

Manav Rachna University, Faridabad
RDC Cell

**Research Projects undertaken by faculty and Internal funding given
for the Projects**

S.No.	Name of Faculty Members	Department	Projects Name	Financial Year
1	Dr. Dinesh Kumar Sharma	Sciences-Physics	Erosion Protection System for Solar PV Panels	2023-24
2	Dr. Mamta Arora Dr. Mrinal Pandey Mr. Tuhin Tazafder	CST	Streamlining Assessments with Automated MCQ Generation from Educational Videos	2023-24
3	Dr. Yogita Sharma	Management & Commerce	Bring Hope	2023-24
4	Dr. Yogita Sharma Dr. Ritu Sharma	M&C E&H	Dhanyosmi: Gratitude as a Daily Habit	2023-24
5	Dr. Dinesh Kumar Sharma	Sciences-Physics	Lightning Protection System for Rooftop Solar PV Panels	2023-24
6	Mr. Vijay Kumar Gill Dr. Parneeta Dhaliwal	CST	Multilevel Parking System with Dynamic Pricing for Smart Cities	2023-24
7	Dr. Parneeta Dhaliwal	CST	Bags Segregator Using Robotic Arm	2023-24

8	Dr. Dinesh Kumar Sharma	Sciences- Physics	An Enhanced Multi-Beam Interference Utilizing Modified Lens System	2023-24
9	Dr. Pradeep K. Varshney Dr. Meena Kapahi	Sciences- Chemistry	The Composition for increasing flame longevity and reducing camphor volatility	2022-23
10	Dr. Meena Kapahi Dr. Roopa Rani	Sciences- Chemistry	TEATEST	2022-23
11	Dr. Yogita Gupta Dr. Pradeep K. Varshney Mr. J.P. Sharma	ECE Sciences Mechanical	Lead-Acid Battery Cell Reconfigurable Arrangement for enhanced Battery Life	2022-23
12	Dr. Charu Pathak Dr. Shruti Vashist	ECE ECE	Refrigeration Automation System	2022-23
13	Dr. Harsha Devnani Dr. Pradeep K. Varshney	Sciences- Chemistry	A Method for Mitigating Corrosion Properties of Electrodes in Secondary Energy Storage Batteries	2022-23
14	Ms. Priyanka Gupta Dr. Hardeo Kumar Thakur Dr. Pradeep K. Varshney	CST CST Sciences- Chemistry	AI Based Vehicle Theft Prevention System	2022-23
15	Dr. Rashi Banerji	Management & Commerce	A Study of Factors Influencing Student's Intention to Study at Higher Educational Institutions	2021-22
16	Dr. Parul Jhajharia	Management & Commerce	Make in India Programme in Indian Defense sector: Examining Self Reliance	2021-22
17	Dr. Rashi Banerji	Management & Commerce	A Study of Factors Affecting Purchase and Renewal of Health Insurance in India in Context with Delhi-NCR	2021-22

18	Dr. Prinima Gupta	CST	A Novel Algorithm Based on Regression Technique for Improving Prediction	2021-22
19	Dr. Manmeet Bali Nag	Management & Commerce	Inclusive Work Life Balance Culture amongst Female employees, and its role in Organizational Effectiveness in select MNCs, PSUs and Private Organizations of India	2021-22
20	Dr. Parul Jhajharia	Management & Commerce	Transformational HR Leadership Code: Character, Commitment & Competence-A Qualitative Study	2021-22
21	Dr. Parul Jhajharia	Management & Commerce	A Study on Teaching Competencies and Self Concept of Selected Government and Private Primary School Teachers in Haryana	2021-22
22	Dr. Ajit Katiyar	Mechanical	Humanoid Robot	2021-22
23	Dr Animesh Singh	Management & Commerce	The Study of Social Media Marketing in Building Brand Equity and Purchase Intention for the Consumers in White Goods Industry	2021-22
24	Dr. Aditya Sharma	Sciences-Physics	Fabrication of Pure and Ag/Se/Fe Doped Calcium Phosphate Nanoparticles as Artificial Mammals-Bone for Dentistry and Orthopaedics Applications	2021-22
25	Dr. Sandeep Kumar	Sciences-Physics	Development of Table-Top Laser-Plasma Based Wakefield Accelerator: A Theoretical and Simulation Study	2021-22
26	Dr Parul Jhajharia	Management & Commerce	Organizational Culture & its Impact on Employee Engagement & Effectiveness – A Case Study of an Indian Manufacturing Company (Leading Two- Wheeler	2021-22

