



# **SRI SIVASUBRAMANIYA NADAR COLLEGE OF ENGINEERING**

(An Autonomous Institution)  
Kalavakkam – 603 110

## **ACADEMICS**

### **4.1 Applied learning for sustainability program**

Submitted to

**The Sustainability Tracking, Assessment & Rating  
System (STARS)**

#### 4.1 Applied learning for sustainability program

- List or sample of currently active/available applied learning or living laboratory experiences for students that address sustainability challenges

Following are the areas of institutional infrastructure and operations does SSN uses in teaching students about the topics of sustainability:

1. Students have completed research projects funded by the management related to Sustainability in the following areas.

##### **Buildings:**

Feasibility and sustainability of M-sand waste as an alternate for brick manufacturing

Study on the mechanical properties of concrete with silicon carbide waste as partial replacement of aggregate.

##### **Energy:**

Design and fabrication of low-cost solar powered electric vehicle.

##### **Grounds:**

Development of a sustainable auger

##### **Transportation:**

SSN-Indoor Navigation system

##### **Water:**

Removal of fluoride from water using a neo surface textured bio-sorbent.

Optimization of operational parameters for the adsorption of phosphates and nitrates from water to sustainably activate carbon.

##### **Waste:**

Design and fabrication of membrane bioreactor for the management of wastewater.

Pyrolysis of waste plastics into fuel.

##### **Campus engagement:**

Solar based charging station for E vehicles

Solar powered cell phone charging station

2. The events like seminar & national were organised for students as applied learnings for sustainability.

**SRI SIVASUBRAMANIYA NADAR COLLEGE OF ENGINEERING  
KALAVAKKAM-603110**

**EEE - PG STUDENT PROJECTS**

| S. No | Name and Year of the Student(s) | Project Guide(s) | Title of the Project  | Duration  | Budget & Items Approved  |
|-------|---------------------------------|------------------|---|-----------|--|
| 1     | Raghul. R<br>II year            | Dr. V. Rajini    | Sensor-less Control of Permanent Magnet Motor for Enhanced Electric Vehicle Performance | 11 Months | <b>Budget: Rs.28000</b><br><br><b><u>Items Approved:</u></b><br>1. BLDC Motor<br>2. PCB Fabrication<br>3. Electrical Items<br>4. Miscellaneous |

**SRI SIVASUBRAMANIYA NADAR COLLEGE OF ENGINEERING  
KALAVAKKAM-603110**

**EEE - UG STUDENT PROJECTS**

| S. No | Name and Year of the Student(s)   | Project Guide(s)   | Title of the Project   | Duration  | Budget & Items Approved   |
|-------|---|--------------------|--|-----------|---|
| 1     | Vedha Varrshini. J<br>Sreyasi. S<br>II year   | Dr. V. Rajini      | Design and analysis of Axial flux motor drives for electric two wheeler application                            | 12 Months | <b>Budget: Rs.30000</b><br><br><b><u>Items Approved:</u></b><br>1. Hub Motor Fabrication<br>2. Miscellaneous  |
| 2     | Nehasri. H<br>Sornaharini. D<br>II year   | Dr. V.S. Nagarajan | Design and analysis of Inset Permanent Magnet motor drives for energy efficient Ceiling Fan application        | 18 Months | <b>Budget: Rs.30000</b><br><br><b><u>Items Approved:</u></b><br>1. Permanent Magnet Inset Motor<br>2. Miscellaneous   |
| 3     | Shreyas Y<br>Subramanian<br>III year<br>Sakthi Santosh C<br>Santhosh G S<br>IV year | Dr. V.S. Nagarajan | Design and comparative evaluation of Less Permanent Magnet/Magnet-less motor drives for Cargo Bike application | 12 Months | <b>Budget: Rs.29000</b><br><br><b><u>Items Approved:</u></b><br>1. Outer Rotor Hub Fabrication<br>2. Inner Stator Fabrication<br>3. Permanent Magnets<br>4. Miscellaneous |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|   |  |                               |  |           |   |
|---|--|-------------------------------|--|-----------|---|
| 4 | Poojashri K M<br>Radha Rukmani V<br>Yuva Prasath S<br>II year                | Dr. V.S. Nagarajan            | Design and Development of High Efficiency Induction Motor for Air Conditioning Application | 18 Months | <b>Budget: Rs.29000</b><br><br><b><u>Items Approved:</u></b><br>1. Compressor System<br>2. Optimized Induction Motor<br>3. Miscellaneous                                      |
| 5 | Sai Kanna R<br>Raymond Jude<br>Harini Sree V S<br>Saraswathy T D<br>III year | Dr. K. Usha                   | IoT-based Battery and PMSM Monitoring System   | 12 Months | <b>Budget: Rs.26000</b><br><br><b><u>Items Approved:</u></b><br>1. Arduino UNO<br>2. Electrical Components<br>3. Miscellaneous  |
| 6 | Krishnapriya S<br>Komal Y<br>Vishnuvarshini R<br>II year                     | Dr. Arun<br>Ramaveerapathiran | Development of Transmission Line Fault Detection System                                    | 12 Months | <b>Budget: Rs.7500</b><br><br><b><u>Items Approved:</u></b><br>1. Arduino Nano<br>2. Electrical Components<br>3. Miscellaneous  |
| 7 | Indhuja S K<br>Arini R S M<br>III year                                       | Dr. V.<br>Thiyagarajan        | IoT Based IV Pole Monitoring System  | 12 Months | <b>Budget: Rs.25000</b><br><br><b><u>Items Approved:</u></b><br>1. Strain Gauge Load Cell<br>2. SMPS<br>3. Arduino Controller<br>4. Electrical Components<br>5. Miscellaneous |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |   |                             |  |           |  |
|----|---|-----------------------------|--|-----------|--|
| 8  | Deepti K<br>Manasa K<br>III year  | Dr. R. Seyezhai             | Efficient Solar-based Energy Harvesting with Supercapacitor for IoT Devices                                  | 12 Months | <b>Budget: Rs.23000</b><br><br><b><u>Items Approved:</u></b><br>1. PV Panel<br>2. MOSFET<br>3. Electrical Components<br>4. Miscellaneous   |
| 9  | A. Harish<br>M. Karthic Thangam<br>A. Muthukumar<br>IV year<br>R B Alagar Karthick<br>II year | Dr. R. Ramaprabha           | Implementation of Adjustable Gain Three Port Converter Microgrid System                                      | 7 Months  | <b>Budget: Rs.23000</b><br><br><b><u>Items Approved:</u></b><br>1. IGBT<br>2. Electrical Components<br>3. Miscellaneous  |
| 10 | Sa. Viswavardhini<br>Shrikar S<br>Vivekanath N M<br>Pragadeesh M<br>Sajanitha R<br>III year   | Dr. G.R.<br>Venkatakrishnan | Energy Theft and defective Meter Detection   | 24 Months | <b>Budget: Rs.18000</b><br><br><b><u>Items Approved:</u></b><br>1. MEGA2560 Controller Board<br>2. Electrical Components<br>3. Miscellaneous                                     |
| 11 | Vaduhammal V<br>IV year<br>Parameshwaran R<br>Sanjay M S<br>III year                          | Dr. V.<br>Thiyagarajan      | Design and Implementation of Reduced Voltage Stress Asymmetrical Multilevel Inverter with Optimal Components | 12 Months | <b>Budget: Rs.18000</b><br><br><b><u>Items Approved:</u></b><br>1. Power Switches<br>2. Driver Circuits<br>3. Controller Circuit<br>4. Electrical Components<br>5. Miscellaneous |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |  |                        |  |           |  |
|----|--|------------------------|--|-----------|--|
| 12 | Dhanush Priya S<br>Gunali T<br>Kaarventhan<br>II year        | Dr. K. K.<br>Nagarajan | Smart Farming using IoT and AI   | 12 Months | <b>Budget: Rs.25000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. Sensors<br>3. Electrical Components<br>4. Miscellaneous                      |
| 13 | Aathiswari M<br>Aswin S<br>Deepika M<br>III year             | Dr. R. Ramaprabha      | Implementation of Non-Isolated Single-Phased Quadratic Switched-Boost Inverter with Step-Up Inversion Capability | 16 Months | <b>Budget: Rs.25000</b><br><br><b><u>Items Approved:</u></b><br>1. IGBT<br>2. Electrical Components<br>3. Arduino Mega Kit<br>4. Miscellaneous                     |
| 14 | Rajamithra K<br>Renuka B<br>Rashmika V<br>III year           | Dr. R. Ramaprabha      | Development of Soldier Vest for Enhanced Military Performance and Safety   | 16 Months | <b>Budget: Rs.13000</b><br><br><b><u>Items Approved:</u></b><br>1. Arduino Mega Kit<br>2. Sensors<br>3. Electrical Components<br>4. GPS Module<br>5. Miscellaneous |
| 15 | C Sneka<br>IV year<br>L Anshul<br>K Vishnuvarthan<br>II year | Dr. V.<br>Thiyagarajan | A Pencil Shaped Multilevel Inverter with Voltage Boosting Ability for Electric Vehicle Applications              | 12 Months | <b>Budget: Rs.18000</b><br><br><b><u>Items Approved:</u></b><br>1. MOSFET<br>2. IGBT   |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |   |   |  |           |   |
|----|---|---|--|-----------|---|
|    |   |   |  |           | 3. Arduino Controller<br>4. Electrical Components<br>5. Miscellaneous   |
| 16 | Anbu Sucitra. S<br>Harini. M<br>K. Harini Shri<br>Illakkiya. A.K<br>II year | Dr. Sajjan Kumar<br>EEE<br>Dr. Sachin Sarate<br>BME | IoT based Smart Cardiac Health Monitoring System for Remote Area Applications                | 18 Months | <b>Budget: Rs.10000</b><br><br><b><u>Items Approved:</u></b><br>1. Arduino Board<br>2. Sensors<br>3. Electrical Components<br>4. Miscellaneous  |
| 17 | Sam Infant Jude<br>Varshini S<br>Sri Vidhya J<br>III year                   | Dr. M. Balaji                                       | Smart Traffic management System for Emergency Vehicle Using Internet of Things (IoT)         | 9 Months  | <b>Budget: Rs.12000</b><br><br><b><u>Items Approved:</u></b><br>1. Microcontroller<br>2. RFID Reader<br>3. Electrical Components<br>4. Sensor<br>5. Miscellaneous                       |
| 18 | Ariharasudhan A<br>Asvikaa KMR<br>Jeyakkavi M<br>II year                    | Dr. U. Shajith Ali                                  | IoT-based Smart Traffic Management System with an Integrated Speed Controller for E-Vehicles | 18 Months | <b>Budget: Rs.20000</b><br><br><b><u>Items Approved:</u></b><br>1. Camera<br>2. IoT Communication Module<br>3. Arduino<br>4. GPS Module<br>5. Electrical Components<br>6. Miscellaneous |



### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |   |                             |   |           |  |
|----|---|-----------------------------|---|-----------|--|
| 19 | Viswesh T<br>Esha Agnes<br>Kayalvizhi A M<br>II year                                  | Dr. P. Saravanan            | Development of Electric Vehicle System for Patient Mobility | 12 Months | <b>Budget: Rs.20000</b><br><br><b><u>Items Approved:</u></b><br>1. Battery & Charger<br>2. STM/FPGA<br>3. GPS Module<br>4. Electrical Components<br>5. Miscellaneous |
| 20 | Mandati Sai<br>Sudhir K<br>Mohamed Anas S<br>II year<br>Suvathi Priya J S<br>III year | Dr. G.R.<br>Venkatakrishnan | Smart College Bus Management System                         | 12 Months | <b>Budget: Rs.25000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. GPS Module<br>3. Electrical Components<br>4. Miscellaneous                     |
| 21 | Mahalakshmi. R<br>Mahalakshmi. S<br>Sriram. S<br>II year                              | Dr. R. Rengaraj             | Smart Car System  | 24 Months | <b>Budget: Rs.28000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. Radar Sensor<br>3. Electrical Components<br>4. Miscellaneous                   |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |   |                 |   |           |  |
|----|---|-----------------|---|-----------|--|
| 22 | Shyam Sainarayanan<br>Varadharajan<br>Sachin Rangabaskar<br>S. Monish Kumar<br>Dheva. S.L.<br>II year | Dr. M. Balaji   | Smart Automated Reservoir<br>Management for Optimal Irrigation<br>and Flood Control | 12 Months | <b>Budget: Rs.23000</b><br><br><b><u>Items Approved:</u></b><br>1. Sensors<br>2. Arduino UNO<br>3. Electrical Components<br>4. Miscellaneous |
| 23 | Smithaa. S<br>S. Sai Likhitha<br>Tejaswini<br>Sriharini. K<br>Saimugil. R<br>III year                 | Dr. R. Seyezhai | Implementation of Solar Homesteads<br>for Rural Electrification                     | 12 Months | <b>Budget: Rs.28000</b><br><br><b><u>Items Approved:</u></b><br>1. PV Panel<br>2. Battery<br>3. Electrical Components<br>4. Miscellaneous    |

**SRI SIVASUBRAMANIYA NADAR COLLEGE OF ENGINEERING**  
**KALAVAKKAM-603110**

**ECE - UG STUDENT PROJECTS**

| S. No | Name and Year of the Student(s)                            | Project Guide(s)     | Title of the Project   | Duration  | Budget & Items Approved  |
|-------|--|----------------------|--|-----------|--|
| 1     | Shri Dharshini S<br>Manickam P A<br>III Year               | Dr. P. Vijayalakshmi | Speech enabled help desk   | 12 months | <b>Budget: Rs.23000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. LCD HD Display<br>3. Electronic Components<br>4. Miscellaneous |
| 2     | Biancaa R<br>Rachel Tania A<br>Rupadharshini R<br>II year  | Dr. A. Jawahar       | Forewarning of Goat diseases diagnosis using IoMT to improve the productivity and economy of small and big farming | 12 months | <b>Budget: Rs.18000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. Sensors<br>3. Electronic Components<br>4. Miscellaneous        |
| 3     | K Harish Balaji<br>B Pragdeesh<br>T sudhakaran<br>III year | Dr. A. Jawahar       | Remote water quality monitoring and alert system   | 15 months | <b>Budget: Rs.30000</b><br><br><b><u>Items Approved:</u></b><br>1. Industry Garde Water EC Sensor<br>2. Miscellaneous                                |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|   |   |                          |  |           |  |
|---|---|--------------------------|--|-----------|--|
| 4 | Chanakya R<br>Indra SS<br>Leka K<br>II year             | Dr. N. Edna Elizabeth    | Unclouded vision – Integrated Eye Stress Management system                     | 12 months | <b>Budget: Rs.14000</b><br><br><b><u>Items Approved:</u></b><br>1. Sensors<br>2. Battery<br>3. Arduino Board<br>4. Electronic Components<br>5. Miscellaneous                       |
| 5 | Sowmika D<br>Sirisha R N<br>Anamika Arivu<br>II Year    | Dr. K.<br>Muthumeenakshi | Smart optical nano sensor for copper detection in aqueous media                | 12 months | <b>Budget: Rs.18000</b><br><br><b><u>Items Approved:</u></b><br>1. Glasswares<br>2. Characterization<br>3. Electronic Components<br>4. Miscellaneous                               |
| 6 | Kavya S<br>Mirthulaa Shree P<br>Dharshini SS<br>II year | Dr. S. Hanis             | Automated testing of product defect in textile industry using machine learning | 24 months | <b>Budget: Rs.26000</b><br><br><b><u>Items Approved:</u></b><br>1. Cloud Storage<br>2. Deep Learning VM Images<br>3. AutoML Vision<br>4. Electronic Components<br>5. Miscellaneous |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|   |  |                       |   |           |  |
|---|--|-----------------------|---|-----------|--|
| 7 | Pranathi S<br>Rupasree V<br>Vishnu Rajhan M N<br>II year             | Dr. P. Kaythry        | Sustainable Weather Monitoring and Auto-irrigation system for smart rooftop gardening | 12 months | <b>Budget: Rs.14000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. Sensors<br>3. Solar Panels<br>4. Electronic Components<br>5. Miscellaneous     |
| 8 | Manoj M R<br>Mukund R<br>Padmapriya V<br>III year                    | Dr. B. Sakthi Abirami | RF sensor for precise monitoring of moisture and nutrients in agriculture             | 24 months | <b>Budget: Rs.16000</b><br><br><b><u>Items Approved:</u></b><br>1. Sensor Fabrication<br>2. Microcontroller<br>3. Electronic Components<br>4. Miscellaneous          |
| 9 | Justin Benito B<br>Tharun Karthikeyan S<br>Poojitha Shree<br>II year | Dr. S. Karthie        | Efficient Vehicle Management system using Automatic number plate recognition ( ANPR)  | 12 months | <b>Budget: Rs.20000</b><br><br><b><u>Items Approved:</u></b><br>1. REES52 Camera<br>2. Raspberry Pi<br>3. GSM Module<br>4. Electronic Components<br>5. Miscellaneous |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |  |                       |  |           |  |
|----|--|-----------------------|--|-----------|--|
| 10 | Karun Pias Aro S<br>Kishore L<br>II year                   | Dr. G. Durga          | Develop a system to detect objects behind steel wall                                     | 18 months | <b>Budget: Rs.23000</b><br><br><b><u>Items Approved:</u></b><br>1. Signal Processing Unit<br>2. Amplification Unit<br>3. Electronic Components<br>4. Miscellaneous |
| 11 | Anusha M<br>Aislin Joye<br>Anumeha R<br>II year            | Dr. R. Amutha         | IoT based smart granary monitoring system  | 10 months | <b>Budget: Rs.17000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. Sensors<br>3. 3D Printing<br>4. Electronic Components<br>5. Miscellaneous    |
| 12 | Nasreen D<br>Niveditha S<br>III year                       | Dr. N. Edna Elizabeth | Contactless charging of mobile phones using RFID   | 12 months | <b>Budget: Rs.8000</b><br><br><b><u>Items Approved:</u></b><br>1. RFID Card Reader<br>2. Electronic Components<br>3. Miscellaneous                                 |
| 13 | Bandaru Kundana Sri<br>Chinmaiye V<br>Divya Jha<br>II year | Dr. P. Kaythry        | Safety for paragliders based on atmospheric pressure prediction and monitoring using IOT | 12 months | <b>Budget: Rs.15000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. Powerbank<br>3. Electronic Components<br>4. Miscellaneous                    |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |   |                     |   |           |   |
|----|---|---------------------|---|-----------|---|
| 14 | Revan Kumar<br>Kirubakaran<br>Sanjay Chandran<br>Shivayogesh J<br>II Year | Dr. W. Jino Hans    | Extraction of information from curved surfaces using computer vision-Techniques | 12 months | <b>Budget: Rs.8000</b><br><br><b><u>Items Approved:</u></b><br>1. Pi Camera<br>2. LED Display<br>3. Electronic Components<br>4. Miscellaneous             |
| 15 | Aruna K<br>Padmaja R<br>Swetha S V<br>II Year                             | Dr. R. Kishore      | Charging IoT devices using footsteps  | 12 months | <b>Budget: Rs.7500</b><br><br><b><u>Items Approved:</u></b><br>1. Arduino UNO<br>2. Battery<br>3. Sensors<br>4. Electronic Components<br>5. Miscellaneous |
| 16 | Krupanidhi Dwibashini<br>Shruti Chandrasekar<br>Shweatha B                | Dr. C. Vinoth Kumar | AI-based Leaf Disease Identification using IoT                                  | 18 months | <b>Budget: Rs.10000</b><br><br><b><u>Items Approved:</u></b><br>1. Arduino UNO<br>2. ESP32 Camera<br>3. Electronic Components<br>4. Miscellaneous         |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |   |                        |   |           |  |
|----|---|------------------------|---|-----------|--|
| 17 | Haritha J<br>Aarthi R<br>Vinodhini R<br>III year        | Dr. M. P. Actlin Jeeva | Lombard speech synthesizer for PA systems                           | 12 months | <b>Budget: Rs.23000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. LCD Display<br>3. Electronic Components<br>4. Miscellaneous                |
| 18 | Aravindh K<br>Sri sai Niranjana N<br>II year            | Dr. R. Hemalatha       | A Tiny ML based solution for smart agriculture                      | 12 months | <b>Budget: Rs.23000</b><br><br><b><u>Items Approved:</u></b><br>1. WIO Terminal<br>2. Sensors<br>3. Electronic Components<br>4. Miscellaneous                    |
| 19 | Kethanaa W V<br>Nishanthini J<br>Sukeerthi S<br>II year | Dr. P. Kaythry         | Adaptive Traffic system based on traffic density (IoT Domain)       | 10 months | <b>Budget: Rs.12000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. Battery Pack<br>3. Sensors<br>4. Electronic Components<br>5. Miscellaneous |
| 20 | Gopinath M<br>Haricharan B<br>Joshua Daniel<br>III year | Dr. B. Ramani          | Handwritten mathematical expression recognition from video lectures | 12 months | <b>Budget: Rs.7000</b><br><br><b><u>Items Approved:</u></b><br>1. Wacom CTL<br>2. Electronic Components<br>3. Miscellaneous                                      |



### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |  |                          |  |           |  |
|----|--|--------------------------|--|-----------|--|
| 21 | Arvinth TE<br>Karthikeyan J<br>Sivabharathi M<br>II year | Dr. B. Partibane         | An IOT enabled smart farming system to maximise farmer's yield | 12 months | <b>Budget: Rs.22000</b><br><br><b><u>Items Approved:</u></b><br>1. Arduino UNO<br>2. WiFi Module<br>3. Battery<br>4. Electronic Components<br>5. Sensors<br>6. Miscellaneous |
| 22 | Cristen G<br>Kavin R B<br>Aswinraghav G<br>III year      | Dr. S. Aasha<br>Nandhini | Edge based video surveillance system for Anomaly Detection     | 12 months | <b>Budget: Rs.12000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. Web Camera<br>3. Electronic Components<br>4. Miscellaneous                             |
| 23 | Gracia G<br>Karthayani T. S<br>II year                   | Dr. M. Anbuselvi         | Sensors enabled assistive systems                              | 10 months | <b>Budget: Rs.22000</b><br><br><b><u>Items Approved:</u></b><br>1. Skin Sensor Module<br>2. Sensors<br>3. Electronic Components<br>4. Miscellaneous                          |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |  |                             |   |           |   |
|----|--|-----------------------------|---|-----------|---|
| 24 | M M Bharath Ram<br>R. Gokulakrishnan<br>Karthik Raju R D<br>III Year | Dr. R. Rajavel              | Electrical Fault Diagnosis of industrial machines                           | 12 months | <b>Budget: Rs.30000</b><br><br><b><u>Items Approved:</u></b><br>1. Induction Motor<br>2. Raspberry Pi<br>3. Sensor Module<br>4. Electronic Components<br>5. Miscellaneous     |
| 25 | Aswin Dava A<br>Ashiq S<br>Harshavardan S<br>II year                 | Dr. M. P. Actlin Jeeva      | Personalised Synthetic voice communication tool                             | 12 months | <b>Budget: Rs.19000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. LCD Display<br>3. Electronic Components<br>4. Miscellaneous                             |
| 26 | K. Vijay Balachandar<br>V. Tarun<br>III year                         | Dr. S. Sakthivel<br>Murugan | Hybrid underwater energy harvesting system using ocean water and solar cell | 18 months | <b>Budget: Rs.25000</b><br><br><b><u>Items Approved:</u></b><br>1. Electrodes<br>2. Chemicals<br>3. Stack Galvanic Cell<br>4. Polycrystalline Solar Cells<br>5. Miscellaneous |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |  |                             |   |           |   |
|----|--|-----------------------------|---|-----------|---|
| 27 | Madhan V<br>Sivaprasath S<br>Harshini J<br>II Year       | Dr. K. J. Jegadish<br>kumar | IOT-Based smart aquarium                          | 12 months | <b>Budget: Rs.10000</b><br><br><b><u>Items Approved:</u></b><br>1. Arduino Mega 2560<br>2. ESP Module<br>3. Sensors<br>4. Electronic Components<br>5. Miscellaneous |
| 28 | Srivatsan M<br>Yuvan M<br>Masimukku Srinivasa<br>Poojith | Dr. R. Rajavel              | Smart Parking system using Lorawan                | 12 months | <b>Budget: Rs.23000</b><br><br><b><u>Items Approved:</u></b><br>1. Sensors<br>2. Gateway Module<br>3. Electronic Components<br>4. Raspberry Pi<br>5. Miscellaneous  |
| 29 | Kirthika G<br>Shreejeevan C<br>Pavithra S                | Dr. K. J. Jegadish<br>Kumar | Wireless RF Energy Harvesting using<br>5G antenna | 18 months | <b>Budget: Rs.12000</b><br><br><b><u>Items Approved:</u></b><br>1. Fabrication<br>2. Substrate<br>3. SMA Connector<br>4. Electronic Components<br>5. Miscellaneous  |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |  |                             |  |           |  |
|----|--|-----------------------------|--|-----------|--|
| 30 | Pugazhendhi K<br>Kavin Rengasamy T<br>Jagadish Prasanna T A<br>II Year | Dr. R. Rajavel              | An image descriptor for visually challenged people   | 12 months | <b>Budget: Rs.21000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. Camera Module & SD Card<br>3. Electronic Components<br>4. Miscellaneous    |
| 31 | Jeevanandham R<br>Jayaprakash K<br>Kalaiselvi K<br>II year             | Dr. N. Edna Elizabeth       | Pollution monitoring and detection in green campus (SSNCE) using IOT through APP development | 12 months | <b>Budget: Rs.11000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. Power Source<br>3. SD Card<br>4. Electronic Components<br>5. Miscellaneous |
| 32 | S. Nisha Nethraa<br>M Pranav<br>IV year                                | Dr. S. Sakthivel<br>Murugan | Enhancement and Restoration of blurred underwater images                                     | 18 months | <b>Budget: Rs.28000</b><br><br><b><u>Items Approved:</u></b><br>1. Underwater Camera<br>2. Miscellaneous   |
| 33 | Kaaviya E<br>Kavinshree P<br>Yhokesh D<br>II year                      | Dr. K.<br>Muthumeenakshi    | Energy Consumption Prediction using machine Learning   | 12 months | <b>Budget: Rs.10000</b><br><br><b><u>Items Approved:</u></b><br>1. WiFi and Bluetooth Module<br>2. Sensors<br>3. Electronic Components<br>4. Miscellaneous       |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |  |                       |                                |           |  |
|----|--|-----------------------|--------------------------------|-----------|--|
| 34 | A. Sreenivas<br>M. Siva Prasath<br>R. Rohith | Dr. N. Edna Elizabeth | Contactless doorbell using IOT | 12 months | <b>Budget: Rs.9000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. Camera Module<br>3. Sensors<br>4. Electronic Components<br>5. Miscellaneous |
|----|--|-----------------------|--------------------------------|-----------|--|

**SRI SIVASUBRAMANIYA NADAR COLLEGE OF ENGINEERING  
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**CSE - UG STUDENT PROJECTS**

| S. No | Name and Year of the Student(s)   | Project Guide(s)         | Title of the Project  | Duration  | Budget & Items Approved  |
|-------|---|--------------------------|---|-----------|--|
| 1     | Prithivirajan D<br>Rishab S<br>Tarunraj R<br>II year  | Dr. K.R. Sarath Chandran | Gesture Controlled Smart Suitcase   | 12 Months | <b>Budget: Rs.20000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. USB Camera<br>3. Electronic Components<br>4. Miscellaneous             |
| 2     | Apurva Narayan<br>Olirva M<br>Charumathi P<br>III year  | Dr. K.R. Sarath Chandran | Prototyping a Graph-Based Approach for Efficient Vehicle Tracking in a Cluster Controlled CCTV Surveillance systems | 12 Months | <b>Budget: Rs.23000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. Electronic Components<br>3. Miscellaneous                              |
| 3     | Rohith Arumugam S<br>Samah Syed<br>Muhammed Aadhil A<br>Abishna A<br>Mathavaroopan S<br>II year | Dr. V. Balasubramanian   | Smart Power Consumption Monitoring System   | 12 Months | <b>Budget: Rs.18000</b><br><br><b><u>Items Approved:</u></b><br>1. Sensors<br>2. Router<br>3. Cloud Clusters<br>4. Electronic Components<br>5. Miscellaneous |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|   |   |                              |  |           |  |
|---|---|------------------------------|--|-----------|--|
| 4 | Srivathsan S<br>Harikumar G<br>Rajesh G<br>II year                            | Dr. K. R. Sarath<br>Chandran | Wall Cleaning Robot For High<br>Rise Building  | 12 Months | <b>Budget: Rs.23000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. Arduino Board<br>3. Electronic Components<br>4. Miscellaneous          |
| 5 | Vaidhegi D<br>Rajasekar<br>Srilakshmisai K<br>Sruthi R<br>III year            | Dr. S. Rajalakshmi           | Speech-Enabled Server Robots for<br>Restaurants  | 12 Months | <b>Budget: Rs. 27000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. Sensors<br>3. Battery<br>4. Electronic Components<br>5. Miscellaneous |
| 6 | Dharunika S<br>Hemalatha R<br>Vishnu Praba A J<br>Vijay Srinivas S<br>II year | Dr. S. Angel Deborah         | Detection of Dust on High-rise<br>Building Glass Walls and<br>Visualization using Quadcopter | 12 Months | <b>Budget: Rs.25000</b><br><br><b><u>Items Approved:</u></b><br>1. HD Camera<br>2. Raspberry Pi<br>3. Electronic Components<br>4. Miscellaneous              |
| 7 | Raghul Yadhav K<br>III year<br>Harine Cellam N S<br>Nandhine A<br>II year     | Dr. K.R. Sarath<br>Chandran  | VR System for Interior Design  | 12 Months | <b>Budget: Rs.32000</b><br><br><b><u>Items Approved:</u></b><br>1. VR Headset<br>2. Miscellaneous  |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |  |                          |  |           |   |
|----|--|--------------------------|--|-----------|---|
| 8  | Ranjit Kumar G<br>II year<br>Dilfina D<br>III year                             | Dr. S. Angel Deborah     | AI-Enabled Smart Irrigation System for Precision Farming and Water Resource Management | 12 Months | <b>Budget: Rs.28000</b><br><br><b><u>Items Approved:</u></b><br>1. Sensors<br>2. Driver Board<br>3. Electronic Components<br>4. Miscellaneous   |
| 9  | Sitaraman A<br>Nikhil Narayanan S<br>Anandharaj D<br>Hannah<br>II year         | Dr. S. V. Jansi Rani     | IoT based Water Quality Monitoring System for Aquaculture                              | 12 Months | <b>Budget: Rs.24000</b><br><br><b><u>Items Approved:</u></b><br>1. Sensors<br>2. Raspberry Pi<br>3. Electronic Components<br>4. Miscellaneous   |
| 10 | Rohan Ravi Kumar<br>Aswathy AR<br>Shaun Allam H<br>V Vijay Karthick<br>II year | Dr. K.R. Sarath Chandran | Smart Automatic Windshield Wiper with Dust Detection                                   | 12 Months | <b>Budget: Rs.21000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. Pi Camera<br>3. Electronic Components<br>4. Miscellaneous |



### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |   |                      |   |           |   |
|----|---|----------------------|---|-----------|---|
| 11 | S Jagrath Mithun<br>K Harish<br>Deepak M<br>II year   | Dr. T. T. Mirnalinee | Navigation System for Vertical<br>Glass Cleaning Robot  | 12 Months | <b>Budget: Rs.24000</b><br><br><b><u>Items Approved:</u></b><br>1. Stepper Motor<br>2. Arduino UNO<br>3. Raspberry Pi<br>4. Electronic Components<br>5. Miscellaneous |
| 12 | Nandhalal S<br>Prashanna Kumar S<br>Micheal Berdiananth M<br>Pranav CM<br>II year                       | Ms. S. Lakshmi Priya | Smart Vehicle Security and safety<br>System: Integration of Theft<br>Detection and Accident Control | 12 Months | <b>Budget: Rs.15000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. GSM Module<br>3. Sensors<br>4. Electronic Components<br>5. Miscellaneous        |
| 13 | Abhishek Reddy<br>Lingareddy<br>Akshatha Anbalagan<br>Niranjana A<br>Shreedevi Seluka Balaji<br>II year | Dr. S. Angel Deborah | Smart Brailee Transcriber   | 12 Months | <b>Budget: Rs.20000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. Batteries<br>3. Electronic Components<br>4. Actuators<br>5. Miscellaneous       |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |   |                     |   |           |   |
|----|---|---------------------|---|-----------|---|
| 14 | B Saathvik<br>Nikilesh Jayaguptha<br>Abhishek K R<br>II year            | Dr. D. Thenmozhi    | Automated Drug Dispensing Machine based on IoT and Image Processing | 12 Months | <b>Budget: Rs.14000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. Stepper Motor<br>3. Electronic Components<br>4. Miscellaneous                 |
| 15 | Sanjay M<br>Krithika M<br>II year<br>Kevin John Daniel<br>III year      | Dr. T.T. Mirnalinee | 3D Printer  | 12 Months | <b>Budget: Rs.32000</b><br><br><b><u>Items Approved:</u></b><br>1. Sensors<br>2. Stepper Motors<br>3. Control Board<br>4. Electronic Components<br>5. Miscellaneous |
| 16 | Shankari S R<br>Kowshika S<br>Keerthana K<br>Keerthana. G. S<br>II year | Dr. T.T. Mirnalinee | Intelligent Robotic Arm for Recognition and Object Picking          | 12 Months | <b>Budget: Rs.25000</b><br><br><b><u>Items Approved:</u></b><br>1. Sensors<br>2. Raspberry Pi<br>3. Pi Camera<br>4. Electronic Components<br>5. Miscellaneous       |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |   |                      |   |           |  |
|----|---|----------------------|---|-----------|--|
| 17 | Sanjivan K.P<br>B. Vansari Vignesh<br>III year<br>Anierudh HS<br>Tharunithi TJ<br>II year | Dr. P. Mirunalini    | Remaining Discharge Time<br>Prediction For EV Batteries | 15 Months | <b>Budget: Rs.20000</b><br><br><b><u>Items Approved:</u></b><br>1. Electric Drive<br>2. Battery Pack<br>3. Charger<br>4. Electronic Components<br>5. Miscellaneous |
| 18 | Varun S. Roshan<br>IV year<br>Harsh Pratap Singh<br>Charan Balakrishnan<br>Dhinesh Ram K  | Dr. S. Angel Deborah | Red Weevil detection using sound<br>detection           | 10 Months | <b>Budget: Rs.22000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. Wireless Microphone<br>3. Electronic Components<br>4. Miscellaneous          |
| 19 | Krithik Sathya M<br>Aasish M<br>Fabrizio J<br>Naveed Buhari<br>III year                   | Dr. B. Prabavathy    | Human Following Smart Trolley<br>With Barcode Scanner   | 12 Months | <b>Budget: Rs.12000</b><br><br><b><u>Items Approved:</u></b><br>1. Arduino UNO<br>2. Sensors<br>3. Electronic Components<br>4. Miscellaneous                       |

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**IT - UG STUDENT PROJECTS**

| S. No | Name and Year of the Student(s)   | Project Guide(s)             | Title of the Project  | Duration  | Budget & Items Approved   |
|-------|---|------------------------------|---|-----------|---|
| 1     | Adharsh Gurudev V<br>Eraiyanbu P<br>Harini V<br>Harish R M<br>Kanitha S A<br>III year | Dr. Aravindan<br>Chandrabose | Smart Tamil Text Input Method For Android Systems   | 12 Months | <b>Budget: Rs.25000</b><br><br><b><u>Items Approved:</u></b><br>1. Tablet<br>2. Miscellaneous   |
| 2     | Naila Nuhmam<br>Priyamvadha Pradeep<br>Sanjeevini R<br>Vasundhara B<br>III year       | Dr. A. Shahina               | Analysing Tremors and Gait Patterns For Early Detection of Motor Disorder Symptoms in Neurodegenerative Disease | 24 Months | <b>Budget: Rs.24000</b><br><br><b><u>Items Approved:</u></b><br>1. Bluetooth Accelerometer<br>2. Drawing Monitor<br>3. Electronic Components<br>4. Miscellaneous                    |
| 3     | Padmapriya C<br>Madhukrishna N K<br>II year   | Dr. K. S. Gayathri           | Autonomous Delivery Robot   | 18 Months | <b>Budget: Rs.30000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. Web Camera<br>3. GPS Module<br>4. Fabrication<br>5. Electronic Components<br>6. Miscellaneous |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|   |   |                       |  |           |   |
|---|---|-----------------------|--|-----------|---|
| 4 | Amitoj Singh<br>Harsh Bansal<br>Neha Sharma<br>Mohammad Rayyan<br>III year            | Dr. K. S Gayathri     | AI-based Career Counselling  | 12 Months | <b>Budget: Rs.10000</b><br><br><b><u>Items Approved:</u></b><br>1. SQL Database<br>2. Domain Registration<br>3. Miscellaneous                                   |
| 5 | Annu G<br>Apoorva A<br>Farha Afreen<br>III year                                       | Dr. N. Radha          | Hate Speech Detection Using Machine Learning                                   | 8 Months  | <b>Budget: Rs.9000</b><br><br><b><u>Items Approved:</u></b><br>1. Wireless Camera<br>2. Microphone<br>3. Miscellaneous  |
| 6 | Prithik N<br>Purushothaman<br>Vemula Muni Karthik<br>Vijaymurugan N                   | Dr. Bhalaji Natarajan | AgriChain  | 24 Months | <b>Budget: Rs.18000</b><br><br><b><u>Items Approved:</u></b><br>1. Sensors<br>2. Camera<br>3. Electronic Components<br>4. Miscellaneous                         |
| 7 | Dunya Syed Hassan<br>Rituja B<br>Tanushree Panneer Selvam<br>Mohit Sandeep<br>II year | Dr. K. S. Gayathri    | Drowsiness Detection and Alarm System Using Image Processing and Deep Learning | 12 Months | <b>Budget: Rs.15000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. LCD Display<br>3. SD Card<br>4. Electronic Components<br>5. Miscellaneous |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |   |                          |  |           |   |
|----|---|--------------------------|--|-----------|---|
| 8  | Varsha Vijay<br>Sindhujaa Illangovan<br>Shreyaa S<br>Preethi Prative<br>II Year | Dr. I. Joe Louis<br>Paul | LIDAR-Based Road Surface<br>Anomaly Detection: Speed Bumps<br>and Potholes                     | 18 Months | <b>Budget: Rs.21000</b><br><br><b><u>Items Approved:</u></b><br>1. LIDAR<br>2. Arduino Mega 2560<br>3. GPS Module<br>4. Electronic Components<br>5. Miscellaneous |
| 9  | Ashwin Kumar S<br>Sundaresh Karthic Ganesan<br>II year                          | Dr. E. Suganya           | Smart Mental Health Identifier   | 9 Months  | <b>Budget: Rs.3000</b><br><br><b><u>Items Approved:</u></b><br>1. Google Colab<br>2. Cloud Storage<br>3. Miscellaneous  |
| 10 | Atchaya R<br>Priyadharshini R<br>Keerthana N<br>II year                         | Dr. E. Suganya           | Train Your Brain For Autism<br>Children  | 12 Months | <b>Budget: Rs.5000</b><br><br><b><u>Items Approved:</u></b><br>1. Domain<br>2. Cloud VPS<br>3. Miscellaneous  |
| 11 | Singaram P L<br>Thejesswini B<br>Piriyadharshini A<br>II year                   | Dr. K. S. Gayathri       | GameElevate: Evaluating Badminton<br>Player's Performance Using Deep<br>Reinforcement Learning | 18 Months | <b>Budget: Rs.13000</b><br><br><b><u>Items Approved:</u></b><br>1. Legend Sports 16 MP – Action<br>Camera<br>2. Miscellaneous                                     |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |   |                    |   |           |   |
|----|---|--------------------|---|-----------|---|
| 12 | Balasubramaniam H<br>Nandana M<br>Thomas Jones Kevin J F<br>Athish Pranav H H<br>II year      | Dr. K. S. Gayathri | AI-Enhanced Road Safety App for Wet Conditions                    | 18 Months | <b>Budget: Rs.12000</b><br><br><b><u>Items Approved:</u></b><br>1. Sensors<br>2. Arduino Set<br>3. Electronic Components<br>4. Miscellaneous                                  |
| 13 | Neha Shanmitha<br>Soundharya Y<br>Tamil Mughilan<br>II year                                   | Dr. P. Vasuki      | Design and Construction of a Smart Shoe for the Visually Impaired | 12 Months | <b>Budget: Rs.18000</b><br><br><b><u>Items Approved:</u></b><br>1. Shoe<br>2. Crystals<br>3. Microcontroller<br>4. GPS Module<br>5. Electronic Components<br>6. Miscellaneous |
| 14 | Subhalakshmi Chellakumar<br>Srinivasan R<br>Jaya Yayadhi<br>IV year<br>Induja M C<br>III year | Dr. R. Swathika    | Smart Bin Using Deep Learning and IoT                             | 8 Months  | <b>Budget: Rs.12000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. Pi Camera<br>3. Sensors<br>4. Electronic Components<br>5. Miscellaneous                 |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |   |                    |  |           |  |
|----|---|--------------------|--|-----------|--|
| 15 | Parthiban D<br>Sriram J<br>IV year<br>Srujana Srinivasan<br>Thanuja A<br>III year | Dr. R. Swathika    | Distress Detection and Pavement crack classification using Deep Learning for Road Safety | 8 Months  | <b>Budget: Rs.16000</b><br><br><b><u>Items Approved:</u></b><br>1. Digital Camera<br>2. Wall Mount<br>3. Miscellaneous                             |
| 16 | Abdullah Yassir A<br>Ashuwin P<br>Bharath P<br>Lewin Jesudhas H<br>II year        | Dr. E. Suganya     | Gamified Approach to Develop Values and Life Skills in Children                          | 12 Months | <b>Budget: Rs.5000</b><br><br><b><u>Items Approved:</u></b><br>1. Domain<br>2. Cloud VPS<br>3. Miscellaneous                                       |
| 17 | Hari Hara Sudhan R<br>Kishore P<br>Srinivas S<br>Yuthika Anvitha S<br>II year     | Dr. R. Swathika    | Scholar Commute Aid  | 14 Months | <b>Budget: Rs.14000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. Camera Module<br>3. Google Cloud Storage<br>4. Miscellaneous |
| 18 | Swetha K V<br>Sudhiksha N B<br>II year  | Dr. S. Mohanavalli | Student Information Management System  | 18 Months | <b>Budget: Rs.10000</b><br><br><b><u>Items Approved:</u></b><br>1. AWS Cloud<br>2. Miscellaneous   |



### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |  |                 |  |           |  |
|----|--|-----------------|--|-----------|--|
| 19 | Shanjay Athithya G<br>Vignesh M<br>Saravanan B<br>Saravanan K<br>II year           | Dr. R. Swathika | Identification of Unknown Person<br>Entering into Hostel Using Facial<br>Recognition | 15 Months | <b>Budget: Rs.19000</b><br><br><b><u>Items Approved:</u></b><br>1. Wireless Camera<br>2. Cable<br>3. Miscellaneous |
| 20 | Karunanudhi<br>Ayyamperumal<br>Kathir Kaman A<br>Kaushik Ananth Kumar S<br>II year | Dr. N. Sripriya | Safety Enhancement Using Helmet<br>& Number Plate Detection                          | 12 Months | <b>Budget: Rs.18000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. Camera<br>3. Miscellaneous   |
| 21 | Aravind J<br>Dhanush A<br>Henry J M<br>II Year                                     | Dr. E. Suganya  | Gatepass Management System   | 18 Months | <b>Budget: Rs.17000</b><br><br><b><u>Items Approved:</u></b><br>1. Domain<br>2. Cloud VPS<br>3. Miscellaneous      |

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**MECHANICAL - PG STUDENT PROJECTS**

| S. No | Name and Year of the Student(s) | Project Guide(s)   | Title of the Project  | Duration | Budget & Items Approved   |
|-------|---------------------------------|--------------------|---|----------|---|
| 1     | S. Sasidharan<br>II Year        | Dr. L. Poovazhagan | Design and experimental analysis of metal oxide based nanorods for piezoelectric accelerometer applications | 6 Months | <b>Budget: Rs.10000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Characterization<br>3. Miscellaneous |

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**MECHANICAL - UG STUDENT PROJECTS**

| S. No | Name and Year of the Student(s)                                      | Project Guide(s)                            | Title of the Project   | Duration  | Budget & Items Approved  |
|-------|--|---|--|-----------|--|
| 1     | Jagathratchagan S<br>Jenis Juden J<br>Sanjay K<br>Mega V<br>III year | Dr. K. S.<br>Jayakumar                      | Design and development of twin module flow sewing machine  | 18 months | <b>Budget: Rs.25000</b><br><br><b><u>Items Approved:</u></b><br>1. Fabrication<br>2. Motors<br>3. Power Manager Module<br>4. Miscellaneous |
| 2     | Kaniska N S<br>Muthurajalakshmi P<br>II year                         | Dr. S. Santosh<br>Dr. R. Subashini<br>(BME) | Fabrication, processing and biocompatibility studies on novel NiTiCuCo quaternary shape memory alloys  | 12 months | <b>Budget: Rs.30000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Characterization<br>3. Miscellaneous                  |
| 3     | Aniruth Sridhar S<br>Jaganathan S<br>Arul Thiagarajan<br>III year    | Dr. R. Vimal<br>Samsingh                    | Applications of LiDAR point cloud processing in assessment of textural damage in structural monitoring | 16 months | <b>Budget: Rs.25000</b><br><br><b><u>Items Approved:</u></b><br>1. Sensor<br>2. Raspberry Pi<br>3. Miscellaneous                           |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|   |   |                         |   |           |   |
|---|---|-------------------------|---|-----------|---|
| 4 | Jobbren Xavier B<br>Kishorekumar S<br>II year   | Dr. S. S. Mani<br>Prabu | Non-contact actuation of shape memory alloys using induction heating method   | 12 months | <b>Budget: Rs.28000</b><br><br><b><u>Items Approved:</u></b><br>1. SMA Spring<br>2. Induction Unit<br>3. Miscellaneous                              |
| 5 | Amritha Sudhakar<br>Akshath Bala K S<br>Keerthi A V R<br>Balasubramaniam K S<br>II year | Dr. S. Santosh          | Fabrication, processing and experimental investigation on formability limit diagram of titanium based shape memory alloys | 12 months | <b>Budget: Rs.28000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Characterization<br>3. Miscellaneous                           |
| 6 | Hariharan S<br>Jeyasurya Venkatraman<br>II year   | Dr. S. Santosh          | Bio-inspired laser texture patterns for super hydrophobic applications  | 12 months | <b>Budget: Rs.28000</b><br><br><b><u>Items Approved:</u></b><br>1. Induction Melting<br>2. Characterization<br>3. Laser Texture<br>4. Miscellaneous |
| 7 | Mohamed Javeed A<br>Riteshsai Devarajan<br>Sujith R N<br>II year                        | Dr. S. Santosh          | Hybrid multi-layered smart composites for enhanced ballistic protection   | 12 months | <b>Budget: Rs.32000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Characterization<br>3. SMA Wires<br>4. Miscellaneous           |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |   |                          |  |              |   |
|----|---|--------------------------|--|--------------|---|
| 8  | Rahul Venkatesh<br>Rithiq Roshan A H<br>Sadha Sivam S<br>Saravanan V<br>II year                                 | Dr. R. Vimal<br>Samsingh | Magnetic field induced silica gel<br>actuation for minimally invasive<br>medical field endoscopy                                 | 16<br>months | <b>Budget: Rs.25000</b><br><br><b><u>Items Approved:</u></b><br>1. Wireless Camera<br>2. Electromagnet<br>3. Miscellaneous  |
| 9  | Krishnaa Sudhir<br>Gauri Jayakrishnan Nair<br>Kiruthika Vajjiravelu<br>Madhumitha<br>Chandrasekaran<br>III year | Dr. G. Satheesh<br>Kumar | Autonomous Chess piece for navigation<br>on chess board  | 8 months     | <b>Budget: Rs.32000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. Sensor<br>3. Power Bank<br>4. Batteries<br>5. 3D Printing<br>6. Miscellaneous |
| 10 | Shrithesh G<br>Ezhilarasan E<br>II year   | Dr. R. Prakash           | Synthesis and comparative study of<br>biochar-based form-stable phase<br>change materials for thermal<br>management of buildings | 12<br>months | <b>Budget: Rs.32000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Characterization<br>3. Miscellaneous   |
| 11 | Adhavan Suresh<br>Anantha Narayanann R<br>Anirudh Kriishnan A<br>III year                                       | Dr. G. Satheesh<br>Kumar | Design and development of horizontal<br>rope traversing robot  | 12<br>months | <b>Budget: Rs.30000</b><br><br><b><u>Items Approved:</u></b><br>1. Robot Chassis<br>2. Fabrication<br>3. Motors and Drivers<br>4. Raspberry Pi<br>5. Miscellaneous  |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |   |                     |  |           |  |
|----|---|---------------------|--|-----------|--|
| 12 | Shri Sabarish R S<br>Vigneshwar A<br>III year   | Dr. M. S. Alphin    | Development of small scale wind energy device  | 12 months | <b>Budget: Rs.26000</b><br><br><b><u>Items Approved:</u></b><br>1. Carbon Fibre Vane<br>2. Magnetostrictive Strips<br>3. Carbon Fibre Disc<br>4. Miscellaneous       |
| 13 | Saurabh Kumar Gupta<br>Satish Narayan Singh<br>Rajat Yadav<br>R. Sarvesh                | Dr. S. Suresh Kumar | Determination of corrosion fatigue crack growth and critical stress intensity factors of naval grade steel (DMR 249B)                                  | 1 Year    | <b>Budget: Rs.33000</b><br><br><b><u>Items Approved:</u></b><br>1. Base Plates<br>2. Sample Preparation<br>3. Consumables<br>4. Characterization<br>5. Miscellaneous |
| 14 | Sachith C Santosh<br>Vignesh Pandian R<br>IV year<br>Vidhun S K<br>Shreeth V<br>II year | Dr. S. Santosh      | Structural morphology and characterization of metal nitride coatings deposited on NiTiCo for cardiovascular stents via DC magnetron sputtering process | 7 months  | <b>Budget: Rs.28000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Characterization<br>3. Miscellaneous  |
| 15 | Ashwin V<br>Mohammed Mustafa A<br>Monesh Kumar V A<br>III year                          | Dr. A. S. Ramana    | PCM based sustainable solar powered refrigeration system   | 12 months | <b>Budget: Rs.28000</b><br><br><b><u>Items Approved:</u></b><br>1. Acrylic Sheet<br>2. Fabrication<br>3. Solar Panel<br>4. Consumables<br>5. Miscellaneous           |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |   |                          |  |           |   |
|----|---|--------------------------|--|-----------|---|
| 16 | Dharaneish M<br>Kavyan G<br>II year                                       | Dr. R. Prakash           | Preparation, characterization and investigation of phase change materials enhanced by MXene nanoparticles for thermal energy storage | 12 months | <b>Budget: Rs.32000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Characterization<br>3. Miscellaneous                                   |
| 17 | Kiran V K<br>Mithun Vashudev V R<br>IV year<br>Advaith Sudeep<br>III year | Dr. G. Satheesh<br>Kumar | Development of a glass wall cleaning robot using a tethered platform   | 8 months  | <b>Budget: Rs.32000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Fabrication<br>3. Robot Chassis<br>4. Raspberry Pi<br>5. Miscellaneous |

