

SUMMARY

With a notable 23-year career in academia, I stand as an experienced Associate Professor specializing in Electronics and Communication Engineering. I possess a comprehensive understanding of cutting-edge fields including the Internet of Things (IoT), Solar Renewable Energy, and Nanotechnology. Beyond academics, I am passionately committed to fostering innovation and entrepreneurial abilities among my students, equipping them to become leaders in the engineering domain.

SKILLS

Solar Photovoltaic (PV) Systems:

- In-depth understanding of PV cell and module operation principles, including current-voltage (I-V) characteristics, efficiency, and performance parameters.
- Expertise in PV system design, considering factors like shading analysis, inverter selection, and grid integration.
- Familiarity with various PV technologies, such as crystalline silicon, thin-film, and emerging options.

Internet of Things (IoT) for Solar PV:

- Proficiency in developing and deploying IoT-based sensor networks for monitoring and data acquisition from solar PV systems.
- Experience with data communication protocols relevant to solar PV IoT applications (e.g. MQTT, CoAP, LoRaWAN).
- Knowledge of cloud computing platforms (e.g., AWS, Azure, GCP) for data storage, analysis, and visualization in solar PV applications.

TEACHING COURSES

- IoT and Applications
- Smart Sensor and sensor networks
- Microprocessors: Programming and Interfacing
- Digital System design

ACCOMPLISHMENTS

- AICTE LILAVATI Award 2022 as a Woman Innovator for Innovative Projects for 2021-2022.
- Minister of State of Power and Heavy Industries and District Administration Faridabad for developing Oxygen Management System as Nodal Officer 2020.
- Department of Science and Technology AWSAR Award 2019 for research publication during Ph.D

SUPERVISING RESEARCH

- Guided more than 40 students for their M. Tech degree dissertation
- Guided more than 70 B.Tech projects guided.

PATENTS

Patent no.-470638, MULTIFACETED ILLUMINATION DEVICE, The Patent Office, Government Of India
Patent no.- 398055, Method And System for Traffic Engagement for Emergency Vehicle in a Distributed Networking Environment, The Patent Office, Government Of India