

Project title:

Computational Study of Nanoalloy Clusters for Potential Applications in Energy Sector

Funding Agency: Science and Engineering Research Board (SERB), Government of India**Sanctioned Amount:** Rs. 47,42,264/-**Project duration:** 3 Years**Principal Investigator**

Dr. Prabhat Ranjan,

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S N	Faculty Name	Book/Conf.	Title	Conference Title	Publisher	link
1	Ms Princy Randhawa	Book Series	IMPLEMENTING INDUSTRY 4.0 AND SUSTAINABLE MANUFACTURING: LEADING TO SMART FACTORY	I-4AM 2022	Springer Science + Business Media	https://www.springerprofessional.de/en/implementing-industry-4-0-and-sustainable-manufacturing-leading-/23298960
2	Dr Shahbaz Ahmed Siddiqui	Book Series	A FACILE ROUTE FOR THE SYNTHESIS OF PURE & AGDOPED ZNO FOR DYESENSITIZED SOLAR CELL APPLICATION	Flexible Electronics for Electric Vehicles (FlexEV - 2021)	Springer Verlag	https://doi.org/10.1007/978-981-19-0588-9_46
3	Dr Shahbaz Ahmed Siddiqui	Book Series	ENHANCED REALTIME POWER SYSTEM MONITORING BY DETECTING EVENT SIGNATURE	FlexEV 2021	Springer Verlag	https://link.springer.com/chapter/10.1007/978-981-19-0588-9_27
4	Dr Shahbaz Ahmed Siddiqui	Book Series	DESIGNING AND IMPLEMENTATION OF A SOLAR PV STATION FOR	Flexible Electronics for Electric Vehicles	Springer Verlag	https://doi.org/10.1007/978-981-19-0588-9_47



			ELECTRIC VEHICLE CHARGING: PV-EV CHARGING	FlexEV 2021		
5	Dr Shahbaz Ahmed Siddiqui	Book Series	PERFORMANCE ANALYSIS OF A TRANSMISSION NETWORK UNDER WIND POWER AND LOAD DEMAND UNCERTAINTY USING PROBABILISTIC OPTIMAL POWER FLOW ON DIGSILENT POWER FACTORY	FlexEV-2021	Springer Verlag	https://doi.org/10.1007/978-981-19-0588-9_22
6	Mr Shambo Roy Chowdhury	Conference Proceeding	A SELFBALANCING TRAY FOR ELDERLY PEOPLE	2nd International Conference & Exposition on Advances In Mechanical Engineering	Elsevier Ltd	https://doi.org/10.1016/j.matpr.2022.08.426
7	Dr Shahbaz Ahmed Siddiqui	Conference Proceeding	MAXIMUM POWER POINT ESTIMATION OF MSX60 POLYCRYSTALLINE STANDALONE SOLAR PV SYSTEM	2nd International Conference on Startup Ventures: Technology Developments and Future Strategies(SVTDFS-2022)	Elsevier Ltd	https://doi.org/10.1016/j.matpr.2022.12.268
8	Dr Shahbaz Ahmed Siddiqui	Conference Proceeding	MODEL FREE DATADRIVEN SCHEME TO ASSESS TRANSIENT INSTABILITY OF SOLAR ENERGY	2022 22nd National Power Systems Conference (NPSC)	IEEE	https://ieeexplore.ieee.org/abstract/document/10069328



			PENETRATED POWER SYSTEM			
9	Mr Ashok Kumar Kumawat	Conference Proceeding	CONTINUOUS TIME LQR BASED POSITION CONTROL FOR AN ELECTROHYDRAULIC ACTUATION SYSTEM	023 International Conference for Advancement in Technology (ICONAT)	IEEE	https://doi.org/10.1109/ICONAT57137.2023.10080605
10	Dr Manish Rawat	Conference Proceeding	CONTINUOUS TIME LQR BASED POSITION CONTROL FOR AN ELECTROHYDRAULIC ACTUATION SYSTEM	023 International Conference for Advancement in Technology (ICONAT)	IEEE	https://doi.org/10.1109/ICONAT57137.2023.10080605
11	Mr Ashok Kumar Kumawat	Conference Proceeding	IOT ENABLED LOWCOST REALTIME REMOTE AIR QUALITY MONITORING AND FORECASTING SYSTEM	2023 International Conference on Device Intelligence, Computing and Communication Technologies, (DICCT)	IEEE	https://doi.org/10.1109/DICCT56244.2023.10110229
12	Dr Shahbaz Ahmed Siddiqui	Conference Proceeding	SCOPE OF REFERENCE ARCHITECTURE MODEL FOR INDUSTRY 4.0 IN MUSHROOM PRODUCTION	ETMN 2021	Institute of Physics Publishing	https://doi.org/10.1063/5.0136561
13	Dr Shahbaz Ahmed Siddiqui	Conference Proceeding	DYE SENSITIZED SEMITRANSSPARENT SOLAR CELL: BUILDING APPLICATION, TRANSPARENCY AND COLOUR	ETMN 2021	Institute of Physics Publishing	https://doi.org/10.1063/5.0136721