**SRI SIVASUBRAMANIYA NADAR COLLEGE OF ENGINEERING  
KALAVAKKAM-603110**

**CHEMICAL - UG STUDENT PROJECTS**

| S. No | Name and Year of the Student(s)                            | Project Guide(s)  | Title of the Project   | Duration  | Budget & Items Approved   |
|-------|--|-------------------|--|-----------|---|
| 1     | Natarajan S<br>Rajashri L M<br>Sathish Kumar K<br>III year | Dr. R. Anantharaj | Esterification of Pentanol and Acetic Acid Using Low Cost Dual Solvent – Catalyst  | 12 Months | <b>Budget: Rs.28000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Characterization<br>3. Miscellaneous   |
| 2     | Subha B<br>Krithya E<br>III year                           | Dr. B. Chitra     | Effect of Nano-bubbles on The removal of Emerging Contaminant From Aqueous Solution using Sorptive-flotation Process: Intermediates, Pathways, and Toxicity Assessment | 12 Months | <b>Budget: Rs.32000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Characterization<br>3. Flotation Column<br>4. Pressure Pump<br>5. Air Flow Meter<br>6. Miscellaneous |
| 3     | Sudarsan R<br>Kallki Selvan K N<br>III year                | Dr. R. Anantharaj | Decolorization of Industrial Effluents Using Deep Eutectic Solvent   | 8 Months  | <b>Budget: Rs.24000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Characterization<br>3. Miscellaneous   |



### Sanctioned Internally Funded Student Projects (IFSP-2023)

|   |   |                        |   |           |  |
|---|---|------------------------|---|-----------|--|
| 4 | Jeeva M K<br>Sankamithra G J<br>Sarumathi K<br>Shanmugapriya J<br>II year | Dr. B. Ambedkar        | High Frequency (470kHz) Ultrasound-Assisted CO <sub>2</sub> stripping: Process Intensification by Al <sub>2</sub> O <sub>3</sub> Nanoarticles | 10 Months | <b>Budget: Rs.24000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Gas Cylinder Refill<br>3. Miscellaneous                   |
| 5 | Krishnapriyaa M M<br>Malavika K V<br>Vaibavasri S<br>III year             | Dr. D. Gnana Prakash   | Synthesis And Characterisation of Nanoscale Zero-Valent Iron Supported On UiO-99 (Zr-MOF) For The Removal Of Heavy Metals                     | 12 Months | <b>Budget: Rs.24000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Characterization<br>3. Miscellaneous                      |
| 6 | Gokul Kannan R<br>Dinesh Kumar<br>Smilin Blessy C<br>II year              | Dr. Anup Kundu         | Wind Energy Harvesting By Piezoelectric Plate   | 8 Months  | <b>Budget: Rs.24000</b><br><br><b><u>Items Approved:</u></b><br>1. Fabrication<br>2. Electrical Circuits<br>3. Wind Tunnel<br>4. Miscellaneous |
| 7 | Giridaran S<br>Bathrasri Kannan KT<br>Roshan<br>III year                  | Dr. Nalinkanth V Ghone | Synthesis of Dimethyl Carbonated From Sequestered CO <sub>2</sub> in Clay Nanotubes   | 12 Months | <b>Budget: Rs.28000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Characterization<br>3. Miscellaneous                      |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |  |                        |   |           |   |
|----|--|------------------------|---|-----------|---|
| 8  | Balan P<br>Binathy J S<br>Akshaya MC<br>III year               | Dr. A. Murugesan       | Synthesis, Characterization, and Properties of Polycarbonate and Copolycarbonates using Monomers Recovered from Plastic Waste via Polycondensation Method | 12 Months | <b>Budget: Rs.28000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Characterization<br>3. Miscellaneous |
| 9  | S Kaushik Krishna<br>K Lakshitha<br>II year                    | Dr. K. Sathish Kumar   | Removal of Heavy Metals With the Help of Activated Carbon Modified alginate Beads   | 12 Months | <b>Budget: Rs.24000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Characterization<br>3. Miscellaneous |
| 10 | Ajitha R<br>Harshada V<br>Artesree N<br>II year                | Dr. R. Anantharaj      | Extraction of Polyamide Plastic from their water using Deep Eutectic Solvents   | 12 Months | <b>Budget: Rs.28000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Characterization<br>3. Miscellaneous |
| 11 | Santosh Krishna R B<br>Kaviarasan V S<br>Sanjana S<br>III year | Dr. Nalinkanth V Ghone | <i>In Vitro</i> Characterisation of Clay Nanotube Formulation For Dermatological Applications   | 12 Months | <b>Budget: Rs.30000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Characterization<br>3. Miscellaneous |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |  |                      |  |           |   |
|----|--|----------------------|--|-----------|---|
| 12 | Tarun Gopal S<br>Sudiksha R<br>Karthick P<br>III year                        | Dr. D. Balaji        | Exploring Rapid Photocatalytic Degradation of Organic Pollutants Using Hydrochar-Mediated Magnetic Nanomaterial: Synthesis, Dye Removal, And Kinetic Studies | 12 Months | <b>Budget: Rs.28000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Characterization<br>3. Miscellaneous |
| 13 | Kovan Mookiah R<br>Murali Siva Sundar M S<br>Meenakshi Lalitha S<br>III year | Dr. R. Parthiban     | Novel Method For The Synthesis of Hybrid Nanocoolants and Their Application On Heat Removal In Radiators   | 12 Months | <b>Budget: Rs.24000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Characterization<br>3. Miscellaneous |
| 14 | N Charankumar<br>Sujita S<br>Varshini Seshhu J S<br>III year                 | Dr. R. Anantharaj    | Lab Scale Production of Propyl Acetate Using Deep Eutectic Solvent   | 12 Months | <b>Budget: Rs.28000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Characterization<br>3. Miscellaneous |
| 15 | Harshad Heganath J<br>Ramya V<br>Selvamanikantan<br>Shahid Afridi<br>II year | Dr. K. Sathish Kumar | Drug Development From Extracted Caffeine   | 12 Months | <b>Budget: Rs.24000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Characterization<br>3. Miscellaneous |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |  |                 |  |           |  |
|----|--|-----------------|--|-----------|--|
| 16 | Hari Priya V<br>Hariselvi G<br>II year                   | Dr. B. Chitra   | Degradation of Alizarin Red Dye Using Sulfate Radical Based Advanced Oxidation Process Activated By Synthesized Zinc Oxide Nanoparticles | 12 Months | <b>Budget: Rs.28000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Characterization<br>3. Autoclave<br>4. Miscellaneous                  |
| 17 | Ajay Chinnathambi<br>Pratheesh T<br>Jeyanth J<br>II year | Dr. V. Jaikumar | Sustainable Solutions: Developing a Bio Dishwashing Liquid   | 8 Months  | <b>Budget: Rs.24000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Characterization<br>3. Stirrer and Heating System<br>4. Miscellaneous |

