajpai, Ajay Kumar Dwivedi, Rajendra Kumar Nagaraia, and **Shweta Tripathi**, "High performance Al/WSe₂/CuO/ITO structure based broadband photodetector" *Sensors and Actuators A: Physical*, Volume 375, January 2024. **(I.F 4.1)**
5. Saumya Tripathi, Ajay Kumar Dwivedi and **Shweta Tripathi**, "Broadband Photodetection in WSe₂ and Er Doped ZnO(EZO) Heterostructure," in *IEEE Photonics Technology Letters*.**(I.F 2.6)**

2023

6. Ajay Kumar Dwivedi, Satyabrata Jit, and **Shweta Tripathi**, "SnS₂ and ZnO Nanocomposite Prepared by Dispersion Method for Photodetector Application" *accepted in IEEE Transactions on Semiconductor Manufacturing*. **(I.F 2.79)**
7. Tulika Bajpai, Ajay Kumar Dwivedi, Rajendra Kumar Nagaria and **Shweta Tripathi**, Red phosphorus/WSe₂ heterojunction based self-powered UV photodetector, accepted in *Optical and Quantum Electronics*..**(I.F 2.79)**
8. **Ajay Kumar Dwivedi, Tulika Bajpai, Saumya Tripathi and Shweta Tripathi** "WSe₂ /MoS₂ /SnS₂ Flexible Heterostructure for Broadband Photodetector "in *IEEE Journal on Flexible Electronics*, vol. 2, no. 6, pp. 486-491, Nov. 2023, doi: 10.1109/JFLEX.2023.3307057.
9. Kavindra Kumar Kavi, **Shweta Tripathi**, Ram Awadh Mishra, and S. Kumar Analytical Modeling for Electrical Characteristics of Source Pocket-Based Hetero Dielectric Double-Gate TFETs. *Silicon* (Novemembr,2023). <https://doi.org/10.1007/s12633-023-02754-3>.**(I.F 3.4)**
10. Ajay Kumar Dwivedi, Satyabrata Jit, and **Shweta Tripathi**, " WSe₂ /MoS₂ /SnS₂ Flexible Heterostructure for Broadband Photodetector" in *IEEE Transactions on Electron Devices*, vol. 70, no. 9, pp. 4694-4699, Sept. 2023, doi: 10.1109/TED.2023.3298317."**(I.F 3.1)**
11. Ajay Kumar Dwivedi, Satyabrata Jit and **Shweta Tripathi**, "WSe₂/ Al₂O₃/SnS₂ SIS Structure Based Self Powered UV-Vis Photodetector," in *IEEE Photonics Technology Letters*, vol. 35, no. 15, pp. 805-808, 1 Aug.1, 2023, doi: 10.1109/LPT.2023.3281257.**(I.F 2.6)**
12. Ajay Kumar Dwivedi and **Shweta Tripathi**, "High-Performance SnS₂ and CuO Nanocomposite-Based Broadband Photodetector," in *IEEE Transactions on Electron Devices*, vol. 70, no. 5, pp. 2378-2383, May 2023, doi: 10.1109/TED.2023.3262491.**(I.F 3.1)**
13. Lucky Agarwal, Varun Mishra, Ravi Dwivedi, Vishal Goyal, and **Shweta Tripathi** , "Si-Ge based Vertical TFET Junction-Less Structure with improved sensitivity using

Dielectric Modulation for Bio-Sensing Applications," in *Chinese physics B*, March 2023, DOI: 10.1088/1674-1056/acc7f6. **(I.F 1.7)**

14. Tulika Bajpai, Ajay Kumar Dwivedi, Rajendra Kumar Nagaria, and **Shweta Tripathi**, "High Performance WSe₂ and CuO Heterojunction based Photodetector for wearable devices", in *Optical Materials* (accepted). **(I.F 3.9)**