			CHARACTERIZATION			
14	Dr Shahbaz Ahmed Siddiqui	Conference Proceeding	TRANSIENT STABILITY ASSESSMENT OF POWER SYSTEM WITH SOLAR PV ENERGY PENETRATION THROUGH DIGSILENT POWER FACTORY AND PYTHON	ETMN 2021	Institute of Physics Publishing	https://doi.org/10.1063/5.0136386
15	Dr Shahbaz Ahmed Siddiqui	Conference Proceeding	EMPLOYING AN IMPROVED LOSS SENSITIVITY FACTOR APPROACH FOR OPTIMAL DG ALLOCATION AT DIFFERENT PENETRATION LEVEL USING ETAP	ETMN2021	Institute of Physics Publishing	https://doi.org/10.1063/5.0136538
16	Ms Princy Randhawa	Conference Proceeding	DETERMINANTS OF CLOUD SERVICES AND CUSTOMER SATISFACTION IN INDIAN STARTUP COMPANIES	2023 International Conference on Information Management (ICIM)	IEEE	https://ieeexplore.ieee.org/document/10145181
17	Dr Prabhat Ranjan	Conference Proceeding	THEORETICAL ANALYSIS OF AGINX2(X S, SE, TE) NANOMATERIALS: A DFT STUDY	ETMN 2021	AIP	https://doi.org/10.1063/5.0135958



Journal Publication (AY July 2022 to June 2023):

S N	Faculty Name	Journal	Article Title	Link	ISSN	Journal Name
1	Dr Prabhat Ranjan	Journal Article	A SYSTEMATIC COMPUTATIONAL STUDY OF ACRIDINE DERIVATIVES THROUGH CONCEPTUAL DENSITY FUNCTIONAL THEORY	https://doi.org/10.1007/s11030-022-10486-6	13811991	Molecular Diversity
2	Dr Prabhat Ranjan	Journal Article	CORONAVIRUS (COVID19): ARIMABASED TIMESERIES ANALYSIS TO FORECAST NEAR FUTURE AND THE EFFECT OF SCHOOL REOPENING IN INDIA	https://doi.org/10.1177/09720634221109087	09720634	Journal of Health Management
3	Dr Prabhat Ranjan	Journal Article	A COMPUTATIONAL AND THEORETICAL STUDY OF SOME HEAVY METAL HETERONUCLEAR DIMERS	https://doi.org/10.1016/j.jics.2022.100643	00194522	Journal of the Indian Chemical Society
4	Ms Princy Randhawa	Journal Article	A CRITICAL EVALUATION OF PROCEDURAL CONTENT GENERATION APPROACHES FOR DIGITAL TWINS	https://www.hindawi.com/journals/js/2022/5629645/	1687725X	Journal of Sensors
5	Dr Prabhat Ranjan	Journal Article	STRUCTURE, ELECTRONIC AND OPTICAL PROPERTIES OF CHALCOPYRITETYPE SEMICONDUCTING MATERIALS XGAY2 (X CU,	https://doi.org/10.1016/j.physb.2022.414305	09214526	Physica B: Condensed Matter



			AG, AU; Y S, SE, TE) FOR SOLAR CELL APPLICATIONS: A DFT STUDY			
6	Dr Prabhat Ranjan	Journal Article	A COMPUTATIONAL STUDY OF POTENTIAL THERAPEUTICS FOR COVID19 INVOKING CONCEPTUAL DENSITY FUNCTIONAL THEORY	https://doi.org/10.1007/s11224-022-02048-1	10400400	Structural Chemistry
7	Dr Shahbaz Ahmed Siddiqui	Journal Article	INTERSECTION POINT DETERMINATION METHOD: A NOVEL MPPT APPROACH FOR SUDDEN AND FAST CHANGING ENVIRONMENTAL CONDITIONS	https://doi.org/10.1016/j.renene.2022.09.056	09601481	Renewable Energy
8	Dr Mrinmoy Mishra	Journal Article	TYROSINASEFUNCTIONALIZED GOLD NANOPARTICLETAILORED ULTRASENSITIVE NANOSENSING PROBE FOR HAZARDOUS AND NUTRITIONAL PHENOLIC COMPOUNDS	https://doi.org/10.1016/j.snb.2022.132434	09254005	Sensors and Actuators, B: Chemical
9	Dr Prabhat Ranjan	Journal Article	NICKEL CURCUMIN COMPLEXES: PHYSICO CHEMICAL STUDIES AND NONLINEAR OPTICAL ACTIVITY	https://doi.org/10.1016/j.optmat.2023.113450	09253467	Optical Materials
10	Ms Princy Randhawa	Journal Article	AUTISM SPECTRUM DISORDER DETECTION: VIDEO GAMES BASED FACIAL EXPRESSION DIAGNOSIS USING DEEP LEARNING	https://thesais.org/Publications/ViewPaper?Volume=14&Issue=1&Code=IJACSA&SerialNo=12	2158107X	International Journal of Advanced Computer Science and Applications
11	Dr Ajay Kumar	Journal Article	RESPONSE SURFACE METHODOLOGY ANALYSIS OF ENERGY HARVESTING SYSTEM OVER PATHWAY TILES	https://doi.org/10.3390/ma16031146	19961944	Materials
12	Mr Varun Jurwall	Journal Article	PHYSIOMECHANICAL AND TRIBOLOGICAL CHARACTERISATION OF ALUMINIUM ALLOY MATRIX COMPOSITE: AN EFFECT OF NANO/MICRO FILLERS	https://doi.org/10.1080/2374068X.2023.2168237	2374068X	Advances in Materials and Processing



