

Projects supported under DST- SERI Programme (2017-18)

| S. No | File No | Title | PI Name & Institution Address | Duration (Months) | Total Cost (Rs.) |
|-------|-------------------|--|--|-------------------|------------------|
| 1 | DST/TMD/SERI/S173 | Experimental and Theoretical Investigations on the Novel Functional Materials used as Photo anodes, Sensitizers, Counter Electrodes and Electrolytes Enhancing the photo-voltaic characteristics of Dye Sensitized Solar Cells | Dr. Habib M Pathan, Assistant Professor, Department of Physics, Savitribai Phule Pune University, Ganeshkhind, Pune-411007, Maharashtra. | 36 | 4273600 |
| 2 | DST/TMD/SERI/S176 | Development of Indigenous Floating System for Installation Solar PV Panels in Water Bodies | Dr. Sanjay K. Nayak, Director General, Central Institute of Plastics Engineering & Technology, TVK Industrial Estate, Guindy, Chennai-600036. Tamil Nadu | 24 | 11460000 |
| 3 | DST/TMD/SERI/D54 | Corrosion studies in high-temperature molten salt fluids for advanced CSP plants | Prof. Bikramjit Basu, Professor, Materials Research Centre, Indian Institute of Science, Bangalore-560012. Karnataka. | 36 | 7606225 |
| 4 | DST/TMD/SERI/S56 | Interface Engineering with CVD grown MoS ₂ ultra-thin layers for the improvement of Perovskite Solar Cell Performance” | Dr. Kusum Kumari, Assistant Professor, Department of Physics, National Institute of Technology Warangal, Warangal, Telangana. | 36 | 3753200 |

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| 5 | DST/TMD/SERI/S136 | Bulk Heterojunction hybrid solar cells based on Perovskite photo-active layers | Dr. Zishan Hussain Khan, Professor, Department of Applied Science and Humanities, Faculty of Engineering and Technology, Jamia Millia Islamia, New Delhi-110025 | 36 | 5277892 |
| 6 | DST/TMD/SERI/D51 | Development of a Mini Solar Thermal Power Plant | Er. I. V. Dulera, Outstanding Scientist, Bhabha Atomic Research Centre, Trombay, Mumbai-400085 | 36 | 28370000 1150000 |
| | | | Dr. R. P. Vedula, Professor, Department of Mechanical Engineering, Indian Institute of Technology Bombay, Powai, Mumbai-400076 | | |
| 7 | DST/TMD/SERI/S134 | Flexible super capacitors based on carbon nano materials for energy storage | Dr. Nillohit Mukherjee, Assistant Professor, Centre of excellence for green energy and sensor system, Indian Institute of Engineering Science and Technology Shibpur, Howarah-711103, West Bengal | 36 | 4056360 |
| 8 | DST/TMD/SERI/D12 | Development of High Temperature Thermal Energy Storage System for Solar Thermal Power Plant | Prof. P. Muthukumar, Professor, Department of Mechanical Engineering, Indian Institute of Technology Guwahati, Guwahati-781039. Assam | 36 | 11546350 |
| 9 | DST/TMD/SERI/D56 | Corrosion studies of high performance alloys in high-temperature | Dr. Pramod Kumar, Professor, Department of Mechanical | 36 | 8028044 |

