

**B.S. Abdur Rahman Crescent Institute of Science and Technology**

**Office of Center for Sustainable Development and  
Energy, Sponsored Project and Consultancy**

**3.2.2 Grants for research projects sponsored by the government sources during the year 2014-20 (INR in Lakhs)**

S.no	Name of the Project	Name of the PI / Co PI	Name of Funding Agency	Department of PI / Co PI	Year of Award	Funds Provided (In Lakhs)	Duration of the project
<b>Government Sponsored Sustainable Development Projects</b>							
1	Smart Textile with Antimicrobial and Water Repellent Properties for Coronavirus - Intentional Project	Dr. S. Hemalatha & Dr. D. Mubarak Ali	Kasetsart University, Department of Materials Engineering, Thailand	Life Sciences	15.10.2020	38.00	14 Months
2	Continuous Ambient Air Quality Monitoring Station (CAAQMS)	Dr. Vasanthi Padmanabhan & Dr. A.K. Kaliluthin	Tamil Nadu Pollution Control Board (TNPCB)	Estate Office / Civil Engineering	2019-20	*150.00	3 Years
3	Modernization of RF and Microwave Lab for Signal Quality Measurements in Sub 3GHz - Modernisation and Removal of Obsolescence (MODROB)	Dr. C. Tharini & Mr. A. Ramesh Kumar	All India Council of Technical Education (AICTE)	Electronics and Communication Engineering	2019-20	20.00	3 Years
4	Modernization and upgradation of Structural Engineering Laboratory – Establishment of Non-Destructive Testing Facility for Concrete (MODROB)	Dr. Vasanthi Padmanabhan & Dr. J. Revathy	All India Council of Technical Education (AICTE)	Civil Engineering	2019-20	10.00	3 Year
5	Bio Incubator Grant (Bio Nest)	Dr. M. Parvez Alam Dr.S.Hemalatha	Biotechnology Industry Research Assistance Council (BIRAC)	CIIC & Life Sciences	2018-19	240.00	3 Years
6	Supply, Erection, Installation, Commissioning, Operation and Maintenance of Co-Digestion plant for Organic Fraction of Leftover Food waste, Vegetable peels and Fruit peels for Biogas generation from Hotel industry on Turnkey basis - Biogas Plant	Dr. T. Harinarayana	CSIR-Central Leather Research Institute funded by Department of Science and Technology (CLRI & DST)	Mechanical Engineering	2018-19	35.00 (21.70+13.30)	1 Year
<b>Other Government Sponsored Projects</b>							
7	ATAL FDP on 3D Printing & Design	Dr. P.D.Jeyakumar and Dr. Arokia Julius	All India Council of Technical Education (AICTE)	Mechanical Engineering	16.10.2020	0.93	3 Months
8	Yoga Module in Lung Inflammation and ALRI	Dr. S. Hemalatha & Mrs. Ranjani	Department of Science and Technology (DST) -(SATHYAM)	Life Sciences	12.10.2020	15.00	1 Year
9	Skill and Personality Development Program Centre for SC/ST students (SPDC)	Dr. Prakash Natarajan, Dr R. Priyadarshini	All India Council of Technical Education (AICTE)	Information Technology	2019-20	14.68	3 Years
10	Data Driven Techniques for Business Analytics using R Programming, Python and Tableau - Short Term Training Programme [STTP]	Dr. PANBOLI S	All India Council of Technical Education (AICTE)	Management Studies	2019-20	2.00	1 Year