						Technologies
14	Dr Prabhat Ranjan	Journal Article	ELECTRONIC AND OPTICAL PROPERTIES OF LEADFREE DOUBLE PEROVSKITES A ₂ BCL ₆ (A RB, CS; B SI, GE, SN) FOR SOLAR CELL APPLICATIONS: A SYSTEMATIC COMPUTATIONAL STUDY	https://doi.org/10.1002/poc.4492	08943230	Journal of Physical Organic Chemistry
13	Dr Krishna Kant Pandey	Journal Article	TRAJECTORY PLANNING AND COLLISION CONTROL OF A MOBILE ROBOT: A PENALTYBASED PSO APPROACH	https://doi.org/10.1155/2023/1040461	1024123X	Mathematical Problems in Engineering
14	Dr Prabhat Ranjan	Journal Article	THEORETICAL INVESTIGATION OF SOME TRANSITION METAL SULFIDES NANOMATERIALS: CDFT APPROACH	https://doi.org/10.1007/s00214-023-02980-3	1432881X	Theoretical Chemistry Accounts
15	Dr Prabhat Ranjan	Journal Article	A SYSTEMATIC DFT STUDY OF ARSENIC DOPED IRON CLUSTER ASFE _N (N 1-4)	https://doi.org/10.1515/p sr-2022-0270	2365659X	Physical Sciences Reviews
16	Mr Ashok Kumar Kumawat	Journal Article	DISCRETETIME CONSTRAINED CONTROLLER FOR PROPORTIONAL DIRECTIONAL CONTROL VALVEBASED ELECTROHYDRAULIC SYSTEM WITH PARAMETRIC UNCERTAINTY AND DISTURBANCES	https://doi.org/10.1115/1.4062469	00220434	Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME
17	Dr Manish Rawat	Journal Article	DISCRETETIME CONSTRAINED CONTROLLER FOR PROPORTIONAL DIRECTIONAL CONTROL VALVEBASED ELECTROHYDRAULIC SYSTEM WITH PARAMETRIC UNCERTAINTY AND DISTURBANCES	https://doi.org/10.1115/1.4062469	00220434	Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME



18	Mr Nikhil Vivek Shrivastava	Journal Article	COMPUTATION OF PHYSIOLOGICAL LOADING INDUCED INTERSTITIAL FLUID MOTION IN MUSCLE STANDARDIZED FEMUR: HEALTHY VS. OSTEOPOROTIC BONE	https://doi.org/10.1016/j.cmpb.2023.107592	01692607	Computer Methods and Programs in Biomedicine
19	Dr Prabhat Ranjan	Journal Article	A COMPUTATIONAL STUDY OF DOUBLE PEROVSKITES A ₂ B ₆ (A ²⁺ CS, K, RB; B ²⁺ PT, SN) INVOKING DENSITY FUNCTIONAL THEORY	https://doi.org/10.1002/poc.4519	08943230	Journal of Physical Organic Chemistry
20	Dr Prabhat Ranjan	Journal Article	A COMPUTATIONAL STUDY OF ZNFEX ₂ (X = S, SE, TE) NANOCLUSTERS HAVING PHOTOVOLTAIC APPLICATIONS	https://doi.org/10.1016/j.mssp.2023.107608	13698001	Materials Science in Semiconductor Processing
21	Mr Ashok Kumar Kumawat	Journal Article	DESIGN OF AN OPTIMAL TRACKING CONTROLLER WITH UNMEASURED STATES FOR ELECTROHYDRAULIC ACTUATION SYSTEM USING 4/3 PROPORTIONAL DC VALVE	https://www.inderscience.com/info/article.php?articleid=131774	17407516	International Journal of Automation and Control
22	Dr Manish Rawat	Journal Article	DESIGN OF AN OPTIMAL TRACKING CONTROLLER WITH UNMEASURED STATES FOR ELECTROHYDRAULIC ACTUATION SYSTEM USING 4/3 PROPORTIONAL DC VALVE	https://www.inderscience.com/info/article.php?articleid=131774	17407516	International Journal of Automation and Control
23	Mr Nikhil Vivek Shrivastava	Journal Article	PHYSIOLOGICAL LOADING INDUCED STREAMING POTENTIALS IN OSTEOGENESIS IMPERFECTA BONE	https://doi.org/10.1177/09544062231181805	09544062	Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science
24	Dr Prabhat Ranjan	Journal Article	A COMPUTATIONAL STUDY OF CUCRX ₂ (X = S, SE, TE) FOR INTERMEDIATE BAND SOLAR CELL: CONCEPTUAL	https://doi.org/10.1016/j.jmgm.2023.108534	10933263	Journal of Molecular Graphics and Modelling



			DENSITY FUNCTIONAL THEORY APPROACH			
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BOOK Chapter (AY JULY 2022 TO JUNE 2023)

S N	Faculty name	Book Chapter	Book Title	Title of Book Chapter	Publisher	link
1	Dr Prabhat Ranjan	Book Chapter	CARBONBASED NANOMATERIAL S FOR ENERGY STORAGE: A REVIEW	Carbon Composites: Composites with Nanotubes, Nanomaterials , and Graphene Oxide	Apple Academic Press	https://doi.org/10.1201/9781003331285
2	Ms Princy Randha wa	Book Chapter	INDUSTRIAL IOT TECHNOLOGIES AND PROTOCOLS	New Frontiers in Cloud Computing and Internet of Things	Springer International Publishing AG	https://link.springer.com/chapter/10.1007/978-3-031-05528-7_9



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Publication details (AY July 2021– June 2022):

