INTERNALLY FUNDED PROJECTS

S.No.	PI	Title of the Project and Date of Sanction	Budget(in Rs) & Duration	Status
1	Dr.V.S.Gayathri Dr.Sunita Nair Dr.K.Yamuna	To identify economic, eco friendly and effective corrosion inhibitors	8.25 Lakh 2 year **(2006 – 2008)**	Completed
2	Dr. M. Mahalakshmi	Modified TiO_2 and perovskite $SrTiO_3$ nanocomposite materials for the production of clean energy fuel H_2 by solar water splitting.	4.10 Lakh 3 years **(2015-2018)**	Completed
3	Dr. T. Arun Luiz	Synthesis, characterization and application of transition metal ion doped ZnO nanoparticles	4.0 lakhs 3 years **(2015-2018)**	
4	Dr. S.I. Davis Presley	Approaches to asymmetric synthesis of pipecolic acid and alpha nathyl ethyl amine	2.5 Lakhs 2 Years **(2016- 2018)**	Completed
5	Dr. A. Murugesan	Synthesis and Properties of Thermally Rearranged Novel Polymeric Membranes for Gas Separation	3.7 lakhs 2 Years **(2017-2019)**	Completed

6	Dr. A. Murugesan (Co-PI) (PI: Dr.S.Ramprabhu & Dr.M.Gulam Nabi Alsath ECE)	Design and fabrication of cost effective polymer composite based FSS microwave absorbers	2.2 Lakhs 2 years **(2019- 2021)**	
7	Dr. S.I. Davis Presley	Synthesis of selective non-steroidal antiinflammatory drugs	4.0 lakhs 2 Years **(2019-2021)**	Completed
8	Dr. A. Murugesan	Tuning electrical, electromagnetic and adsorption behavior of functional aromatic high- performance polymers based on electron donor and acceptor substituted triphenylamines	5.0 lakhs 2 years **(2019 – 2021)**	
9.	Dr. M. Mahalakshmi	An investigation on sensitizer and counter electrode materials to enhance the efficiency of the quantum dot sensitized solar cell(QDSSC).	4.5 lakhs 2.5 Years **(2019-2022)**	
10	Dr.Tanusree Sengupta	Structural characterization of a human serpin and its natural variants	4.5 lakhs 3 Years **(2019-2022)**	Completed
11	Dr.N.Priyadharshini	Development of novel functionalized titanium dioxide based nanometerial and nanocomposite for effective and specific removel of Uranium (VI)	4.0 lakhs 3 Years **(2019-2022)**	

External funded projects

Sl. No.	Name of the Faculty & Department	Title of the project	No. of research projects completed / in progress	Sponsoring Agency	Funds received (In lakhs)
1.	Dr. Tanusree S	Understanding the Sturcture Function Relationship of the Natural Anticoagulant ZPI, a Member of Serpin Superfamily	On going	DST-SERB	33.61
2.	Dr.M.Siluvai Michael	Nano catalyst embedded hierarchically porous carbon AIR Cathode for Li/ Air Rechargeable batteries	Completed	Nanomission, DST	39.01
3.	Dr.M.Siluvai Michael	Investigation on Thermally stable Poly-anion electrodes for Li-ion batteries	Completed	NRB, DRDO	24.91
4.	Dr. M. Mahalakshmi	Visible light active metal and non-metal doped mesoporous TiO_2nanoparticles for photocatalytic applications	Completed	DST	26.00
5.	Dr.M.Siluvai Michael	Hybrid capacitor with nano materials for zero emissions vehicles	Completed	DST	14.09
6.	Dr. A. Murugesan	Production and commercialization of 3D-Printing Filaments from Recycled Plastic	Completed	Recycle3D, Canada	7.50

Patents

1. A process for preparing bulk synthesis of fine particle single-phase battery grade $LiMn_2O_4$ useful as cathode-active material in Lithium containing rechargeable batteries S S.R.S. Prabaharan, M.Siluvai Michael, Azmi Bustam, Surani Buniran *Malaysian Patent # : MY-122753-A (Date Granted : 31 May 2006)*
2. 'Single Phase Monoclinic Li 2 MnSiO 4 cathode Material for electrochemical energy storage devices and preparation thereof'. M. Siluvai Michael, K. Shree Kesavan Indian patent #: Published on 21/08/2020