			Manufacturer)	
27	Dr. Megha Bansal	Sciences- Chemistry	Optimization of Experimental Conditions for Improvement of Bio-Methane Production by De-Polymerization of Agro Waste: A Waste to Energy Approach	2021-22
28	Dr. Megha Bansal	Sciences- Chemistry	Chemico Mechanical Study of Portland Limestone Cement (PLC) Developed in Indian Scenario	2021-22
29	Dr. Prinima Gupta	CST	Detecting Disturbed Denial of Service Attacks on Software Defined Networks using Hybrid Approach	2021-22
30	Dr. Sanjay Singh	CST	Design System of PEIS for Handle Large-RFID Network	2021-22
31	Dr. Shalu	CST	A System for Monitoring Social Distance and Generating System Using IoT	2021-22
32	Dr. Jyoti Pruthi	CST	Requirements Engineering for Target Driven Data Warehouses	2021-22
33	Dr. Parul Jhajharia	Management & Commerce	Influence of Organizational Climate on Job Satisfaction and Intention-to Leave of Nursing Staff in Tertiary Level Private Hospitals in Delhi	2021-22
34	Dr. Ruchi Gupta	Sciences- Mathematics	A System for Mathematical Representation of Various Physical Systems Using Interactive Graphic User Interface and Method thereof	2021-22
35	Dr. Shalu	CST	System and Method for Monitoring Water Quality of Biofloc Fish Culture	2021-22

36	Dr. Kalpana Shukla	Sciences- Mathematics	New trends of Optimality and Duality Conditions for a Low-Order-Value and Order-Value Mathematical Programming Problems	2021-22
37	Dr. Babita Sharma	Education & Humanities	A Study of Reaction of School Leaders, Teachers and Peers Towards Inclusion of Children with Special Needs in Secondary Schools	2021-22
38	Dr. Kiran Gupta	Education & Humanities	A Comparative Study of Academic Achievement, Occupational Aspiration, and Adjustment of Students of BPL and Non-BPL Card Holders in Government Secondary Schools in Haryana	2021-22
39	Dr. Versha Vahini	Law	Development of Law Pertaining to Arbitration and Its Impact on Minimizing Role of Courts: A Critical Study	2021-22
40	Dr. Prinima Gupta	CST	A Progression for the Prediction of Earthquake using Data Mining Having an Informative Impact on Society	2021-22
41	Dr. Parul Jhajharia	Management & Commerce	United Nations Global Compact Principles on Environment Impacting Corporate Practices : A Study on Indian Oil & Gas Sector	2021-22
42	Dr. Hardeo Kumar Thakur	CST	Sentiment Enriched Cross Domain Recommender System	2021-22
43	Dr. Meena Kapahi	Sciences- Chemistry	Wastes to Resources - An awareness campaign for Waste Management	2021-22