S N	Faculty name	Publication type	Title	DOI Web Link	ISSN	Journal Name
1	Ms. Princy Randhawa	Journal Article	MACHINE LEARNING APPROACH FOR THE CLASSIFICATION OF VIOLENT ATTACK BASED ON FABRIC SENSORS	https://www.actapress.com/Abstract.aspx?paperId=46978	25611771	Mechatronic Systems and Control
2	Dr. Shahbaz Ahmed Siddiqui	Journal Article	MODEL FREE ROBUST REALTIME SEVERITY ANALYSER USING PMU MEASUREMENTS	https://doi.org/10.1016/j.ijepes.2021.107333	01420615	International Journal of Electrical Power and Energy Systems
3	Dr. Shahbaz Ahmed Siddiqui	Journal Article	PERFORMANCE ANALYSIS OF TIO2 BASED DYE SENSITIZED SOLAR CELL PREPARED BY SCREEN PRINTING AND DOCTOR BLADE DEPOSITION TECHNIQUES	https://doi.org/10.1016/j.solener.2021.08.001	0038092X	Solar Energy
4	Ms. Princy Randhawa	Journal Article	OATCR: OUTDOOR AUTONOMOUS TRASHCOLLECTING ROBOT DESIGN USING YOLOV4TINY	https://www.mdpi.com/2079-9292/10/18/2292	20799292	Electronics (Switzerland)
5	Ms Princy Randhawa	Journal Article	TAKAGI-SUGENO FUZZY MODELING AND CONTROL FOR EFFECTIVE ROBOTIC MANIPULATOR MOTION	https://www.techscience.com/cmc/v71n1/45465	15462218	Computers, Materials and Continua
6	Ms Princy Randhawa	Journal Article	APPLICATIONS OF HEALTHCARE ROBOTS IN COMBATING THE COVID19 PANDEMIC	https://www.hindawi.com/journals/abb/2021/7099510/	11762322	Applied Bionics and Biomechanics
7	Mr Shambo Roy Chowdhury	Journal Article	SOLAR LIGHT DRIVEN PHOTOCURRENT GENERATION AND CATALYTIC DISINTEGRATION OF TOXIC COMPOUNDS AND IONS USING AUSN, FDOPED	https://doi.org/10.1039/D1NJ03037J	11440546	New Journal of Chemistry

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			IN2O3 CORE-SHELL NANOSTRUCTURE			
8	Ms Princy Randhawa	Journal Article	BIOVIRUS SPREAD SIMULATION IN REAL 3D SPACE USING AUGMENTED REALITY	https://www.espublisher.com/journals/article/details/592/	2576988X	Engineered Science
9	Dr Shahbaz Ahmed Siddiqui	Journal Article	ADVANCEMENTS, FRONTIERS AND ANALYSIS OF METAL OXIDE SEMICONDUCTOR, DYE, ELECTROLYTE AND COUNTER ELECTRODE OF DYE SENSITIZED SOLAR CELL	https://doi.org/10.1016/j.solener.2022.01.027	0038092X	Solar Energy
10	Dr Mrinmoy Mishra	Journal Article	SUBSTANTIAL ENHANCEMENT IN THE PHOTOCATALYTIC DEGRADATION OF ORGANIC/INORGANIC POLLUTANTS IN WATER AND PHOTOELECTROCHEMICAL ACTIVITY USING TiO ₂ /Ag/LaFeO ₃ CORE-SHELL NANORODS	https://doi.org/10.1039/D1NJ05672G	11440546	New Journal of Chemistry
11	Dr Mrinmoy Mishra	Journal Article	ADVANCED METAL AND CARBON NANOSTRUCTURES FOR MEDICAL, DRUG DELIVERY AND BIOIMAGING APPLICATIONS	https://doi.org/10.1039/D1NR07643D	20403364	Nanoscale
12	Dr Prabhat Ranjan	Journal Article	COMPUTATIONAL STUDY OF Cu _N AGAU (N = 1-4) CLUSTERS INVOKING DFT BASED DESCRIPTORS	https://doi.org/10.1515/psr-2021-0141	2365659X	Physical Sciences Reviews
13	Dr Mrinmoy Mishra	Journal Article	OPTOELECTRONIC AND DFT INVESTIGATION OF THIENYLENEVINYLEN	https://doi.org/10.1016/j.molliq.2022.119462	01677322	Journal of Molecular Liquids



			E BASED MATERIALS FOR THIN FILM TRANSISTORS			
14	Mr Varun Jurwall	Journal Article	MECHANICAL AND WEAR CHARACTERIZATION OF ALUMINA/B4C/SIC REINFORCED AL6061 ALLOY METAL COMPOSITES	https://www.dl.begellhouse.com/journals/36ff4a142dec9609,081e384a3f26e2dc,253d91a17f9f3e6b.html	21522057	Composites: Mechanics, Computations, Applications
15	Ms Princy Randhawa	Journal Article	A MODERN APPROACH TOWARDS AN INDUSTRY 4.0 MODEL: FROM DRIVING TECHNOLOGIES TO MANAGEMENT	https://www.hindawi.com/journals/js/2022/5023011/	1687725X	Journal of Sensors
16	Dr Prabhat Ranjan	Journal Article	HIGHLY CONDUCTING NANOPHASES OF AG2S-SEGE CHALCOGENIDE GLASSY SYSTEMS: EXPLANATIONS VIA COMPUTATIONAL DESCRIPTIONS	https://doi.org/10.1016/j.physb.2022.413794	09214526	Physica B: Condensed Matter
17	Mr Mohit Jain	Journal Article	A COMPARATIVE INVESTIGATION ON WEAR CHARACTERISTICS OF POLYMER AND BIOPOLYMER GEARS	https://doi.org/10.1515/polyeng-2022-0044	03346447	Journal of Polymer Engineering
18	Dr Mrinmoy Mishra	Journal Article	A NOVEL REDUCTION APPROACH FOR FABRICATION OF TRANSPARENT CONDUCTING FLUORINE AND TIN DOPED INDIUM OXIDE THIN FILM WITH LOW SHEET RESISTANCE	https://doi.org/10.1016/j.ceramint.2022.05.320	02728842	Ceramics International
19	Pushpa Gothwal		MULTILEVEL SEGMENTATION OF FRUITS USING MODIFIED FIREFY ALGORITHM	https://doi.org/10.1007/s12161-022-02290-7	19369751	Food Analytical Methods



Conference Publication (AY July 2021– June 2022):

