SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, New Delhi / Affiliated to Anna University / Accredited by NAAC)
Dindigul – Palani Highway, Dindigul – 624 002

DEPARTMENT OF MECHANICAL ENGINEERING

SPONSORED RESEARCH

Project Title	Duration	Funding Agency	Amount
Development of vibration free milling fixture using Machine learning and loT	3 Years	AICTE Research Promotion Scheme (RPS)	1796780
Implementation of Crop Recommendation system through digitized agricultural metrices using IoT	1 Year	Unnat Bharath Abhiyan (UBA)	100000
Investigate the Mechanical Properties of e-glass and s- glass fibre reinforced with polymer matrix composites	-	Tamilnadu State Council for Science and Technology (TNSCST)	7500
Reducing Space Debris by returning satellites to the earth probably before deterioration of satellites	-	Tamilnadu State Council for Science and Technology (TNSCST)	7500
Extraction of Bio oil through electronic waste	-	Tamilnadu State Council for Science and Technology (TNSCST)	7500
TOTAL			**189280**

AQIS ID: 1-9324127162

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION
Nelson Mandela Marg, Vasant Kunj,
New Delhi-110070

RPS - Sanction Letter

File No. 8-107/FDC/RPS/POLICY-1/2021-22 **Date:11.03.2022**

The Drawing and Disbursing Officer
All India Council for Technical Education
Nelson Mandela Marg,
Vasant Kunj, New Delhi-110070,

Sub: Release of a sum of Rs. 1572182/- being the 1st installment of the total grant of Rs. 1796780/- for conduct of Project under Research Promotion Scheme (RPS) during the financial year 2021-22.

Sir,

With reference to the proposal submitted by the institute, this is to convey the sanction of the Council for payment of **Rs. 1572182/- (Rupees Fifteen Lakh Seventy Two Thousand One Hundred Eighty Two Only)** as 1st installment out of a total approved grant-in-aid of **Rs.1796780/-** for conduct of a Project under the Research Promotion Scheme (RPS), as per details given below:-

I.	Name and address of the Beneficiary Institution (University / College / Institution)	:	**Registrar / Director / Principal, SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY, KUTTATHUPATTI VILLAGE, BEGAMBUR POST, DINDIGUL TALUK, DINDIGUL DISTRICT-624002, TAMIL NADU**
II.	Principal Investigator's Name & Dept./Course	:	**Dr. KANDASAMY SUNDARARAMAN (MECHANICAL ENGINEERING)**
III.	Co-Principal Investigator's Name & Dept.	:	**MURUGESAN SABAREESWARAN (MECHANICAL ENGINEERING)**
IV.	Grant-in-aid Sanctioned	:	**Rs. 1796780/-** (Rs. 1347585/- for non-recurring and Rs.449195/- for recurring expenditure)
V.	**Amount to be Released during the year 2021-22 (as 1st installment)**	:	**Rs. 1572182/-** (Rs. 1347585/- Full amount of non-recurring & Rs. 224597/- recurring i.e. 50 % of total sanctioned recurring grant)
VI.	Project Duration	:	**3 Years**
VII.	Title of the Project	:	**Development of vibration free milling fixture using machine learning and IoT**

I. Release of funds:

1. The amount of the grant shall be drawn by the Drawing and Disbursing Officer (DDO), All India Council for Technical Education, New Delhi on the Grants-in-aid bill and shall be disbursed to and credited to the account of SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY, KUTTATHUPATTI VILLAGE, BEGAMBUR POST, DINDIGUL TALUK, DINDIGUL DISTRICT-624002, TAMIL NADU through **PFMS**.
2. The sanctioned grant-in-aid is debitable to the **Major Head "601.12.a (RPS Plan)" Gen.** and is valid for payment during the financial year 2021-22.
3. The sanction issues in exercise of the powers delegated to the Council. It is also certified that grant-in-aid is being released in conformity with the rules and principles of the Scheme.
4. The grant-in-aid is being released in conformity with the Terms & Conditions as well as norms of the scheme as already communicated and also being communicated in this letter.

II. Maintenance of account by the Institute/PI:

1. Funds covered by this grant shall be kept separately and would not be mixed up with other funds so as to know the amount of interest accrued on the grant.
2. The grant is intended to cover items of expenditure/equipment approved by AICTE.
3. Acknowledgement of receipt of grant and letter of acceptance of terms and conditions is to be submitted to AICTE **within 15 days** from the receipt of the grant to the following address:

Director (Faculty Development Cell), AICTE, Nelson Mandela Marg, Vasant Kunj, New Delhi-110070

Contd...2/-

4. The accounts of the grantee will be opened for test check by the Council or Comptroller & Auditor General of India or by any officer designated by them.

5. The Principal and PI of the institute are requested to verify the correctness of the undermentioned bank account/RTGS/**PFMS** details submitted by them alongwith the Proposal, in which the grant is being released. In case of any omission, the same should be reported to AICTE immediately along with refund of entire grant: -

Institute Pan No.	Bank Name	Bank Branch	Bank Branch Add.	Account Holder Name	Account Type	Account Number	IFSC Code
AAFTS8948G	CANARA BANK	NAGAL NAGAR	DINDIGUL-624003	SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY	Current Account	62023050000046	CNRB0016202

6. The grantee Institution shall observe all financial norms and guidelines as prescribed by the AICTE/Government of India from time to time. Grantee institution must follow GFR guidelines in procuring the sanctioned items and maintain an audited record of assets acquired wholly or substantially out of the grant-in-aid and a register for assets shall be maintained by the Institute in the prescribed form i.e. GFR-19.

7. **Interest accrued on the sanctioned grant-in-aid will be reported and refunded to AICTE and not adjusted against the subsequent installment.**

III. General Instructions:

1. It should be ensured that no RPS project in favour of the same P.I. has been sanctioned during the last 03 years before utilizing this amount and the matter be brought to the notice of this Council immediately in case a faculty is sanctioned multiple RPS Projects.

2. The duration of Project is 03 years and the **date of release of the grant by AICTE shall be taken as the date of commencement of the project**. The **Registrar/Director/Principal** shall intimate about the receipt of the grant to AICTE. Any Expenditure, incurred prior to issuance of this Sanction Order, would not allowed to be adjusted in the grant and if the University/Institution do not take-up the project work **within 6 months** of the receipt of the grant, approval shall *ipso facto* lapse **and the Institute has to necessarily refund the entire grant to AICTE along with interest within a month. In case the grant is not refunded within said duration 18% interest will be levied on it.** The grant has to be refunded to AICTE, through RTGS as per details given below:

Account Number	**55113199952**
Name of the Account Holder	**Member Secretary, AICTE, New Delhi**
Bank Name	**State Bank of India**
Branch Name	**Shashtri Bhawan, New Delhi**
IFSC Code	**SBIN0050203**

3. The Institute may constitute a Project Monitoring Committee (PMC). The composition of the PMC shall be as under:
   i. Principal/Director of the institution (Chairperson)
   ii. Two HODs from institute (Members)
   iii. In case of private institute one subject expert from government institute, not below the rank of Associate Professor (Member)
   iv. Coordinator of the project (Member Secretary)

4. The grant shall be utilized strictly for the purpose as specified in the sanction letter. Re-appropriation of funds from one Head to another is strictly not permitted viz. Recurring and non-recurring Heads. Further, the equipment(s)/item(s) purchased should be as per the specifications and individual item-wise costs sanctioned by AICTE, and not taking the total grant sanctioned as one entity. Item-wise purchase cost shall be matched with the sanctioned cost, and the cost of item purchased below the sanction cost shall be restricted as actual cost. If the item purchase cost is higher than its sanctioned cost, the cost shall be restricted to the sanctioned cost and the additional amount shall be met by the Institute from its own resources.