11	Bimetallic nanoparticles coated hybrid materials for effective photocatalytic degradation of hazardous dyes in effluent water	Dr. N. Vasimalai & M. Sandhiya Malathi K. Joyce	Tamil Nadu State Council for Science and Technology (TNSCST)	Chemistry	2019-20	0.075	1 Year
12	Influence of Bacterial Species on the Durability Performance of Green Concrete for Sustainable Built Environment	Dr. R. Revathi & M. Abdulrahman	Tamil Nadu State Council for Science and Technology (TNSCST)	Civil Engineering	2019-20	0.075	1 Year
13	Application of Bio medical waste for the development of sustainable concrete	Dr. P. Gajalakshmi & K.N. Krishnaprasad	Tamil Nadu State Council for Science and Technology (TNSCST)	Civil Engineering	2019-20	0.075	1 Year
14	Disaster Mitigation : A shift from disaster management towards disaster preparedness - Short Term Training Program (STTP)	Dr. Vasanthi Padmanabhan & Dr. V.S.Priya	All India Council of Technical Education (AICTE)	Civil Engineering	2019-20	3.00	3 Months
15	Internet of Things (Everything) - Future Short Term Training Program (STTP)	Dr. S. Revathi & Dr. V. Muthupriya,	All India Council of Technical Education (AICTE)	Computer Science and Engineering / Computer Application	2019-20	2.00	3 Months
16	Seismic Performance of Light - Research Promotion Scheme	Dr. J.Revathy & Dr.P.Gajalakshmi	All India Council of Technical Education (AICTE)	Civil Engineering	2019-20	2.00	3 Years
17	Be the changeTeaching learning process - Short Term Training Program (STTP)	Dr. Nikhat Hamza & Dr. C. Tharini	All India Council of Technical Education (AICTE)	HR / Electronics and Communication Engineering	2019-20	3.25	3 Months
18	Artificial Intelligence and Deep Learning Techniques - Short Term Training Program (STTP)	Dr. G. Kavitha & Dr. P. Latchoumy	All India Council of Technical Education (AICTE)	Information Technology	2019-20	3.00	3 Months
19	Copper smelters and its impact on the health of downstream people, the economic livelihood of its employees, and waste management system. the case of Sterlite Copper in Tuticorin, Tamil Nadu	Dr. Mohamed K	All India Council of Technical Education (AICTE)	Management Studies	2019-20	4.38	2 Years
20	"Synthesis and Characterization of ZrO <sub>2</sub> Dispersed Ti, Ti-6Al-4V, Ti-6Al-5V, Ti-6Al-7Nb composite"	Dr. Karunanithi	Science and Engineering Research Board (SERB-TARE)	Aerospace Engineering	2018-19	18.30	3 Years
21	Deasign of Antennas for 5G Applications	Ms.Sivashanmuga Valli	Science and Engineering Research Board (SERB-TARE)	Electronics and Communication Engineering	2018-19	18.30	3 Years
22	Mechanistic anti-tumour activity of vernodaline isolated from centratherum anthelminticum on colorectal cancel cells	Dr. P. Ashok Kumar	Science and Engineering Research Board (SERB)	Life Sciences	2018-19	18.30	3 Years
23	Light induced process of Hierarchical electron cascade system, Materials and Devices for Solar energy conversion	Dr. Asha Jhonsi Mariadoss	Science and Engineering Research Board (SERB)	Chemistry	2018-19	18.30	3 Years
24	Formulating antibiotic resistance breakers to control multidrug resistant pathogenic bacteria	Dr. S. Hemalatha & Mrs. Ranjai	Department of Science and Technology (DST) - (WOBS)	Life Sciences	2018-19	30.34	3 Years
25	Cellular Automata Models for Propagation of Tsunami Waves	Dr. E.Syed Mohamed	Science and Engineering Research Board (SERB)	Computer Science and Engineering	2018-19	12.48	3 Years

