

**APJ Abdul Kalam Technological University
Thiruvananthapuram**

Abstract

APJAKTU - CERD - Engineering Colleges - Financial Assistance to Student Project - Administrative Sanction - Accorded -Orders issued.

CERD

U.O.No. 933/2021/KTU

Thiruvananthapuram, Dated: 15.06.2021

- Read:-*1. Minutes of the 1st meeting of Engineering Research Council dated 27.01.2010.
2. Minutes of 2nd meeting of Executive Committee dated 21.10.2010.
3. Meeting of the 2nd Research Council dated 29.02.2017.
4. Proposals of Student Project for Financial Assistance.
5. Screening Committee meeting held on April /May 2021 for evaluation of project proposals.

ORDER

Vide paper read 1st above, the Engineering Research Council had approved the scheme for Financial Assistance to Student Project for the Government Engineering College. Vide paper read 2nd above, it was decided to extend the financial assistance for the students project to the students of the Government aided and Government Controlled Engineering Colleges.

It was decided to extend the financial assistance to Students Project of all engineering colleges affiliated to KTU with NBA accreditation as per paper read 3rd above. It was also decided that the financial assistance will be provided as reimbursement of expenditure occurred for the sanctioned project.

The Screening Committee meetings held in April/May 2021 evaluated the project proposals forwarded from Engineering Colleges affiliated to KTU and recommended financial assistance to selected proposals as listed in Annexure 1.

Administrative sanction is therefore accorded for financial assistance to student project as detailed in Annexure I. The project shall be completed within a period of 1 year and the project should be completed with the students who presented the project before the Screening Committee.

The expenditure should be incurred as per the terms and conditions as per Annexure II. The amount will be reimbursed to the Principal of the concerned Colleges only after the successful completion of the project and on the production of certified bills & vouchers along with the audited utilization certificate, statement of expenditure and project completion report.

The expenditure shall be met from the Head of Account " S- 3- Research Activities-002-Innovative Student Project".

Orders are issued accordingly.

Sd/-

Dr. Shalij P.R *



Copy to:-

1. Principals of Engineering Colleges.
2. Principal Investigators.

* This is a computer system (Digital File) generated letter. Hence there is no need for a physical signature.



ANNEXURE-I - STUDENT PROJECT SELECTED LIST 2020-21

SI No	Name of Principal Investigator	Name of Student Investigators	College	Branch	Title of the Project	Consumables	Equipments	Travel	Contingency	Amount sanctioned
1	Dr. Sajith Vijayaraghavan	Athul T Devika Shaji Gaadha P Nath Shyama H	College of Engineering Trivandrum	ECE	Re-Vent: A Low-Cost Portable Ventilator for COVID-19	3500	30,000		1500	35,000
2	Dr. T Rajeev Professor	Ankith K Lekshmy P Merin Mariam Jose Sreejith KS	College of Engineering Trivandrum	EEE	Sustainable and Portable Electricity Delivery system	2000	18,000	1700	1500	23,200
3	Dr. Dinesh Gopinath Associate Professor	Adarsh M S Nair Basil P Mathew Jijo George Varghese Vishnu P Nambiar	College of Engineering Trivandrum	EEE	Photovoltaic array Emulator based on buck converter	5000	20,000	3000	3000	31,000
4	Jayakumar P Associate professor	Ansu Susan Bijoy Samanya Subash Maneesha Mohan HariPriya MD	College of Engineering Trivandrum	EEE	Intelligent Grid Tie Module		12,525	500	500	13,525
5	Sajitha M Assistant Professor	A Sreelesh Saajid KS Sreerag K Sreeraj S.	Govt. Engg. College, Sreekrishnapuram.	EEE	Smart Energy Meter with remote load switching And anti energy theft system.	10,000	22,000	1000	4000	37,000
6	Dr. Sreelakshmi R Professor	Arjun K Ajay Krishnan P V Haseeb Rahman V K Sinadin Zidan K	GEC Thrissur	CSE	An alert hardware system to prevent intruder animals in huge agricultural lands using machine learning	5000	20,000		2000	27,000
7	Biji G Assistant Professor	Jyothis J Joy Akbarsha Rahul Krishnan R Sini Sreekumar	GEC Barton Hill	EEE	Enhanced power quality electric vehicle changing system	6000	30,000	2000	2000	40,000
8	Sudheesh Kumar C P Associate Professor	Aakarsh S Abhilash P Abhinav K V Akshay C C	GCE Kannur	ME	Experimental investigation of rainfall induced noise from roofing sheets	10,000	30,000	5000	5000	50,000
9	Dr. Sajesh Kumar U Assistant Professor	Anupriya T V Aswin C P Harishma Hari Yadun Murali K	GCE Kannur	ECE	Design, verification and implementation of LoRa WAN based end to end communication system for air pollution monitoring	7500	24,000		2500	34,000
10	Dr. U Prakash Professor	C Satheesh Sanjay Kumar S Raamesh Bhardwaj Nidhin Mohan J	Sree Chitra Thirunal College of Engineering Trivandrum	ME	Hybrid supercapacitor battery pack in electric scooter	10,000	28,000	4000	3000	45,000



