Details of Papers Published in the Academic Year 2022-2023					
S. No.	**Faculty Name**	**Title of Paper**	**DOI**	**Citation**	**Paper Published in Journal or Conference Publlication**
1	Dr. M.S. Mehata	In situ synthesis of WS2 QDs for sensing of H2O2: Quenching and recovery of absorption and photoluminescence	10.1016/j.mtcomm.2022.105013	0	Journal
2	Dr. M.S. Mehata	Selectively probing ferric ions in aqueous environments using protonated and neutral forms of 7-azaindole as a multiparametric chemosensor	10.1007/s43630-023-00393-6	0	Journal
3	Dr. M.S. Mehata	Spectral characteristics of 3,5-diaminobenzoic acid in pure and mixed solvents: Experimental and theoretical study	10.1016/j.molliq.2022.120783	0	Journal
4	Dr. M.S. Mehata	Adsorption of cytosine on prebiotic siliceous clay surface induced with metal dications: Relevance to origin of life	10.1016/j.matchemphys.2022.126720	0	Journal

5	Dr. M.S. Mehata	Reinvestigation on photoluminescence of 7-hydroxyflavone in aqueous medium: Proficient fluorescence enhancement	10.1016/j.jphotochem.2022.114014	2	Journal
6	Dr. M.S. Mehata	Thermally grown indium (In) thin-film for creating ohmic contact and In-bumps for HgCdTe-based IR detectors	10.1016/j.apsusc.2022.153501	1	Journal
7	Dr. M.S. Mehata	Spectroscopic investigation on the interaction of direct yellow-27 with protein (BSA)	10.1088/2050-6120/ac8a8b	0	Journal
8	Dr. M.S. Mehata	Effect of halide ions on the fluorescence properties of 3-aminoquinoline in aqueous medium	10.1002/bio.4323	0	Journal
9	Dr. Amrish K. Panwar	Comparative Study of NCM and NCA Electrode Material for Capacity-Fade Using 1-D Modeling	10.37391/ijeer.100308	0	Journal
10	Dr. Kamal Kishor	Design and analysis of wavelength tunable metamaterial reflector	https://doi.org/10.1016/j.rio.2023.100366	0	Journal
11	Dr. Mukhtiyar Singh	Augmented thermoelectric performance of LiCaX (X = As, Sb) Half Heusler compounds via carrier concentration optimization	10.1016/j.jpcs.2022.111182	0	Journal

12	Dr. Mukhtiyar Singh	Carrier concentration mediated enhancement in thermoelectric performance of various polymorphs of hafnium oxide: a plausible material for high temperature thermoelectric energy harvesting application	10.1088/1361-6463/ac9986	0	Journal
13	Dr. Mukhtiyar Singh	Non-trivial topological crossover in functionalized AlBi monolayer	10.1016/j.cplett.2023.140388	0	Journal
14	Dr. Mukhtiyar Singh	Tuning of Thermoelectric performance of CrSe2 material using dimension engineering	10.1016/j.jpcs.2022.111083	0	Journal
15	Dr. Mukhtiyar Singh	Topological nature of large bulk band gap materials Sr3Bi2 and Ca3Bi2	10.1088/1402-4896/acb7b3	0	Journal
16	Dr. Richa Sharma	Influence of calcination and sintering temperature on the microstructure, dielectric, ferroelectric and piezoelectric properties of the lead-free KNN ceramics	https://doi.org/10.1007/s10854-022-09295-2	0	Journal