**SRI SIVASUBRAMANIYA NADAR COLLEGE OF ENGINEERING  
KALAVAKKAM-603110**

**BME - UG STUDENT PROJECTS**

| S. No | Name and Year of the Student(s)   | Project Guide(s)     | Title of the Project  | Duration  | Budget & Items Approved   |
|-------|---|----------------------|---|-----------|---|
| 1     | S. Vaishali<br>S. Tarun Kumar<br>III year                                     | Dr. S. Arun Karthick | Enhancing Polyurethane properties through the incorporation of Gelatin, Chitosan, and Silver Nanoparticles for medical applicaions. | 1 Year    | <b>Budget: Rs.24000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Characterization<br>3. Miscellaneous                                 |
| 2     | Neeharika S<br>Neelambari RA  | Dr. K. Nirmala       | Non-invasive Haemoglobin Concentration Monitoring System  | 1 Year    | <b>Budget: Rs.17000</b><br><br><b><u>Items Approved:</u></b><br>1. PPG Sensor<br>2. Arduino UNO<br>3. Miscellaneous                                       |
| 3     | Rakshana R<br>Sharadha G<br>S Shravan Kumar<br>Sowmya R<br>Sujay A<br>II year | Dr. S. Saranya       | Pain Quantification using Electromyography (EMG) Signals  | 18 Months | <b>Budget: Rs.24000</b><br><br><b><u>Items Approved:</u></b><br>1. Raspberry Pi<br>2. IMU<br>3. Software Development<br>4. Electrodes<br>5. Miscellaneous |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|   |  |                                   |   |          |   |
|---|--|-----------------------------------|---|----------|---|
| 4 | Akshaya D<br>Anchana Sri N<br>Harishini H<br>Madhumitha B<br>II year | Dr. K. Nirmala                    | Non Invasive Dehydration Monitoring System  | 1 Year   | <b>Budget: Rs.14000</b><br><br><b><u>Items Approved:</u></b><br>1. Sensors<br>2. Analog Device<br>3. Arduino UNO<br>4. Touch Screen<br>5. Miscellaneous                   |
| 5 | Sarvesh R<br>Tharan Prannav T<br>Venkatesan S<br>II year             | Dr. S. Allwyn                     | Prevention of Varicose Vein for Prolonged Standing Personnel Using Pneumatic Based Therapeutic Device | 1 Year   | <b>Budget: Rs.26000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Electronic Components<br>3. Miscellaneous  |
| 6 | R Rithisri<br>Rajeshwari B<br>II year                                | Dr. Sachin<br>Gaurishankar Sarate | IoT based Epinephrine Sensor  | 7 Months | <b>Budget: Rs.27000</b><br><br><b><u>Items Approved:</u></b><br>1. Sensor<br>2. HPLC Blood Test<br>3. Powdered S-Nitrosoglutathione<br>4. Arduino UNO<br>5. Miscellaneous |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |  |               |   |        |   |
|----|--|---------------|---|--------|---|
| 7  | Indra Suresh<br>M Shivani<br>Sneha Chandrra M  | Dr. S. Allwyn | Analysis of Stress-Induced Eye Fatigue During a Voage Using Single-Channel Electrooculogram   | 1 Year | <b>Budget: Rs.27000</b><br><br><b><u>Items Approved:</u></b><br>1. Electronic Components<br>2. Miscellaneous                                    |
| 8  | Dalene Ephme Ben George<br>S Shree Lakshmi<br>Sonia T<br>II year                       | Dr. S. Allwyn | Optimizing Pretern Baby Incubators: Fiber Optic-based Humidity Sensor for Precise Monitoring  | 1 Year | <b>Budget: Rs.29000</b><br><br><b><u>Items Approved:</u></b><br>1. Photodetector<br>2. Miscellaneous  |
| 9  | Abirami T<br>Augustine Wisely Bezalel<br>Ezhil Meenaa A<br>Shakeel Jegsilan<br>II year | Dr. S. Allwyn | UV-Vis Spectroscopic Analysis to Diagnose Liver Disease in Neonates Through Urine Examination | 1 Year | <b>Budget: Rs.30000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Electronic Components<br>3. Glasswares<br>2. Miscellaneous |
| 10 | S. Vidhya Sagar<br>Siva Abinesh SJ<br>Sabin L<br>II year                               | Dr. S. Allwyn | Development of Medication (Solid and Liquid) Dispenser  | 1 Year | <b>Budget: Rs.28000</b><br><br><b><u>Items Approved:</u></b><br>1. Electronic Components<br>2. Miscellaneous                                    |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|    |  |               |  |        |   |
|----|--|---------------|--|--------|---|
| 11 | Nitheesh S<br>Shrinithi S K<br>Vijayalakshmi M<br>II year    | Dr. S. Allwyn | Chameleon Helmet<br>“Enhancing Road Safety in India Through<br>Smart Helmet Technology”                        | 1 Year | <b>Budget: Rs.24000</b><br><br><b><u>Items Approved:</u></b><br>1. Camera<br>2. Display<br>3. GPD<br>4. Battery<br>5. Miscellaneous                       |
| 12 | Mahalakshmi. I<br>Lokiya. V<br>Abinaya Priya. L<br>II year   | Dr. S. Allwyn | Modernizing Public Transportation: The<br>Tamil Nadu State Transport Corporation<br>Application                | 1 Year | <b>Budget: Rs.18000</b><br><br><b><u>Items Approved:</u></b><br>1. Hosting and Domain<br>2. Testing Phone<br>3. Miscellaneous                             |
| 13 | Rifa Sidhiqah<br>Karishma Sharif<br>Merlin Mathan<br>II year | Dr. S. Allwyn | Unmanned Aerial Vehicle to Deliver and<br>Receive Official Documents between<br>Administration and Departments | 1 Year | <b>Budget: Rs.28000</b><br><br><b><u>Items Approved:</u></b><br>1. BLDC Motors<br>2. Electronic Components<br>3. Battery<br>4. Camera<br>5. Miscellaneous |



**SRI SIVASUBRAMANIYA NADAR COLLEGE OF ENGINEERING**  
**KALAVAKKAM-603110**

**CIVIL - UG STUDENT PROJECTS**

| S. No | Name and Year of the Student(s)                                   | Project Guide(s)     | Title of the Project   | Duration  | Budget & Items Approved   |
|-------|---|----------------------|--|-----------|---|
| 1     | Abhishek P<br>Heman S<br>Lokesh Kumar S<br>II Year                | Dr. G. Aswin Sriram  | Quantification of Microplastics in the Akkarai-Thiruvudanthai Shoreline                              | 12 Months | <b>Budget: Rs.10000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Characterization<br>3. Miscellaneous                     |
| 2     | Aadanya E winy<br>Sri Niranjani K<br>Harini. S<br>II Year         | Dr. P. Sangeetha     | Flexural behaviour of the ferrocement roof panel with different types of woven meshes                | 10 Months | <b>Budget: Rs.28000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Characterization<br>3. Strain Gauges<br>4. Miscellaneous |
| 3     | Shri Bharathan K<br>Monicka J S<br>Ramya S<br>Logesh U<br>II Year | Dr. R. Vijayalakshmi | Study on the Flexural Behaviour and Impact Resistance of Precast Lightweight Concrete Sandwich Panel | 12 Months | <b>Budget: Rs.30000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Fibers<br>3. Miscellaneous                               |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|   |   |                      |  |           |   |
|---|---|----------------------|--|-----------|---|
| 4 | Vijay Pandian M<br>Pranavaa K<br>III Year   | Dr. S.V. Sivapriya   | Durability Behaviour of Cohesive Soil Slope mixed with glass powder with and without lime under controlled room temperature    | 12 Months | <b>Budget: Rs.18000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Characterization<br>3. Miscellaneous |
| 5 | Karthiha Devi E S<br>Karthik S<br>II Year   | Dr. G. Aswin Sriram  | Smartification of Tambaram Railway Station: An Integration of Traditional Sketching and Advanced Digital Modelling Using REVIT | 12 Months | <b>Budget: Rs.7000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Miscellaneous                         |
| 6 | Kiruthika S.U<br>Nikhil Narayanan S<br>Kavivarthini L<br>II Year                  | Dr. P. Sangeetha     | Effect of Orientation of Chord member on the Ultimate Load Carrying Capacity of X-Joint under Compression                      | 10 Months | <b>Budget: Rs.28000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Strain Gauges<br>3. Miscellaneous    |
| 7 | Niketa S<br>Sasikumar S<br>Pirainudal C R<br>Sumathira B<br>Anirudthan<br>II Year | Dr. R. Vijayalakshmi | Experimental Study on the Behaviour of Fibre Reinforced lightweight Hollow Core Slabs Under Different Flexure To Shear Ratios  | 12 Months | <b>Budget: Rs.28000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Strain Gauges<br>2. Miscellaneous    |

### Sanctioned Internally Funded Student Projects (IFSP-2023)

|   |   |                    |   |           |  |
|---|---|--------------------|---|-----------|--|
| 8 | P. Hariharan<br>S. Haaris Ahamed<br>Sindhuja K<br>M Ragasanthoshvishagan<br>II Year | Dr. S.V. Sivapriya | Comparison of natural and man-made reinforcement in reinforcing unstable slope                                    | 12 Months | <b>Budget: Rs.16000</b><br><br><b><u>Items Approved:</u></b><br>1. Loading Frame<br>2. Polymer Fiber<br>3. Miscellaneous |
| 9 | Revanth kumar G<br>D. Antony Alias Abi<br>Sanjeev Kumar G<br>II Year                | Dr. P. Sangeetha   | Diagonal Compression Testing of Brick Masonry Wallets Strengthened with GFRP and Steel Textile Reinforced Mortars | 10 Months | <b>Budget: Rs.28000</b><br><br><b><u>Items Approved:</u></b><br>1. Consumables<br>2. Strain Gauges<br>2. Miscellaneous   |



**SRI SIVASUBRAMANIYA NADAR COLLEGE OF ENGINEERING**  
KALAVAKKAM – 603 110

(An Autonomous Institution, Affiliated to Anna University, Chennai)