44	Dr. S.K. Bose	Law	A Novel Device to Produce Electrical Energy using Vibration Generated by its Surrounding	2021-22
45	Mr. Pradeep Kumar Mouria	Mechanical	Process Parameters of Friction Stir Welding of Dissimilar Aluminum Alloys	2021-22
46	Dr. Shalu	CST	IoT Based Coagulation Analyzer	2021-22
47	Dr. Shalu	CST	An IOT Based Automatic Medicine Carrier	2021-22
48	Dr. Ruchi Gupta	Sciences-Mathematics	A System for Breast Cancer Image Classification using 2C Algorithm with Multiclass Support Vector Machine Interfaces	2021-22
49	Dr. Priyanka Chadha	Management & Commerce	Health Diagnosing System	2021-22
50	Dr. R.Girija	CST	IoT Driven Sensor Fusion with Deep Learning for the Detection of Dangerous Driver Behavior	2021-22
51	Dr. Priyanka Chadha	Management & Commerce	Safety Wrist Band	2021-22
52	Dr. Priyanka Chadha	Management & Commerce	Small Flower Pot	2021-22
53	Dr. Priyanka Chadha	Management & Commerce	Foldable Desk cum Laptop Cooling Pad	2021-22

54	Dr. Kalpana Shukla	Sciences-Mathematics	A Smart System for Monitoring Charging of Electric Vehicle Battery using Smart Portable Charger	2021-22
55	Dr. Shalu	CST	A Novel Cost Effective Home Gardening System	2021-22
56	Dr. Shalu	CST	An IOT Based Swirling Bath Shower System	2021-22
57	Dr. Parneeta Dhaliwal	CST	Rail Lock	2020-21
58	Mr. Piyush Mahendru	Mechanical	Materials Testing of High Entropy Alloys	2020-21
59	Dr. Charu Pathak	ECE	Low Cost Smart Cold Storage	2020-21
60	Dr. Geeta Thakur	Education & Humanities	Lightboard & E-Content Studio	2020-21
61	Dr. Mrinal Pandey	CST	Energy Prediction for Smart Buildings Pertaining to the Heating Ventilation and Air Conditioning Plants using Machine Learning Techniques	2020-21
62	Dr. Jyoti Pruthi	CST	Machine Learning Based Robust Intelligent System for Analysis of Cancer and Prediction of Survival & Life Span	2020-21
63	Dr. Mrinal Pandey	CST	Pedagogy for Online Learning Tools	2020-21
64	Dr. Prinima Gupta	CST	An Optimized Video Steganography Technique using Hybrid Approach	2020-21

65	Dr. Priyanka Srivastava	Management & Commerce	A Comparative Analysis of Internet Marketing vis-a-vis Traditional Marketing in Context to Consumer Buying Behaviour	2020-21
66	Dr. Pooja Kapoor	Management & Commerce	Role of Media and Market in Shaping Health Consciousness: A Study of Millennial Generation	2020-21
67	Dr. Pradeep K. Varshney Dr. A. Jayamani	Sciences- Chemistry	Development of Antimicrobial coatings using green synthesized nanoparticles for plummeting the effects of pathogens	2020-21
68	Dr. Aditya Sharma	Sciences- Physics	Concentrated Growth Factor Incorporated Nanoparticles: A Novel Biodegradable Scaffold For Bone Tissue Regenerative Therapy	2020-21
69	Dr. Arpit Sand Dr. Vinayak V. Pathak	Sciences- Chemistry	Synthesis and characterization of super adsorbent polymer (SAPs) for sanitary application and improvement of soil quality	2020-21
70	Dr. Babita Parashar	Education & Humanities	Effects of Mental Health on Educational Aspiration, Scholastic and Non Scholastic Performance of Ninth Standard Students of Government Schools in Urban and Rural areas in Haryana: A Comparative Study	2020-21
71	Dr. Sachita Yadav	Management & Commerce	Ranking and Accreditation Systems in Higher Education in India: An Empirical Study	2020-21
72	Ms. Yogita Gupta	ECE	Invisible Drone-Illusion through DIP	2019-20
73	Prof. Hanu Bhardwaj	CST	Hackathon Project Grant-2019	2019-20