5. Similarly, the recurring grant can be used for the items (non-recurring) sanctioned by the AICTE. No money be used for going abroad to attend Conference / seminars. However, for presenting a Paper in a Seminar / Conference **within the country,** the travel expenses may be met from the recurring grant.

Contd...3/-

6. No request for additional grant over and above the sanctioned grant shall be considered by the AICTE. The additional amount, if any, expended beyond the sanctioned grant shall be met by the Institute from its own resources.

7. The institute/University shall not charge any overheads on this Project and will provide all the administrative support **and timely release of grant to PI** for completion of the Project.

8. The grantee shall utilize grants only on approved items as per list of equipment attached. However, if the grantee wishes to recast the Project, approval of Council must be obtained for the revised item of expenditure and they will maintain proper accounts of the expenditure as per the norms/procedures of AICTE/Government of India. **The revised proposal should be within the total grant sanctioned and duly supported with reasons and recommendations of the Project Monitoring Committee (PMC).**

9. The assets acquired wholly or substantially out of All India Council for Technical Education's grant shall not be disposed or encumbered or utilized for the purpose other than those for which the Grant was given without proper sanction of the All India Council for Technical Education.

10. Each project sanctioned by AICTE is assigned a specific Reference Number, which is given on pre-page. All correspondence address to AICTE regarding the project must quote this number alongwith year of sanction of the project, otherwise correspondence may not be entertained.

11. The grantee shall follow the terms and conditions of Research Promotion Scheme (RPS) as laid down by the Council from time to time.

IV. Submission of documents by the institute/PI to AICTE:

A. Documents to be submitted within one month of completion of each financial year:

i. Annual Progress Report, indicating therein the number of patents, publications or any other achievement.

ii. Utilization Certificate, Audited Utilization Certificate, Receipt & Payments, Statement of Expenditure.

iii. Audited record of assets acquired wholly or substantially out of the grant-in-aid and a register for assets in the prescribed form i.e. GFR-19.

iv. Separate Bills/vouchers related to Non-recurring and recurring expenditures duly signed & stamped by the PI & Head of the institution.

v. Stock entry register duly verified by the Store-in-charge and PI & counter signed by Head of institution.

B. Documents to be submitted within two month of completion of the Project:

i. The consolidated Utilization Certificate (UC) and Receipt & Payment Account for the Project duration, duly audited.

ii. Consolidated audited statement of expenditure, to the effect that the grant has been utilized for the purpose for which it has been sanctioned. It should contain the head-wise break up of expenditure made from the grant-in-aid provided by the Council.

iii. Project Completion Report duly signed & stamped by the PI & Head of the institution and Project Evaluation Committee (PEC) Members.

iv. Principal Investigator/institute to submit the Feed Back Form in AICTE format.

v. The prescribed formats for submission of necessary mandatory documents and Terms & Conditions may please be downloaded from **www.aicte-india.org/schemes/research-innovations-development-schemes.**

Note: Any deviation from the above said time schedule will cause serious action against the institute.

Contd.....4/-

V. Approved List of Items under Non-recurring grant:

S. No.	Approved Items (As per proposal)	No. of Units	Amount recommended (in Rs.)
A.	Non-recurring		
i)	CNC Milling machine Model: PIMENTO	1	Rs. 1347585/-
ii)	IoT 2040 Industrial Gateway	1	
iii)	SENSOR MODULES FOR ALL THE WIRELESS NODES	1	
iv)	iCOMOX™ Condition Monitoring Solution Kit	1	
B.	Recurring i.e. 50% of total approved recurring grant) for Contingencies & Consumables only		Rs. 224597/-
	Grand Total (A) + (B)		Rs. 1572182/-

Copy forwarded for information and necessary action to:

1. REGISTRAR / DIRECTOR / PRINCIPAL,

   SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY,
   KUTTATHUPATTI VILLAGE, BEGAMBUR POST, DINDIGUL
   TALUK, DINDIGUL DISTRICT-624002,
   TAMIL NADU

2. NAME OF PRINCIPAL INVESTIGATOR,

   Dr. KANDASAMY SUNDARARAMAN,
   (MECHANICAL ENGINEERING)
   SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY,
   KUTTATHUPATTI VILLAGE, BEGAMBUR POST, DINDIGUL TALUK,
   DINDIGUL DISTRICT-624002,
   TAMIL NADU

3. OFFICE OF DIRECTOR GENERAL OF AUDIT
   GENERAL REVENUES, AGCR BUILDING
   I.P. ESTATE, NEW DELHI-110002.

4. GUARD FILE

Amit K.I.
14/3/22

(Dr. Amit Kumar Srivastava)
Director (FDC)

TAMILNADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY
DOTE Campus, Chennai-600025

STUDENT PROJECT SCHEME 2019-2020
APPROVED LIST OF PROJECTS - ENGINEERING STREAM

No.	Guide Name & Address	Title of the Project	Student(s) Name	Code	Amt. Rs.
Chemical Engineering					
1.	Dr.M.Rengasamy Assistant Professor Dept. of Petrochemical Engg, Anna University Tiruchirappalli-620024	Fabrication of capillary action crude oil removal and recovery model to clean up oil spills	V.Krishna Theja S.Manojkumar V.Vijayakumar	CHE-001	7500/-
2.	Dr.N.Samsudeen, AP & Dr.K.M.Muthukumar Professor Dept. of Chemical Engg National Institute of Tech. Tiruchirappalli-620015	Simultaneous electricity and bio butanol production from industrial waste water treatment using microbial fuel cell	Khadeeja Parveen	CHE-002	7500/-
3.	Mr.S.Yuvaraj Assistant Professor Dept. of Chemical Engg Adhiyamaan College of Engg, Hosur-635109	Experimental investigation on extraction (Soxhlet + Microwave assisted) and drying characteristics of red dragon fruit (Hylocereus polyhizus)	Arun R Kabileeshwaran S Muthupandi S Nandhakumar T	CHE-003	7500/-
4.	Mr.M.P.Murugaesan Assistant Professor Dept. of Chemical Engg Erode Sengunthar Engineering College Erode-638057	Production of the oral dosage form for the treatment of cholestrol and vitamin deficiency from the natural source	J.V. Dhanagopal M.S.Idhikaskumar A.Aravinth R.Hariharan	CHE-004	7500/-
5.	Dr.R.Palani Associate Professor Dept. of Chemical Engg Sri Venkateswara college of Engineering, Sriperumbudur-602 117	Removal of Chromium(VI) from contaminated water by using the petals of banana blossoms	I.Becky Miriyam	CHE-005	7500/-
6.	Dr.M.D.Duraimurugan Professor Dept. of Petro Chemical Technology Excel College of Engg and Technology, Namakkal-637303	Extraction and recovery of azo dye into an anionic liquid	Kanchaiya Kumar Sumit Kumar Sajid Ahmed K Mohamed Arshad Mahboob N	CHE-006	7500/-
7.	Dr.C.Gomadurai Associate Professor Dept. of Chemical Engg Kongu Engg College Erode-638 060	Experimental Studies on leaching of copper from chalcopyrite using mixed solvent	C.Prabhu V.Shree Ram R.Vinith	CHE-007	7500/-
8.	Mr.D.Sreenivasan Assistant Professor Dept. of Chemical Engg., Paavai Engg College Namakkal-637018	Isolation of Chitin and Chitin derivative from shell waste (Scylla serrata)	A.Suresh Babu S.Parandhaman P.Adnan Sreerag Manikandan	CHE-008	7500/-
9.	Dr.S.Satheeskumar Professor Dept. of Nanotechnology KSR College of Tech Namakkal-637215	Electroless deposition of copper - zinc oxide nano particle on banana bark fiber silk to produce high efficient anti-bacterial bandages	S.Praveen Kumar	CHE-009	5500/-

