



# KALASALINGAM

## ACADEMY OF RESEARCH AND EDUCATION

### (DEEMED TO BE UNIVERSITY)

Under sec. 3 of UGC Act 1956. Accredited by NAAC with "A" Grade



Anand Nagar, Krishnankoil - 626126. Srivilliputtur (Via), Virudhunagar (Dt), Tamil Nadu | info@kalasalingam.ac.in | www.kalasalingam.ac.in

### Office of Research and Development

**Total No. of Completed Research Projects (2012-2021) : 44**

**Total Amount : Rs. 105819488**

### List of Funded Projects – Completed

S. No	Title of the Project	Principal Investigator(s)	Funding Agency	Amount Sanctioned in Rs.	Approval letter Number and Date
1.	Domination in Graphs – Theory, Algorithms and Applications	Dr. S. Arumugam n- CARDMATH	NBHM	835150	48/5/2008-R&D II/561 dt 07/0709
2.	Cell Formation Using Graph Theory in Cellular Manufacturing System	Dr. P. Venkumar Dept. of MECH	DST	959400	SR/S4/MS/ 562/09 dt 04/08/09
3.	Scale up of polyhydroxyalkanoates production from indigenous isolates and its applications	Dr. G. Sangliyandi Dept. of Bio-Tech	DBT	1613000	BT/PR- 10211/BCE /08/615/20 07 dt 09/01/09
4.	Biosynthesis and Characterization of Silver Nanoparticles, A Potential New Therapeutic Approach	Dr. G. Sangliyandi Dept. of Bio-Tech	CSIR	896167	37(1384)/0 9/EMR-II dt 07/10/09
5.	High throughput Crystallography	Dr. S. Selvanayagam Dept. of Physics	DST	732000	SR/FT-LS- 082/2008 dt 23/07/09

6.	Study of Interface problems associated with coupled ordinary differential equations	Dr. M. Venkatesulu MCA	DST	974400	SR/S4/MS: 629/09 dt 4/08/10
7.	Investigation on mechanical properties of naturally woven coir/non-clay reinforced hybrid composites	Dr. J.T. Winowlin Jappes Dept. of MECH	DST	1470000	SR/FTP/ET A- 092/2009 dt 10/06/10
8.	Rare earth doped nano crystalline olivine phosphate cathodes for high voltage high energy lithium battery	Dr. G. Hirankumar Dept. of Physics	BRNS	1760000	2010/20/37 P/3/BRNS/ 1062 dt 20/07/10
9.	Gold nanoparticles: Burgeoning Therapeutic molecules for proliferative diabetic retinopathy	Dr. G. Sangliyandi Dept. of Bio-Tech	DST	4004800	SR/NM/NS -31/2010 dt 04/10/10
10.	FIST	Dept. of ICE	DST	6500000	SR/FST/ET I- 249/2009/1 dt 30/04/2010
11.	Sequestration of Co <sub>2</sub> Emission through critical analysis of end use energy efficiency in heterogeneous mixture of process industries	Dr. S. Rajakarunakar an Dept. of MECH	DST	1800000	DST/IS- STAC/CO <sub>2</sub> -SR- 92/11(G) dt 11/10/11
12.	Technology propagation and development of micro enterprise by SHG women	Dr. S. Rajaram Dept. of MBA	DSIR	1280000	DSIR/TDU PW/TW 157/2010 dt 9/12/11

13.	An empirical study on the Intension to visit cultural heritage site- Rameshwarm south India	Mrs. S. Yavana Rani Dept. of MBA	ICSSR	392375	2-037/2010-RP dt 16/03/11
14.	FIST	Dept. of Mechanical Engg.	DST	12500000	SR/FST/ET I-052/2010 dt 05/08/11
15.	Classical Tamil Literature and Ancient Chinese Literature: A comparative study	Dr. A. Benita Dept. of English	Central Institute of Classical Tamil (MHRD)	250000	11-264/cict/2012-13/Research Project -28 dt 20/11/12
16.	Experimental Investigations on the characteristic of supersonic flow past axisymmeetric cavities	Dr. S. Jeyakumar Dept. of MECH	DST	1650000	SR/FTP/ET A-0055/2009 DT 15/05/12
17.	Fabrication and machining studies of Al(6351)-SiC-B4C hybrid metal matrix composites	Dr. M. Uthayakumar Dept. of MECH	BRNS	2056500	2012/34/39 /BRNS/103 7 dt 06/07/12
18.	Towards development of novel metal free organic dyes for highly efficient dye-sensitized solar cells	Dr. C. Ramalingam Dept. of Chemistry	DST	2125800	SR/FT/CS-149/2011 dt 13/08/12
19.	Design and synthesis of phenothiazine based novel organic dyes for highly efficient dye-sensitized solar cells	Dr. C. Ramalingam Dept. of Chemistry	CSIR	2850000	02(0099)/12/EMR-II dt 31/10/12