Internal funded projects (Funded by SSN Trust)

Sl. No.	Name of the Principal Investigator	Title of the project	Funds received in Lakhs
1.	Dr. M. Mahalakshmi	Modified TiO_2 and perovskite structured $SrTiO_3$ nanocomposite materials for the production of clean energy fuel hydrogen by solar water splitting	4.10
2.	Dr. Arun Luiz T	Synthesis, characterization and application of transition metal ion doped ZnO nanoparticles	4.00
3.	Dr. S. I.Davis Presley	Approaches to asymmetric synthesis of pipecolic acid and alpha napthl ethyl amine	2.50
4.	Dr. A. Murugesan	Synthesis and properties of thermally rearranged novel polymeric membranes for gas separation	3.70
5.	Dr. N Priyadarshini	Development of Novel Functionalized Titanium dioxide Based Nanomaterial and Nanocomposite for Effective and Specific Removal of Uranium(VI)	4.00
6.	Dr. Tanusree S	Structural Characterization of a human serpin and its natural variants	4.50
7.	Dr. S. I.Davis Presley	Synthesis of selective non-steroidal anti-inflammatory drug	4.00

8.	Dr. A. Murugesan	Tuning electrical, electromagnetic and adsorption behaviour of functional aromatic high-performance polymers based on electron donor and acceptor substituted triphenylamines	5.0
9.	M. Mahalakshmi	An investigation on sensitizer and counter electrode materials to enhance the efficiency of the quantum dot sensitized solar cells	4.5

Internal Student Project details

1. S Aiswarya, (1st Chem), Arushi Sahu, (1st BME), Keerthana Reddy R and Samyuktha R (1st ECE) Analysis of porous carbon based supercapacitor electrode materials derived from biowaste' (23000) (Jan – Dec 2020) (Mentor Dr.M.Siluvai Michael)
2. V.Krishi divya dharshini, Nethra Prakash, Bharath vishal, (1st, ECE) "Extraction of lithium and other usable metals from spent lithium ion batteries' (23000), Jan – Dec 2020), (Mentor Dr.M.Siluvai Michael)
3. P. Pravalika, R. Vasudhareni and B. Yamini (1st, BME and Chemical Engineering) "Synthesis of Polymer Coated Super-hydrophobic Magnetic Nanoparticles for Removal of Microplastics from Waste Water" (Feb 2020 to Feb 2021) (Rs. 25,000) (Guide: Dr. N. Priyadarshini).
4. P. Akash, EEE, Srivarsha Elangovan, CSE, Siva Adithya, (1st BME) "Investigation on the effect of Eu^{3+} doped YVO_4 Phosphor material on the efficiency of quantum dot sensitized solar cells" (Rs.30000/-) Guide: Dr. M. Mahalakshmi, Chemistry and Dr. Muthu Senthil Pandian, SSN RC. Feb. 2020.
5. D. Rohit, V. Vidyarth, (1st ECE) "Investigation of air-water harvesting via absorption-process using hygroscopic hydrogel materials" (Rs. 24000) (Guide: Dr. A. Murugesan and Dr. Tanusree Sengupta)
6. K. Lakshman and A. Venkatesh (2nd year Chemical & Mechanical) **"**Polymers of Intrinsic Microporosity (PIM's) for the removal of cationic dyes from the aqueous solution (Oct-2018-Sep2019) (25,000) (Guide: Dr. A. Murugesan).

7. A.Mohanraj, P.V.Prasad and Mohammed Riaz Khan K.N. **“**Polymers of Intrinsic Microporosity (PIM's) for the removal of cationic dyes from the aqueous solution (Oct-2018-Sep2019) (25,000) (Guide: Dr. A. Murugesan).
8. (IIstyear B.Tech. – Chemical) Photocatalytic conversion of CO_2 into value-added organic compounds”, (Oct-2018-Sep2019) (25,000) (Guide: Dr. M. Mahalakshmi)**.**