S.N	Faculty Name	Title	Conference name	Name of the Publisher	Link	ISSN	Conference Proceedings Name
1	Ms. Princy Randhawa	THE NEXT STEP IS NANOTECHNOLOGY : APPLICATION AND RECENT ADVANCEMENT	International conference on information systems and management science	Springer Nature	https://doi.org/10.1007/978-3-030-86223-7_16	23673370	Lecture Notes in Networks and Systems
2	Ms. Princy Randhawa	DETECTING PRESENCE OF MASKS AND VIOLATION OF SOCIAL DISTANCING	International conference on information systems and management science	Springer Nature	https://link.springer.com/chapter/10.1007/978-3-030-86223-7_7	23673370	Lecture Notes in Networks and Systems
3	Mr Ashok Kumar Kumawat	COMPARING CLASSIFICATION ALGORITHMS ON PREDICTING LOANS	3rd International Conference on Information Systems and Management Science (ISMS 2020)	Springer Nature	https://link.springer.com/chapter/10.1007/978-3-030-86223-7_21	23673370	Lecture Notes in Networks and Systems
4	Mr Mohit Jain	COMPARING CLASSIFICATION ALGORITHMS ON PREDICTING LOANS	3rd International Conference on Information Systems and Management Science (ISMS 2020)	Springer Nature	https://link.springer.com/chapter/10.1007/978-3-030-86223-7_21	23673370	Lecture Notes in Networks and Systems
5	Mr Nikhil Vivek Shrivastava	LOWAMPLITUDE AND HIGHFREQUENCY LOADING	FIRST INTERNATIONAL CONFERENCE ON ENERGY, MATERIALS	Springer Science + Business Media	https://link.springer.com/chapter/10.1007/978-981-16-2794-1_68	21954364	Lecture Notes in Mechanical Engineering

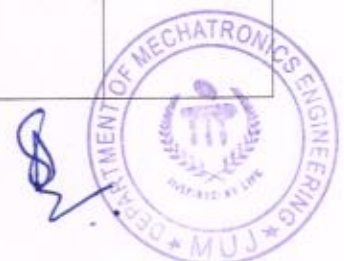


		INFLUENCES INTERSTITIAL FLUID FLOW IN OSTEOGENESIS IMPERFECTA OSTEON	SCIENCES & MECHANICAL ENGINEERING (EMSME 2020)				
6	Mr Mohit Jain	DEVELOPMENT AND FABRICATION OF NYLON 6 STANDARD AND ASYMMETRIC SPUR GEAR USING INJECTION MOULDING	1 st International Conference on Energy, Materials Sciences and Mechanical Engineering (EMSME - 2020)	Springer Science + Business Media	https://doi.org/10.1007/978-981-16-2794-1_78	21954364	Lecture Notes in Mechanical Engineering
7	Dr Mangal Das	PRODUCTIVITY ENHANCEMENT IN CLOCK DOMAIN CROSSINGS VERIFICATION	Flexible Electronics for Electric Vehicles FlexEV 2021	Springer Verlag	https://link.springer.com/chapter/10.1007/978-981-16-9154-6_28	18761100	Lecture Notes in Electrical Engineering
8	Mr. Shambo Roy Chowdhury	DEVELOPMENT OF REGRESSION MODEL TO PREDICTING YIELD STRENGTH FOR DIFFERENT STEEL GRADES	Community Based Research and Innovations in Civil Engineering	IOP Publishing Ltd.	https://iopscience.iop.org/article/10.1088/1755-1315/796/1/012033	17551307	IOP Conference Series: Earth and Environmental Science

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9	Ms Princy Randhawa	MEDBUD DY: THE MEDICINE DELIVERY ROBOT	2021 9th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions) (ICRITO)	IEEE	https://ieeexplore.ieee.org/document/9596130/keywords#keywords	MUJCON01	IEEE XPLORE
10	Ms Princy Randhawa	GARBAGE DETECTION AND PATHPLANNING IN AUTONOMOUS ROBOTS	2021 9th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions) (ICRITO)	IEEE	https://ieeexplore.ieee.org/document/9596382/keywords#keywords	MUJCON01	IEEE XPLORE
11	Ms Princy Randhawa	A REVIEW OF TRASH COLLECTING AND CLEANING ROBOTS	2021 9th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions) (ICRITO)	IEEE	https://ieeexplore.ieee.org/document/9596551/keywords#keywords	MUJCON01	IEEE XPLORE
12	Mr Ashok Kumar Kumawat	OBJECT DETECTION AND POSITION TRACKING IN REAL TIME USING RASPBERRY PI	3rd International Conference On Advances in Mechanical Engineering and Nanotechnology - (ICAMEN 2021)	Elsevier Ltd	https://doi.org/10.1016/j.matpr.2021.06.437	22147853	Materials Today: Proceedings
13	Ms Princy Randhawa	DESALINATION OF MARINE WATER USING	2021 9th International Conference on Reliability, Infocom	IEEE	https://ieeexplore.ieee.org/document/9596489	MUJCON01	IEEE XPLORE



		MACHINE LEARNING METHODS	Technologies and Optimization (Trends and Future Directions) (ICRITO)				
14	Ms Princy Randhawa	A COMPARATIVE STUDY ON INTELLIGENT & ADAPTIVE CONTROL TECHNIQUES ON A NONLINEAR INVERTED PENDULUM CART MECHANISM	2021 9th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions) (ICRITO)	IEEE	https://ieeexplore.ieee.org/document/9596243/keywords#keywords	MUJCON01	IEEE XPLORE
15	Dr Prabhat Ranjan	THEORETICAL ANALYSIS OF AGFEN (N 1-5) CLUSTERS : A DFT STUDY	International Conference on Materials Science and Mathematics for Advanced Technology	Elsevier Ltd	https://doi.org/10.1016/j.matpr.2021.11.197	22147853	Materials Today: Proceedings
16	Mr Ashok Kumar Kumawat	ROAD TRAFFIC DENSITY SURVEILLANCE SYSTEM USING IR SENSOR, IMAGE PROCESSING AND RASPBERRY PI: A COMPARATIVE ANALYSIS	2021 2nd International Conference on Communication, Computing and Industry 4.0 (C2I4)	IEEE	https://doi.org/10.1109/C2I454156.2021.9689444	MUJCON01	IEEE XPLORE