300.	Dr. R. Karpagam Associate Professor Dept. of EEE Easwari Engg. College Chennai - 600 089	Batteries Replaced Electric Vehicles using Nano Filler Embedded High Energy Density Capacitor	B. R. Harini S. Hamsapriya R. Aparna	EEE-173	7500/-
301.	S.Lekashri ECE/Assistant Professor King Engineering College Irungattukottai Chennai – 602 117	Rescuing the child from bore well using robotic Arm	S.Esther Beula J.Jenifer James J.Jenifer C.R.Besly Veda Evangeline	EEE-174	7500/-
302.	Dr. K. Manoharan Associate Professor Dept. of ECE SVS College of Engg. Myleripalayam Coimbatore - 642 109	Wildlife animal health monitoring and location tracking	K.Ajithprakash M.Baranidharan S.Josika P.Kirba	EEE-175	7500/-
303.	Dr. S. Selvaperumal Professor & HOD Dept. of EEE Syed Ammal Engg. College Ramanathapuram-623 502	Cyber Security analysis of Substation automation system	M.Parthiban Vivek A.Rajarajan S.Bharathi kumar	EEE-176	7500/-
304.	Mr. T. Kamalakumar Asst. Professor Dept. of EEE T.J.S. Engineering College Thiruvallur - 601 206	Automatic Fault Detection and Location of Transmission Lines using IoT	S. Rahul L. Sathish Kumar M. Santhosh Kumar	EEE-177	7500/-
305.	Mr. S. Balakrishnan Asst. Professor Dept. of ECE The Kavery Engineering College, Salem - 636 305	Aadhaar linked fingerprint and QR reader based voting machine	K.Amudharasi E.Abirami D.Karthika S.Sandhiya	EEE-178	7500/-
306.	Mr. K. Manikandan Asst. Professor/ Biomedical Engineering Vel Tech Multi Tech Dr. Rangarajan Dr. Sagunthala Engineering College Avadi, Chennai - 600 062	lower limb rehabilitation using motorized theapeutic training for paraplegia	Deepika.E Gayathri.J Thanjua.S.B	EEE-179	7500/-
307.	Dr. P. Velmurugan Associate Professor Dept. of EEE St. Joseph College of Engg Chennai - 600 119	Supercapacitor based storge system for effciency improvement of electric vehicles	Siva D Stabin S Vignesh K S V	EEE-180	7500/-

Mechanical Engineering

308.	Dr. R. Venkatesh Head/ Mechanical Engg. Kongunadu College of Engineering and Technology Trichy - 621 215	Smart solar air heater for drying agricultural products	S. Nithishkumar M. Praveen Kumar T. Ragavan P. Raja	EME-001	7500/-
309.	Mr. S. Balamurugan Assistant Professor Dept. of Mechanical Engg KSR Institute for Engineering and Technology Tiruchencode - 637 215	Design and analysis of I.C.Engine piston with ceramic coating	V. Bharath E. Boopathi Raja K.M. Boopathy K. Chandrasekar	EME-002	7500/-

310.	Mr. S. Sivaselvan Assistant Professor Dept. of Mechanical Engineering N.S.N. College of Engineering and Technology Karur - 639 003	Design and fabrication of multipurpose mini CNC machine controlled by lab view software	B. Subashkrishna C. Tamilselvan N. Tamilselvan	EME-003	7500/-
311.	Mr. S. Thiagarajan Assistant Professor Dept. of Mechanical Engineering Easwari Engineering College Chennai - 600 089	Design and fabrications of automatic solar tracking system with panel cleaning mechanism	G. Ragav Thilak G.R. Niranjan Harikumar J. Prasanth	EME-004	7500/-
312.	Dr. G. Sakthivel Associate Professor School of Mechanical and Building Sciences Vellore Institute of Technology Chennai - 600 127	Smart portable exoskeletal upper limb rehabilation robot for paralyzed person	S. Manoj Srivatsn	EME-005	7500/-
313.	Mr.M. Senthilvel Assistant Professor Dept. of Mechanical Engineering PSG Institute of Technology and Applied Research Coimbatore - 641 062	Reusing graphite from waste batteries as additives to enhance the performance of the engine	S.R. Sanjay S. Agal Nivetha S. Arun Prakash V. Bharatharavinth	EME-006	7500/-
314.	Dr. M. Arockia Jaswin Professor Dept. of Mechanical Engg. Velammal Engineering College, Chennai - 600 066	Eco-friendly paper bag from water hyacinth to replace polythene bag	A. Santhosh B. Santhosh N.Ramkumar	EME-007	7500/-
315.	Mr. M. Vijay Anand Assistant Professor Dept. of Mechanical Engineering Kongu Engig. College Perundurai - 638 060	Design and fabrication of a vehicle for physically disabled people	C. Yogeshwaran D. Vetri Vel V. Vignesh	EME-008	7500/-
316.	Mr. S. Arulkumar Assistant Professor Dept. of Mechanical Engineering Dr. Mahalingam College of Engg and Technology Coimbatore - 642 003	Smart stair climbing wheelchair	V. Rahavan	EME-009	7500/-
317.	Mr. C. Jayabalan Assistant Professor Dept. of Mechanical Engg. R.M.K. Engg College Kavaraipettai - 601 206	Fabrication of automatic side stand with brake locking system	N. Barath Saai Saghar U. Karthik Raj M. Dhaneshwar Mishra	EME-010	7500/-
318.	Dr. Suresh kumar Assistant Professor Dept. of Mechanical Engineering K. Ramakrishnan College of Technology Tiruchirappalli - 621 112	Experimental analysis of heat transfer in a heat pipe by nano-fluids	C. Pradheep R. Raghul E. Richard Philips Browne T. Thangadurai	EME-011	7500/-

