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Research Experience: 06 years (Post Ph.D.)

Patents: 02 **Granted:** 01 **Applied:** 01

Research Focus :

Solar Energy Harvesting and Storage; Nanofluids; Desalination; Nanoparticle-based environmental remediation; E-Waste Recycling; MCDM-based Material & Method Selection; Carbon capture and storage.

Technology Licensed: NA

Interested Industry member kindly connect through:

Email Id: icc-industryacademia@iccmil.in

Technologies (Proof of Concept- POC):

- Clay-based nanofluids for carbon capture and storage (through CO₂ hydrate formation) application. **TRL 4** (Tested in pilot-scale lab setup).
- LDH-infused reusable PU foam for textile dye removal under solar and UV irradiation. **TRL 4.**

Technologies under development:

- A multi-criteria decision-making toolbox for data-driven choices, suitable for applications in engineering, business, E-commerce, healthcare, and finance sectors.
- Microalgal desalination of brackish water and RO reject.

Targeted Industries:

- Textile and Tannery Industry (wastewater treatment).
- Oil and gas industry (focused on CCUS).
- Water desalination industry.

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