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| | | Supercritical-CO ₂ Brayton cycle power block for Concentrated Solar Power application | Engineering, Indian Institute of Science Bangalore, Bangalore-560012, Karnataka. | | |
| 10 | DST/TMD/SERI/S15 | Approaches to improve open circuit voltage and fill factor- Enhancing the power conversion efficiency in organic and organic-inorganic hybrid systems | Dr. Manoj A. G. Namboothiry, Assistant Professor, Indian Institute of Science Education and Research- Thiruvananthapuram, Thiruvananthapuram, Kerala | 36 | 8834760 |
| 11 | DST/TMD/SERI/S9 | Development and Demonstration of 250 W, 1kWh Vanadium Redox Flow Battery Systems Rechargeable by Renewal Energy such as Solar and Wind Energy | Dr. R. Kothandaraman, Assistant Professor, Department of Chemistry, Indian Institute of Technology Madras, Chennai-600036 | 36 | 8137206 |
| 12 | DST/TMD/SERI/S101 | Brush Less DC Machine based Solar Pumping System | Dr. C. N. Bhende, Associate Professor, School of Electrical Science, Indian Institute of Technology Bhubaneswar, Bhubaneswar-751013, Odisha | 36 | 6624292 |
| 13 | DST/TMD/SERI/S38 | Fabrication and study of Perovskite solar cells by Ultrasonic spray coating technique with targeted efficiency-15% | Dr. Sanjay S. Ghosh, Assistant Professor, Department of Physics, North Maharashtra University, Jalgaon-425001, Maharashtra | 36 | 3858300 |
| 14 | DST/TMD/SERI/S33 | Design and Development of Carbon nanotubes based tandem absorber for high temperature solar thermal applications | Mr. N. Selvakumar, Scientist, Surface Engineering Division, National Aerospace Laboratories, Old Airport Road, Kodihalli, Bangalore-560017 | 36 | 4257000 |
| 15 | DST/TMD/SERI/S165 | Next Generation highly | Dr. Sandeep Kumar | 36 | 8775272 |

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| | | efficient and long term stable solar cell: Organic-Inorganic Perovskite Solar Cell | Pathak, Assistant Professor, Centre for Energy Studies, Indian Institute of Technology Delhi, Hauz Khas, New Delhi-110016 | | |
| 16 | DST/TMD/SERI/S182 | Design and Development of Solar-Thermal and Thermal-Electrical Hybrid System | Dr. Soma Dutta, Senior Scientist, Materials Science Division, CSIR-National Aerospace Laboratories, Kodihalli, Bangalore-560017 | 36 | 8811880 |
| 17 | DST/TMD/SERI/S103 | Energy storage integration with the Grid at High Power Level | Dr. Suman Maiti, Assistant Professor, Department of Electrical Engineering, Indian Institute of Technology Kharagpur, Kharagpur-721302, West Bengal | 36 | 6046700 |
| 18 | DST/TMD/SERI/S49 | Development of New Interfacial Layers for efficient and stable excitonic solar cells | Dr. Asit Patra, Senior Scientist, Physics of Energy Harvesting Division, CSIR-National Physical Laboratory, Dr. K. S. Krishna Marg, New Delhi-110012 | 36 | 9280480 |
| 19 | DST/TMD/SERI/S111 | Lead free Perovskites for stable and high efficient photovoltaic devices | Dr. Aswani Yella, Assistant Professor, Department of Metallurgical Engineering & Materials Science, Indian Institute of Technology Bombay, Powai, Mumbai-400076 | 36 | 6947600 |
| 20 | DST/TMD/SERI/S25 | Design and Development of open air compatible state-of-the-art solar selective coating for high | Dr. Krishna Valleti, Scientist 'D', International Advanced Research Centre for Powder | 36 | 6411471 |

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| | | temperature concentrated solar thermal power generation applications | Metallurgy and New Materials, Balapur PO, Hyderabad | | |
| 21 | DST/TMD/SERI/S147 | Fabrication of large are (1cm x 1 cm) uniform, pin hole free and highly efficient (upto 18%) stable Perovskite solar cells | Dr. Soumitra Satapathi, Assistant Professor, Department of Physics, Indian Institute of Technology Roorkee, Roorkee-247667 Uttarakhand. | 36 | 4444000 |
| 22 | DST/TMD/SERI/S81 | Development for Ternary Organic solar cells on low cost flexible substrate” | Dr. Swati Gupta, Assistant Professor, Indian Institute of Technology Hyderabad, Kandi, Sangareddy-502285, Telangana. | 36 | 4935000 |
| 23 | DST/TMD/SERI/S170 | Metallopolymer Grafted Graphene Based Nanohybrid Materials for High Performance Bulk Heterojunction Polymer Solar Cells | Dr. B. Neppolian, Professor, SRM Research Institute, SRM University, Kattankulathur, Chennai-603203. | 36 | 7314600 |
| 24 | DST/TMD/SERI/S91 | Development of low cost solar paraboloid collector systems for process heat generation | Dr. Sunita Mahavar, Assistant Professor, Department of Physics, University of Rajasthan, Jaipur-302004, Rajasthan | 36 | 4312220 |
| 25 | DST/TMD/SERI/D26 | Development of Solar Evacuated Tube Collectors with Inserted Baffles for Direct Air Heating in Industrial Applications | Dr. T. V. Arjunan, Professor and Head, Department of Mechanical Engineering, Coimbatore Institute of Engineering and Technology, Thondamuthur (via), Coimbatore-641109. Tamil Nadu. | 36 | 9999280 |
| 26 | DST/TMD/SERI/D05 | Development of new small molecules and device architectures | Prof. G. D. Sharma, Professor, Department of | 36 | 4486400 |

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| | | for highly efficient and reliable organic solar cells | Physics, LNM Institute of Information Technology, Rupa ki Nangal, Sumel, Jamdoli, Jaipur-302301, Rajasthan | | |
| | | | Dr. Rajneesh Mishra, Associate Professor, Department of Chemistry, IIT Indore-452001. | | 1773200 |
| | | | Dr. Amresh Mishra, Reader, School of Chemistry, Sambalpur University, Sambalpur-768019. Odisha | | 4523200 |
| | | | Dr. Rahul Singhal, Associate Professor, Department of Physics, Malaviya National Institute of Technology, Jaipur, Rajasthan 302017. | | 980000 |
| 27 | DST/TMD/SERI/S127 | Efficient large area semi transparent organic photovoltaic (STOPV) devices for power generating window applications. | Dr. Samarendra Pratap Singh, Assistant Professor, Department of Physics, School of Natural Science, Shivnadar University NH-91, Gautam Budh Nagar, U.P. -201314 | 36 | 4717240 |
| 28 | DST/TMD/SERI/S83 | “Recognition and characterization of Solar cell defects using combined thermography image and reconfiguration scheme” | Dr. A Srinivasan, Professor & PG Programme Head, Department of Electrical and Electronics Engineering, Sethu Institute of Technology, Pulloor-626115. Virudhunagar District, Tamil Nadu. | 36 | 4029300 |
| 29 | DST/TMD/SERI/S76 | Fabrication of Stable Perovskite Solar Cells | Dr. M. Senthil Pandian Research | 36 | 7773600 |

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| | | using Inorganic Hole Transport Materials | Scientist, SSN Research Center, SSN College of Engineering, Chennai, Tamil Nadu-603110. | | |
| 30 | DST/TMD/SERI/S46 | Enabling investigations for high efficiency nanocrystalline a-si:H Hit Solar cells | Dr. T. K. Subramanyam, Associate Professor, R. V. College of Engineering, R. V. Vidyaniketan PO, Mysore Road, Bangalore-560059. | 36 | 5564240 |
| 31 | DST/TMD/SERI/S129 | Fabrication of Low Cost Inverted Planner Perovskite Solar Cell | Dr. S Karuppuchamy, Associate Professor, Alagappa University, Karaikudi, Tamil Nadu-630003 | 36 | 5146592 |
| 32 | DST/TMD/SERI/S32 | Indigenous Development of Dye Sensitized Solar cells Modules with different electrolytes | Dr. S. Anandan, Associate Professor, Nanomaterials & Solar Energy Conversion Lab, Department of Chemistry, National Institute of Technology, Trichy-620015, Tamil Nadu | 36 | 10713400 |