319.	Dr. G. Balaji Assistant Professor Dept. of Aeronautical Engineering St. Peter's College of Engg and Technology Chennai - 600 054	Manufacture of small wind tree for street light in highways road	M. Balaji A. Ashok M. Anusha	EME-012	7500/-
320.	Mr. J. Krishnaraj Assistant Professor Dept. of Automobile Engineering Hindustan College of Engineering and Technology Coimbatore - 641 032	Hand gesture controlled vehicle for physically challenged people	D. Jayavignesh Manuvel Claffin Correya M. Ramgi	EME-013	7500/-
321.	Dr. M. Edwin Assistant Professor Dept. of Mechanical Engineering University College of Engg. Kanyakumari - 629 004	Ecofriendly reversible flat bed dryer operated with producer gas from agro waste for agricultural products drying	D.I. Dinesh Saravan P. Arvind P. Surjith F.L. Libin	EME-014	7500/-
322.	Mr. N. Venkatachalapathy Assistant Professor Dept. of Mechanical Engg. PSN Engineering College Tirunelveli - 627 152	Design and fabrication of adjustable wheelchair for disabled person	U. Amal Dev R. Palpandian S. Ilayathalapathy	EME-015	7500/-
323.	Dr. D. Sangeetha Assistant Professor (Sr Gr) Dept. of Mechanical Engineering Anna University College of Engineering Chennai - 600 025	Fabrication and Characterization of inconel 718 wave springs by SLM technique for automative applications	K.B. Deepalakshmi M. Dhamini P.L. Lakshmanan	EME-016	7500/-
324.	Dr. N. Baskar, Mr. S. Karthikeyan Professor, Assistant Professor Dept. of Mechanical Engg. Saranathan College of Engineering Trichy - 620 012	Design and fabrication of friction welding joint on aluminium alloy grade 6351	P. Praveen Kumar V. Prethish N. Ragunath R. Sabareeswaran	EME-017	7500/-
325.	Dr. R. Ganesh Assistant Professor Dept. of Mechanical Engineering Parisutham Institute of Technology and Science Thanjavur - 613 006	Design and fabrication of self circulating fluidized bed biomass gasification	R. Aravindhan S. Pradeep Kumar T. Ramanathan	EME-018	7500/-
326.	Mr. S. Kannan Assistant Professor Dept. of Mechanical Engineering AVS Engineering College Salem - 636 003	Fabrication of automatic automobile brake failure indicator	S. Prabakar V. Vikraman P. Suriya Kumar R. Valarmathi	EME-019	7000/-
327.	Dr. S. Manoj Assistant Professor Dept. of Mechanical Engineering SRM TRP Engineering College, Trichy - 621 105	Portable UV treated RO straw	B. Subash R. Suriya Prakash S. Siva S. Vigneshwaran	EME-020	7500/-

328.	Mrs. J. Megala Associate Professor Dept. of Mechanical Engineering S.A. Engineering College Chennai - 600 077	Mission for blind people	S. Vijay K. Shyam Prakash R. Praveen Kumar	EME-021	7500/-
329.	Mr. S. Suresh Assistant Professor Dept. of Mechanical Engineering Einstein College of Engineering Tirunelveli - 627 012	Design and implementation water as fuel in automobile	E. Arunmani srikanth S. Divakara M. Lakshmanan M. Madhan Kumar	EME-022	7500/-
330.	Dr. M . Chandrasekar Assistant Professor Dept. of Mechanical Engineering University College of Engineering Trichy - 620 024	Use of solid- solid (SS) phase change material(PCM) to recover heat from air conditioner (AC) outdoor unit and its application for continuous drying in solar dryer	S. Arunkumar	EME-023	7500/-
331.	Dr. M. Mohanraj Assistant Professor Dept. of Mechanical Engineering Government College of Engineering Salem - 636 011	Multi objective optimization in drilling of GFRP composites: application of particle swarm optimization (PSO) & artificial bee colony (ABC) algorithms	P. Prasanna Venkatesha Sriram	EME-024	7500/-
332.	Dr. M. Ravichandran Associate Professor Dept. of Mechanical Engineering K. Ramakrishnan College of Engineering Trichy - 621 112	Development of waste granite paticles and graphite reinforced hybrid aluminium composites for structural applications through stir casting route	K. Ruparaj K. Premkumar V. Vasantha Kumar S. Rajavel	EME-025	7500/-
333.	Mr. Sam Daniel Fenny Assistant Professor Dept.of Mechanical & Automation, Agni College of Technology Chennai - 600 130	Applications of robotic exoskeleton in military and defence	M. Mohanakrishnan	EME-026	7500/-
334.	Mr. J.S. Veera Jegatheeshwaran Assistant Professor Dept. of Mechanical Engineering Indra Ganesan College of Engineering Tiruchirappalli - 620 012	Analysis of solar PV panel cooling system using effiency coolant as heat exchanger	D. Amar Praveen M. Karan C. Tamilselvan J. Karunakaran	EME-027	7500/-
335.	Dr. C. Antony Vasantha Kumar Associate Professor Dept. of Mechanical Engineering SCAD College of Engineering and Technology Thirunelveli - 627 414	Eco fiendly thermo electric air conditioning system	W.G. Joel Pavinn S. Manikandan A. Muhammed Hasan Yoonush M. Tharikmuzammil	EME-028	7500/-

336.	Dr. N. Gayathri Associate Professor Dept. of Mechanical Engineering Vel Tech Rangarajan Dr. Sakunthala R&D Institute of Science and Technology Chennai - 600 062	Design and fabrication of floting backpack for power generation	R. Rahul Raj J. Thurabudeen A. Shalim Hamdan	EME-029	7500/-
337.	Mr. Selvakumar Assistant Professor Dept. of Mechatronics Engineering Er. Perumal Manimekalai College of Engineering Hosur - 635 117	Drainage pipeline clog removal robot	M. Arunkumar R. Gokulnath R. Vijay	EME-030	7500/-
338.	Mr. S. Rajamahendran Assistant Professor Dept. of Mechanical Engineering DMI College of Engineering Chennai - 600 123	Button operated electromagnetic gear shifting system in a two-wheeler	S.R. Swaminathan Veanthen .A. Kaiser G.Yashwanth Bhradwaj S. Nidhish Karthick	EME-031	7500/-
339.	Dr. T. Mohanraj Assistant Professor Dept. of Mechanical Engineering Amrita School of Engineering Coimbatore - 641 112	Development of tool condition monitoring system for milling process using wavelet features and machine learning algorothms	R. Yameni Jayanthi Yerchuru H. Krishnan Nithin Aravind	EME-032	7500/-
340.	Dr. V. Muthukumar Professor Dept. of Mechanical Engineering Saveetha Engineering College Chennai - 602 105	Development of economic ,energy efficient and eco friendly cooling system for solar panels	D. Vasantha Kumar Mr. Neeruganti Ramana Pasuvula Manjunath Reddy	EME-033	7500/-
341.	Dr. R. Joseph Bensingh Head CAD/CAM Central Institute of Plastics Engineering and Technology Chennai - 600 032	Multipurpose double axis crane	J.B.Jeevaa	EME-034	7500/-
342.	Mr. R. Rajasekar Assistant Professor Dept. of Automobile Engineering Sathyabama Institute of Science and Technology Chennai - 600 119	Green synthesis of Zinc oxide nanoparticle blended with bio-diesel and coated with catalytic convertor in DI diesel engine	M. Sunil Kumar	EME-035	7500/-
343.	Dr. R.Rajesh Professor Dept. of Mechanical Engineering Rohini College Of Engineering and Technology Variyoor – 629401	Process Parameters effect of Porosity level of High velocity oxy fuel sprayed Cr3C2/NiCr Coatings	A.Navildhas J.Jefrin N.Manikandan P.Jonish	EME-036	7500/-

