



VINAYAKA MISSION'S
RESEARCH FOUNDATION
(Deemed to be University under section 3 of the UGC Act 1956)



VINAYAKA MISSION'S
KIRUPANANDA VARIYAR
ENGINEERING COLLEGE

VINAYAKA MISSION'S KIRUPANANDA VARIYAR ENGINEERING COLLEGE, SALEM
(A Constituent College of Vinayaka Missions Research Foundation, Deemed to be University, Salem)

(NAAC Accredited and AICTE Approved)

NH-47, Sankari Main Road, Periya Seeragapadi, Salem – 636 308

Department of Electronics and Communication Engineering

Name of the Thrust Area:	Centre for Innovative Research for Developing Electronic Gadgets
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About the Centre

Centre for Innovative Research to Develop Electronic Gadgets is a shared facility that provides leadership, best practices, research support, and training for the students in a focus area. The focus area might be a technology, a business concept, a skill or a broad area of study. It serves as a knowledge base to facilitate state of art in engineering related products.

The centre provides a platform for the faculty/students to shape their innovative idea as a team or individual. It supports transforming their basic research into novel algorithms and further translates their idea into innovative products. Innovative ideas are filed for patents in intellectual property rights of India. Most of the projects were designed and fabricated by our students and staff in this centre.

This support allows the student to showcase their innovative projects in various project contexts, symposiums, conferences and various funding agencies. It also promotes the students into young entrepreneurs and to motivate them to their higher education in their field of interest.

Objectives

- To promote wide range of research from basic research to cutting-edge research.
- Establish a research arrangement corresponding to promotion of academic and industrial research.

Thrust areas of Research

- Healthcare
- Electronic Gadgets
- Robotics
- VLSI & Embedded Systems
- Renewable Energy Sources

Centre In charge:

Dr.T.Muthumanickam

Professor and Head

Department of Electronics and Communication Engineering

Members of the Faculty:

Prof S.Selvaraju

Dr.T.Sheela

Dr.B.Rajasekaran

Dr.S.Valarmathy

Mr.G.Sureshkumar

Full Time Research Scholars

Mr.M.P Varghese

Mr.Chandrasekhar kumar

Resources available

S.No	Available Infrastructures
1.	Basic Hardware Assembling Kits
2.	4K 3D Printer
3.	<u>Desktop PC</u> I5 System
4.	Hardware Development KIT Fixed and Floating point Digital Signal Processors, Renesas R8C Microcontroller Development kit, Microprocessors and Microcontrollers (8051, ARM 7)

Products completed in this centre

I. With the support of Micro Small Medium Enterprise -Indian Institute of Science- Centre of Excellence, (MSME-IISc) - Bangalore

- Intelligent Helmet
- Smart Vision System for Visually Impaired People

II. With the support of Micro Small Medium Enterprise (MSME), New Delhi

- Aadhaar Card Based Online Voting System
- Advanced Women Safety System for Physical Harassment and Acid Attacking
Enhanced Blind View Accident Avoidance System for Vehicles

Completed Projects

S.No	Principal Investigator	Title of the Project	Name of the Sponsoring Agency	Sponsored Amount in Rs
1	Dr.T.Muthumanickam Dr.A.Rajan Samuel Dr.T.Sheela	An Analysis and alert system for imbalanced weight distribution of Sitting Posture	Seed Money Vinayaka Mission's Research Foundation Deemed to be University	200000.00
2	Dr.T.Sheela Dr.T.Muthumanickam	Precision Integrated Agriculture Using Big Data	Seed Money Vinayaka Mission's Research	200000.00

			Foundation Deemed to be University	
3	Dr.S.Valarmathi Dr.R.Ramani	An Improved Machine Learning Framework for detecting the early stages of Dementia through automatic Classification of MRI Images	Seed Money Vinayaka Mission's Research Foundation Deemed to be University	195000.00

Ongoing Projects:

S.No	Principal Investigator	Title of the Project	Name of the Sponsoring Agency	Sponsored Amount in Rs
1.	Mr.G.Sureshkumar Dr.T.Sheela Dr.T.Sudhakar	Post-Operative Management for Fractured Patent Rehabilitation using Internet of Things	Seed Money Vinayaka Mission's Research Foundation Deemed to be University	190000.00

R &D Consultancy Projects Completed

S.No	Name of the Consultant	Name of the R & D Consultancy Project	Consulting Agency with Contact Details	Year	Revenue Generated in Rs.
1.	Dr. T. Muthumanickam Professor & Head/ECE VMKVEC, Salem & Dr.A.Nagappan Principal VMKVEC, Salem	Cost Effective Smart Ventilator System for COVID - 19 Pandemic	M.S. Electronik Industries, 164, Gopalapuram (PO), P. N. Palayam (TK), Salem – 636107. Mobile. No: 9443028385	2019-2020	1.10 Lakhs

Consultancy Details:

S.No	Name of the Consultant	Name of the Advisory Consultancy Project	Consulting Agency with Contact Details	Year	Revenue Generated in Rs.
1.	Dr. T. Muthumanickam Professor & Head Department of Electronics and Communication Engineering	Software Coding for VLSI Development Board	M.S. Electronik Industries, 164, Gopalapuram (PO), P. N. Palayam (TK), Salem – 636107. Mobile. No: 9443028385	2019- 2020	0.26

Patent Filed

S.No	Name of the Applicant	Title of the Patent	File No
1	Dr.T. Muthumanickam & etal	Solar security system with light & Motion Sensor	355143-001
2	Mr.G.Ramachandran & etal	Artificial Intelligence Based Nerve Activation Device for Health Care Treatment	353917-001
3	Dr.T. Muthumanickam & etal	An Electronics Machine for Vibration Measurement	351493-001
4	Dr.T. Muthumanickam & etal	Internet of Things Based Camera for Healthcare Management	351033-001
5	Mr.G.Sureshkumar & etal	A wearable article with sensors and ML&AI modules for analysing behaviour of user	202141024071
6	Dr.T. Sheela & etal	A Novel System based on Random Sample Consensus(RANSAC) for IRIS Recognition in Non- Ieadl Imaging Conditions	202141023786
7	Dr.T. Muthumanickam & etal	A Novel Method and System for Designing VLSI Circuitry to Optimize the Integrated Circuit Operation	202141020084
8	Dr.T. Muthumanickam & etal	An Artificial Intelligence Based Voice Commanding Glucose Monitoring and Determining System	202121019989
9	Dr.T. Muthumanickam & etal	A System Based on Neural Network to Refine the Heuristic Data with Image Processing Techniques	202141019150
10	Dr.T. Sheela & etal	Artificial Intelligence for Agriculture Applications	202041010246 A