74	Dr. Jyoti Pruthi	CST	Gait Modelling for Asthma Prediction (GMAP) in Children using IOT & Evolutionary Algorithm Optimization	2019-20
75	Dr. Hardeo Kumar Thakur	CST	Machine Learning Approach for Hidden Community Detection from Security Perspective	2019-20
76	Dr. Sandeep Kumar	Sciences-Physics	Development of Compact X-ray and THz (terahertz) Sources for Attosecond Science-A Theoretical & Simulation Investigation	2019-20
77	Dr A. Jayamani	Sciences-Chemistry	Exploration of Fibril Squelching Ability by Ionic Liquid Immobilized Magnetic Nanoparticles for Biomolecular Interactions	2019-20
78	Dr. Yogendra Kumar Sharma	Sciences-Mathematics	Mathematical Modeling of the Effect of Social Media on Society	2019-20
79	Dr. Arpit Sand	Sciences-Chemistry	Development of Biodegradable Advance Superabsorbent Polymers Materials for Sanitary Applications	2019-20
80	Dr. Pradeep K. Varshney	Sciences-Chemistry	Development of Revolutionary Reusable Antiviral Nano-coated Face Masks for Reducing the SARS CoV-2 Virus Effect	2019-20
81	Dr. Parul Jhajharia	Management & Commerce	A Study of Antecedents of Employee Satisfaction and Its Linkages with Customer Delight in Select Indian Hospitality Industry	2019-20
82	Dr. Pooja Kapoor	Management & Commerce	An Empirical Study on The Determinants of Usage and Adoption Intention and Behavior with Regard to Mobile Shopping	2019-20

			Application in India	
83	Dr. Shruti Vashist	ECE	Routing in Smart Grids	2019-20
84	Dr. Animesh Singh	Management & Commerce	A Study on the Relationship of Customer Attitude with Behavioral Intention in Green Food Product	2019-20
85	Dr. Sachin Lakra	CST	Automated Hate Speech Detection for user Comments on Online Platforms	2019-20
86	Ms. Yogita Gupta	ECE	Analysis and Design of 5G Mobile Antennas to Improve IoT Cellular Communication Connectivity in Rural and Urban	2019-20
87	Dr. Haider Abbas	Sciences-Physics	Study of the Interaction between Environmental Pollutants and Small Sized Metallic Clusters using Density Functional Theory	2019-20
88	Dr. Hardeo Kumar Thakur	CST	Mining and Analysis of Evolving Patterns in Dynamic Graphs	2019-20
89	Ms. Priyanka Gupta	CST	System and Method for Communal Violence detection using Social Networks Based Community Detection	2019-20
90	Dr. Deepti Maikhuri	Sciences-Physics	Synthesis of Artificial Mammals-Bone Nano-Materials for their Application in Orthopedics and Dentistry	2018-19

91	Dr. Roopa Rani	Sciences- Chemistry	Investigation and Assessment of Agricultural Soil Irrigated with Drain Water in Villages of Faridabad and Palwal District of Haryana Inhabiting Cancer Patients	2018-19
92	Dr. Parneeta Dhaliwal	CST	Empowering Rural Women of Haryana through Advanced Technologies in Pisciculture	2018-19
93	Dr. Jyoti Pruthi	CST	Online Product Rating Estimation using Aspect Level Sentiment Analysis	2018-19
94	Dr. Parneeta Dhaliwal	CST	Handling Drifting Concepts in Data Streams	2018-19
95	Dr. Susmita Ray	CST	Cancer Analytics - A Machine Learning based Robust Intelligent System for Prediction, Detection, Prognosis, Progression, Recurrence and Survival Analysis of Cancer	2018-19
96	Dr. Arpit Sand	Sciences- Chemistry	Biodegradable Super Absorbing Polymers (SAPs) from Renewable Sources for Sanitary Application	2018-19
97	Ms. Meena Kapahi	Mechanical	Multipurpose Medicated and Biodegradable absorbent Material/Pad	2018-19
98	Dr. Sudhish Kumar Shukla	Sciences- Chemistry	The squelching ability of the ionic liquid immobilized magnetic nanoparticles for biomolecular interactions	2018-19
99	Dr. Vinayak V. Pathak	Sciences- Chemistry	Development of thermal energy storage based photobioreactor for integrated wastewater treatment and bioenergy production using algal- bacterial consortium	2018-19