17	Dr. Richa Sharma	A flexible piezoelectric generato based on KNN/PVDF composite films: Role of KNN concentration on the piezoelectric performance of generator	https://doi.org/10.1016/j.cjph.2022.12.007	0	
18	Prof. Vinod Singh	Effect of Ce4+→Ce3+ conversion on the structural and luminescence properties of Ce4+ doped Gd2Ti2O7 pyrochlore oxide	https://doi.org/10.1016/j.jlumin.2023.119687		Journal
19	Prof. Vinod Singh	La3+ substitution effect on structural and magnetic properties of frustrated Ho2Ti2O7 pyrochlore	https://doi.org/10.1016/j.jallcom.2022.168311		Journal
20	Prof. Vinod Singh	Structural and optical studies on Dy3+ doped Gd2Ti2O7 pyrochlore as white light emission	https://doi.org/10.1016/j.ceramint.2022.11.045	1	Journal
21	Prof. Vinod Singh	Key role of Tb3+ doping on structural and photoluminescence properties of Gd2Ti2O7 pyrochlore oxide	https://doi.org/10.1016/j.ceramint.2022.04.231		Journal
22	Prof. Vinod Singh	Structural magnetic properties correlation in Ge doped frustrated Ho2Ti2O7 pyrochlore	https://doi.org/10.1016/j.jmmm.2022.169694	1	Jornal

23	Prof. Vinod Singh	N-type diamane: An effective emitter layer in crystalline silicon heterojunction solar cell	https://doi.org/10.1016/j.cartre.2022.100209		Jornal
24	Prof. Vinod Singh	Gold/ZnO Interface-Based D-Shaped PCF Surface Plasmon Resonance Sensor with Micro-Openings, Analytic Designing, and Some Applications	DOI: 10.1007/978-981-19-5395-8_27		Conference
25	Prof. Vinod Singh	Analogy of Gold, Silver, Copper And Aluminium Based Ultra-Sensitive Surface Plasmon Resonance Photonic Crystal Fiber Biosensors			Journal
26	Prof. Vinod Singh	Monitoring and Sensing of Glucose Molecule By Micropillar Coated Electrochemical Biosensor via CuO/[Fe(CN)6]3- and its Applications			Journal
27	Dr. Renuka Bokolia	Thermometric sensing performance in Erbium modified SrBi2-xNb2ErxO9 ferroelectric ceramic for optoelectronic devices	https://doi.org/10.1016/j.ceramint.2022.08.019	0	Journal

28	Dr. Renuka Bokolia	Impact of thermal and refractive index tuning on the bandgap and band-edges of a silicon photonic crystal waveguide with sensing applications	https://doi.org/10.1016/j.optcom.2022.128348	0	Journal
29	Dr. Renuka Bokolia	Effects of Er3+ dopant on polymorphic phase boundaries and electrical properties of Sn4+modified Ba1−yErySn0.06Ti0.94O3 multifunctional ceramics	https://doi.org/10.1007/s00339-022-06147-y	0	Journal
30	Dr. Renuka Bokolia	Preparation and characterisations of Yb3+ substituted BaBi2-yNb2YbyO9 ferroelectric ceramic	https://doi.org/10.1016/j.matpr.2022.04.459	0	Conference
31	Dr. Renuka Bokolia	Shape controlled synthesis of gold nanoparticles by tweaking of PVP and their dye degradation capability	https://doi.org/10.1016/j.matpr.2022.04.484	0	Conference
32	Dr Bharti Singh	MoS2-PVDF/PDMS Based Flexible Hybrid Piezo-Triboelectric Nanogenerator for Harvesting Mechanical Energy	http://dx.doi.org/10.1016/j.jallcom.2023.168850	0	Jounral
32	Dr. Bharti Singh	Tailoring the Output Performance of PVDF-Based Piezo–Tribo Hybridized	http://dx.doi.org/10.1021/acsaelm.2c01085	0	Journal

		Nanogenerators via B, N-Codoped Reduced Graphene Oxide			
33	Prof. Rishu Chaujar	Numerical Study of JAM-GS-GAA FinFET: A Fin Aspect Ratio Optimization for Upgraded Analog and Intermodulation Distortion Performance	https://doi.org/10.1007/s12633-021-01395-8	15	Journal
34	Prof. Rishu Chaujar	Sensitivity Analysis of Biomolecule Nanocavity Immobilization in a Dielectric Modulated Triple-Hybrid Metal Gate-All-Around Junctionless NWFET Biosensor for Detecting Various Diseases	https://doi.org/10.1007/s11664-022-09466-1	2	Journal
35	Prof. Rishu Chaujar	RF, linearity, and intermodulation distortion analysis with small-signal parameters extraction of tunable bandgap arsenide/antimonide tunneling interfaced JLTFET	https://doi.org/10.1007/s00542-022-05273-0	2	Journal
36	Prof. Rishu Chaujar	TCAD investigation of ferroelectric based substrate MOSFET for digital application	https://doi.org/10.1007/s12633-021-01472-y	4	Journal

