



# Pradeep Kumar Sow, Ph.D.

Associate Professor

Department of Chemical Engineering  
BITS Pilani K. K. Birla Goa Campus



**Research Experience:** 16 years

**Patents:** Granted: 0      Applied: 04

### **Research Focus :**

Electrochemistry, Surface and interfacial science, Diagnostics Designs

Hydrogen Production through water splitting , Fuel cells, Continuous flow electrochemical cell systems.

### **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): TRL level**

- HI electrodecomposition (ONGC Energy Centre Funded) [TRL 4].
- Water splitting/alkaline electrolyzers (SIEMENS Funded) [TRL 3].
- Resin treatment process for Copper electrorefining (HINDALCO Funded) [TRL 3].
- Surfaces with switchable wettability (Superhydrophobic to superhydrophilic) [TRL 3].
- Superhydrophobic surfaces for antifouling, corrosion protection, self cleaning [TRL 4].
- Oil-water separation systems using superhydrophobic/superhydrophilic surfaces [TRL 4].

## **Technologies under development:**

- AEM electrolyzers for hydrogen production using water splitting [TRL 2].
- Oil-water separation systems for application in liquid-liquid extraction [TRL 2].

## **Targeted Industries:**

Process Industry, waste water treatment, Pharmaceutical industry

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