100	Dr. Arpit Sand	Sciences- Chemistry	Green & Sustainable Sciences	2018-19
101	Dr. Roopa Rani	Sciences- Chemistry	Study on Cancer suffering Villages of Palwal district of Haryana, India by Assessment and Estimation of pesticides, heavy metals and other pollutants in soil, water and crops of agricultural land irrigated with wastewater	2018-19
102	Ms. Meena Kapahi	Mechanical	Horizontzl Aerobic & Biodegradable Composting	2018-19
103	Dr. Kiran Gupta	Education & Humanities	Electronic Classroom Design and Implementation (ECDI) for Student-Centered Active Learning Environment with Upside-down Pedagogies (SCALE-UP)	2017-18
104	Dr. Sudhish Kumar Shukla	Sciences- Chemistry	Development of Advanced Absorbent Polymers for Sustainable Plant Protection	2017-18
105	Dr. Megha Bansal	Sciences- Chemistry	Functionalization of Metalloorganic Compounds with Magnetic Nanoparticles for Pollutant Adsorption and Degradation	2017-18
106	Mr. Joginder Singh	Mechanical	Design, Analysis, Manufacturing and Physical Testing of the Spur Gear with the Material of Carbon Fiber Reinforced Composites	2017-18
107	Ms. Manpreet Kaur	CST	Artificial Intelligence based Clinical Decision Support System for Cardiovascular Diseases	2017-18
108	Dr. Mrinal Pandey	CST	AI Based Smart System for the Identification of Diseases in Rice Plants	2017-18

109	Dr. Dinesh Kumar Sharma	Sciences-Physics	Development and Performance Evaluation of Nano-Materials based Algal-Solar Distillation System of for Effective Treatment of Wastewater	2017-18
110	Dr. Mrinal Pandey	CST	AI for Agriculture (Pilot Deployment at Selected AMCs of Telangana for Selected crops)	2017-18
111	Dr. Babita Sharma	Education & Humanities	SDG Aligned Dimension Pertaining to Labour, Livelihood & Employment as Mandated by the Mentioned University	2017-18
112	Dr. Pragati Chauhan	Management & Commerce	Elderly Care Framework in Contemporary India: Socio-Demographic, Entrepreneurial and Policy Implications	2017-18
113	Dr. Seema Sharma	Education & Humanities	Impact of Meditation and Art related Engagement for Mental Health with the Application of Bio-Chemical Processes and Cognitive Neurosciences using Machine Learning Techniques	2017-18
114	Dr. Jyoti Pruthi	CST	An Intelligent System for Managing & Controlling Covid and Similar Pandemic	2017-18
115	Ms. Meena Kapahi Dr. B.M. Bahal	Mechanical Sciences	S.W. Rose Bin	2017-18
116	Dr. Haider Abbas	Sciences-Physics	Ultra-low Emittance and Monoenergetic Electron Beam Generation: A Theoretical and Simulation Study on Laser-Plasma Wakefield Acceleration	2017-18
117	Ms. K. Deepa	ECE	IoT based Energy Management on Smart Grids	2017-18
118	Ms. Bharti Jha	CST	DeepDPM: A Deep Learning Approach based on Deterministic Phase Masks in DRPE for Medical Image Encryption	2017-18

119	Dr. Sachin Lakra	CST	Simulation and Analysis of Manufacturing Methods of Mobile Phones and Improving Methods of Managing Mobile Phone E-Waste	2017-18
120	Ms. Mamta Arora	CST	Intelligent System for Diagnosis Cervical Cancer	2017-18