37	Prof. Rishu Chaujar	Numerical investigation and temperature-based analysis of the analog performance of fully gate-covered junctionless FinFET	https://doi.org/10.1016/j.compeleceng.2022.108071	1	Journal
38	Prof. Rishu Chaujar	Detection of biomolecules in dielectric modulated double metal below ferroelectric layer FET with improved sensitivity	https://doi.org/10.1007/s10854-022-08290-x	1	Journal
39	Prof. Rishu Chaujar	Analog/RF Performance and Effect of Temperature on Ferroelectric Layer Improved FET device with Spacer	https://doi.org/10.1007/s12633-022-01822-4	2	Journal
40	Prof. Rishu Chaujar	Numerical simulation of analog metrics and parasitic capacitances of GaAs GS-GAA FinFET for ULSI switching applications	https://doi.org/10.1140/epjp/s13360-021-02269-z	3	Journal
41	Prof. Rishu Chaujar	Influence of source electrode metal work function on polar gate prompted source hole plasma in arsenide/antimonide tunneling interfaced junctionless TFET	10.1088/1361-6439/ac516f	1	Journal

42	Prof. Rishu Chaujar	Compatibility of a Truncated Fin-FinFET as a k-modulated Biosensor with Optimum parameters for Pre-emptive Diagnosis of Diseases	https://doi.org/10.1016/j.compeleceng.2022.107850	0	Journal
43	Prof. Rishu Chaujar	Ultrascaled 10 nm T-gate E-mode InAlN/AlN HEMT with polarized doped buffer for high power microwave applications	https://doi.org/10.1002/mmce.23057	5	Journal
44	Prof. Rishu Chaujar	Impact of tunnel gate process variations on analog/radio frequency (microwave) and small signal parameters of hetero-material tunneling interfaced charge plasma junctionless tunnel field effect transistor	https://doi.org/10.1002/cta.3347	0	Journal
45	Prof. Rishu Chaujar	Sensitivity Investigation of Junctionless Gate-all-around Silicon Nanowire Field-Effect Transistor-Based Hydrogen Gas Sensor	https://doi.org/10.1007/s12633-022-02242-0	0	Journal
46	Prof. Rishu Chaujar	Polarization induced doping and high-k passivation engineering on T-gate MOS-HEMT for	https://doi.org/10.1016/j.mseb.2023.116298	0	Journal

		improved RF/microwave performance			
47	Prof. Rishu Chaujar	Semiconductor Wafer Map Defect Classification Using Transfer Learning	10.1109/DELCON54057.2022.9753436	1	Conference
48	Prof. Rishu Chaujar	Scattering Parameter Analysis of Gate Stack Gate All Around (GS-GAA) FinFET at THz for RF Applications	10.1109/ICSC56524.2022.10009615	0	Conference
49	Prof. Rishu Chaujar	Quantum ATK analysis of silicon nanowire FET with a cylindrical metallic wrap-around gate varied with dielectrics	https://doi.org/10.1016/j.matpr.2022.04.487	0	Conference
50	Prof. Rishu Chaujar	Simulation investigation of double-heterostructure T-gate HEMT with graded back-barrier engineering for improved RF performance	https://doi.org/10.1016/j.matpr.2022.08.272	0	Conference
51	Prof. Rishu Chaujar	Linearity analysis of T-gate HEMT with graded back-barrier for wireless applications	10.1109/CONECCT55679.2022.9865687	0	Conference
52	Prof. Rishu Chaujar	Temperature Analysis on Short Channel Effects of Modified NCFET: A Simulation Study	10.1109/CONECCT55679.2022.9865782	0	Conference