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15. Ajay Kumar Dwivedi, R. Tripathi, Saumya Tripathi, Satyabrata Jit and **Shweta Tripathi**, "SnS₂/PEDOT:PSS Heterostructure-Based High Performance UV-Visible Photodetectors," in *IEEE Electron Device Letters*, vol. 43, no. 11, pp. 1913-1916, Nov. 2022, doi: 10.1109/LED.2022.3207421. **(I.F 4.9)**.
16. Richa Singh, Anshika Srivastava, Ajay Kumar Dwivedi and **Shweta Tripathi**, "Photoconductive and Photovoltaic Properties of Dual-Junction Thin-Film-Based Er-Doped ZnO/MoS/P-Si Heterostructure," in *IEEE Transactions on Electron Devices*, vol. 69, no. 11, pp. 6171-6177, Nov. 2022, doi: 10.1109/TED.2022.3206174. **(I.F 3.1)**
17. Ajay Kumar Dwivedi, Saumya Tripathi, R. Tripathi, Satyabrata Jit and **Shweta Tripathi**, "PEDOT:PSS/Yb-Doped ZnO Heterojunction Based Flexible UV Photodetector," in *IEEE Photonics Technology Letters*, vol. 34, no. 18, pp. 949-952, 15 Sept.15, 2022, doi: 10.1109/LPT.2022.3195784. **(I.F 2.6)**
18. Ajay Kumar Dwivedi, Anshika Srivastava, and **Shweta Tripathi**, "Tin di-selenide and zinc oxide based SPR biosensor for detection of DNA hybridization, anemia and abnormality in urine," in *Opt Quant Electron*, vol. 54, pp. 366, 2022, <https://doi.org/10.1007/s11082-022-03759-9>. **(I.F 3.0)**
19. Anshika Srivastava and **Shweta Tripathi**, "Spectral response optimization in Pentacene and cupric oxide-based photodetector using structural engineering: Planar and bulk heterostructure", in *Optical Materials*, vol. 126, pp. 112136, 2022, doi: 10.1016/j.optmat.2022.112136. **(I.F 3.9)**
20. Lucky Agarwal, K. S. Rao, Anshika Srivastava, and **Shweta Tripathi**, "Ytterbium doped ZnO nanolaminated planar waveguide for ring resonator applications", in *Journal of Physics D: Applied Physics*, vol. 55, no. 22, pp.225106, Mar. 2022, doi: 10.1088/1361-6463/ac57dd. **(I.F 3.4)**
21. Kavindra Kumar Kavi, **Shweta Tripathi**, Ram Awadh Mishra, and S. Kumar, "Design, Simulation, and Work Function Trade for DC and Analog/RF Performance Enhancement in Dual Material Hetero Dielectric Double Gate Tunnel FET", in *Silicon*, vol.14, 19 Feb. 2022, doi: 10.1007/s12633-022-01765-w. **(I.F 3.4)**
22. Ajay Kumar Dwivedi, T. Baliyan, & **Shweta Tripathi**, "Surface Potential Modeling of DG SOI MoS₂ FET (MFET) and Gate Misalignment Effect Analysis Therein", in *Semiconductors*, vol. 55, pp. 717-725, 2022, doi: 10.1134/S106378262109003. **(I.F 0.7)**

23. Saumya Tripathi, Anshika Srivastava, A. Raman and **Shweta Tripathi**, "CuO/Pentacene Type-II Planar Heterojunction for UV-Vis-NIR Photodetection With High EQE," in *IEEE Transactions on Electron Devices*, vol. 69, no. 2, pp. 722-728, Feb. 2022, doi: 10.1109/TED.2021.3137374 .(I.F 3.1)

