

## Research Conclave 2026

### List of teams selected for final stage presentation.

| Paper ID    | Team Name                  | Title of the Paper                                                                                                                                                |
|-------------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| T1_IACS_01  | GaitSync                   | Design and Control of an Active Ankle Orthosis for Foot Drop Correction in Gait Rehabilitation                                                                    |
| T1_IACS_02  | DRONE-acharya              | Multi-Objective PSO-Tuned PID Control for Autonomous UAV Quadcopter Navigation                                                                                    |
| T1_IACS_03  | FusionBCI                  | FusionBCI: Adaptive EEG-EMG Hybrid Interface                                                                                                                      |
| T1_IACS_04  | ThinkTech                  | Local Multimodal Emotion-Aware Psychological Support Agent Using LiveKit                                                                                          |
| T1_IACS_05  | Supermemory                | Hybrid RAG System with Long-Term Memory Layer for Meetings                                                                                                        |
| T2_SCLPE_01 | Radio Physics_Pratik-Jhuma | Gaussian Beam Generating Metasurface for Extended Range Wireless Power Delivery                                                                                   |
| T2_SCLPE_02 | PetVibe                    | PetVibe: An IoT Based Real Time Canine Health Monitoring System with Edge AI and Dual Path Cloud Analytics                                                        |
| T3_SEES_01  | Antarez                    | MiuraFold: A Single-DOF Deployable Origami Solar Facade for Urban Vertical Surfaces                                                                               |
| T3_SEES_02  | DL DALF                    | Day-Ahead Residential Load Forecasting with Short Term Corrections using Sequence-to-Sequence Bidirectional Long Short Term Memory with Attention Mechanism       |
| T3_SEES_04  | Sujay Saha                 | Developing cost-effective proton exchange membrane (PEM) for efficient green hydrogen production by waste water treatment using microbial electrolysis cell (MEC) |
| T3_SEES_05  | DC Meter                   | Development of SCADA Enabled DC Multifunction Meter for Solar PV Monitoring                                                                                       |
| T3_SEES_06  | Sayan Das CU               | Incipient Fault Detection Schemes for Induction Motor using Different Machine Learning Models                                                                     |
| T3_SEES_07  | InterLeave                 | Two-Phase Interleaved Bi-directional DC-DC Converter                                                                                                              |
| T3_SEES_08  | RenewX                     | MILP-Based Static Reconfiguration of PV Arrays for Enhanced Power Extraction Under Partial Shading Effects                                                        |
| T4_SIT_01   | Ankita Das Project         | Simulation of Glare Reduction for Automotive Headlamps                                                                                                            |

| Paper ID    | Team Name    | Title of the Paper                                                                                                                                                                          |
|-------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| T5_HBLST_01 | AssistEdge   | FallAlert: A Real-Time Wearable Pre-impact Fall Detection System using Unsupervised Intelligence with Mobile Annunciation                                                                   |
| T5_HBLST_02 | GlucoseSense | Non-Invasive Blood Glucose Estimation by Dual Channel Photoplethysmography                                                                                                                  |
| T6_AMNPI_01 | Ceramic CU   | Synthesis and Characterization of Nanostructured Calcium Aluminate Coating on Graphite for Improved Performance of Alumina-Carbon Monolithic Refractory with Outstanding Rheological Design |