17	Mr Nikhil Vivek Shrivastava	ROAD TRAFFIC DENSITY SURVEILLANCE SYSTEM USING IR SENSOR, IMAGE PROCESSING AND RASPBERRY PI: A COMPARATIVE ANALYSIS	2021 2nd International Conference on Communication, Computing and Industry 4.0 (C2I4)	IEEE	https://doi.org/10.1109/C2I454156.2021.9689444	MUJCON01	IEEE XPLORE
18	Ms Princy Randhawa	A MACHINE LEARNING BASED APPROACH FOR CLASSIFICATION OF A PERSON'S ACTIONS BASED ON ELECTROMYOGRAPHY (EMG) SIGNALS	2022 9th International Conference on Computing for Sustainable Global Development (INDIACom)	IEEE	https://ieeexplore.ieee.org/document/9763143/keywords#keywords	MUJCON01	IEEE XPLORE
19	Ms Princy Randhawa	PORTABLE GAIT ANALYSIS SENSOR MODEL FOR PARKINSON'S DISEASE	ICAMEN 2022	Elsevier Ltd	https://www.sciencedirect.com/science/article/pii/S221478532028917	22147853	Materials Today: Proceedings
20	Mr Mohit Jain	COMPARATIVE ANALYSIS OF SURFACE CHARACTERISTICS OF	4th INTERNATIONAL CONFERENCE on ADVANCES IN MECHANICAL ENGINEERING	Elsevier Ltd	https://doi.org/10.1016/j.matpr.2022.02.050	22147853	Materials Today: Proceedings



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		NYLON BASED POLYMER GEARS MANUFACTURED BY DIFFERENT TECHNIQUES	and NANOTECHNOLOGY (ICAMEN 2022)				
21	Mr Hemant Kumar	DESIGN AND DEVELOPMENT OF SMART SAFETY AND NAVIGATION SYSTEM FOR MOTORBIKES AND TWO WHEELERS	International Conference on "Recent Advances in Modeling and Simulation Techniques in Engineering and Sciences	Elsevier Ltd	https://doi.org/10.1016/j.matpr.2022.04.133	22147853	Materials Today: Proceedings
22	Ms Princy Randhawa	VIRTUAL AND AUGMENTED REALITY FOR MECHATRONICS BASED APPLICATIONS	2022 4th International Conference on Applied Automation and Industrial Diagnostics (ICAAID)	IEEE	https://ieeexplore.ieee.org/document/9799492/keywords#keywords	MUJCON01	IEEE XPLORE
23	Ms Princy Randhawa	STATISTICAL AND MACHINE LEARNING APPROACHES TO PREDICT THE NEXT PURCHASE DATE: A REVIEW	2022 4th International Conference on Applied Automation and Industrial Diagnostics (ICAAID)	IEEE	https://ieeexplore.ieee.org/document/9799494	MUJCON01	IEEE XPLORE



24	Dr Manish Rawat	ROLE OF SMART MANUFACTURING IN INDUSTRY 4.0	4th International Conference on Advances in Mechanical Engineering and Nanotechnology	Elsevier Ltd	https://doi.org/10.1016/j.matpr.2022.03.620	22147853	Materials Today: Proceedings
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Book Chapter (AY July 2021– June 2022):

S N	Faculty Name	Type	Book Title	Book Chapter Title	Publisher	Link
1	Dr Raja Rout	Book Chapter	A REVIEW OF NONLINEAR CONTROL FOR ELECTROHYDRAULIC ACTUATOR SYSTEM IN AUTOMATION	Manufacturing and Industrial Engineering Theoretical and Advanced Technologies	CRC Press	https://doi.org/10.1201/9781003088073
2	Mr Varun Jurwall	Book Chapter	DESIGN OF ELECTRONIC CONTROL SYSTEM FOR AUTOMATIC PRESS	Design of Electronic Control System for Automatic Press	LAP Lambert Academic Publishing	https://www.lap-publishing.com/catalog/details/store/fr/book/978-620-4-71613-8/design-of-electronic-control-system-for-automatic-press?search=varun%20jurwall
3	Mr Hemant Kumar	Book Chapter	YOUTH & SOCIETY	Youth & Society	KAAP Publication	http://kaav.org/book/youth-society
4	Mr Shambo Roy Chowdhury	Book Chapter	ROLE OF INTERNET OF THINGS (IOT) IN ELECTRONIC WASTE MANAGEMENT	Industrial Internet of Things	Taylor and Francis	https://www.taylorfrancis.com/chapters/edit/10.1201/9781003145004-2/role-internet-things-iot-electronic-waste-management-shambo-roy-chowdhury-akshet-bharat-patel-pranav-rajesh-sharma



Journal Publication (AY July 2020 – June 2021)