20.	Problems and its Impact of Women Migrants Households in Slums with Special Reference to Tamil Nadu State	Dr. S. Rajaram Dept. of MBA	ICSSR	500000	02/228/2012/RP dt 30/05/13
21.	Molecular functional characterization of mitochondrial BK channel in mouse cochlear hair cell	Dr. T. Kathiresan Dept. of Bio-Tech	DST	2500000	SB/FT/LS-204/2012 dt 26/04/13
22.	Genome-wide Mapping of Murine Specific Dengue T-cell epitopes: Computational Prediction Identification and Use as candidate vaccines	Dr. K. Sundar Dept. of Bio-Tech	DST SERB	2484000	SR/SO/HS-0248/2012 dt 30/09/13
23.	A search for the new NLO crystals for Industrial applications from anisidine and guanidine compounds	Dr. Asath Bhadur	CSIR	1227000	03(1276)/13/EMR-II dt 12/04/13
24.	Development and Implementation of MPPT Algorithm for Solar Photovoltaics System under Uniform and Non-Uniform Irradiation Conditions	Dr. D. Devaraj	DST	895500	DST/TMC/SERI/2K12/26(G) dt 09/06/2014
25.	n-CARDMATH (Core Group Research Facility)- 6 Years Project	Dr. S. Arumugam n-CARDMATH	DST	21121600	SR/S4/MS: 427/07 dt 26 <sup>th</sup> March 2007

26.	Constructing the Hindi Spoken Language Database	Dr. Kyung Tae Kim	Human Media Tech. Co, Korea	1327600	International Minor Project (US\$ 20000) 28/03/16
27.	Intelligent phase failure control of distribution transform for Rural Areas/Remote Areas	Mr. M. Karuppasamy andian	IEEE AIYEHU M	33190	Minor Project
28.	Developing and Designing of Special Purpose Sampling Plans under the Weibull Life time model	Dr. S. Balamurali	DST	1140000	SR/S4/MS: 790/12 dt 11/09/2014
29.	IoT Based Power Management and Condition Monitoring in Micro Grid	Mrs. V. Agnes Idhaya Selvi and Mr. M. Karuppasamy andian	IEI	60000	R.5./2/PG/17-18/PG2018001 dt 07/07/17 (Minor Project)
30.	Machining and Erosion studies of Red mud an Industrial waste based Polymer matrix Composite	Dr. M. Uthayakumar/ Automobile	MEFCC	2700000	19-20/2012-RE dt 10/03/2016
31.	Supramolecular Underwater Adhesives using Cucurbiturils and Cyclodextrins	Dr. N. Selvapalam/ Chemistry	SERB	2824000	ECR/2015/000318 dt 11/03/2016
32.	Computational Studies on Binary Oxide Nanoclusters and their Applications in Catalysis	Dr. P. Selvarengan/ Physics	SERB	1907400	YSS/2015/001311 dt 11/05/2016

33.	Performance Investigation of Green Composite-A Formulated Microbial Organism Based Novel Bio-Resin	Dr. N. Rajini/ Mechanical Engineering	SERB	2314070	YSS/2015/001353 dt 12/07/2016
34.	Innovation and Entrepreneurship Development Centre (IEDC)	Dr. M.Jeyakumaran/ Business Administration	DST	4530000	11/04/2014 -NEB(C) dt 01/08/14
35.	Social Capital and Sustainable Livelihood Interventions among Irula Tribal Community in Tamil Nadu	Dr. K.M. Ashifa/ Social Work	NRDMS DST	733700	NRDMS/S C/ST/44/016(G) dt 17/10/2016
36.	Impact of Indian Soap Opera on Women Behavior: A Comparative Study in Tamil Nadu and Kerala	Dr. M.Jeyakumaran/MBA Dr. K.M. Ashifa/MSW	NCW	903000	16(66)/2015-16/NCW(RS) dt 31/07/17
37.	FIST	Dept. of ECE	DST	4200000	SR/FST/ET I-336/2013(c) dt. /10/2014
38.	Design of Phenothiazynylpyrimiding decorated novel heterocycles as antitubercular agents	Dr. C. Ramalingan/ Chemistry	ICMR	2100000	58/16/2013 -BMS dt 03/03/15
39.	Elucidation of Mechanism of adriamycin mediated male reproductive toxicity and recovery by restoration of epididymal adipose tissue	Dr. S. Arunachalam/ Biotechnology	SERB	379845	YS/LS-99/2013 dt 27/07/2016

