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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@iccmail.in](mailto:icc-industryacademia@iccmail.in)

## **Technologies (Proof of Concept- POC):**

- Clay-based nanofluids for carbon capture and storage (through CO<sub>2</sub> 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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