11	Dr. Lakshmi V S Assistant Professor	Midhun B M Midhun M Naveen Jo Sajan Neelima Anilkumar	Sree Chitra Thirunal College of Engineering Trivandrum	ECE	Automated Public Distribution System using Blockchain	5000	15,000		2500	22,500
12	Vineetha Lekshmy P V Assistant Professor	Abdur Rameez S Anjali N Anupa Pradeep Shona Maria Shaji	Sree Chitra Thirunal College of Engineering Trivandrum	BTBC	Synthesis of Nanocellulose from Tapioca (Manihot esculenta) stem and leaves and the formulation of a bionanocomposite film reinforced with tapioca starch and glycerol for bio-packaging	10,000	25,000		5000	40,000
13	Dr. R Sudhir Kumar Professor	Sai Prasanth N Jishnu S Novin Antony Sanal Kumar A	NSS College of Engineering Palakkad	ME	Development of Sensor Activated Safety System For Drowning Car	10,000	30,000	5000	5000	50,000
14	Dr. Sudha T Principal	Neha Rahul R Sreenidhi P A Vyjayanthi J Shenoy	NSS College of Engineering Palakkad	ECE	AI enabled remote medical assistant	5000	9000		1500	15,500
15	Dr. Sreelekshmy Pillai G Assistant Professor	AGNES MARIKJ ANCYMOL STANLEY ATHIRA P HARITHA MS	NSS College of Engineering, Palakkad	Civil	FACILE IRRIGATION	15,000	25,000	5000	5000	50,000
16	PRADIP C Associate Professor	KRISHNA PRASAD R NIHAL FARHAN K T SANEESH T T SANJU P P	NSS College of Engineering, Palakkad	EEE	GREEN CHARGING STATION	4000	15,500	2000	3000	24,500
17	Dr. Surya S S Assistant Professor	Mohamed Nazique V S Muhammad Niyas Vishnu V S Mohamed Fuaadh K P	NSS College of Engineering, Palakkad	Civil	Liquid speed breaker	10,000	20,000	5000	5000	40,000
18	Nikhil Binoy C Associate Professor	Anjali Shah Dilijith R Thejaswikrishna L Thoufeek M	NSS College of Engineering, Palakkad	EEE	Gas leakage prediction and automation using Artificial neural network and Internet of Things	5000	20,000	1000	4000	30,000
19	Eldho Paul Assistant Professor	Thomas Chacko Adash V M Nevil Abraham Elias Sourav Sunil	Mar Athanasius College of Engineering, Kothamangalam	ME	Design and fabrication of Sapling planting machine	10000	17,000	5000	5000	37,000
20	Thomas Mohan Assistant Professor	Alwin Mathew Bennet Mathew Krishnakumar V S Sanjay Shajan	Mar Athanasius College of Engineering, Kothamangalam	ECE	Intelligent System of Crop fencing from wild animal attacks	5000	15,000		2500	22,500
21	Dr. Siddharth Shelly Assistant Professor	Minnu Varghese Rohit Deepak Rugma N Shaji Thejus K.	Mar Athanasius College of Engineering, Kothamangalam	ECE	Navigation Method for Visually Impaired	2000	7500		2000	11,500



