



**RV College of
Engineering®**

CENTRE OF COMPETENCE SMART VIDYUTH & SUSTAINABLE SOLUTIONS

**Established in collaboration with ARCADIS
funded by:
Rashtreeya Sikshana Samithi Trust (RSST)**

Centre incharge: Dr. SG Srivani, Professor and HoD, EEE Department - 9844327829

The Centre for Smart Vidyuth & Sustainable Solutions in line with the institutional vision to meet the sustainable development goals (SDG7) is launched in the year 2023 with mission for a more efficient, resilient, and sustainable energy solutions that benefit the people, society, and the planet. This centre focuses on conducting advanced research in the domains of renewable energy systems, electric vehicle charging technology meeting V2G, smart grid challenges and smart energy projects. RVCE has signed the MoU with ARCADIS on 5th August, 2024.



The other associated industries, the MoU signed with the centre are:
VKES (Vidhyuth Kanti Engineering Services), Enerfra Projects India Pvt. Ltd., BESCOM, MEI & others.

Focused Area/Activities List for which centre is established and activities already undertaken

Main Activities

- Smart Lighting and Energy Sustainable Solutions
- Smart energy meter and Home Automation
- Urja Energy Swaraj Club programs
- Workshops/FDP/Training/Seminars/Skill/Project/Internship/Research/Collaboration programs
- Certification Courses



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Activities Already Undertaken

1. Two months Internship program for external Diploma college students from Dharwad and Bengaluru in association with industries ENERFRA and VKES.
2. In house Internship program for Diploma holder of RVCE inter department.
3. Internship for UG & PG students of RVCE



Undergoing R&D Activities

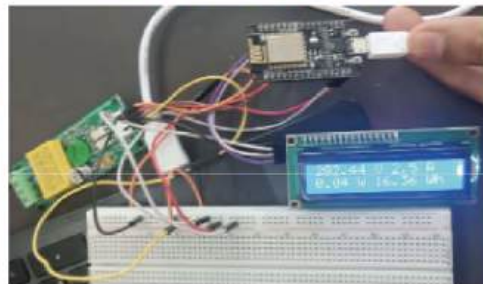
- Development of Smart meter with Students of ET, EC, and EE branch.
- 2. AMI Infrastructure development for micro grid.

PV Microgrid



Inverter Capacity : 8 KVA/96V
Battery Capacity : 60AH 12V
Solar Panels : 20 No's
Solar Capacity : 5 KW
Utility: Simulation Lab (26 No's Systems and Lighting Load)

Smart Energy Meter



- Three phase IoT enabled metrology
- Real time alerts and notification
- Cloud based Energy data analytics
- AI based load monitoring
- Dashboard development for live grid monitoring

Smart Lighting



Achievements

1. 5kW Off-grid PV System supplying the Simulation Laboratory.
2. 2kW PV/Wind system for Street Light and smart lighting
3. Two research papers submitted in IEEE Open Access Journal.

For further details contact:

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