344.	Mr. S. Mohanakannan Assistant Professor Dept. of Mechanical Engineering A.V.C College of Engineering Mayiladuthurai - 609305	Power generation by utilising energy of falling water in overhead tank and solar panels	S. Arjun M. Mohamed Ansaar E. Muthu Krishnan	EME-037	7500/-
345.	Mr. V. Parthiban Assistant Professor Dept. of Mechanical Engineering Narasu's Sarathy Institute of Technology Salem - 636305	Auto-pressure control and monitoring of tyres by pressure sensor	M. Premkumar M. Subramani K. Sathishkumar R. Sasikrishna	EME-038	7500/-
346.	Mr.V.Shantha Moorthy Assistatant Professor Dept. of Mech. Engg. Excel Engineering College Komarapalayam – 637 303	Fabrication of Aquatic weed Harvester	Karthik.S Kowsalkumar.S Prasath.M	EME-039	7500/-
347.	Dr. N. Mohanraj Associate Professor Dept. of Mechanical Engineering Sri Krishna College of Technology Coimbatore - 641 042	Emergency Alert System for driver saftey using IoT	K.S. Rahul Viknesh S. Savadamuthu J. Kamalini M. Sakthivel	EME-040	7500/-
348.	Mr. A. Aruljothi Assistant Professor Dept. of Automobile Engineering Karpaga Vinayaga College Of Engineering and Technology Kanchipuram - 603308	Hybrid vehicle with regenerative charging system	R. Suriya G. Sundararaman B. Hari Prasath K. Aravindhan	EME-041	7500/-
349.	Dr. M. Easwaramoorthi Professor & Dean Dept. of Mechanical Engg., Nanda Engineering College Erode-638052	Reclamation of sewage using solar thermal technology	B. Manibarathi R. Mathesan M. Mithiran R. Rajesh	EME-042	7500/-
350.	Mr. S.A. Arokya Anicia Assistant Professor Dept. of Mechanical Engg., Jeppiaar Institute of Technology Chennai - 631 604	Climbing wheel chair with to and fro action of steering	V. Deepakraj N. Karthick K. Sundarapandian R. Vengata Krishnan	EME-043	7500/-
351.	Mr. P. Sabarinath Assistant Professor Dept. of Mechanical Engineering Sri Guru Institute of Technology Coimbatore - 641 110	Design and development of agriculture multi planting system	K. Sudharsan P. Ragumatthullah V. Ragul K. Priyadharsan	EME-044	7500/-
352.	Mr. A. Packiyaraj Assistant Professor Dept. of Aeronautical Engg.Tagore Engineering College Chennai - 600 127	Experimental investigation of cyclic loading effect on the mechanical properties of laminated composite	C. Naveen P. Ramesh	EME-045	7500/-

353.	Mr. M. Kathirselvam Assistant Professor Dept. of Mechanical Engineering K.S. Rangasamy College of Technology Tiruchengode - 637 215	Smart Trolley	S.Bharathkumar S.P.Dhivakar G.Hari R.Karthikeswaran	EME-046	7500/-
354.	Dr. S. Boopathi Professor Dept. of Mechanical Engineering Dr.N.G.P.Institute Of Technology Coimbatore - 641 048	Low cost automtic waste segregater	J. Viswaaswaran P. Saran Kumar T. A. Senthil	EME-047	7500/-
355.	Dr. P. Saravanan Head/ Mechanical Engineering Mahendra Engineering College Namakkal - 637503	Fabrication of two wheeler parts using E-Glass and kenaf fiber	A.V. Jayasurya	EME-048	7500/-
356.	Dr.V.Ganesh Asst.Professor Dept.of Automobile Engineering Sri Vengateshwara College Of Engineering Sriperumbudur - 602117	Design and fabrication of load adaptive braking system on a two wheeler	V.Raghuraman S.Gokul A.Manoj kumar N.Dhivakkar	EME-049	7500/-
357.	Dr. M. Paulraj Principal Dept. of CSE Sri Ramakrishna Institute of Technology Coimbatore - 641 010	Low cost paper bag making machine	P. Kesva Pradeep B. Mohanraj S. Mohanraj K. Shakthivel	EME-050	7500/-
358.	Mr. K. Thirumalai Kannan Assistant Professor Dept. of Mechanical Engineering SNS College of Engineering Coimbatore - 641 107	Smart water guard	S. Ayyasamy S. Balamurugan R. Berdin M. Chidambara Selvan	EME-051	7500/-
359.	Dr. V. Velavan Professor Dept. of Mechanical Engineering PSG College of Technology Coimbatore - 641 004	Portable desalinator using parabolic trough solar collector	J. Karthikeyan S. Nikhilesh R. Sheshadri	EME-052	7500/-
360.	Dr. A. Mathivanan Associate Professor Dept. of Mechanical Engineering SRM Institute of Science and Technology Chennai - 600 089	Air pollution monitoring using IoT	Ashfaq Ayaaz Puneet Saini Subham Singha and Vivek Hariharan	EME-053	7500/-
361.	Dr. M.K. Murthi Professor Dept. of Mechanical Engineering Nandha Engineering College Erode - 638 052	Semi automatic herbicide sprayer with adjustable nozzle for furrow	S. Elango R. Gowrishankar B. Gowtham M. Jeevanantham	EME-054	7500/-

362.	Dr. G. Shanmugasundar Associate Professor Dept. of Mechanical Engineering Sri Sairam Institute of Technology Chennai - 600 044	Design and fabrication of solar powered surveillance drone for women safety	Abhishek G Shanker V.S. Vinoth Abhilash K. Vijayalayan S. Jayaraman	EME-055	7000/-
363.	Dr. S. Sundaram Professor&Dean Dept. of Mechanical Engineering Muthayammal Engineering College Rasipuram - 637 408	Design and implementation of automatic smart irrigation system for farmers using IoT technology	P. Aravindhan N. Bhaarath Kumar R. Dinesh R. Jayapal	EME-056	7500/-
364.	Mr. G. Vignesh Assistant Professor Dept. of Mechanical Engineering Karpagaam Academy of Higher Education Coimbatore - 641 021	Design and fabrication of portable separator cum recycling unit for zinc-carbon (AA&AAA) batteries	S. Karthick R. Mohamed Tharick D. Mohanraj S. Surendrakumar	EME-057	7500/-
365.	Mr. J. Vijayanand Assistant Professor Dept. of Mechanical Engineering St. Joseph's College of Engg., Chennai - 600 119	Evaluation of machining behaviour of HFRP (Kevlar/Banana and CNP) composite material for automatic parts	P.V. Harirajan V. Maheshwaran	EME-058	7500/-
366.	Mr. S. Bhagavathi Shankar Assistant Professor Dept. of Mechanical Engg. Amrita College of Engineering and Technology Kanyakumari- 629 901	Design and fabrication of semi-automatic stretcher cum wheel chair for medical need	S. Sujith Y. Calvin Paul Singh C. Esaimani R. Venkatesh	EME-059	7500/-
367.	Mr. Nair Ajit Venugopalan Assistant Professor Dept. of Mechanical Engg., Velammal Institute of Technology Thiruvallur - 601 201	Automatic toilet cleaner	T. Selvaganapathy A. Bala Subramanian Shaik Naib Rasool	EME-060	7500/-
368.	Dr. G. Kannan Professor Dept. of Mechanical Engg., IFET College of Engineering Villupuram- 605108	Household incinerator	M. Aravindhan T.D. Manimaran E. Kishore	EME-061	7500/-
369.	Mr. R. Jaison Assistant Professor Dept. of Mechanical Engineering Francis Xavier Engineering College Tirunelveli - 627 003	Design and fabrication of composite roofing tiles using coir bamboo and cement composite	L. Varadharajan R. Siva Subramanian C. Soma Sundaram D. Rajesh Tamilselvan	EME-062	7500/-
370.	Dr. S. Karthikeyan Professor &Head Dept. of Mechanical Engineering Syed Ammal Engineering College Ramanathapuram-623 502	Solar power based production of oxyhydrogen (HHO) for cooking purpose	G. Mukeshkumar R. Krishna Moorthi N. Murasolimaran N. Nambu Prasath	EME-063	7500/-