22	Thomas P Rajan Assistant Professor	Krishnaprasad T S Tom Jacob Bazil Bijoy Ruby N A	Mar Athanasius College of Engineering, Kothamangalam	EEE	A Fully Automated Nutmeg Decorticator and Grader of Seed Quality using Artificial Intelligence- Machine Learning	5000	25,000	1000	4000	35,000
23	Dr. Jisha P Abraham Professor	Amith Eldho James Arjun S Madhav Sunil	Mar Athanasius College of Engineering Kothamangalam	CSE	Bionic Arm with Augmented Reality Control System	4000	42,000		2000	48,000
24	Sobhiraj N. Assistant Professor	Arya Krishnan M Anjana V S Feby Elizabeth John Gayathri V R	College of Engineering, Kottarakara	ECE	Automated Corona Prevention System	3000	6000		1500	10,500
25	Reji A R Assistant Professor	Bobby R P Arjun R Augustine A V Veena U	College of Engineering & Management, Punnapra	EEE	RF BASED MARINE TRACKING AND COMMUNICATION SYSTEM FOR SMALL FISHING BOATS	1000	7000	1000	3000	12,000
26	Dancy Kurian Assistant Professor	AnilaKunjumon Elizabeth John Rafiya Al Ebrahim Rekha Treesa George	College of Engineering Karunagappally	CSE	An Automatic Entry System With Covid-19 Transportation Protocol and Ticket Validating Mechanism	12,000			3000	15,000
27	Rajesh P Assistant professor	Hareth Chandrasekar Sangeeth S Santhosh Shihas S Vaishak J	College of Engineering Pathanapuram	ECE	Arduino based real time drowsiness and fatigue detection smart helmet with wiper	2000	3500		2000	7500
28	Minu Ann Jacob Assistant Professor	Alan Bince Arun Joseph Ristha R Steve Rozario	Model Engineering College, Thrikkakara	ECE	Hand exoskeleton for stroke rehabilitation	1500	30,000		1000	32,500
29	Dr Minimol B Associate Professor	Abhida P Vijayakumar Amisha Surendren Deepika S Namitha Shajan	Model Engineering College, Thrikkakara	ECE	Cardiac Imaging using body surface potential mapping	4000	16,000		2500	22,500
30	Vineetha K V Assistant Professor	Albin Kottaram	Model Engineering College, Thrikkakara	CSE	Open Source Game Engine with OpenGL		50,000			50,000
31	Zareena Jamaluddin Assistant Professor	Sikhin V C Rinu Wilson Sandeep K V Jubin Johny	TKM College of Engineering	ECE	Automatic traffic rule violation monitormg system	3000	10,000		2500	15,500
32	Kavitha Madhu Associate Professor	Sikhin V C Shwetha S	TKM College of Engineering	Civil	Overtaking accident prevention system	10,000	13,000			23,000
33	Dr. Bipin P R Associate Professor	Krishnaraj R Megha Sunil Nihala Suman M N Rose Mary Benedict	Adi Shankara Institute of Engineering & Technology	ECE	Development of a remote cardiac health monitoring system for COVID'19 patients using deep learning	3000	11,000		2500	16,500



34	Divya G Assistant professor	Aiswarya P L Krishna Chandran Ajay Suresh	Adi Shankara Institute of Engineering & Technology	CSE	Wrist wearable quarantine tracker using geo- fencing	8000			2000	10,000
35	Dr. Rejeesh C R Associate Professor	Basil Sunny Alukka Issac Paul	Federal Institute of Science And Technology Ernakulam	ME	Physio-Mechanical characterization of light weight composite pavement tiles made from recycled expanded polysterene.	5,000	15,000	5000	5000	30,000
36	Noble G Assistant professor	Meera R Jona Elsa Joy Upanya U Pai Sanjana Joshy	Federal Institute of Science And Technology Ernakulam	ECE	Fast walk through gateway	7500	12,500		3000	23,000
37	Muhamed Noufal C Assistant Professor	Daniel Sunny Delwin D Arickal Jerom Joyan Krishna Prasad N	Federal Institute of Science And Technology Ernakulam	EEE	DESIGN AND DEVELOPMENT OF A LOW COST HOME AUTOMATION SWITCH	5000	5000	2500	2500	15,000
38	Dr. Jestin Joy Assistant Professor	Anupriya Dominic Betty Perumayan Dharwish Raj Haneena Mohamed	Federal Institute of Science and Technology Ernakulam	CSE	Investigating the accessibility of University websites in the state of Kerala	2000		1500	1500	5000
39	Kapil Das Assistant Professor	Abdul Habeeb Abhijith M P Arjun A R Rejo C J	Jyothi Engineering college Thrissur	EEE	IoT based fault detector for power distribution lines	2000	7500	1000	2000	12,500
40	Dr. Rajesh T N Associate professor	HarishankarS Madhav Mural Aswin A Asokan Rejath R S	Mar Baselios College of Engineering and Technology, Thiruvananthapuram,	ME	Design and development of a centrifugal supercharger system for lean supercharging of a single cylinder SI engine	10,000	12,500	5000	5000	32,500
41	LANI RACHEL MATHEW Assistant Professor	ANEETA SABUDEEPTHI G A SOWMIYA V V S DEVIKA	Mar Baselios College of Engineering & Technology Thiruvananthapuram	ECE	Speech therapy system for Cleft Lip/Palate Patients	2500	6500		2000	11,000
42	Arun J.S Assistant Professor	Anjana Santhosh Arun Y Meenakshy Sunil	Mar Baselios College of Engineering & Technology Thiruvananthapuram	ECE	Voice Actuated Backrest For Paralysis Palliation	2000	5000		2000	9000
43	Dr. Neethu Roy Professor	Athira V R Difani M Saji Malavika V Roshan Shaji	Mar Baselios College of Engineering & Technology Trivandrum	Civil	Development of a flexible pavement design strategy for highways considering the effect of dynamic loading	2100	18900	3000	2000	26,000