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24. Richa Singh and **Shweta Tripathi**, "Low Intensity UV Light Detection by Al₂O₃ Separated MoS₂/CuO Junction," in *IEEE Photonics Technology Letters*, vol. 33, no. 24, pp. 1427-1430, 2021, doi: 10.1109/LPT.2021.3122803. (I.F 2.6)
25. Anshika Srivastava, Satyabrata Jit and **Shweta Tripathi**, "Er-Doped ZnO, CuO and Pentacene Based Broadband Photodetector With High External Quantum Efficiency," in *IEEE Electron Device Letters*, vol. 42, no. 12, pp. 1802-1805, Dec. 2021, doi: 10.1109/LED.2021.3121768. (I.F 4.9)
26. Anshika Srivastava and **Shweta Tripathi**, "Robustness of Pentacene:MoS₂:ZnO Ternary Blend for Optoelectronic Devices," in *IEEE Transactions on Device and Materials Reliability*, vol. 21, no. 4, pp. 528-535, Dec. 2021, doi: 10.1109/TDMR.2021.3113761. (I.F 2.0)
27. Anshika Srivastava, Satyabrata Jit and **Shweta Tripathi**, "Pentacene and Er-Doped ZnO Nanocomposite Based UV-Visible-NIR Wideband Photodetector," in *IEEE Photonics Technology Letters*, vol. 33, no. 21, pp. 1193-1196, Nov. 2021, doi: 10.1109/LPT.2021.3113459. (I.F 2.6)
28. Anshika Srivastava, Satyabrata Jit and **Shweta Tripathi**, "High-Performance Pentacene/ZnO UV-Visible Photodetector Using Solution Method," in *IEEE Transactions on Electron Devices*, vol. 68, no. 7, pp. 3439-3445, July.2021, doi: 10.1109/TED.2021.3077348. .(I.F 3.1)
29. Anshika Srivastava, Richa Singh, Satyabrata Jit and **Shweta Tripathi**, "Pentacene and CuO Nanocomposite Based Self-Powered Broadband Photodetector," in *IEEE Electron Device Letters*, vol. 42, no. 6, pp. 875-878, June 2021, doi: 10.1109/LED.2021.3075345. (I.F 4.9)
30. A. Pathak, M. Meena, and **Shweta Tripathi**, "Performance Analysis of Graphene-Coated GaAs SPR Sensor for Detection of DNA Hybridization," in *Phys. Solid State*, vol. 63, pp. 453-459, March. 2021, <https://doi.org/10.1134/S1063783421030124>. (I.F 0.6)
31. Anshika Srivastava, and **Shweta Tripathi**, "Responsivity Spectrum Tailoring of Pentacene:ZnO Multi-Nano Film based Bulk Heterojunction Photodetector," in *IEEE Transactions on Nanotechnology*, vol.20, pp.143-150,January. 2021 doi: 10.1109/TNANO.2020.3049055. (I.F 2.4)

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32. Richa Singh, Satyabrata Jit and **Shweta Tripathi**, "MoS₂, rGO, and CuO Nanocomposite-Based High Performance UV-Visible Dual-Band Photodetectors," in *IEEE Photonics Technology Letters*, vol. 33, no. 2, pp. 93-96, 15 Jan.15, 2021, doi: 10.1109/LPT.2020.3045065. **(I.F 2.6)**
33. Anshika Srivastava, Richa Singh, Satyabrata Jit and **Shweta Tripathi**, "Fabrication of MoS₂/ZnO Hybrid Nanostructures for Enhancing Photodetection," in *IEEE Photonics Technology Letters*, vol. 32, no. 24, pp. 1527-1530, 15 Dec.15, 2020, doi: 10.1109/LPT.2020.3039299. **(I.F 2.6)**
34. Richa Singh, Anshika Srivastava and **Shweta Tripathi**, "Ferromagnetism in Molybdenum Disulfide Thin Films Annealed in Magnetic Fields," in *IEEE Magnetics Letters*, vol. 11, pp. 1-5, 2020, Art no. 7104905, doi: 10.1109/LMAG.2020.3022613. **(I.F 1.2)**
35. Anshika Srivastava, Satyabrata Jit and **Shweta Tripathi**, "High-Performance Solution-Processed Pentacene/Al Schottky Ultraviolet Photodiode With Pseudo Photovoltaic Effect," in *IEEE Transactions on Electron Devices*, vol. 67, no. 10, pp. 4300-4307, Oct. 2020, doi: 10.1109/TED.2020.3013557. **(I.F 3.1)**
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37. Richa Singh, Anshika Srivastava, Satyabrata Jit and **Shweta Tripathi**, "High Responsivity Visible Blind Pd/Al₂O₃/MoS₂/ITO MISM UV Photodetector," in *IEEE Photonics Technology Letters*, vol. 32, no. 12, pp. 733-736, 15 June15, 2020, doi: 10.1109/LPT.2020.2993444. **(I.F 2.6)**
38. Lucky Agarwal, **Shweta Tripathi**, "High responsivity ZnO based p-n homojunction UV-photodetector with series Schottky barrier," in *Semiconductor Science and Technology*, vol.35, no.6, April 2020, doi:10.1088/1361-6641/ab7b0a. **(I.F 1.9)**
39. Anshika Srivastava, Richa Singh, **Shweta Tripathi**, "A Two-Dimensional (2D) Analytical Model for Sub-threshold Current and Sub-threshold Swing for Short Channel Triple Material Gate-Double Halo (TMG-DH) DG MOSFET" , in *Int. J. Thin. Fil. Sci. Tec* , vol. 9, no. 2, pp. 111-118, May 2020, doi: [10.18576/ijfst/090204](https://doi.org/10.18576/ijfst/090204)**(SCOPUS INDEXED)**
40. Lucky Agarwal, Richa Singh, Gaurav Varshney, K. Sambasiva Rao, and **Shweta Tripathi**, "Design and Analysis of Yb doped ZnO (YZO) and P-Si Bilayer Nano-Stacked Reflector for Optical Filter Applications", in *Superlattice and Microstructures* , vol. 146, October. 2020, doi: <https://doi.org/10.1016/j.spmi.2020.106670>. **(I.F 3.22)**
41. Srijan Pathak, Spriha Singh, Tanya Jha, Ankush Agarwal and **Shweta Tripathi**, "Analytical Modeling and Simulation of Highly Sensitive n-RADFET Dosimeter", in *Int. J. Thin. Fil. Sci. Tec*, vol.9 , no.1, pp. 41-49, Jan. 2020, DOI: [10.18576/ijfst/090107](https://doi.org/10.18576/ijfst/090107). **(SCOPUS INDEXED)**

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43. Richa Singh and **Shweta Tripathi**, "Evaluation of Optical Parameters and Characterization of few layer sputtered MoS₂ film by Spectroscopic Ellipsometry", in *Optical and Quantum Electronics*, vol. 51, no.326, 2019, <https://doi.org/10.1007/s11082-019-2041-3>. (I.F 3.0)
44. Shrey and **Shweta Tripathi**, "Comparative Analysis of Double Gate Junction Less (DG-JL) and Gate Stacked Double Gate Junction Less (GS DG JL) MOSFETs," in *Semiconductors*, vol. 53, pp. 1804-1810, 2019, <https://doi.org/10.1134/S1063782619130190> (I.F 0.7)
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46. Richa Singh, Lalu Yadav, Shrey and **Shweta Tripathi**, "Effect of Annealing Time on the Structural and Optical Properties of n-CuO thin films deposited by sol-gel spin coating technique and its application in n-CuO/p-Si heterojunction diode," in *Thin Solid Films*, vol. 685, pp. 195-203, September 2019, <https://doi.org/10.1016/j.tsf.2019.06.026>. (I.F 2.1)
47. Akansha Verma, Shrey, **Shweta Tripathi**, "Magnetic annealing temperature modulated room temperature ferromagnetism in Zn doped ZnO thin film," in *Journal of Magnetism and Magnetic Materials*, vol. 478, pp. 28-37, 15 May. 2019, <https://doi.org/10.1016/j.jmmm.2019.01.059>. (I.F 2.7)
48. Richa Singh and **Shweta Tripathi**, "Structural and optical properties of few-layer MoS₂ thin films grown on various substrates using RF sputtering process," in *Journal of Materials Science: Materials in Electronics*, vol.30, pp. 7665-7680, March .2019, <https://doi.org/10.1007/s10854-019-01082-w>. (I.F 2.8)

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55. Brijesh Kumar Singh, Lucky Agarwal and **Shweta Tripathi** "Fabrication and Characterization of Cu Doped ZnO/Bi Doped ZnO Nanolaminates as Mirror for Application in Optical Devices, " in *IEEE transaction on Nanotechnology*, Vol. 16, No. 2, pp.-203-208, March 2017. doi: 10.1109/TNANO.2017.2649546. **(I.F 2.4)**
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74. Brijesh Kumar Singh, Lucky Agarwal and **Shweta Tripathi**, "Refractive index and dielectric constant evaluation of Bi doped p-ZnO thin film deposited by sol gel method", *Journal of electron devices*, vol.23, no.1, 2016, pp 1917-1921.
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INTERNATIONAL CONFERENCE:

1. Anshika Srivastava, Harsh Jain and **Shweta Tripathi**, Organic Pentacene-Based Vertical Organic Tunnel Field Effect Transistor (TFET): Simulation Study, June 2023, DOI: 10.1109/ICICAT57735.2023.10263733, International Conference on IoT, Communication and Automation Technology (ICICAT).
2. Performance Analysis of MoS₂FET for Electronic and Spintronic Application, January 2021, Published in book Advances in VLSI, Communication, and Signal Processing.
3. Lucky Agarwal, Richa Singh and **Shweta Tripathi**, Structural and Optical Characterization of EZO Thin Film for Application in Optical Waveguide, January 2021, Published in book Advances in VLSI, Communication, and Signal Processing.
4. Anshika Srivastava and **Shweta Tripathi**, Structural and Optical Analysis of Bulk-Hetero Interface Between MoS₂: Pentacene, January 2021, Published in book Advances in VLSI, Communication, and Signal Processing.
5. Kavindra Kumar Kavi, R.A. Mishra and **Shweta Tripathi**, Performance Analysis of MoS₂FET for Electronic and Spintronic Application, January 2021
6. Richa Singh, **Shweta Tripathi**, (2020) Refractive Index and Dielectric Constant Evaluation of RF Sputtered Few Layer MoS₂ Thin Film. In: Dutta D., Kar H., Kumar C., Bhadauria V. (eds) Advances in VLSI, Communication, and Signal Processing. Lecture Notes in Electrical Engineering, vol 587. Springer, Singapore
7. Lucky Agarwal, B.K. Singh, **Shweta Tripathi**, P.Chakrabarti (2020) Work Function Estimation of Copper-Doped ZnO Thin Film. In: Dutta D., Kar H., Kumar C., Bhadauria V. (eds) Advances in VLSI, Communication, and Signal Processing. Lecture Notes in Electrical Engineering, vol 587. Springer, 2020, Singapore
8. Lucky Agarwal, Brijesh Kumar Singh, **Shweta Tripathi** and P.Chakrabarti, "Fabrication and Characterization of Thin Film Heterojunction diodes for Smart System" IEEE Conference on emerging devices and smart systems - ICEDSS 2017, Proceeding available on line at www.ieee.org.
9. Lucky Agarwal, Brijesh Kumar Singh, R.A. Mishra and **Shweta Tripathi**, "Short Channel Effects (SCEs) Characterization of Underlapped Dual-k Spacer in Dual-Metal Gate FinFET Device" ICCCM 2016, Proceeding available on line at www.ieee.org.
10. Rishi Tripathi, Brijesh Kumar Singh, Lucky Agarwal and **Shweta Tripathi**, "Analytical Modeling and Simulation of Surface Potential of Short Channel Double Halo Strained-Si (DHS)-DG MOSFET", ICCCM 2016.
11. Brijesh Kumar Singh, and **Shweta Tripathi**. "Determination of optical parameters of p-ZnO thin film obtained by Bi doping." 2015 Annual IEEE India Conference (INDICON). IEEE, 2015.
12. Satyendra Kumar Singh, Purnima Hazra, **Shweta Tripathi**, P. Chakrabarti, "Fabrication and Characterization of Mg Doped ZnO Nanostructures Thin Film by RF Magnetron Sputtering Technique" ETMN 2015, AIP proceedings.

13. Lucky Agarwal, Brijesh Kumar Singh, **Shweta Tripathi** and P.Chakrabarti, "Determination of Optical Properties of Copper Doped ZnO Thin Films" ETMN 2015, AIP proceedings.
14. Satyendra Kumar Singh, Purnima Hazra, **Shweta Tripathi**, P. Chakrabarti, "Optical Characterization of Mg Doped ZnO Nanostructures Thin Film deposited by RF Magnetron Sputtering Technique" published in the AIP proceeding of ICC,Bikaner Rajashtan, 2015.
15. Satyendra Kumar Singh, Purnima Hazra, **Shweta Tripathi**, P.Chakrabarti, Performance analysis of RF sputtered ZnO /Si heterojunction UV photodiode, 4th International conference on Current Development in Atomic, Molecular, Optical & Nano Physics with Application (CDAMOP-2015) held at Dept. of Physics & Astrophysics, University of Delhi, Delhi India, March 11-14, 2015.
16. Jitendra Rastogi and **Shweta Tripathi**, Comparative Study of Methane(CH₄) Adsorption on (12,0) and (5,5) Bamboo Like Carbon Nano Tubes (BCNTs), International Conference on Power, Control and Embedded System (ICPCES-2014) held at MNNIT, Allahabad, India during December 26-28, 2014. Proceeding to be available on line at www.ieee.org.
17. Nidhi Singh and **Shweta Tripathi**, "Analytical Modeling of the Surface Potential of Triple Material Symmetrical Gate Stack Double Gate (TMGS-DG) MOSFET" *International Conference On Recent Advances and Innovation in Engineering (ICRAIE-2014)*, 09-11 May - 2014, Jaipur, Proceeding to be available on line at www.ieee.org.
18. Nidhi Singh, Vipin Kumar Singh and **Shweta Tripathi**, Design and Optimization of Tunnel Field Effect Transistor (TFET) Based on ATLAS™ Simulation, students' Conference on Engineering and Systems, SCES-2014,May 28-30, 2014
19. **Shweta Tripathi** and S.Jit, "Threshold Voltage Model for Ion-Implanted Short Gate-Length GaAs MESFET under Dark and Illuminated Conditions" published in the proc. of *Spanish Conference on Electron Devices (CDE)* at Palma, Spain, Feb. 2011, available on line at www.ieee.org.
20. **Shweta Tripathi** and S.Jit, "Depletion Layer Modeling For Short Gate-Length Non-Uniformly Doped GaAs MESFET Under Dark And Illuminated Condition" published in the proc. of Current Developments in Atomic, Molecular, Optical & Nano physics(CDAMOP) at Delhi, India, December, 2011. **(Paper presented and also published in non-sci journal)**
21. **Shweta Tripathi** and S.Jit, "Modeling of Photodependent Capacitance for Short Gate-length Ion-implanted GaAs MESFETs" published in the proc. of *International Workshop on the Physics of Semiconductor Devices (IWPSD)* at IIT Kanpur, India, December, 2011.
22. **Shweta Tripathi** and S.Jit, "I-V Model for Short Gate Length Ion-implanted GaAs OPFETs" published in the proceeding of *International Conference on Multimedia, Signal Processing and Communication Technologies (IMPACT)* at Aligarh, India, will be available online at www.ieee.org, pp. 80-82, December, 2011.

23. **Shweta Tripathi** and S.Jit, "Analytical Modeling of Frequency dependent characteristics of an Ion-Implanted short channel GaAs OPFET" published in the proc. of *International Conference on Electronic Systems (ICES 2011)* at NIT-Rourkela, pp.135-138, January 2011.

PROFESSIONAL ACTIVITIES

- Warden of KNGH Hostel MNNIT since 06 May 2023.
- Senior Member IEEE from 20 Feb 2021.
- Life Member of Indian Society for Technical Education (M. No. : LM90626).
- Reviewer of Scientific Reports, Journal of materials in electronics, journal of applied physics D and many other reputed journals.
- Coordinator NPMASS Project from December 2013 to till end.

WORK EXPERIENCE:

- Worked as Assistant Professor (AGP-7000) in MNNIT, Allahabad from 15/10/2012 to 27/03/2018.
- Worked as Assistant Professor (AGP-8000) in MNNIT, Allahabad from 27/03/2018 to till date.
- U.G.C. junior research fellowship was awarded for 2 year during research work.
- U.G.C. senior research fellowship was awarded for 2 year during research work

WORKSHOPS/SHORT TERM PROGRAMS COORDINATED:

- Coordinated a short term course on Microelectronic Device Modeling & TCAD Simulation (MICROMOTS) during 14-18 April 2014 organized at MNNIT Allahabad.
- Coordinated Workshop on scientific contributions of Acharya Jagadish Chandra Bose & Acharya Prafulla Chandra Ray (December 23-24, 2013) organized at MNNIT Allahabad.
- Coordinated Workshop on multiphysics simulation using COMSOL (January 8, 2014) organized at MNNIT Allahabad.
- Coordinated Short term training program on self defense (October 22-27, 2013) organized under the aegis of Women Grievance cell MNNIT Allahabad.
- Coordinated Hand-on Training on multiphysics simulation using various modules of COMSOL (September 18-19, 2014) organized at MNNIT Allahabad.

RESEARCH STUDENT ADVISING

- PhD supervision: 5 completed, 4 on-going
- M.Tech supervision: 15 completed, 3 on-going
- B.Tech projects: 26 groups completed

MAIN COURSES TAUGHT:

- VLSI Technology
- VLSI Technology & Device Modeling
- Solid state devices & Circuit
- Semiconductor Devices & Modeling