Research Projects at PDPIAS

| Sr. No. | Name of the Scheme/Project/ Endowments/ Chairs | Name of the Principal Investigator/ Co Investigator (if applicable) | Name of the Funding agency | Type (Government/ Non- Government) | Year of Awar d | Duration of the project (Years) |
|------------|--|---|--|---|-------------------------|--|
| 1 | To evaluate the in-vitro hyperthermic effects of magnetic fluid on cancer cells | Dr. Neeraj Jain/Dr. kinnari parekh | ICMR, New Delhi | Govt | 2021 | 3 |
| 2 | Financial sanction under Teachers Associateship For Research Excellence (TARE) | Dr. Abhishek Dadhania | SERB, DST, New Delhi | Govt | 2019 | 3 |
| 3 | GIS-based mapping of microbial diversity across the Ganges for Ecosystem services | Dr. Datta Madamwar | National Mission for Clean Ganga (NMCG), Ministry of Jal Shakti, Department of Water Resources, River Development & Ganga Rejuvenation, New Delhi | Govt | 2019 | 2 |
| 4 | Design and development of prototype shock absorber/isolator using magneto rheological dampers | Dr. R V Upadhyay | Lubgraf Synoil Pvt. Ltd., AhmedabadIndustry (Research expenditure/facility provided by the Industry) | Non-Govt | 2017 | 3 |
| 5 | Application of microaerophilic-aerobic bioreactor system in treating real textile effluents and metagenomic analyses of microbial community dynamics | Dr. Chirayu Desai | SERB, DST, New Delhi | Govt | 2,016 | 3 |

| 6 | Application of microaerophilic-aerobic bioreactor system in treating real textile effluents and metagenomic analyses of microbial community dynamics | Dr. Chirayu Desai | SERB, DST, New Delhi | Govt | 2,016 | 3 |
|----|---|---------------------------|---|------|-------|---|
| 7 | Insilico identification of adsorbed material for complete separation of C5-C7 alkane isomers: an attempt towards upgradation of octane number of petrol/gasoline | Dr. Bhaskarjyoti Borah | SERB, DST, New Delhi | Govt | 2016 | 3 |
| 8 | Insilico identification of adsorbed material for complete separation of C5-C7 alkane isomers: an attempt towards upgradation of octane number of petrol/gasoline | Dr. Bhaskarjyoti Borah | SERB, DST, New Delhi | Govt | 2016 | 3 |
| 9 | To prepare and test tunable magnetic fluid diffraction grating | Dr. Rucha Desai | SERB, DST, New Delhi | Govt | 2017 | 3 |
| 10 | Integrated eco-electrogenic system for efficient and sustainable treatment of textile wastewater | Dr. Chirayu Desai | Department of Biotechnology, New Delhi | Govt | 2017 | 3 |
| 11 | Construction of putative hydroxycitric acid (HCA) biosynthetic pathway in Bacillus and engineering Escherichia coli for HCAproduction by heterologous expression of artificial putative HCA biosynthetic operon | Dr Aditi Buch | SERB, DST, New Delhi | Govt | 2017 | 3 |
| 12 | To engineer and develop suitable magnetic fluid for the induction heating based therapeutic strategy against cancer | Dr. Kinnari Parekh | SERB, DST, New Delhi | Govt | 2017 | 3 |