26	Triazole based New Functional Chromophores for optoelectronics and Biological Application	Dr. K. Karthikeyan	Tamil Nadu State Council for Science and Technology (TNSCST)	Chemistry	2018-19	3.2	2 Years
27	An empirical Investigation of Minimum support price on Agriculture Commodities	Dr. Mohd. Amir & Dr. Afzalur Rahman	Tamil Nadu State Council for Science and Technology (TNSCST)	Commerce	2018-19	1.8	1 Year
28	Automation of Climate Control inside a naturally ventilated polyhouse (GREEN HOUSE)	Dr. M. Parvez Alam & Mr. Kannan Ganapathi	Government of Tamilnadu, Entrepreneurship Development and Innovation Institute (TN-EDII)	CIIC	2018-19	10.00	1 Year
29	Health and Sanitation of Wheels	Dr. M. Parvez Alam & Mr. Ravi Senji	Government of Tamilnadu, Entrepreneurship Development and Innovation Institute (TN-EDII)	CIIC	2018-19	2.15	1 Year
30	A smart intravenous dripper System for centralized monitoring and automatic control of intravenous fluid.	Dr. M. Parvez Alam & Mr. Radhakrishnan Jothiram	Government of Tamilnadu, Entrepreneurship Development and Innovation Institute (TN-EDII)	CIIC	2018-19	10.00	1 Year
31	End to End Water Management Solution	Dr. M. Parvez Alam & Mr. Mohideen	Government of Tamilnadu, Entrepreneurship Development and Innovation Institute (TN-EDII)	CIIC	2018-19	2.00	1 Year
32	Islets Cells Transplantation	Dr. M. Parvez Alam & Dr. Nithya Kalyani	Government of Tamilnadu, Entrepreneurship Development and Innovation Institute (TN-EDII)	CIIC	2018-19	5.00	1 Year
33	Development of Hybrid Rocket Motor	PI – Dr. P.N. Kadiresh CO-PI – Sri Nithya Mahottmannada	Aeronautics Research & Development Board (AR&DB), (DRDO)	Aerospace Engineering	2017-18	9.79	3 Years
34	Fault diagnosis on single stage helical planetary gearbox using machine learning algorithms	Aquib Yousuf, Aravind.V.K, Aravinda Krishnan.A, Farhanuddin.S.M. Syed Shaul Hameed	Tamilnadu State Council For Science And Technology	Mechanical Engineering	2018-19	0.08	1 Year
35	Phycoremediation of CO2 Level in sub urban area via CO2 Sequestration by native microalgae : an eco friendly approach	Dr D Mubarak Ali, M Santhosh Kumar A Aravindh	Tamilnadu State Council For Science And Technology	Life Sciences	2018-19	0.08	1 Year
36	Development of hybrid nano based BLDC motor and validation of the design by using VLSI technology	Dr. K. Boopathy	Defence Research and Development organisation (DRDO)	Electrical and Electronics Engineering	2017-18	9.79	2 Years
37	Corrosion protection and service life extension of reinforced concrete roofing systems in existing buildings	Ms. Roopa	Science and Engineering Research Board (SERB)	Civil Engineering	2017-18	18.30	3 Years
38	Endophytic diversity of herbal plant Hibiscus	Dr. Wasima. M	Department of Biotechnology (DBT)	Life Sciences	2017-18	8.00	1 Year
39	Structural Behaviour of Corroding Prestressed Concrete Systems and Extension of Service Life using Cathodic Protection (In collaboration with IIT, Madras)	Dr. M.S. Haji Sheik Mohammed (Co PI)	Science and Engineering Research Board (SERB)	Civil Engineering	2017-18	49.50	3 Years
40	Development of Graphene and Metal Nanoparticles Reinforced Flexible Polymer nanocomposites for Effective Electromagnetic Interference (EMI) Shielding Applications	Dr. M. Basheer Ahamed	Science and Engineering Research Board (SERB)	Physics	2016-17	28.01	3 Years

41	Seismic performace of exterior beam column joint using ferrocement jacket	Dr. J. Revathy	Tamilnadu State Council For Science And Technology (TNSCST)	Civil Engineering	2016-17	0.10	1 Year
42	Application of nano particles in green concrete for sustainable built enviroinment	Dr. J. Revathy	Tamilnadu State Council For Science And Technology (TNSCST)	Civil Engineering	2016-17	0.10	1 Year
43	Construction of optical logic gates using soliton collisions and study of electrical solitons in nonlinear transmission lines	Dr. M. Vijaya jayanthi	Science and Engineering Research Board (SERB)	Physics	2016-17	32.44	3 Years
44	Antimicrobial Efficacy and Mechanisms of Whole Plant Extract of Acacia Arabica with Triphala on Biofilm Forming Cariogenic Microorganisms	Dr. Karthikeyan Ramalingam	The Ministry of Ayurveda, Yoga & Naturopathy, Unani, Siddha, Sowa Rigpa and Homoeopathy (AYUSH-EMR)	Life Sciences	2017-18	33.00	3 Years
45	Synthesis of antimicrobial nanoemulsions for the treatment of multi-drug resistant ESKAPE pathogens	Dr. Karthikeyan Ramalingam	Science and Engineering Research Board (SERB)	Life Sciences	2017-18	23.28	3 Years
46	Tamil Plagiarism Checker	Dr. Shriram	Tamil Virtual Academy (TVA)	Computer Science and Engineering	2017-18	2.15	1 Year
47	Tamil Tholkappiam	Dr. Shriram	Central Institute of Classical Tamil (CICT)	Computer Science and Engineering	2017-18	2.50	1 Year
48	gpX1 gene polymorphisms and mitochondrial ROS signaling in cancer risk	Dr. Soumen Bera	Science and Engineering Research Board (SERB)	Life Sciences	2015-16	4.00	3 Years
49	Identifying the molecular basis of peroxidase activity of Peroxiredoxin 6 - An approach for designing Antioxidant Peptides and Inhibitors	Dr. Md Khurshid Alam Khan	Science and Engineering Research Board (SERB)	Life Sciences	2015-16	14.30	3 Years
50	Sesmic retrofitting of pre-stressed concrete beams externally bonded with fibre reinforced polymer composites	Dr. J. Revathy	Science and Engineering Research Board (SERB)	Civil Engineering	2015-16	4.50	3 Years
51	Antioxidant gene polymorphisms and ROS in cancer risk	Dr. Soumen Bera	Department of Biotechnology (DBT)	Life Sciences	2016-17	24.75	3 Years
52	A novel access to indolizidines and quinolizidine alkaloids through stereoselective N-tethered intramolecular cyclopropanation of pyridine	Dr. J. Elangovan, Assistant Professor,	Department of Science and Technology (DST-SERB)	Chemistry	2016-17	48.70	3 Years
53	Immunosuppressive cells within inflammatory Tumor Microenvironment	Dr. Neesar Ahmed	Science and Engineering Research Board (SERB)	Life Sciences	2016-17	25.00	3 Years
54	The effect of aluminum on TiAlN, CrAlN and ZrAlN coatings using RF powered Magnetron Sputtering	Dr. S. Beer Mohamed	University Grants Commission -DAE consortium for Scientific Research	Mechanical Engineering	2015-16	8.21	3 Years
55	To study the effect of diclofenac and osmolytes on protein estability in renal disfunction	Dr. Shazia Jamal	Science and Engineering Research Board (SERB)	Life Sciences	2014-15	13.60	3 Years
56	Development of Oil Absorbing Polymer Product for Efficient Removal of Oil Spills in Sea water	Dr. R. Vasanthakumari	Naval Research Board (NRB)	Polymer Nanotechnology	2014-15	20.04	2 Years