371.	Dr. V. Savithiri Professor and Head (Lab Affairs) Dept. of Mechanical Engineering St. Joseph's Institute of Tech., Chennai- 600 119	Design and development of fixture for PEM Fuel cell assembly	S. Barath B. Abimanyu	EME-064	7500/-
372.	Mr. M. Arulraj Assistant Professor Dept. of Mechanical Engineering Coimbatore Institute of Engineering and Technology Coimbatore - 641 109	Development of metal-matrix composite from industrial / agricultural waste materials	R. Surya Prakash A. Venkatesh S. Marimuthu T. Sudharsan	EME-065	7500/-
373.	Dr. B.R. Ramesh Bapu Professor & Dean Dept. of Mechanical Engineering Chennai Institute of Tech. Chennai-600 069	Design & Fabrication of hospitality robot for in-house aged patients in hospitals	P. Kamikkiya M. Saranya V. Sathuryaa	EME-066	7500/-
374.	Mr. P.Selvan Assistant Professor Dept. of Mechanical Engineering Mepco Schlenk Engineering College Virudhunagar- 626005	Emhancing the heat transfer rate for the specially designed heat exchanger in a solar collector using hybrid nano fluid	A. Abishek M. Manikandan Mohamed Faizal S Harikumar S	EME-067	7500/-
375.	Mr. M. Visvam Assistant Professor Dept. of Mechanical Engg., MIET Engineering College Trichy- 620007	Design and fabrication of fume arrester using peanut shell biofilter for Arc welding application	S Anwar kaleem J Mohamedkhalith S Athief R Jafar Hussain Ahamed	EME-068	7500/-
376.	Mr. M. Vijaya Kumar Assistant Professor Dept. of Mechanical Engg., M. Kumarasamy College of Engineering Karur - 639 113	Single Spherical wheel mobile robot	M.Piraveen A.Sridharan M.Vigneshwaran	EME-069	7500/-
377.	Mr. A. Karthikeyan Associate Professor Dept. of Aeronautical Engineering Excel Engineering College Namakkal - 637 303	Design and fabrication of smart drone for feeding and cleaning in zoo	Anmol Krishna Mohan chaudhary Moaz Hussain C Deepan A. Latshathipathi	EME-070	7500/-
378.	Mr. P.V. Inbanaathan Assistant Professor Dept. of Production Engineering Sri Sairam Engineering College Chennai - 600 044	Power generation from waste heat using micro organic rankine cycle for small scale industries	I.Jebin Joshua K. Jeya Vignesh V.Aravind R. Manikaraj	EME-071	7500/-
379.	Mr.N. Ramachandran Assistant Professor Dept. of Mechanical Engineering Sri Krishna College of Engineering and Tech., Coimbatore - 641 008	Automatic fire fightng robot with smart camera	R. Palanivel B. Nirmal P. Nishanth Kalathil	EME-072	7500/-

380.	Mr. I. Rajkumar Assistant Professor Dept. of Mechanical Engineering Kalasalingam Academy of Research and Education Krishnankoil-626126	Copra Heater	A.Aswin Singh J. Sashikrishnan RM. Subramanian M. Soma Sundaram	EME-073	7500/-
381.	Mr. A. Shyam Assistant Professor Dept. of Mechanical Engineering Gojan School of Business and Technology Chennai-600 052	Portable solar refrigeration system- A novel food and vaccines preservation technology	A Amit Jain M Sakthivel K Sampathkumar R Wilson	EME-074	7500/-
382.	Mr. G. Muralidharan Assistant Professor Dept. of Aeronautical Engineering Surya Group of Institutions Vikravandi - 605 652	Alternative fuels for green aviation	K Dinesh Kumar N Prathip Raj R Srirama Subramania Moorthy T. R. B. Greetharan	EME-075	7500/-
383.	Mr.J.Jenix Rino Assistant Professor & Head, Dept. of Mech. Engg., Stella Maris College of Engg., Aruthenganvilai Kanyakuamari- 629 202	Study on influence of nanofiller in glass fiber reinforced polymer matrix composite	Leo Abijith Antony Jemson Dhas T.Liban Shajith J.Abison	EME-076	7500/-
384.	Mr. A. Gowrishankar Assistant Professor Dept. of Mechanical Engg. Paavai College of Engineering Namakkal-637018	Thermal desalination using diesel engine exhaust waste heat	V S Navinesh S Praveen A Preethkumar D Sathya	EME-077	7500/-
385.	Mr. B. Kalidasan Assistant Professor Dept. of Mechanical Engineering Bannari Amman Institute of Technology Sathyamangalam-638401	Experimental Investigation on performance of solar cooker using high density polyethylene (HDPE) phase change material	Balachander V	EME-078	7500/-
386.	Dr. V.A. Nagarajan Assistant Professor Dept. of Mechanical Engineering University College of Engineering Nagercoil-629004	Reuse of textile waste for the development of light weight composite panels for multistoried building	Akash R Faris Mohamed.S Saravanan. N.A J Sugan	EME-079	7500/-
387.	Dr.A.R.Suresh Head, Dept. of Mech. Engg. Kathir College of Engineering, Wisdom Coimbatore – 641 062	Mobile Solar Tunnel Dryer	M.Gowtham I.Johnpaul Newton P.Abiud	EME-080	7500/-
388.	Dr. M. Muthukannan Assistant Professor Dept. of Mechanical Engg. SSM Institute of Engg and Technology Dindigul-624002	Extraction of bio oil through electronic waste	S Akshar Ali S Gangatharan V Johnson M Karthik	EME-081	7500/-

389.	Prof.K.Arulkumar Assistant Professor Dept. of Mech Engg Excel College of Engineering and Technology Namakkal 637303	Optimization of hand gesture in pick and place robot arm	Allwin Joseph Anand.R Dinesh Kumar.K Felix Britto.N	EME-082	7500/-
390.	Mr. V. Dinesh Babu Assistant Professor Dept. of Aeronautical Engineering Nehru Institute of Engineering and Technology Coimbatore - 641 105	Coherent Flying Object	Vasudev U Tamil Selvam K B	EME-083	7500/-
391.	Dr. J. Ajith Kings Assistant Professor Dept. of Mechanical Engineering St. Xavier's Catholic College of Engineering Nagercoil - 629 003	Design and fabrication of novel photo-bioreactor and microalgae cultivation using polluted air and waste water	Shambu S Krishna Pranav V N Stalin Vijay P Vivek S	EME-084	7500/-
392.	Dr. L. Anoj Kumar Associate Professor Dept. of Mechanical Engg. Jansons Institute of Technology Coimbatore - 641 659	Shredding of areca powder from disposal areca leaf for manure and food for cattle	Jayavarthanavel E Karthik M Muthuraj K Divisharan PS	EME-085	7500/-
393.	Mr. P. Manickavasagam Assistant Professor Dept. of Mechanical Engg. Nandha College of Technology Erode - 638 052	Solid waste management system for hot water generation using incinerator for ladies hostel application	Loganathan R Deepak M Dhivagar G Arunkumar S	EME-086	7500/-
394.	Mr. K. Karthik Assistant Professor Dept. of Mechanical Engineering Coimbatore Institute of Technology Coimbatore - 641 014	Optimization of process parameters of abrasive waterjet machining on SS 304	David Smith Sundarsingh Gopi Karthick R M Harivignesh M Praveen	EME-087	7500/-
395.	Ms. J.Deepika Assistant Professor Dept. of Mechatronics Engg., M.A.M. School of Engineering Tiruchirappalli - 621 105	Smart grid deployment in digital energy meter and theft control using internet of things	K Gowsalya A Abinas Kumar R Arun Kumar	EME-088	7500/-
396.	Mr. N. Arul Assistant Professor Dept. of Mechanical and Automation Engineering SNS College of Technology Coimbatore - 641 035	Development of agricultural multifunctional seed sower fertilizer sprayer & Weeding	J Ajai Milton M Aushman Sam Jebakumar V Jayasuriya S Sanjaikumar	EME-089	7500/-
397.	Dr. B. Ramesh Professor Dept. of Mechanical Engg., Sri Muthukumaran Institute of Technology	Automation of Pneumatic paper cutting machine	R Harish R Logannathan	EME-090	7500/-

	Chennai - 600 069				
398.	Mr K Nehru Asst. Prof. Dept. of Aeronautical Engg. SNS College of Technology Coimbatore - 641035	Morphing of an airplane wing acompanying electrorheological fluid structured actuators	Salamon Rago A Peratchi Selvan s Yogaselvan B	EME-091	7500/-
399.	Mr.S.Sathish AP/Mechatronics Engg. Mahendra College of Engg., Minnampalli Salem - 636106	Design and Fabrication of Accelerometer based hand gesture controlled robot	Antrouse.C Karthikeyan.S Purnima.T Zabiullah.R	EME-092	7500/-
400.	Dr Balakarthikeyan Asst. Prof. Dept. of Mechatronics Rajalakshmi Engineering College, Chennai	Disabled friendly battery operated four wheeled autonomous vehicle	Aravind sairam S R Ashok S Mohan Kumar Pooja N	EME-093	7500/-
401.	M.Vignesh Kumar Asst.Professor Dept.of MECH-ENGG KCG College Of Tech., Chennai – 600097	Agrobot in tomato farms	J.Hexin Joseph K.Gokulakrishnan Eban David	EME-094	7500/-
402.	Mr. L S Narenthira Assistant Professor Dept. of Mech Engg MIET Engg College Trichy-620007	Remote operated trash skimmer for lake	R Mangaiyarkarasi J Mohammed Aslam A Mohammed Jifri M Mounika	EME-095	7500/-
403.	Dr R Ramadoss Professor, Dept. of Mech. Engg. Eswari Engineering College Chennai-600089	Design and fabrication of motorized flyer for disaster management	S Aadarsh Rao Aravindha Narayanan M R Balachandar	EME-096	7500/-
404.	Mr.T.Tamilanban Asst. Prof.of Mech Engg., St.Josph's College of Engg. Chennai-602117	Double sided table fan with 360 degree rotations	A Mohammed Nadeem	EME-097	7500/-
405.	Dr.R.Parthasarathi Associate Professor Dept.of Mechanical Engg. V.S.B.Engineering College Karur - 639111	Rotating gate power generator	R.Vasanthakumar P.Surya R.Siranjeevi P.Ramakrishnan	EME-098	7500/-
406.	Mr P.Sivakumar Asst. Prof. of Mech Engg., SNS College of Engg., Coimbatore -641107	Design and fbrication of used vegetable oil powered burner	R Suresh S Suryamoorthy M Tamilarasan V Tamilarasan	EME-099	7500/-
407.	Dr. G. Karthikeyan Assistant Professor Dept. of Mech Engg University College of Engg Pattukottai-614701	Experimental investigation of Al6061/ZrO2 metal matrix composites	D Sakthivel A Ranjith Kumar A Santhosh Kumar S Nithish Kumar	EME-100	7500/-

தமிழ்நாடு அறிவியல் தொழில்நுட்ப மாநில மன்றம்
TAMILNADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY
(Established by Government of Tamilnadu)
Directorate of Technical Education Campus, Chennai – 600 025.
Ph : 044-22301428, Telefax : 044-22301552 www.tanscst.nic.in

Dr.R.SRINIVASAN, M.Sc., Ph.D.,F.I.C.S., M.A.C.S.(USA).,
Member Secretary

Lr.No.TNSCST/SPS/AR/2018-2019 18.02.2019

To
The Principal
SSM Institute of Engineering and Technology
Sindalagundu
Dindigul - 624 002

Sir/Madam,

Sub: TNSCST – Student Project Scheme – 2018-2019 – approval intimation--grant release- reg

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With respect to the above scheme, the list of projects approved by the State Council is enclosed along with terms and conditions. Kindly read and ensure adherence to the terms and conditions such as submission of UC and seminar paper in time.

Kindly find enclosed here with the cheque for the approved grant and disburse the grant to the concerned students through the guides at the earliest.

Kindly send the utilisation certificate (format enclosed) and seminar paper (ref.T&C-no.5&6) on completion of the project.

Thanking you,

Yours faithfully,

18/2/19

Member Secretary.

18/2

Encl: a) Terms & Conditions (T&C)
b) Format of Utilisation Certificate (UC)
c) Cheque for Rs 15000/- No: 795206 dt:18.02.2019.

Copy to: Individual Guides

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	Mr.M.Premkumar Assistant Professor Dept. of ECE SSM Institute of Engineering and Technology Sindalagundu Dindigul - 624 002	Monitoring and tracking wildlife injury in palani hills wildlife sanctuary using wireless sensor networks	Bhuvaneswari.A	EEE-100	The Principal SSM Institute of Engineering and Technology Sindalagundu Dindigul - 624 002	7500/-
	I Vimalkannan Assistant Professor Dept. of Mechanical Engineering SSM Institute of Engineering and Technology Dindigul-624002	Reducing Space Debris by returnning satellites to the earth probably before deterioration of satellite	R Srinath	EME-030	The Principal SSM Institute of Engineering and Technology Dindigul-624002	7500/-

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293	Dr.S.Indran Head Associate Professor Mechanical Engineering Rohini College of Engineering and Technology Variyoor - 629 401	Mechanical properties of laminated natural fiber woven fabric composites for below- knee prosthesis socket application	Murukesh.M Anbalagan Ragul Privin Raj.D Arul Gold Christian	EME-025	7500/-
294	Dr.K.Arumugam Professor Mechanical Engineering Vel Tech High Tech Dr.Rangarajan Dr.Sakunthala Engineering College Chennai - 600 062	Automatic Fire extinguisher	Naveenkumar.M	EME-026	7500/-
295	A G Karthikeyan Assistant Professor Dept. Of Mechanical Engineering Dr.N.G.P. Institute of Technology Coimbatore-641048	Robotic Assisted Blood Drawing Machine using Raspberry-pi	Arun Kumar G Bharath Raj B Elayavendhan M	EME-027	7500/-
296	P Jagadeeswaran Assistant Professor Dept. Of Mechanical Engg. Sengunthar Engineering College Thiruchengode-637205	The Bore Well Trapped People Resuce System	S Ganesh Ranjith P Ranjith Kumar R Sampath	EME-028	7500/-
297	S Prabhu Asst Prof Dept. of Mechanical Engg., RVS College of Engineering and Technology Coimbatore-641402	Electricity Generation in Highway through Combined Darrieus and Savonious wind Turbine	P Bala S Arun Murugan D Madhan	EME-029	7500/-
298	I Vimalkannan Asst Prof Dept. of Mechanical Engg., SSM Institute of Engineering and Technology Dindigul-624002	Reducing Space Debris by returnning satellites to the earth probably before deterioration of satellite	R Srinath	EME-030	7500/-
299	N Bhuvanesh N Asst Prof Dept. of Mechanical Engineering Bannari Amman Institute of Technology Sthyamangalam-638401	Harvesting of Electricity from Handloom Weaving Machine coupled with power generator Dynamo	Mukesh R Harish VNN Vivek G	EME-031	7500/-
300	K Ravikumar Asst Prof Dept. Of Mechanical Engineering PSR Engineering College Sivakasi-626140	Water Tank Cleaning Machine	N Rajkumar S Riswan Arif Hameed N Vairamuthu	EME-032	7500/-
301	Dr.K.Vijaya Raja KCG College of Technology Karapakkam Chennai- 600 097	Dual motor micro wind turbine	M.Keerthika	EME-033	7500/-
302	S Thirugnanam Asst Prof Dept. of Mechanical Engg., Valliammai Engineering College Kattankulathur-603203	Manufacture of Aluminium metal matrix compoite by stir casting technique	M Surya S Sanjai U Srivathsa M Srinivas	EME-034	7500/-

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BAZAAR - S.V
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Chengalpattu (T.N.)