S N	Author Name	Type of Entry	Title	DOI Web Link	ISSN	Journal Name
1	Dr. Ajay Kumar	Journal Article	A NEW KEEPER DOMINO LOGIC BASED FULL ADDER FOR HIGHSPEED ARITHMETIC CIRCUITS	https://www.eurekaselect.com/node/184068/article/a-new-keeper-domino-logic-based-full-adder-for-high-speed-arithmetic-circuits	18764029	Micro and Nanosystems
2	Dr. Ajay Kumar	Journal Article	VIOLENT ACTIVITY RECOGNITION BY ETEXTILE SENSORS BASED ON MACHINE LEARNING METHODS	https://content.iospress.com/articles/journal-of-intelligent-and-fuzzy-systems/ifs189133	10641246	Journal of Intelligent and Fuzzy Systems
3	Dr. Ajay Kumar	Journal Article	HUMAN ACTIVITY DETECTION USING MACHINE LEARNING METHODS FROM WEARABLE SENSORS	https://www.emerald.com/insight/content/doi/10.1108/SR-02-2020-0027/full/html	02602288	Sensor Review
4	Dr. Prabhat Ranjan	Journal Article	STRUCTURE AND OPTICAL PROPERTIES OF (CuAg) _N (N = 1–6) NANOALLOY CLUSTERS WITHIN DENSITY FUNCTIONAL THEORY FRAMEWORK	https://doi.org/10.1007/s11051-020-05016-0	13880764	Journal of Nanoparticle Research
5	Dr. Prabhat Ranjan	Journal Article	STRUCTURE, ELECTRONIC AND OPTICAL PROPERTIES OF CHALCOPYRITE SEMICONDUCTOR AGTX ₂ (X = S, SE, TE): A DENSITY FUNCTIONAL THEORY STUDY	https://doi.org/10.1016/j.tsf.2020.138469	00406090	Thin Solid Films
6	Dr. Prabhat Ranjan	Journal Article	A COMPUTATIONAL STUDY OF CHALCOPYRITETYPE NANOMATERIALS FOR SOLAR CELL APPLICATIONS	https://doi.org/10.1016/j.mssp.2021.105745	13698001	Materials Science in Semiconductor Processing



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7	Dr. Shahbaz Ahmed Siddiqui	Journal Article	DECISION MAKING UNDER WIND POWER GENERATION AND LOAD DEMAND UNCERTAINTIES: A TWOSTAGE STOCHASTIC OPTIMAL REACTIVE POWER DISPATCH PROBLEM	https://doi.org/10.1080/02286203.2020.1829443	02286203	International Journal of Modelling and Simulation
8	Dr. Raja Rout	Journal Article	MODIFIED LINE OF SIGHT GUIDANCE LAW WITH ADAPTIVE NEURAL NETWORK CONTROL OF UNDERACTUATED MARINE VEHICLES WITH STATE AND INPUT CONSTRAINTS	https://doi.org/10.1109/TCST.2020.2998798	10636536	IEEE Transactions on Control Systems Technology
9	Dr. Raja Rout	Journal Article	SIDELIP COMPENSATED GUIDANCE BASED ADAPTIVE NEURAL CONTROL OF MARINE SURFACE VESSELS	https://doi.org/10.1109/TCYB.2020.3023162	21682267	IEEE Transactions on Cybernetics
10	Dr. Shahbaz Ahmed Siddiqui	Journal Article	A NEW SYNCHRONIZED DATA DRIVEN BASED COMPREHENSIVE APPROACH TO ENHANCE REAL TIME SITUATIONAL AWARENESS OF POWER SYSTEM	https://doi.org/10.1002/2050-7038.12887	20507038	International Transactions on Electrical Energy Systems
11	Dr. Prabhat Ranjan	Journal Article	STRUCTURE, ELECTRONIC AND OPTICAL PROPERTIES OF CHALCOPYRITETYPE NANOCLUSTERS XFEY ₂ (XCU, AG, AU; YS, SE, TE): A DENSITY FUNCTIONAL THEORY STUDY	https://www.degruyter.com/document/doi/10.1515/pac-2020-1202/html	00334545	Pure and Applied Chemistry
12	Mr. Nikhil Vivek Shrivastava	Journal Article	PHYSIOLOGICAL LOADING INDUCED INTERSTITIAL FLUID DYNAMICS IN OSTEOON OF OSTEOGENESIS IMPERFECTA BONE	https://doi.org/10.1115/1.4050818	01480731	Journal of Biomechanical Engineering



13	Ms Shayeri Das	Journal Article	STRUCTURE AND ELECTRONIC PROPERTIES OF [AUNV]? (N??1-9; ???0,??1) NANOALLOY CLUSTERS WITHIN DENSITY FUNCTIONAL THEORY FRAMEWORK	https://doi.org/10.1007/s00214-021-02772-7	1432881X	Theoretic al Chemistr y Accounts
14	Seema Rani	Journal Article	A HIERARCHICALLY DESIGNED NANOCOMPOSITE HYDROGEL WITH MULTISENSORY CAPABILITIES TOWARDS WEARABLE DEVICES FOR HUMANBODY MOTION AND GLUCOSE CONCENTRATION DETECTION	https://doi.org/10.1016/j.comp scitech.2021.108894	02663538	Composit es Science and Technolo gy
15	Dr. Shahbaz Ahmed Siddiqui	Journal Article	PERFORMANCE ANALYSIS OF A WIND FARM ON TRANSMISSION NETWORK USING DIGSILENT POWER FACTORY	https://doi.org/10.1504/IJFE.2020.115024	17449952	Internati onal Journal of Forensic Engineeri ng



Conference Proceedings (AY July 2020 – June 2021)