44	Dr. Jisha S V Assistant Professor	Anju Stephen Anusha Babu Tony T Joseph Haris Ahammed S	Mar Baselios College of Engineering & Technology Thiruvananthapuram	Civil	Evaluation of the performance of ultra thin white topped pavement incorporating geosynthesis	2500	9500	2000	3000	17,000
45	Dr. Tessy Mathew Associate Professor	Bharath T U Kavya Suresh Sikha Shaji Subalesh S	Mar Baselios College of Engineering & Technology Thiruvananthapuram	CSE	Identifying texting idiolects using transformers				10,000	10,000
46	Sheenu P Assistant Professor	Noel Mathew Jacob Vaishnavi Sreekumar	Mar Baselios College of Engineering & Technology Thiruvananthapuram	EEE	IoT based dam monitoring and Pre disaster management	4000	5000	1000	2000	12,000
47	Dhanya Mathew Assistant Professor	Diana John Esther Gayathri G R Kripa Bi noy Neha S S	Marian Engineering College Trivandrum	ECE	Smart assistive device for speech impaired using silent sound technology		5000	1000	2500	8500
48	S. Nurulhidaya Assistant Professor	Sneha Schristopher Ashik Muhammed Arya A V Elza Elezabeth Joseph	Marian Engineering College Trivandrum	ECE	Remote health monitoring for covid -19		6000		2500	8500
49	Deepu R S Assistant Professor	Akhil V S Lakshmi B S Cindrella Gilson Mohammed Akshay S	Marian Engineering College Trivandrum	EEE	Prepaid Energy meter with e - wallet	10,000	5000	1000	4000	20,000
50	Dr Archana J Satheesh Assistant Professor	Farha S Fathima Mohammed Sajin Salim Nikhil P Joseph Nishara S J	Marian Engineering College Trivandrum	Civil	Utilization of Pulp Black Liquor as admixture in concrete	8000	15,000	3000	5000	31,000
51	Nishley Elizabeth Joseph Assistant Professor	Vaishnav G Sandra Sivaprasad Megha M S	Marian Engineering College Trivandrum	CSE	Student Pay (S-Pay) - Secure payment system for students	6000			2000	8000
52	Neethu Sajeev Assistant Professor	Shefaana Sharin Sreelakshmi N Thaha Mussamil K	MEA Engineering College Malappuram	EEE	Voting System with Fingerprint Sensor and GSM	9000		1000	3000	13,000
53	Dr. Neelakantan P C Principal	albin Kuriakose Vaishnavi G Rao Joseph D Kalapurackal Anjana P	Muthoot Institute of Technology and Science Cochin	ECE	Deep learning for wireless channel estimation		15,000		2500	17,500
54	Dhileep M Associate Professor	Aswin V Adhithya V Raghav Gadha V Gopan Reuben John Cherian	Muthoot Institute of Technology and Science Ernakulam	Civil	OCEAN WAVE ENERGY HARVESTING SEAWALL	5600	16,875	2125	2400	27,000