53	Prof. Rishu Chaujar	Dual-k Spacer JAM-GS-GAA FinFET: A Device for Low Power Analog Applications	10.1109/SILCON55242.2022.10028867	0	Conference
54	Prof. Rishu Chaujar	Linearity Performance of Double Metal Negative Capacitance Field-Effect Transistors: A Numerical Study	10.1109/VLSIDCS53788.2022.9811468	0	Conference
55	Prof. Rishu Chaujar	RF Analysis of a Fully Gate Covered Junctionless FinFET for Improved Performance	10.1109/VLSIDCS53788.2022.9811481	0	Conference
56	Prof. Suresh C. Sharma	Plasma-based Nanoarchitectonics for Vertically Aligned Dual - Metal Carbon Nanotube Field Effect Transistor (VA-DMCNFET) Device: Effect of Plasma Parameters on Transistor Properties	https://doi.org/10.1007/s00339-021-05096-2	5	Journal
57	Prof. Suresh C. Sharma	Effect of Plasma Control Parameters on the growth of nitrogen-doped nanocone-vertical graphene hybrid: Theoretical Investigations	https://doi.org/10.1007/s11090-022-10229-3	0	Journal
58	Prof. Suresh C. Sharma	Investigations on plasma pre-treatment of catalyst film and catalyzed growth of carbon nanotubes	https://doi.org/10.1109/TPS.2022.3155172	1	Journal

59	Prof. Suresh C. Sharma	Performance Evaluation & Linearity Distortion Analysis for Plasma-Assisted Dual-Material Carbon Nanotube Field Effect Transistor with a SiO2-HfO2 Stacked Gate-Oxide Structure (DM-SGCNFET)	https://doi.org/10.1007/s12633-022-01930-1	1	Journal
60	Prof. Suresh C. Sharma	In the existence of a transverse dc electric field, the kinetic theory of current-driven EIC waves excitation in a magnetized dusty plasma	https://doi.org/10.1002/ctpp.202200073	0	Journal
61	Prof. Suresh C. Sharma	Impact of plasma process parameters on the growth of vertically aligned carbon nanotube array and its optimization as field emitters	https://doi.org/10.1140/epjp/s13360-022-03005-x	0	Journal
62	Prof. Suresh C. Sharma	Neutral Beam Driven Ion Cyclotron Instability of lower hybrid wave in a tokamak plasma	https://doi.org/10.1063/5.0102140	0	Journal
63	Prof. Suresh C. Sharma	Beam-driven Whistler mode Nonlinear saturation and Turbulence in the Magnetopause	https://doi.org/10.1063/5.0098108	1	Journal

64	Prof. Suresh C. Sharma	Exploration of Novel Hafnium Oxide (HfO2) based Plasma-Assisted Gate All Around Carbon Nanotube FET (GAA-CNTFET) for high sensing applications	https://doi.org/10.1149/2162-8777/ac95c6	0	Journal
65	Prof. Suresh C. Sharma	Polarization Reversal of Oblique Electromagnetic Wave in Collisional Beam-Hydrogen Plasma	https://doi.org/10.2528/PIERC22092526	0	Journal
66	Prof. Suresh C. Sharma	Localization and turbulence of Beam-Driven Whistler wave with Magnetosonic wave in Magnetopause	https://doi.org/10.1063/5.0134920	0	Journal
67	Prof. Suresh C. Sharma	Generation of Obliquely Propagating Shear Alfven Wave in Dusty Plasma by Ion Beam			Journal
68	Prof. Suresh C. Sharma	Effect of Process Parameters on CNTFET	DOI: 10.1007/978-981-16-9523-0_44		Conference
69	Dr. Yogita Kalra	Epsilon near zero metamaterial-based Optical Filter	https://doi.org/10.1364/FIO.2022.JTu5A.81		Conference
70	Dr. Yogita Kalra	Single-ring controlled As2Se3 Photonic Crystal Fiber for Dispersion compensation in Mid-Infrared Region	https://doi.org/10.1364/FIO.2022.JW4B.31		Conference

