SRI RAAJA RAAJAN
COLLEGE OF ENGINEERING AND TECHNOLOGY
(Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai)

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1. CENTRE FOR ELECTRIC VEHICLE AND ENERGY

1.1 ABOUT THE CENTRE:

The center fosters an ecosystem for research, innovation, and skill development in green mobility and green energy. By bringing together diverse expertise and experiences, we facilitate a vibrant exchange of knowledge and ideas. This collaborative environment empowers individuals to explore new solutions and drive advancements in sustainable technologies. This centre was established in 2021 under Dr. A.P.J. Abdul Kalam Research Centre. It has a tie-up with "Green Planet Environmental solution", Trichy for knowledge sharing and to equip our students in the domain.

1.2 OBJECTIVE:

1. **Education and Training:**

To provide students with comprehensive education and training in EV and, preparing them for careers in the field.

2. **Innovation and Entrepreneurship:**

To foster innovation, entrepreneurship, and start-ups in EV, leading to practical applications and solutions

3. **Industry Collaboration:**

To collaborate with industry partners, addressing real-world problems and developing industry-relevant solutions.

4. **Technology Transfer:**

To facilitate the transfer of EV technology and expertise to industries, start-ups, and society.

5. **Continuous Learning**:

To stay updated with the latest EV advancements, ensuring the centre remains at the forefront of EV research and innovation. Prepare students for EV-related careers and future workforce needs.

1.3 FACILITIES AVAILABLE:

- Solar panel: High-Efficiency Crystalline Photovoltaics. Silicon Materials & Devices
- BLDC motor
- Battery
- Motor control
- Speedometer
- Battery indicator
- Flywheel

1.4 FACULTY COORDINATORS:

1. Mr. S.Saravanalingam, AP/EEE
2. Mr. P. Sarankumar, AP/MECH

1.5 ACTIVITY PERFORMED BY THE CENTRE:

The various programme were conducted by using the facility available in the centre.

1. On April 18, 2022, the EV Centre conducted a training program titled **"The Basics of Electric Vehicle Technology"** during the academic year 2021-2022. This program focused on exploring the fundamentals of EV technology and its various applications. Led by a designated resource person from Green Planet Environmental Solutions in Trichy, the workshop provided valuable insights and hands-on knowledge. A total of 30 students benefited from this enriching experience, enhancing their understanding of this innovative field.

2. On September 20, 2022, the EV Centre hosted a workshop titled **"Electric Vehicle and Battery Technology"** as part of the academic year 2022-2023. This workshop focused on the fundamentals of EV technology and its various applications. Led by a resource person from Riyan Solar Drops Energy Systems & Services in Chennai, the session provided participants with valuable insights into this innovative field. A total of 53 students benefited from this engaging workshop, enhancing their understanding of electric vehicle and battery technologies.

3. On March 18, 2024, the EV Centre conducted a training program titled **"The Basics of Electric Vehicle Technology"** as part of the academic year 2023-2024. This program focused on exploring the fundamentals of EV technology and its various applications. Led by a resource person from R&V Electrical in Saidapet, Chennai, the workshop provided valuable insights into this innovative field. A total of 30 students benefited from this enriching experience, deepening their understanding of electric vehicles and their technologies.

Workshop Electric Vehicle on 20.9.2022

1.6 OUTCOMES OF THE CENTRE:

1.6.1 Placement Activity:

A total of **25** students have successfully secured placements thanks to the comprehensive training and placement activities conducted by the EV Centre. This achievement highlights the effectiveness of our training programs in equipping students with the skills and knowledge needed to excel in the electric vehicle field. We are committed to continuing our efforts to support and empower even more students in their career journeys.

SL.NO	NAME	COMPANY NAME	YEAR
1	SELVAKUMAR	KaiDP TECHNOLOGIES	2021-2022
2	KANNAN	GPLAST PVT LTD	2021-2022
3	MURUGAN	KaiDP TECHNOLOGIES	2021-2022
4	SELVAGANESH	GPLAST PVT LTD	2021-2022
5	ILANDEVAN	KaiDP TECHNOLOGIES	2022-2023
6	KALEESWARAN	GPLAST PVT LTD	2022-2023
7	KALIRAJAN	GPLAST PVT LTD	2022-2023
8	RAMANAN	GPLAST PVT LTD	2022-2023
9	VILLAVAN	SAKTHI AUTO COMPONENT PVT LTD	2022-2023
10	VIGNESGWARAN	SAKTHI AUTO COMPONENT PVT LTD	2022-2023
11	PRIYANKA	SAKTHI AUTO COMPONENT PVT LTD	2022-223
12	PRAGATHI	S.M.PAVERS	2022-2023
13	C. KAILASH	S.M.PAVERS	2022-2023
14	PANDIYAN	SAKTHI AUTO COMPONENT PVT LTD	2022-2023

15	M. SNEKA	S.M.PAVERS	2023-2023
16	C. KAILASH	GRID LAB SOLUTIONS	2023-2024
17	M. RAMANATHAN	GRID LAB SOLUTIONS	2023-2024
18	M. ARUN KUMAR	GRID LAB SOLUTIONS	2023-2024
19	K. VENGATESHWARAN	COMPETITION TEAM TECHNOLOGY(INDIA) PVT LTD	2023-2024
20	J. SATHISH KUMAR	COMPETITION TEAM TECHNOLOGY(INDIA) PVT LTD	2023-2024
21	T.HARIHARA SUTHAN	COMPETITIONTEAM TECHNOLOGY(INDIA) PVT LTD	2023-2024
22	P. RUBAN	S.M.PAVERS	2023-2024
23	ALEXPANDIYAN	S.M.PAVERS	2023-2024
24	BHARANI CHANDER	S.M.PAVERS	2023-2024
25	M. SOWMIYAN	S.M.PAVERS	2023-2024

1.6.1 Student Project:

During the academic year 2020-2024, approximately 50 students undertook a project utilizing the facilities provided by the centre. This hands-on experience allowed them to apply their theoretical knowledge and acquire practical skills in renewable energy technology.

SL.NO	PROJECT NAME	NO OF STUDENT	YEAR
1	Solar Bike	10	2020-2021
2	Automatic solar lamp with timer circuit for green energy enhancement	5	2020-2021
3	Hybrid Power Generation	5	2020-2021
4	single axis solar panel tracking system	5	2022-2023
5	Solar Energy based home automation	4	2022-2023
6	Design of automatic solar water heater	5	2023-2024
7	Design and installation of on grid solar power inverter	5	2023-2024
8	Design of On-Grid 5KW Solar Power System	10	2023-2024

Solar bike on 2020- 2021

5KW Solar Plant on 2023-2024

1.6.2 Entrepreneur:

The Centre for Electric Vehicle and Energy not only develops students in research and innovative projects, but also helps them become entrepreneurs in our department. We are incorporating our college's Entrepreneurship Cell to train students in the field of energy management and solar energy. Many students have benefited from this cell and have successfully become entrepreneurs.

- Our alumnus, **Mr. Mohadheer Mohamed**, from the Department of Mechanical Engineering, is one of our successful entrepreneurs. He actively participated in the cell and learned new technology, which helped him become an entrepreneur. He now runs **SRK EV Engineering Works in Puduvayal, Karaikudi.**

- Our alumni, **Mr. Santhanaselvam** from the Department of Electrical and Electronics Engineering, is one of our successful entrepreneurs. He actively participated in this cell and learned new technology, through which he became an entrepreneur. He is now running **Santhanam Solar Power Engineering Works in Aravayal, Karaikudi.**