Projects supported under DST- SERI Programme(2015 – 2016)

Sl. No	File No	Title	PI Name & Institution Address	Duration (Months)	Total Cost (Rs.)
1	DST/TM/SERI/FR/100	High Energy and Power density rechargeable lithium-ion batteries assembled with nanostructured electrons	Dr. AnindaJiban Bhattacharyya, Associate Professor, Indian Institute of Science, Bangalore-560012	36	5755000
2	DST/TM/SERI/FR/196	Role of nanotechnology in augmenting the thermal performance of a solar collector system integrated with PCM based thermal energy storage system for space cooling applications	Prof. R. Velraj, Professor and Director Institute for Energy Studies, Anna University, Chennai – 600 025.	36	6132325
3	DST/TM/SERI/FR/169	Development of alluaudite family of SO4- based cathodes for low cost and large-scale sodium-ion batteries augmenting solar cells in remote area	Dr. Prabeer Barpanda, Assistant Professor, Indian Institute of Science, Bangalore-560012	36	4852500
4	DST/TM/SERI/FR/203	Efficiency Enhancement in thin film GaAs solar cell using Photonic Crystal as a back reflector	Dr. Vijay Janyani, Malaviya National Institute of Technology, (MNIT), JLN Marg, Jaipur-302017, Rajasthan	36	3963200
5	DST/TM/SERI/FR/104	Development of Efficient Converters for Grid Integration	Dr. Hiralal Murlidhar Suryawanshi, Professor and (Dean R&C) Department of Electrical Engineering, Visvesvaraya National Institute of Technology, Nagpur-440010.	36	5946400
6	DST/TM/SERI/FR/92	Design and Synthesis of various ruthenium, metal-free organic and perovskite senesitizers for application in highly efficient solar cells	Dr. M. Chandrasekharam Principal Scientist I&PC Division, Indian Institute of Chemical Technology, Hyderabad,	36	6404000

7	DST/TM/SERI/FR/117	In(Ga)As/GaAs Quantum Dot Solar Cells	Dr. Samir kumar Pal, S.N. Bose National centre for Basic Science, Salt Lake, Kolkata	36	4090000
			Prof. Subhananda Chakrabarti, Indian Institute of Technology Bombay, Powai, Mumbai-400076	36	5667000
8	DST/TM/SERI/FR/178	Chemi-Sorption Thermal Energy Storage – Application of Metal Hydrides	Prof. Pradip Dutta, Professor, Department of Mechanical Engineering, Indian Institute of Science, Bangalore	36	6835300
9	DST/TM/SERI/DSS/298	Nanocarbon based Plasmonic solar cells	Prof. A.K Pal, Professor, Department of Instrumentation Sciences Jadhavpur University, USIC Building Kolkata-700032	36	1976800
10	DST/TM/SERI/FR/118	Studies on the growth kinetics of earth abundant Cu-Zn-Sn-S solar cell material and enhancing the device efficiency through photon management	Dr. Mukesh Kumar, Indian Institute of Technology Ropar, Punjab-140001	36	5379600
11	DST/TM/SERI/FR/232	Development of Hot-electron Harvesting Quantum dot (CdTe,CdTe/ZnS, CdTe/Cds) Based Solar Cell Device for Efficient Energy Conversion Application	Dr. D. Nataraj, Assistant Professor, Department of Physics, Bharathiar University, Coimbatore-641046	36	6052000
12	DST/TM/SERI/FR/150	Influence of structural and compositional defects on the electronic and photovoltaic properties of CZTS thin films	Dr. Bodh Raj Mehta, Schlemberger Chair Professor, Department of Physics, Indian Institute of Technology Delhi, New Delhi-110016,	36	5843400