**National Level Technical Seminar on**  
**“Role of Solar Photovoltaics in attaining Energy Sustainability”**  
**Date: 28/08/2023 (Monday)**

**Guest Speaker**

**Mr. Rajvikram Madurai Elavarasan,**  
Research and Development Division (Power& Energy), Nestlives Pvt Ltd, Chennai  
Research Scholar, School of Electrical Engineering and Computer Sciences (EECS),  
University of Queensland, Australia

SSN-IEEE PES and ISTE student chapter jointly organized the National Level Technical Seminar on "Role of Solar Photovoltaics in attaining Energy Sustainability" on 28/08/2023 at SSN College of Engineering, Chennai. The seminar aimed to bring together experts, researchers, and enthusiasts in the field of solar energy to discuss and deliberate on the pivotal role of solar photovoltaics in achieving sustainable and renewable energy solutions. The event commenced with the welcome address by Dr V Kamaraj, Professor, Department of EEE and followed by the keynote speech. The chief guest of the event is Mr. Rajvikram Madurai Elavarasan, Research and Development Division (Power& Energy), Nestlives Pvt Ltd, Chennai and Research Scholar, School of Electrical Engineering and Computer Sciences (EECS), University of Queensland, Australia. He emphasized the significance of imparting practical knowledge and skills to participants, highlighting the role of solar photovoltaics in the broader context of energy sustainability. The event is coordinated by Dr. V Thiyagarajan, Associate Professor & Faculty Advisor, IEEE PES Student chapter. Around 100 participants were attended this event. We extend our gratitude to all the participants, speakers, and volunteers who contributed to the success of the seminar. Their enthusiasm and dedication played a crucial role in making this event a significant milestone in promoting solar energy sustainability.

**SRI SIVASUBRAMANIYA NADAR COLLEGE OF ENGINEERING**  
KALAVAKKAM – 603 110  
(AN AUTONOMOUS INSTITUTION, AFFILIATED TO ANNA UNIVERSITY, CHENNAI)

**DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING**  
ISTE Chapter – SSN  
& IEEE Power & Energy Society – SSN Student Chapter

  

Organizes  
**National Level Technical Seminar on**  
**Role of Solar Photovoltaics in attaining Energy Sustainability**

**Guest Speaker**



**ORGANIZERS**  
**Dr V Kamaraj**  
Professor, EEE, SSN CE  
**Dr V Thiyagarajan**  
Associate Professor, EEE, SSN CE

**Mr. Rajvikram Madurai Elavarasan**  
Research and Development Division  
(Power& Energy)  
Nestlives Pvt Ltd, Chennai

**Registration Link:**  
<https://forms.gle/H4VSPnDC99YLsryH7>



**Date : 28/08/2023**  
**(Monday)**  
**Time : 10.00 AM**





**National Level Technical Seminar on**  
**“Role of Solar Photovoltaics in attaining Energy Sustainability”**  
**Date: 28/08/2023 (Monday)**

| S.NO | Name                   | Register Number | Year | Email ID                             |
|------|------------------------|-----------------|------|--------------------------------------|
| 1    | Hakash.D               | 203001034       | 04   | hakash2010855@ssn.edu.in             |
| 2    | Siyan Ananth A         | 203001097       | 04   | siyan2010959@ssn.edu.in              |
| 3    | Harini V B             | 203001035       | 04   | harini2010924@ssn.edu.in             |
| 4    | RAGHUL S J             | 203001074       | 04   | raghul2010978@ssn.edu.in             |
| 5    | AKSHITHA C S           | 203001008       | 04   | akshitha2010880@ssn.edu.in           |
| 6    | Harshavardhan J        | 203001037       | 04   | harshavardhan2011021@ssn.edu.in      |
| 7    | Angeline Swetha K      | 203001014       | 04   | angeline2010973@ssn.edu.in           |
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**National Level Technical Seminar on**  
**“Role of Solar Photovoltaics in attaining Energy Sustainability”**  
**Date: 28/08/2023 (Monday)**

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## National Workshop on Energy & Sustainability

National Workshop on Energy & Sustainability was organized on 6th March 2024. Dr. A. S. Ramana, Workshop convener delivered the welcome address. Dr. K. S. Vijay Sekar Prof. & Head, Mechanical Engineering Department highlighted importance of the workshop. Ms. Nivedita Dileep Associate Counsellor, CII IGBC, Chennai in her inaugural address dealt on the green buildings' certification process, benefits, and case studies. Dr. S. Kalaiselvam Prof. & Head, Department of Applied Science & Technology, Anna University, Chennai explained the role of nanotechnology and Phase change materials in enhancing energy efficiency of thermal systems. Dr. S. Rajkumar Asso. Prof., Dept. of Mechanical Engg., lecture focused on energy conservation aspects in buildings. Dr. R. Prakash, Workshop convener actively coordinated the events. Workshop focused on sustainability features and participants were enriched by knowledge shared by the speakers. Dr. B. Jayakishan, Workshop convener proposed vote of thanks.



**Ms. Nivedita Dileep, Associate Counsellor, CII IGBC**



**Dr. S. Kalaiselvam, Prof., Anna University**



**Dr. S. Rajkumar, Asso. Prof., SSNCE**



## **SRI SIVASUBRAMANIYA NADAR COLLEGE OF ENGINEERING**

(An Autonomous Institution, Affiliated to Anna University, Chennai)

Kalavakkam-603 110, Tamil Nadu, India.

### **National Workshop on**

## ***Energy & Sustainability***

**March 6, 2024**

**(Wednesday)**

**Organized by**

**DEPARTMENT OF MECHANICAL ENGINEERING**

### **Objectives:**

- The workshop will allow the participants to understand,

1. Energy Efficient Buildings
2. Energy Efficiency Aspects

### **Target participants:**

- Faculty / Research Scholars / PG and UG students from Technical Institutions / Industry personnel

### **Registration:**

- Registration is free and is limited to 100 participants.
- E-certificates will be provided only to the active participants who attend all the sessions and fill in the feedback form.
- Last date for receiving registrations: March 2, 2024.

### **Conveners:**

**Dr. A. S. Ramana**

**Associate Professor**

**Dr. S. Rajkumar**

**Associate Professor**

**Dr. R. Prakash**

**Associate Professor**

**Dr. B. Jayakishan**

**Assistant Professor**

### **Registration Link:**

<https://forms.gle/JfitWEsoUsWGd1bG6>

## Resource Persons:

- **Dr. S. Kalaiselvam**  
Professor, Anna University, Chennai.
- **Mr. S. Karthikeyan**  
Deputy Executive Director, IGBC & GreenPro, CII IGBC, Hyderabad.
- **Dr. S. Rajkumar**  
Associate Professor, SSN College of Engineering, Chennai.

## Topics Covered

1. Trends in Energy Efficiency
2. Decarbonization of Buildings
3. Energy Conservation in Buildings

## Venue

Seminar Hall, Department of Mechanical Engineering, SSNCE, Kalavakkam.

## Date and Time:

March 6, 2024, 09:00 AM

## Contact:

**Dr. A. S. Ramana** ramanaas@ssn.edu.in

**Dr. B. Jayakishan**, jayakishanb@ssn.edu.in

## About the Workshop:

Economic development of a nation depends on efficient utilization of energy resources. Energy conservation measures are gaining attention to ensure affordable, reliable, and adequate supply of energy in industries and residential buildings. The difficulty of harnessing the maximum potential of the energy resources and widespread deployment of the advanced technologies for various applications at an affordable cost remains a challenge to both the technologists and policymakers. This workshop is therefore significant as it focuses on the issues and challenges in sustainable energy utilization techniques. Join us for an engaging workshop focused on the vital topics of “Energy Efficient Buildings” and “Energy Efficiency Aspects”. Don’t miss this opportunity to expand your knowledge and contribute to a more sustainable future.

## **About SSN:**

Sri Sivasubramaniya Nadar College of Engineering (SSN CE) is the outcome of the vision and initiative of Dr. Shiv Nadar, Chairman of HCL Technologies Ltd. and a pioneer in the field of Information Technology. The Board of Management under the Chairmanship of Mr. R. Srinivasan, Dr. Kala Vijayakumar, President, SSN Institutions, and the Principal, Dr. V. E. Annamalai facilitate the good governance of the institution. SSN CE is accredited by NAAC with A+ grade and obtained accreditation for 7 UG and 4 PG programmes by NBA. Within a span of 25 years, SSN CE has grown into one of the top educational institutions in the country. Some of the salient features of SSN CE are: Ranked 45th in Engineering Category and 89th among all educational institutions in India Rankings 2021 by NIRF, MHRD.

## **About Mechanical Engineering Department**

The department of Mechanical Engineering, established in the year 2007 - 08 offers a B. E. degree, M. E. (Manufacturing) and M. E. (Energy) degree courses with a mission to educate and train students to become globally competent. The department feels proud on its record making achievement in campus placement with over 90% of eligible students having placed in reputed core and IT companies. Active research takes place in the department on significant topics that include Solar thermal, Vapor absorption refrigeration, Energy storage, Friction Stir Welding, Stress corrosion cracking, Fracture Mechanics, Heat transfer, Smart Materials, Abrasives, Tribology, Non-Destructive Testing, Nano Technology and Robotics. The Department is also a recognized research centre for guiding PhD scholars under Anna University, Chennai and currently 105 scholars are pursuing PhD and 73 scholars have successfully completed PhD. The Department has highly qualified and experienced faculty members; most of them with PhD Degrees from Institutions of repute. The faculty members actively engage in research and regularly publish papers in reputed journals. The Department organizes National and International conferences and workshops in emerging areas. The department has research projects funded by DST, AICTE, NRB and Dept. of Mines to a tune of 3.7 Crore for conducting research in different areas. Industry Institute Partnership Cell (IIPC) has been established for enhancing the relationship between the institute and industry.