40.	Experimental Investigation on the effect of pylon based injection in Modified Dual Combustion Ramjet Engine	Dr. S. Jeyakumar/ Aeronautical Engineering	DRDO	931750	ARDB/01/ 10411833/ M/I dt 19/01/17
41.	Experimental Investigations on Mixing and Combustion in a Modified Dual Combustion Ramjet Engine	Dr. S. Jeyakumar/ Aeronautical Engineering	SERB	2482970	EMR/2016/ 004160 dt 25/03/17
42.	Energy Saving through IoT Based Building Automation and non linear predictive controller	Dr. D. Devaraj/EEE Dr. Seshadhri Srinivasan, /ICE Dr. B, Subathra/ICE Mr. M. Karuppasamy andian/EEE	DST	2010360	TMD/CER I/BEE/201 6/088(G) dt 09/03/17
43.	Fabrication and Systematic Investigation on Novel Nano Crystalline Quaternary Cu <sub>2</sub> ZnSnX <sub>4</sub> (X=S, Se, Te) Thin Films as Absorber Layer for Solar Cell Application by SILAR method".	Dr. Asath Bhadur/ Physics	SERB	1863911	EMR/2016/ 006874 dt 04/08/2017
44.	Bio-Epoxy, Hemp Fiber Mat, Glass Fiber Mat, Characterization, Mechanical and Thermo Mechanical Properties	Dr. N. Rajini/ Mechanical Engineering	ISRF	161667	10.07.2019
<b>Total</b>				<b>105981155</b>	<b>105819488</b>



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### Office of Research and Development

Total No. of Completed IEDC Projects (2012-2019) : 34

Total Amount : Rs. 1,15,00,000

### List of IEDC Projects – Completed

Sl. No:	Title of the Project	Principal Investigator(s)	Funding Agency	Amount Sanctioned in Rs.
1.	Smart Evaluation in Agricultural Process	Faculty: B.Perumal Students : M.Rajnivash, M.Sivaram, M.Rajasekaran, M.Vinoth Department : Electronics and Communication Engineering	DST- IEDC	100000
2.	Low Cost Photomotography for Thyroid Dysfunction	Faculty: Dr.M.Pallikonda Rajasekaran, Dr.P.Sivakumar Students : S.Santhoshkumar, R.Rajasudharsan Department : Electronics and Communication Engineering	DST- IEDC	100000
3.	Semi Automated Air Filter Cleaning Device	Faculty: Dr.M.Udhayakumar Students : P.Karthikeyen, R.Manikandan ,S.Manojprabhakar Department : Mechanical Engineering	DST- IEDC	100000
4.	Recharging Electronics Cars With Nozzle and Horizontal Wing Turbine	Faculty: Mr.M.Sivasubramaniyan Students : K.P Alagu Rajeswarn , P.Annada Kumar , N.Annesh Sivaram and A.Rajakobal Department : Mechanical Engineering	DST- IEDC	100000



5.	Manually Operated Single Cylinder Triple Acting Pump	Faculty: Mr.M.Sivasubramaniyan Students : R.Karthisamy, N.Pradeep Kumar Department : Mechanical Engg.	DST- IEDC	100000
6.	Point of Sale (An App For Small Business)	Students: Prateek Gaurav B.Tech/CSE Divyanshu Vishal B.Tech/CSE S.Diselva B.Tech/CSE Guide : Dr. P. Deepalakshmi/CSE	DST- IEDC	100000
7.	Design of Economically Feasible Fluoride Removal Unit	Students: G.Selva Ganesan B.Tech Civil V.Suraya Prakash B.Tech Civil Guides: Dr. C.Sivapragasam /Civil Engineering Dr.T.Theivasanthi /Physics Mrs. S.Vanitha /Civil Engineering	DST- IEDC	100000
8.	Efficacy of Bio control Agents viz. <i>Pseudomonas sp</i> and <i>Trichoderma sp.</i> and control of onion diseases	Students: Selva vinothika B.Tech Biotech Ramya B.Tech Biotech Gopinath B.Tech Biotech Guide: Dr.N.Hariram, Food Technology	DST- IEDC	100000
9.	Implementation of Highly Automated UAV With GPS for Product Delivery	Students: P. Saravana kumar B.Tech ECE A.Jacynth Emril B.Tech ECE S.Karthika B.Tech ECE Guides: Dr.M.Pallikonda Rajasekaran, HOD/ECE Mrs. K. S.Dhanalakshmi/ Electronics and Communication Engineering	DST- IEDC	100000
10.	Indexing in Milling: A Geneva Mechanism Approach	Students: M.Akash B.Tech Manufacturing K.Manivannan B.Tech Manufacturing Guide: Dr.M.Uthayakumar/Automobile Engineering	DST- IEDC	100000
11.	Coin Based Mobile Charger	Mentor: Dr.B.Perumal/ECE Students: G.K.Sudharsan	DST- IEDC	100000