71	Dr. Pawan Kumar Tyagi	Synthesis, characterization, and electrochemical investigation of citric-acid assisted nickel manganese oxide as anode material	https://doi.org/10.1557/s43580-022-00293-4		Journal
72	Dr. Pawan Kumar Tyagi	Effect of Cr doping on Li2ZnTi3O8 as alternative anode material to enhance electrochemical properties of lithium-ion batteries	https://doi.org/10.1007/s00339-022-05440-0		Journal
73	Dr. Pawan Kumar Tyagi	Structural, Morphological and Electrochemical Studies of Complex Spinel Titanate Li2ZnTi3O8	https://doi.org/10.1007/978-981-16-7691-8_20		Conference
74	Dr. Pawan Kumar Tyagi	N-type diamane: An effective emitter layer in crystalline silicon heterojunction solar cell	https://doi.org/10.1016/j.cartre.2022.100209		Journal
75	Prof. R.K. Sinha	ADDITIVE MANUFACTURING PARAMETERS OPTIMIZATION OF Ti6AL4V ELI FOR MEDICAL IMPLANTS	https://doi.org/10.1142/S0218625X22500408		Journal
76	Prof. R.K. Sinha	Finite element study on the influence of pore size and structure on stress shielding effect of additive manufactured spinal cage	https://doi.org/10.1080/10255842.2021.1970142		Journal

77	Prof. R.K. Sinha	Impact of thermal and refractive index tuning on the bandgap and band-edges of a silicon photonic crystal waveguide with sensing applications	https://doi.org/10.1016/j.optcom.2022.128348		Journal
78	Prof. R.K. Sinha	Epsilon near zero metamaterial-based Optical Filter	https://doi.org/10.1364/FIO.2022.JTu5A.81		Conference
79	Prof. R.K. Sinha	Single-ring controlled As2Se3 Photonic Crystal Fiber for Dispersion compensation in Mid-Infrared Region	https://doi.org/10.1364/FIO.2022.JW4B.31		Conference
80	Prof. R.K. Sinha	ENZ metamaterial for X-band in the microwave regime	https://doi.org/10.1364/FIO.2022.JTu4B.60		Conference
81	Prof. R.K. Sinha	Ultrasensitive dual-band terahertz metasurface sensor based on all InSb resonator	https://doi.org/10.1016/j.optcom.2022.128667		Journal
82	Prof. R.K. Sinha	Design and analysis of wavelength tunable metamaterial reflector	https://doi.org/10.1016/j.rio.2023.100366		Journal
83	Prof. R.K. Sinha	Plasmonic Copper-activated ZnO Microarrays for Efficient Photoelectrocatalytic Applications	https://doi.org/10.1002/asia.202201155		Journal
84	Prof. R.K. Sinha	Study of Non-linear Optical Properties of an	10.1088/1742-6596/2426/1/012006		Conference

		ENZ Composite Metamaterial			
85	Prof. R.K. Sinha	Terahertz Wave Propagation Characteristics in Graded Teflon Based Solid-Core Photonic Crystal Fibre	10.1088/1742-6596/2426/1/012021		conference
86	Dr. M. Jayasimhadri	UV excited blue to green emitting Tb3+ activated sodium calcium metasilicate color tunable phosphor for luminescent devices.	https://doi.org/10.1002/bio.4319		Journal
87	Dr. M. Jayasimhadri	Structural and spectroscopic analysis of thermally stable Dy3+ activated Na4Ca4Si6O18 phosphor for optoelectronic device applications	https://doi.org/10.1007/s10854-022-08760-2		Journal
88	Dr. M. Jayasimhadri	Temperature-dependent photoluminescence and optical thermometry performance in Ca3Bi(PO4)3: Er3+ phosphors	https://doi.org/10.1016/j.solidstatesciences.2022.106956	2	Journal
89	Dr. M. Jayasimhadri	Spectroscopic investigations of Dy3+-doped tungstate–tellurite glasses for solid-state lighting applications	https://doi.org/10.1111/ijag.16591	2	Journal

90	Dr. M. Jayasimhadri	Thermally stable red luminescence from Eu3+-activated telluro zinc phosphate glass under near-ultraviolet light excitation for photonic applications	https://doi.org/10.1002/bio.4391		Journal