| 13 | To engineer and develop suitable magnetic fluid for the induction heating based therapeutic strategy against cancer | Dr. Kinnari Parekh | SERB, DST, New Delhi | Govt | 2017 | 3 |
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| 14 | Development of thin film solar cells with low-cost earth-abundant materials by Inkjet Printing | Dr. Anjana Kothari | Sceince and Engineering Research Board (SERB), DST, New Delhi | Govt | 2017 | 3 |
| 15 | Ferro Fluids : Science Technology Applications | Dr. R. V. Upadhyay Co-PI: Dr. Kinnari Parekh , Dr. Rucha Desai | TDP, Department of Science & Technology, New Delhi | Govt | 2,012 | 3 |
| 16 | Identification of hydroxycitric acid (HCA) producing bacteria and probing its HCA biosynthetic mechanisms | Dr.(Ms.) Aditi D. Buch | SERB, DST, New Delhi | Govt | 2,012 | 3 |
| 17 | Rare sugar production using isomerases and epimerase | Dr. Darshan Patel Co-Pi : Dr. R. B. Subramaniam | Department of Biotechnology, New Delhi | Govt | 2,013 | 3 |
| 18 | Development of bio-inoculants based on the marine bacterial isolate Pseudomonas sp. OG101 for growth promotion and management of pathogenic Fusarium in plants | Dr. Janki Thakker | DBT, New Delhi | Govt | 2016 | 3 |
| 19 | Eco-friendly textile effluent treatment coupled to bioelectricity generation using Microbial Fuel Cell (MFC) technology (DST-INSPIRE) | Dr. Hilor Pathak | Department of Science and Technology | Govt | 2014 | 5 |
| 20 | Development of solution-Based Zno nanostructures as light harvesters for low-cost solar photovoltaics | Dr. Anjana Kothari | GUJCOST, Gandhinagar, Gujarat | Govt | 2016 | 3 |

| 21 | To study Anti-cancer effects of Phosphonium ionic liquids on HPV positive and negative cervical cancer cell lines | Dr. Neeraj Jain | GUJCOST, Gandhinagar, Gujarat | Govt | 2014 | 3 |
|----|--|--|--|------|------|---|
| 22 | Carotenoids from Marine Microbes: Extraction, Purification and Applications | Dr. Janki Thakker | GUJCOST, Gandhinagar | Govt | 2014 | 3 |
| 23 | Elastin Like Polypeptide (ELP) Tagged Amylase and XyloseIsomerases: Alternative Purification and Immobilization Technology | Dr. Darshan Patel Co-PI : Dr. Jagdish Patel | Department of Biotechnology, New Delhi | Govt | 2013 | 3 |
| 24 | Implication of P glycoprotein modulation by phytochemicals to increase bioavailability of drug in hyperglycemic stress | Dr. Jagdish Patel | SERB, Department of Science & Technology, new Delhi | Govt | 2013 | 3 |
| 25 | Formulation of a Unique Magnetic Nanoparticles based DNA, RNA and Protein Extraction Kit | Dr. C. N. Ramchand Co PI: Dr. Rucha Desai & Dr. Hilor Pathak | Gujarat Council of Science & Technology (GUJCOST), Gandhinagar | Govt | 2013 | 3 |
| 26 | Studies on electrical and photoelectronic properties of PbS/polymer nanocomposites | Prof. T. K. Chaudhuri | UGC-DAE Consortium for Scientific Research, Indore | Govt | 2014 | 2 |
| 27 | Inkjet printing of Inorganic thin films for solar photovoltaics | Prof. T. K. Chaudhuri (PI) /Dr. Anjana Kothari(Co-PI) | Solar Energy Research Initiatives (SERI), DST | Govt | 2011 | 3 |
| 28 | Thermal conductivity of nanofluids: Potential application in Heat transfer devices | Dr. Kinnari Parekh (PI) | GUJCOST, Gujarat | Govt | 2013 | 3 |

| 29 | Supramolecular hydrogels an efficient carrier for sustained/targeted delivery of biomedicinal polyoxometalates | Dr.Sachin Joshi (PI) | Fast Track Scheme - DST | Govt | 2012 | 3 |
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| 30 | Role of adipose in ethanol-induced tissue injury | Dr. Palash Mandal | SERB, DST, New Delhi | Govt | 2013 | 3 |
| 31 | Development of magnetorheological fluids for damper applications | Dr. R. V. Upadhyay | Industrial Metal Powders(I) Pvt.Ltd, Gat No-699/1, Koregaon Bhima, Behind Kalyani Forge, Tal-Shirur, Dist-Pune 412216 | Industry | 2015 | |