13	DST/TM/SERI/FR/205	Realization of high efficiency interdigitated back-contact (IBC) silicon heterojunction (SHJ) solar cells with novel front structure.	Dr. Chandan Banerjee, Indian Institute of Engineering Science and Technology (IIEST), (Formerly Bengal Engineering and Science University), Shibpur, Howrah, 711103, West Bengal	36	5535400
			Dr. Partha Pratim Ray, Assistant Professor, Jadavpur University, Kolkata – 700032, West Bengal.		396500
14	DST/TM/SERI/FR/112	Simulation and ion implantaion process development for high efficiency mono-crystalline silicon solar cells	Dr. Bairava Ganesh, Assistant Professor, School of Electrical & Electronics Engineering, SASTRA University, Thanjavur-613401,	36	3986000
15	DST/TM/SERI/FR/193	Synthesis and Application of pie-Conjugated Polymers and Non-fullerence Electron Acceptor Materials for Bulk Heterojunction (BHJ) Solar Cells:Towards Cheap and Efficient Renewable Energy Sources	Dr. Sanjib K Patra, Assistant Professor, Department of Chemistry, IIT Kharagpur, Kharagpur-721302, West Bengal.	36	4866000
16	DST/TM/SERI/FR/162	Multichromophoric Light Harvesting Antenna Systems based on Squaraine and Bodipy Dyes	Dr. SanchitaSengupta, Interdisciplinary Centre for Energy Research, Indian Institute of Science, Bangalore-5600126	36	3662670
17	DST/TM/SERI/FR/209	Studies on rechargable Zinc-Air Cells for Solar energy storage	Dr. K Ramya, Senior Scientist, Centre for Fuel Cell Technology, International Advanced Research Centre for Powder Metallurgy and New	36	6797800

			Materials, IITM Research Park, II Floor, No.6 Kanagam Road, Taramani, Chennai-600113		
18	DST/TM/SERI/DSS/277	Integral Fin Extruded Aluminium Flat Plate Solar Water Heater	Prof. Pradip Dutta, Professor, Department of Mechanical Engineering, Indian Institute of Science, Bangalore-560012	36	7954000
19	DST/TM/SERI/FR/121	New Materials for Improved,Cost-Effective Perovskite Solar Cells.	Dr. Joshy Joseph, Scientist CSIR-NIIST, Industrial Estate P.O. Trivandrum-695019.	36	7086400
20	DST/TM/ SERI/DSS/361	Novel fabrication of Nano Structured surfaces and Their Integration with Solar Cells	Dr. Rabibrata Mukherjee, Associate Professor, Indian Institute of Technology Kharagpur, Kharagpur-721302, West Bengal.	36	2959000
21	DST/TM/SERI/DSS/331	Development of Grid Strategies for Photovoltaic System	Prof. Bidyadhar Subudhi, Professor, Department of Electrical Engineering, National Institute of Technology Rourkela Rourkela-769008	36	11138800
22	DST/TM/SERI/FR/147	Development of Metallic Nanowire Transparent Conducting Electrode on Glass And Flexible substrates	Dr. Abhijit Ray, Assistant Professor, School of Solar Energy, PanditDeendayal Petroleum University, Raison, Gandhinagar-382007, Gujarat	36	5912600

23	DST/TM/SERI/FR/172	Synthesis Characterization and Studies of Novel Poly[Thieno(Indenoindole)] based Low Band Gap Polymers of Organic Solar Cell Applications	Dr. P. Sakthivel, Associate Professor, Organic Chemistry Division, School of Advanced Sciences, VIT University, Vellore-632014 Tamil Nadu	36	4190560
			Dr. R. Thangamuthu Senior scientist Central Electrochemical Research Institute Karaikudi, Tamil Nadu	36	3299600
24	DST/TM/SERI/FR/90	Investigation on perovskites based Solar Cells	Dr. S. Moorthy Babu, Professor, Crystal Growth Centre, Anna University, Chennai-600025	36	4139960
25	DST/TM/SERI/FR/186	Direct Estimation of Transport Length and time scales of phototoinduced charge carriers in Perovskite based solar cells	Dr. Dinesh Kabra, Assistant Professor, Department of Physics, Indian Institute of Technology Bombay Mumbai-400076	36	5675000
26	DST/TMC/SERI/2K15/364	Capacity building Programme in Building Energy Efficiency	Dr. Rajiv Sharma, Indo-US Science and Technology Forum, Fulbright House, 12 Hailey Road, New Delhi-110001.	36	83131400
27	DST/TMC/SERI/FR/152	New Hybrid nanofluids (NPCM-NP-HTF) for concentrated solar collectors.	Dr. K S Rajan, Associate Dean (Research) School of Chemical & Biotechnology, SASTRA University, Thanjavur-613401	36	5571600
28	DST/TMC/SERI/FR/144	High Efficiency (>15%) Perovskite Solar Cells	Dr. Shaibal K Sarkar, Assistant Professor, Department of Mechanical Engineering, Indian Institute of Technology Bombay, Powai, Mumbai-	36	5999800