S.N	Faculty Name	Conference Paper Title	Paper title	Publisher	DOI	ISSN	Proceedings
1	Dr. Shahbaz Ahmed Siddiqui	ZNO NANOPARTICLES BASED DYE SENSITIZED SOLAR CELL: FABRICATION AND CHARACTERIZATION	A Two-Day Conference on Flexible Electronics for Electric Vehicles	AIP	https://doi.org/10.1063/5.0031753	0094 243X	AIP Conference Proceedings
2	Dr. Manish Rawat	SENSITIVITY ANALYSIS FOR JOINT OPTIMIZATION OF RELIABILITY DESIGN AND LOR CONSIDERING CFR AND TDFR APPROACH	3rd INTERNATIONAL CONFERENCE ON ADVANCES IN MECHANICAL ENGINEERING AND NANOTECHNOLOGY	Elsevier Ltd	https://doi.org/10.1016/j.matpr.2021.03.073	2214 7853	Materials Today: Proceedings
3	Mr. Hemant Kumar	MODELING, FABRICATION, AND STRUCTURAL CHARACTERIZATION OF THIN FILM ZNO BASED FILM BULK ACOUSTIC RESONATOR	International Conference on Advances in Materials Science, Communication and Microelectronics	Elsevier Ltd	https://doi.org/10.1016/j.matpr.2021.01.171	2214 7853	Materials Today: Proceedings
4	Dr. Prabhat Ranjan	COMPUTATIONAL ANALYSIS OF [AUNSI] (N??1-5) NANOALLOY CLUSTERS	Cutting-edge Research in Material Science and Chemistry (CRMSC-2021)	Elsevier Ltd	https://doi.org/10.1016/j.matpr.2021.01.730	2214 7853	Materials Today: Proceedings
5	Mr. Ashok Kumar Kumawat	REAL TIME POSITION CONTROL OF ELECTROHYDRAULIC ACTUATION SYSTEM USING	International Conference on Advances in Mechanical Engineering and Nanotechnology	Elsevier Ltd	https://doi.org/10.1016/j.matpr.2021.05.203	2214 7853	Materials Today: Proceedings



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		PID CONTROLLER	gy (ICAMEN) 2021				
6	Dr. Manish Rawat	REAL TIME POSITION CONTROL OF ELECTROHYDR AULIC ACTUATION SYSTEM USING PID CONTROLLER	International Conference on Advances in Mechanical Engineering and Nanotechnology (ICAMEN) 2021	Elsevier Ltd	https://doi.org/10.1016/j.matpr.2021.05.203	2214 7853	Materials Today: Proceedings
7	Dr. Raja Rout	REAL TIME POSITION CONTROL OF ELECTROHYDR AULIC ACTUATION SYSTEM USING PID CONTROLLER	International Conference on Advances in Mechanical Engineering and Nanotechnology (ICAMEN) 2021	Elsevier Ltd	https://doi.org/10.1016/j.matpr.2021.05.203	2214 7853	Materials Today: Proceedings
8	Dr Manish Rawat	A REVIEW ON VARIOUS METHODS TO IMPROVE PROCESS CAPABILITIES OF ELECTRICAL DISCHARGE MACHINING PROCESS	International conference on Advances in Mechanical Engineering and Nanotechnology (ICAMEN) 2021	Elsevier Ltd	https://doi.org/10.1016/j.matpr.2021.03.169	2214 7853	Materials Today: Proceedings



Book Chapter (AY July 2020 – June 2021)

S N	Faculty Name	Type	Book Title	Book Chapter Title	Publisher	Link
1	Mr. Kumar Gaurav	Book Chapter	APPLICATION OF A NATUREINSPIRED ALGORITHM IN ODOR SOURCE LOCALIZATION	Applied Mechatronics and Mechanics: System Integration and Design	Taylor and Francis Group	https://www.taylorfrancis.com/books/e/9781003019060/chapters/10.1201/9781003019060-4
2	Dr. Ajay Kumar	Book Chapter	APPLICATION OF A NATUREINSPIRED ALGORITHM IN ODOR SOURCE LOCALIZATION	Applied Mechatronics and Mechanics: System Integration and Design	Taylor and Francis Group	https://www.taylorfrancis.com/books/e/9781003019060/chapters/10.1201/9781003019060-4
3	Dr. Prabhat Ranjan	Book Chapter	THEORETICAL ANALYSIS OF AUV NANOALLOY CLUSTERS: A DENSITY FUNCTIONAL APPROACH	Materials Physics and Chemistry Applied Mathematics and Chemo-Mechanical Analysis	Apple Academic Press, Taylor and Francis	https://doi.org/10.1201/9780367816094
4	Dr. Prabhat Ranjan	Book Chapter	A DFT STUDY OF CUNFE (N 15) NANOALLOY CLUSTERS	Materials Physics and Chemistry Applied Mathematics and Chemo-Mechanical Analysis	Apple Academic Press, Taylor and Francis	https://doi.org/10.1201/9780367816094
5	Dr. Prabhat Ranjan	Full Book	APPLIED MECHATRONICS AND MECHANICS: SYSTEM INTEGRATION AND DESIGN	Applied Mechatronics and Mechanics: System Integration and Design	Apple Academic Press, Taylor and Francis	https://doi.org/10.1201/9781003019060
6	Mr. Hemant Kumar	Full Book	YOUTH FOR SOCIAL CHANGE	Youth For Social Change	KAAP Publications	http://kaav.org/book/youth-for-social-change



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7	Dr. Prabhat Ranjan	Full Book	MATHEMATICS APPLIED TO ENGINEERING IN ACTION ADVANCED THEORIES, METHODS, AND MODELS	Mathematics Applied to Engineering in Action- Advanced Theories, Methods, and Models	Apple Academic Press, Taylor and Francis	https://doi.org/10.1201/9781003055174
8	Dr. Prabhat Ranjan	Full Book	MECHATRONIC SYSTEMS DESIGN AND SOLID MATERIALS METHODS AND PRACTICES	Mechatronic Systems Design and Solid Materials Methods and Practices	Apple Academic Press, Taylor and Francis	https://doi.org/10.1201/9781003045748
9	Dr. Shahbaz Ahmed Siddiqui	Book Chapter	DATADRIVEN WIDEAREA SITUATION ANALYZER FOR POWER SYSTEM EVENT DETECTION AND SEVERITY ASSESSMENT	Wide Area Power Systems Stability, Protection, and Security	Springer Science + Business Media	https://doi.org/10.1007/978-3-030-54275-7_18