12.	Smart Water Supply Management System	Mentor: Mr.Krishna Paramathma/EEE Students: E.Ramkumar, K.Sekhar	DST- IEDC	100000
13.	Fabrication Of Multipurpose Bolt & Nut Remover And Joiner	Mentor: Mr.T.Raj Pradeesh/MECH Students: P.Manojkumar, P.Prakash V.Sarathkumar K.Vijayakumar	DST- IEDC	100000
14.	Beneficial Enzyme For Bio Processing Agro Industrial Waste	Mentor: Dr.N.Hariram/Bio Tech Students: G.Sandhanakrishan S.J.Sanmugapriya	DST- IEDC	100000
15.	Noise Reduction in Muffler of the exhaust System	Mentor: Dr.M.Udhyakumar Students: P.Nithish, G.Viknesh B.Adhijeganadhaperumal	DST- IEDC	100000
16.	Noise Reduction in Muffler	Adhijaganatha Perumal. B Nithish P B. Vignesh	DST Star-Up NIDHI	1000000
17.	Production of Biofungicide with Earthworm	Antara Roy B. Taj Sabreen Kota Durga Pravalliuua	DST Star-Up NIDHI	1000000
18.	Beneficial Enzyme for Bio processing Agro Industrial Waste	G. Santhana Krishnan N. Hariram Ihrana Banu. I Miguela Min. N	DST Star-Up NIDHI	1000000
19.	Smart Cart for Super Market	Pemmasani Manoj Kumar V. Ramachandran Vengal Rahul	DST Star-Up NIDHI	1000000
20.	Efficacy of Bio control Agents viz. Pseudomonas sp and Trichoderma sp, and control of onion diseases	Priyanka V. Vasudevan R Radha Lakshmi C B. Rakshana	DST Star-Up NIDHI	1000000

21.	Design and Development of Low Cost Photo motograph for Identification of Thyroid Dysfunction	Raja Sudharsan R D.S. Augustine Samel	DST Star-Up NIDHI	1000000
22.	Low Cost High Performance Inverter	Saurabh Kumar Sharma N. Vimal Shankar R. Porkodi	DST Star-Up NIDHI	1000000
23.	Design and implementation of low cost veterinary physiological monitor	Mentor: Mr.Sakthivel Mr.J.Deny Students: Abinaya.S AmlRaj.M Sujitha.L	DST	100000
24.	Fabrication Of Fixture To Perform Turning In Abrasive Water Jet Machine	Mentor: Dr.M.Udhyakumar Students: Mohan Kumar S Gowthamkumar V Manikandan S	DST	100000
25.	Polyethylene glycol coated prosthetic heart valve – A novel coating materials	Mentor: Dr. S. Rajesh Students: M.Greeshma Sen Shethra S.Pradeepa C.Maduraiveeran	DST	100000
26.	Biodegradable Packaging Film From Food Waste	Mentor: Ms.K. Chitradevi Students: C. Monisha V.S.S.Soumya V. Manosha	DST	100000
27.	Smart Hat For Visually Challenged Person	Mentor: Mr.P.Manikandan Mr.G.Ramesh Student: Baskar.V	DST	100000

28.	ECO friendly Manufacturing of Tiles from used PET Bottles (Pet Floor Tiles)	Dr.I.Siva VB. Saravanan G. Ramkumar	DST Start-Up NIDHI	1000000
29.	Low cost Smart Cleaner for Solar Panels	Mr. K.Vijayakumar G.P.Santhosh Ram M.Abubakkar Siddhik	DST Start-Up NIDHI	1000000
30.	Development Of Juice To Prevent Gastro-Intestinal Tract Cancer Using Banana Stems	Dr. K. Palanichelvam Mulla Sariyanaz N.S. Supraja Sahana Parveen	DST- IEDC	100000
31.	Bio Polymer And Graphene Nano Sheet Based Food Packing Material Which Can Be Efficiently Used For Carbonated Beverage Packaging	Mr. S. I. Jeyanth Allwin Ritujaree Anet B George Sreelakshmi	DST- IEDC	100000
32.	Development of Electronic Lockers with Multiple keys using Visual Cryptography Scheme	Dr. K.Suthendran Sai anand.M Harish R	DST- IEDC	100000
33.	Attachable Wheelchair Automator	Mr. G. Balamurugan A.Deepak Praveen K. Vijay R. Gurumoorthy	DST- IEDC	100000
34.	Smart Tube light	Dr.J.Deny Mr.V.Ramachandran R.Vengat Rahul	DST- IEDC	100000
				<b>11500000</b>