55	Sunith John David Assistant Professor	Ansa Muhammed Jeeva Maryam Oommen Reshma Raj R Samal Ummer	Muthoot Institute of Technology and Science Ernakulam	Civil	AUTOMATED INFILTRMETER	8000	15,000	2500	2500	28,000
56	Dr. Gylson Thomas Professor	Vishal V Kurup Rahul G Kartha Rahul KR Elna T.Thampi	Muthoot Institute of Technology & Science Ernakulam	EEE	Portable Emergency Mechanical Ventilator	5000	10,000	3000	2000	20,000
57	Dr. Manoj G Tharian Associate Professor	Alan James Hamza Ramzan Zafar Jobin Francis Joel John	Rajagiri School of Engineering & Technology Ernakulam	ME	Design and development of anatmospheric water generator using thermoelectric ccooling	10,000	17,000	5000	5000	37,000
58	Vineeth Krishna P Assistant Professor	Sam Mathew Tharachan Prathik Thomas Mathew Marina Jacob Yash Rakesh	Rajagiri School of Engineering & Technology Ernakulam	ME	Foldable boat	10,000	10,000	5000	5000	30,000
59	Dr. Rajesh Baby Associate Professor	Jayadevu P R Bevin Prakash Mathew Felix Devasia Arun Asok	St. Joseph's College of Engineering and Technology, Palai	ME	Design and development of an Origami Inspired Gripper for picking objects of variable geometry	5000	17,000	5000	5000	32,000
60	Dr. Giby Jose Associate Professor	Anjitha Theres Thomas Amalu Sebastian Christo Johns Joel George	St. Joseph's College of Engineering and Technology, Palai	ECE	Automatic braking system in handicapped scooter	5000	2000		3000	10,000
61	Anto Manuel Assistant Professor	Sooraj Seby Anson Merlin Mathew Sony J Thomas Renu R	St. Joseph's College of Engineering and Technology, Palai	ECE	MEDIGLOVE	1000	2000		2000	5000
62	Ritwik. A Assistant Professor	Joel Thomas Shamily TP Sudhi.S Zepheniah C Joseph	Toch Institute of Science & Technology Ernakulam	ME	Design and fabrication of portable fumigating vehicle	10,000	17,000	5000	5000	37,000
63	Sivi Varghese Assistant Professor	Anand P K Noval Joseph Rohith Ashiq Shaj	Toch Institute of Science & Technology Ernakulam	ME	Estimation of fire safety distance using heat flux sensors and predicting thermal hazards from process industry fires.	7000	11,000	3500	3500	25,000
64	Dr. G Glan Devadhas Professor	Robin Jose Jiss Mathew	Vimal Jyothi Engineering College Kannur	ECE	Road safety and navigation assistance system	4000	10,000		2500	16,500
65	Jijo Joseph Assistant Professor	Anandhapadmanabhan M Rijil T Anil Jeswin Thomas Dilnet Sajeev	Vimal Jyothi Engineering College Kannur	EEE	Myoelectric prosthetic hand	3500	20,000	1000	2000	26,500



Annexure II

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
Centre for Engineering Research and Development
Terms & Conditions for Financial Assistance to Student Projects**

1. The amount has to be utilized as per budget provision under each head.
2. The purchase of equipments shall be in accordance with the store purchase rules. All equipment purchased will be the property of CERD and the stock entry of the items purchased shall be maintained in the College. Purchase of computers/peripherals is not allowed unless specifically mentioned in the sanction order.
3. The stock entries of consumables purchased shall also be done in the consumables stock register of College. Purchase of stationery shall be for project purpose only. Printing charges for multiple copies of the project report will not be admissible.
4. The maximum duration of the project is one year from the date of sanction. It is the discretion of the University to settle amount towards the purchase of those items not clearly mentioned, if any, in the project proposal.
5. On completion of the project, detailed report of the research work, audited statement of accounts and Utilization Certificate in the prescribed format duly attested by the head of the institution shall be submitted within one month of completion of the project for reimbursement of expenditure. Requests for reimbursement shall not be considered after the date of submission of documents as above.
6. On all publications resulting from the finding of the research/project of CERD, due acknowledgement shall be given to CERD under KTU.
7. Book or literature purchased, if any, should be taken into the Stock Register of Central Library or Department library and then distributed to the investigators.
8. The expenditure under the head Others is admissible as per the budget proposed. All other expenditure has to be included in the head Contingencies.

Title of Project:

Signature of Principal Investigator:

Name :

Office address:

