



Students TNSCST project:



S.No.	Name of the Students	Title	Funding Agencies	Proposed budget	Academic Year
1	V.NIVETHA RILWANA FARVEEN P.SUBASHINI	INTEGRATION OF GYM EQUIPMENT FOR POWER GENERATION	Tamil Nadu State Council Science and Technology (TNSCST)	Rs 10,000/-	2016-17.
	N.KANNAN R.MANIKANDAN K.MANOJ A.RAJA	INTELLIGENT FIRE EXTINGUISHING SYSTEM	Tamil Nadu State Council Science and Technology (TNSCST)	Rs 10,000/-	2017-18.
2	A.DURKA DEVI V.JAMUNA S.ABINAYA E.ABIRAMI K.VINITHA	ANIMAL TRACKING AND MONITORING SYSTEM USING IOT	Tamil Nadu State Council Science and Technology (TNSCST)	Rs 7,500/-	2018-19
3	ABINAYA M UDHIYA LAKSHMI K VAISALI K DR. KIRTHIKA	MAGNETIC ENGINE BASED VEHICLE FOR PHYSICALLY DISABLED PERSOSNS	Tamil Nadu State Council Science and Technology (TNSCST)	Rs 7,500/-	2019-20
4	C.CHANDRU RITHVICK J.DIVAKAR R.GOPI P. SIVAKUMAR	LANDSLIDE MONITORING, DETECTION AND PREVENTION SYSTEM USIN IOT	Tamil Nadu State Council Science and Technology (TNSCST)	Rs 7,500/-	2021-22

Faculty Achievements:

Anna university-Supervisor	Dr.A.Ravi received recognized supervisor from Anna university
CO-Guide and DC for other universities	Dr.A.Ravi and Dr.N.Dhanasekar acted as a co – guides for Annamalai University and acted as a Doctorial Committee members for Anna University research scholars.
Books Published	Dr. N. Dhanasekar Published <u>5 books</u> in the year 2016 - 2017, three books in the year 2018-2019 and 2021-2022
	Dr.A.Ravi & Dr.R.Selvaganapathy published one book in the year 2018 – 2019
Resource person	Dr. SA.Chithradevi & Dr.M.Latha acted as a Resource person in International and National webinars respectively
IIT Spoken Tutorial-coordinator, coordinator	Dr. M.Latha is serving as a coordinator of, IIT Spoken Tutorial Project launched by the Ministry of Human Resource and Development.
NPTEL Local chapter-SPOC	NPTEL Local chapter has been started and Dr.M.Latha is acting as SPOC
Journals and Conferences	Our faculty members published more than 50 research papers in national, and international journals and conferences over the past five years
Research Patent	Our faculty members published 3 Patent at National and international levels (From 2019 to 2022)
TNSCST	Dr. N.Dhanasekar (2017-18 & 2018-19)and Dr.A.Raghavendiran (2018-19, 2019-20, and 2021-22) Received Fund for a student’s project from the Tamil Nādu State Council of Science and Technology (TNSCST)
Anna university - Funds	Dr. N.Dhanasekar received a grant from Anna University for conducting FDTP on “ Electrical Drives and Control”
AICTE- ISTE	Dr. A. Ragavendiran received a grant under the AICTE- ISTE Refresher Programme Scheme.
National level conference	Organized one national level conference (MASTER’18) in the month of March 2018
NPTEL courses	Our faculties Received NPTEL certification for core and interdisciplinary subjects
MOU’s	Our institute signed MoU with the NIT-Siemens training center and Estaar max Pvt. Ltd, NIN Energy India Pvt Ltd for giving sound knowledge related to Electrical CADD, IoT, and Automation to the students.

Students Prototype model Projects

Academic Year & Guide	Name of the Product	
<p>Dr. SA.Chithradevi 2019 - 20</p>	<p><u>SOLAR POWERED AGRICULTURAL ELECTRIC SPRAYER</u></p> <p>Solar based pesticides sprayer pump is one of the improved version of electric sprayer pump. It is vastly used in the agriculture & also used for many purpose. The proposed solar powered sprayer is more advantageous over the existing electric sprayer. Besides reducing the time taken for charging the battery, the spraying work is continuously done with the help of solar panel and battery. A farmer can do the spraying operation continuously without taking time for charging battery.</p>	
<p>Dr.A.Ragavendiran 2019 - 20</p>	<p><u>DESIGN OF ELECTROMAGNETIC ENGINE WITH LOW RUNNING COST</u></p> <p>The Electromagnetic Reciprocating Engine is a Green and Clean Energy source which uses Magnetic Energy to turn a crankshaft. That crankshaft is used to turn a wheel. The Electromagnetic Reciprocating Engine operates by taking electricity from a battery having 12v, convert it to Magnetic Energy using electromagnets, and convert that kinetic energy to Mechanical Energy using the crankshaft. The electricity, stored in a battery, is the primary energy source. The energy is send to electromagnets which turn that electricity into Magnetic Energy, magnetic force. The magnetic force is used to turn a crankshaft. The crankshaft will increase the energy using Mechanical Advantage and send that Mechanical Energy to the wheel of the bike. By this rotation the bike will move. Due to this moving, front wheel is also rotate. 50W solar panel is used in the roof of the bike by which we can produce 12v. which will help to charge the battery.</p>	

<p>Dr. A. Ravi 2018 - 19</p>	<p><u>HYBRID ELECTRIC VEHICLE</u></p> <p>A group of final year students of electrical and electronics engineering (EEE) department have designed a new, hybrid Electric car. The weight of the car is 50-kg and it has a pulling capacity of 250-kg in which three people could comfortably travel in the vehicle, powered by solar batteries that are charged by a solar panel fixed on top of the car. The car's specialty is its drives. Brushless DC motor is used to drive the vehicle. It is fixed on the hub of the rear wheels because it reduces power loss. It is an eco-friendly vehicle and once the battery is fully charged, the car could run at good speed, up to even 80-km per hour.</p>	
<p>Dr. M. Latha 2018-19</p>	<p><u>REAL TIME APPLICATION USING ARDUINO FOR AUTOMATION OF DOMESTIC LOADS</u></p> <p>We have developed a system that we can control and monitor the home appliances using any devices having an internet connection. Home automation refers to handling and controlling home appliances by using ESP-8266 technology instead of Arduino and other microcontrollers. It provided with two ways of sending the control signal by IoT (web) and Bluetooth. So, it is reliable one. The system defined here has used internet for handling home automation. We have used both Wi-Fi and Bluetooth connection which enable the user to interact with the controller via web. A series of solid state relays which is established in the circuit so that they can be easily controlled over internet. A set of sensors will constantly monitor the home appliances and provide automation and control by full time monitoring. Efficient home automation system that we used here does not have any range limitations and are more advanced. In our design we implemented ON/OFF functionality along with the productivity, security and the entire home appliances are controlled by using android application.</p>	

Dr. N. Dhanasekar
17 - 18

IMPLEMENTATION OF HEAD ORIENTATION
CONTROLLER FOR WHEELCHAIR USING MEMS
SENSOR

In this project an automated system helps in controlling the motor rotation of wheel chair based on head movement for amputated arms and paralyzed patients. In order to facilitate these people for their independent movement, MEMS sensor placed on the person's head. Based on the head movements the MEMS sensor will drive the motor fitted to the wheel chair. This wheel chair can move in any of the directions. This system also incorporate obstacle sensor for obstacle detection, temperature and heart beat sensor for measuring bio-signals.