			400076,		
29	DST/TMC/SERI/FR/136	Stability and heat transfer analysis of molten salt based Thermocline storage unit	Dr. Saptarshi Basu, Assistant Professor Department of Mechanical Engineering. Indian Institute of Science, Bangalore-560012, Karnataka	36	6336000
30	DST/TMC/SERI/FR/208	Efficiency Enhancement of Solar Cells and Panels using Thermal Cooling Layer	Dr. V.K Jain, Amity Institute of Renewable and Alternative Energy (AIRAE), Amity University, Sector – 125, Noida – 201303, (Uttar Pradesh)	36	3558800
31	DST/TMC/SERI/DSS/275	Experimental investigation on heat transfer characteristics of hybrid PCM in Thermal Storage system (TES) for solar applications	Dr. S Suresh, Assistant Professor, National Institute of Technology-Trichy, Tiruchirappalli-620015	36	6337600
32	DST/TMC/SERI/DSS/314	Development of High Efficiency large area, n-type crystalline silicon solar cell by black silicon emitter surface having rear surface passivation and back surface field with a-Si:H layers	Prof. Utpal Gangopadhyay, Professor, Meghnad Saha Institute of Technology, Nazirabad, P.O: Uchhepota via Sonarpur, Behind NRI Complex, West Bengal, Kolkata-7001500	36	11907800
33	DST/TMC/SERI/DSS/323	Plasmonic solar generators and steam generator	Dr. Sadhana Rayalu, Scientist and Head, Environmental Materials Division CSIR-National Environmental Engineering Research Institute, Nehru Marg, Nagpur-440020, Maharashtra	36	4250000

34	DST/TM/SERI/FR/124	Application of Nanomaterials in hybrid plasmonic solar cells	Dr. Nandu B Chaure, Associate Professor, Savitribaiphule Pune University formely (University of Pune) Department of Physics, University of Pune, Pune - 411007,	36	6464040
35	DST/TM/SERI/ DSS/322	Design and development of Smart Autonomous In-Service inspection and cleaning ground vehicle for large scale solar PV Farm	Dr. M. Sundaram Associate Professor PSG College of Technology Robotics and Automation Engineering, PSG College of Technology Peelamedu, Coimbatore Tamil Nadu, Coimbatore 641004	36	6529000
36	DST/TM/SERI/DSS/330	Fabrication and characterization of Nanoimprinted High Efficiency Crystalline silicon Solar cells	Dr. K Balachander Associate Professor PSG Institute of Advance Studies Nano Research Facility Avinashi Road, Coimbatore-641004, Tamil Nadu	36	12026000
37	DST/TM/SERI/DSS/333	Optimized and Efficient Stand Alone PV System for Rural Applications	Dr. Sachinjain, Assistant Professor Department of Electrical Engineering, 366Institute of Technology, Warangal Warangal 506004, Andhra Pradesh	36	3179600
38	DST/TM/SERI/DSS/345	Performance and durability improvements in the solar thermal desalination system at Narippaiyur and utilization of reject sea water reject for algae cultivation to produce biogas	Dr. T Sundarajan Professor, Department of Mechanical Engineering Indian Institute of Technology Madras, Chennai- 600036 TN	36	2190400