57	Synthesis, characterization and optimization of QDs on TiO <sub>2</sub> surface for quantum dot solar cells	Dr. M. Asha Jhonsi	Science and Engineering Research Board (SERB)	Chemistry	2015-16	19.76	3 Years
58	Synthesis of Novel Low Band Gap Polymer Materials for Solar Cell Applications	Dr. Vajiravel Murugesan	Science and Engineering Research Board (SERB)	Chemistry	2015-16	23.78	3 Years
59	Development of Graphene SrTiO <sub>3</sub> based hybrid photocatalytic system for the production of solar fuels	Dr. Noor Aman Ahrar Mundari	Science and Engineering Research Board (SERB)	Chemistry	2015-16	24.98	3 Years
60	Applications of Gold Catalysis For The Synthesis Of Bioactive Heterocycles And Natural Product Mimic	Dr.K.Karthikeyan	Science and Engineering Research Board (SERB)	Chemistry	2014-15	19.66	3 Years
61	Seismic performance of FRP confined concrete filled steel tubular columns	Dr. P. Gajalakshmi	Ministry of Earth Sciences (MOES)	Civil Engineering	2014-15	29.10	3 Years
62	Bismuth titanite quantum photo voltage application	Ms. Saai Harini	Department of Science and Technology (DST)	Chemistry	2014-15	18.14	3 Years
63	Palladium catalysed Buchwald Hartwig coupling of 2-C hydroxymethyl D glycols and aryl halides : Synthesis of functionalized C – Aryl Glycosides	Dr. Bhagavathy	Department of Science and Technology (DST-SERB)	Chemistry	2014-15	42.60	3 Years
64	Wear behavior of duplex coated steels	Dr.R.Rajendran	University Grants Commission -DAE consortium for Scientific Research	Mechanical Engineering	2014-15	5.37	2 Years
65	Investigation of multirate properties of rareearth and transition metal doped bismuth for functional applications	Dr. Shameem banu	Science and Engineering Research Board (SERB)	Physics	2015-16	23.55	3 Years
66	Synthesis and characterization of multiferrote nano composite for functional applications	Dr. Shameem banu	Department of Science and Technology (DST)	Physics	2015-16	14.19	3 Years
67	Preparation of rare-earth doped molybdate nanostructures using soft chemical route for opto electronic applications	Dr. J. Thirumalai	Science and Engineering Research Board (SERB)	Physics	2014-15	23.64	3 Years
68	Investigation of chaotic and strange nonchaotic phenomena in coupled nonlinear circuits and systems	Prof. I Raja Mohamed	Science and Engineering Research Board (SERB)	Physics	2014-15	32.46	3 Years
<b>Total</b>						<b>1351.08</b>	

\* Estimated