FORD INDIA PVT LTD
M M NAGAR

THIS UNDERTAKING-CUM-INDEMNITY is executed at Chennai on 30TH March 2019.

BY **SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY, DINDIGUL-PALANI HIGHWAY, DINDIGUL 624 002, DINDIGUL Dt. TAMILNADU, INDIA** represented by its authorized signatory **Dr.M.SARAVANAN,** PRINCIPAL (hereinafter referred to as "Recipient" which expression shall, unless it be repugnant to the subject or context thereof, include its successors in interest and permitted assigns) of the ONE PART.

Dr.M.Saravanan M.E.,Ph.D.,
Principal
SSM Institute of Engineering and Technology,
Kuttathupatti Village, Sindalagundu (Po),
Dindigul-624 002

For FORD INDIA PRIVATE LIMITED

(Authorised Signatory)

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TO AND IN FAVOUR OF

FORD INDIA PRIVATE LIMITED, a company incorporated under the Indian Companies Act, 1956 (1 of 1956), and having its Registered Office at S.P. Koil Post, Chengalpattu – 603 204, Kancheepuram District, Tamil Nadu (hereinafter referred to as "FORD", which expression shall, unless it be repugnant to the subject of context thereof, include its successors in interest and permitted assigns) of the OTHER PART.

The terms Recipient and FORD wherever the context so permits or requires are hereinafter collectively referred to as "Parties" and individually as "Party".

WHEREAS, Recipient is engaged in imparting education and training in different disciplines to its students.

WHEREAS, FORD engaged in the business of manufacture, sale and service of the FORD range of Automobiles, is desirous of donating a few used cars such as completely built units of various models, cut open cars, scrap cars and few Diesel and Gasoline Engines (hereinafter collectively referred to as "**Equipment's**"), of various capacities, to Government and Private Institutions and Engineering Colleges for the purpose of imparting training to their students.

Dr.M.Saravanan M.E., Ph.D.,
Principal
SSM Institute of Engineering and Technology,
Kuttathupatti Village, Singanallur (Po),
Dindigul-624 002

For FORD INDIA PRIVATE LIMITED

Abhijit Bhan

(Authorised Signatory)

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WHEREAS, Recipient has requested FORD to donate some Equipments for demonstration purposes so as to impart training to their students and to familiarize the students with modern technology in cars and engines, and FORD has offered the Equipment's for this purpose. The Equipment's are more fully described in the schedule written hereunder,.

Pursuant to the above, it is necessary for FORD to obtain an Undertaking-cum-Indemnity from Recipient declaring that the Recipient will use the Equipments inside the premises of the Recipient only for the purpose of demonstration so as to impart training to its students and had agreed to execute an Undertaking-cum-Indemnity in favor of FORD as set out hereunder.

NOW THIS UNDERTAKING-CUM-INDEMNITY WITNESSETH AND IT IS HEREBY AGREED AND UNDERTAKEN BY THE Recipient AS FOLLOWS:

In consideration of FORD agreeing to offer Equipments, as detailed in the schedule to Recipient at the request of Recipient, Recipient hereby agrees, undertakes and indemnifies FORD as follows:

a) Recipient fully undertakes that the Equipments offered by FORD will be used only inside the premises of Recipient or the limited purpose of demonstration to impart effective training to the students of Recipient to learn the latest technologies and will not be used in any other place

Dr.M.Saravanan M.E.,Ph.D.,
Principal
SSM Institute of Engineering and Technology,
Kuttathupatti Village, Sindalagundu (Po).
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including on any private or public road, for any purpose whatsoever including commercial purpose. It is understood by the Recipient that the cars comprising the Equipment's are not roadworthy and cannot be registered as vehicles that can be used for transport and commute.

b) Recipient acknowledges and agrees to the condition that the Equipment's offered by Ford is on a as is where is condition and will not carry any warranty. Ford is not responsible for any maintenance or repair of the Equipment's.

c) Recipient further undertakes that the engines offered by FORD as part of the Equipment's will not be fixed or used in any vehicles intended for any purpose including transportation of any kind of whatsoever nature on any road and within premises of Recipient

d) Recipient fully undertakes that the Equipments will not be sold, let on hire to any one and the same will be used for only for educational and training purposes within the premises of Recipient until the Equipment's are dismantled and scrapped.

e) Recipient would be fully responsible and liable and shall indemnify and keep FORD indemnified from and against all expenses, costs, damages, losses, etc., that FORD may suffer or be put to as a result of breach of this Undertaking committed by Recipient. Violation of any applicable laws, rules & regulations as may arise on account of use of Equipment's by Recipient or any injury / accidents caused to any persons during

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Principal
SSM Institute of Engineering and Technology,
Kuttalinpatti Village, Sindalagundu (Po),
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demonstration, training, teaching or class, and also as long as when the Equipments are kept within the premises of Recipient or any road accidents resulting in loss of lives or damages to any third party, property or other reasons.

Binding Arbitration:

The parties agree that all claims, disputes and other matters in question between them, arising out of or related to this Agreement, whether sounding in contract, tort, statutory causes of action, or other causes of action whatsoever, shall be decided by binding arbitration in Chennai, India in accordance with the Arbitration and Conciliation Act, 1996, by a sole Arbitrator Appointed in accordance with the said Act. The Award rendered in such Arbitration shall be final and binding on the parties. The Award shall be Enforced through a court of competent jurisdiction. This Agreement shall not be construed as consent to arbitrate any dispute with any person who is not a party to this Agreement.

Governing Law & Jurisdiction:

This Agreement shall be governed by the laws of India and the exclusive jurisdiction will be the courts of Chennai.

This Undertaking-cum-Indemnity shall be in full force and operation until the Equipments are fully dismantled and scrapped. Recipient will also ensure that the

Dr.M.Saravanan M.E.,Ph.D.,
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SSM Institute of Engineering and Technology
Kuttathupatti Village, Sindalagundu (Po),
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scrapping process is done in a proper manner and will take all necessary steps to curb any parts of the Equipment's are sold/ reused in the aftermarket.

IN WITNESS WHEREOF, We, Recipient University through DR.M.SARAVANAN, (PRINCIPAL) its authorized signatory has executed this Undertaking-cum-Indemnity on the day, month and year first above written.

For and on behalf of

The Recipient

SSM INSTITTUE OF ENGINEERING AND TECHNOLOGY,

Title : PRINCIPAL

SCHEDULE / VEHICLE DETAILS

Physical VIN	Logical VIN	Vehicle Specification
MAJBXXMRKBJL56005	MAJBXXMRKBJL56005	1.0L Fox GTDI, Titanium, BLUE LIGHTNING & Australia

Dr.M.Saravanan M.E.,Ph.D.,
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