			Dr. Arvind Lali Professor ICT Mumbai DBT ICT-Center of Energy Biosciences ICT Nathalal Parikh Marg, Matunga, Mumbai400019		6135400
			Dr. S P Viswanathan Professor, KGDS KGDS Renewable Energy Pvt. Ltd 366, ThuduyalurRoad,Kg Campus,Saravanampatti, Coimbatore Coimbatore 641035		21945000
39	DST/TM/SERI/DSS/58	Design and development and Field Trial of a Low Cost Solar Dome for Urban Slums and Rural Areas Of India	Dr. S P Gon Chaudhuri President NB Institute for rural Technology, 220, Madurdaha, Plot no. C21, Kolkata-700107 West Bengal	36	2165000
40	DST/TM/SERI/DSS/328	Design and Development of Cost efficient solar Receiver Tube for Medium and High Temperature Solar Thermal Applications	Dr. S Shakthivel Scientist E, ARCI Centre for Solar Energy Materials International Advanced Research centre for Powder Metallurgy and New Material research Balapur PO-500005 Hyderabad, Telangana	36	17517000
			Prof. T Sundaranjan Professor, IIT Madras, Department of Mechanical Engineering IIT Madras, Chennai-600036		2212320

			Dr. C Suresh Kumar Executive Vice President, KGDS KGDS Renewable Energy Pvt. Ltd 366, ThuduyalurRoad,KG Campus, Coimbatore 641035		9880000
41	DST/TM/CERI/2k15/366	Installation of Solar Panels on Science Express	Central Electronic Limited 4, Industrial Area, Sahibabad-201010 Uttar Pradesh	12	4880000
42	DST/TM/SERI/DSS/334	Technology Development in Solar Thermal power plant and its demonstration for rural Electrification and Energy need	Prof. S.W. Gosavi, Professor, Department of Physics, SavitribaiPhule Pune University, (Formely University of Pune) Pune-411007	36	28576800
43	DST/TM/CERI/C141	Development and demonstration of High Energy Density Valve-Regulated Lead Acid(VRLA) Batteries for remote area power supply (RAPS) and Electric Vehicles (Evs)	Dr. Surendra Kumar Martha Indian Institute of Technology Hyderabad, Kandi, Sangareddy-50285, Telangana	36	5716800
44	DST/TM/CERI/C130	Investigation of new Hole Transporting materials for Efficient Perovskite Organic-Inorganic Hybrid solar Cell	Dr. S. Murugesan Department of Inorganic Chemistry, School Of Chemistry, Madurai Kamaraj University, Madurai-625021	36	2336000
45	DST/TM/CERI/C17	Design, fabrication and damage tolerance study of stretchable organic photovoltaic devices (OPVs)"	Dr. Aparna Singh Indian Institute of Technology Bombay, Mumbai-400076, Maharashtra.	36	7016000
46	DST/TM/CERI/C74	Copper Zinc Tin Sulfo-selenide [Cu2ZnSn(SSe)4] based Radial Heterojunction Solar Cells for Integration into Flexible and c-Si Substrates	Dr. Samit K Ray Department of Physics, Indian Institute of Technology, Kharagpur-*721302, West Bengal*	36	7056000

47	DST/TM/CERI/C228	Strong NIR absorbing BODIPY incorporated Ru and Porphyrin dyes for design of efficient dye-sensitized solar cells (DSCs)	Dr. Pradeepta K Panda School Of Chemistry, University of Hyderabad(UOH), Gashibowali, Hyderabad-500046, Telangana	36	9185440
48	DST/TM/CERI/C131	Development of High C-rate Li-ion Batteries for Wireless Gadgets	Dr. S.R.S Prabaharan School of Electronics Engineering, Vellore Institute of Technology (VIT) University, Chennai Campus, Vandalur-Kelambakkam , Chennai-600127, Tamil Nadu.	36	5906800
49	DST/TM/CERI/D22	Development and Characterization of PCM-based Thermal Energy Storage for Solar Process Heat Applications	Dr. K Srinivas Reddy Indian Institute of Technology Madras, Chennai- 600036, Tamil Nadu.	36	5914700
50	DST/TMD/CERI/C155	Control of Grid Interfaced Solar Photovoltaic Energy Networked Electric Vehicles to Enable a Smart Grid	Dr. B.K Panigirahi Department of Electrical Engineering, Indian Institute of Technology Delhi, New Delhi110016	36	6073600