

# 2026 Eighth International Conference on Materials Science and Manufacturing Technology (ICMSMT 2026)

29 - 30, MAY 2026 | Coimbatore, India

## Program Schedule

Date	Time	Event
29.05.2026	10.00 am to 10.25 am	Inaugural Function (ONLINE) ICMSMT 2026_Inaugural Friday, May 29 · 9:30 – 11:00am Time zone: Asia/Kolkata Google Meet joining info Video call link: <a href="https://meet.google.com/ghy-vpbc-zcc">https://meet.google.com/ghy-vpbc-zcc</a>
29.05.2026	10.30 am to 12.45 pm	Session 1: ACE01(Online)
		Session 2: CE01(Online)
		Session 3: CEE01(Online)
		Session 4: ME01(Online)
		Session 5: ME02(Online)
		Session 6: APH01(Online)

### Track Notation:

APH - Applied Physics (Session 6)  
ACE - Applied Chemistry & Electronics Engineering (Session 1)  
CE - Civil Engineering (Session 2)  
CEE - Computer & Electrical Engineering (Session 3)  
ME - Mechanical Engineering (Session 4 & 5)

### **Note:**

1. Start time given above indicates Indian Standard Time (IST).
2. Presentation will be conducted using Google meet platform.
3. Participants can join their respective sessions by clicking the meet link given
4. Mode of presentation should be powerpoint presentation (ppt or pptx).
5. There is no specific template to be followed for preparing PPT. Make sure no. of slides is less than 15.
6. Duration of presentation: 10 minutes (presentation) + 2 minutes (Queries)
7. Participants are requested to follow the scheduled time; especially regarding the time for your talk.
8. Participants are requested to contact the respective session coordinators for presentation related queries.

## Session 1: ACE01 (Online)

Date: 29.05.2026

Time: 10.30 am to 01.00 pm

Session Chair: Dr. K. Sumathi, Professor, ECE & Dr. T. Surya, AP, ECE

Google Meet Link: <https://meet.google.com/voq-vsyz-zrk>

Time	Paper ID	Paper Title
10.30 AM	MS 2602	Effects of Nano-Fertilizer Application on Mineral Nutrition Efficiency and Yield Quality of Wheat, Maize and Barley Under the Conditions of the Zhetisu Region
10.42 AM	MS 2609	Transparent Conducting Oxides as Low-Loss Metal Substitutes in Optical Antennas for Infrared Plasmonics
10.54 AM	MS 2698	Real-Time Facial Attendance Authentication System using FPGA Acceleration
11.06 AM	MS 2727	Green Synthesis of Silver Nanoparticles Using Orange Peel and Clove Residues: A Sustainable Approach
11.18 AM	MS 2738	Enhanced adsorption of methylene blue onto Fe <sub>3</sub> O <sub>4</sub> loaded activated carbon from red algae: a box-behnken design and nonlinear modelling approach.
11.30 AM	MS 2742	Effect of Gate Dielectric Stacks on MOSFET Device Performance
11.42 AM	MS 2812	Machine Learning-Based State of Charge Estimation for Lithium-Ion Batteries: A Comparative Study for Embedded Deployment
11.54 AM	MS 2835	Vickers Microhardness and Characterization of SS316L/IN718 Bimetallic Walls Deposited by Wire Arc Additive Manufacturing
12.06 PM	MS 2674	Finite element comparative analysis of stainless steel 316L (SS 316L) and cobalt-chromium (Co-Cr) alloy dynamic compression plates for femoral fracture fixation
12.18 PM	MS 2820	Metal-Oxide/Biochar Nanocomposites for High-Rate Supercapacitors
12.30 PM	MS 2824	Influence of temperature and relative permittivity on the partial and apparent molar volumes of sodium carboxymethylcellulose in dimethyl sulfoxide-water binary solvent system

## Session 2: CE01(Online)

Date: 29.05.2026

Time: 10.30 am to 01.00 pm

Session Chair: Dr. R. Vignesh, ASP, Civil Engineering

**Google Meet Link:** <https://meet.google.com/hiq-orjz-nzc>

Time	Paper ID	Paper Title
10.30 AM	MS 2608	Development and validation of an experimental furnace for fire resistance testing of construction materials
10.42 AM	MS 2617	Hybrid precast carbon fibre reinforced concrete footing on expansive black cotton soil
10.54 AM	MS 2620	Performance Evaluation of Internal Curing Concrete Using Potassium Polyacrylate and Alccofine
11.06 AM	MS 2636	Precast Carbon Fiber Concrete Bed with Perforations: A Smarter Foundation Solution for Black Cotton Soil
11.18 AM	MS 2653	An experimental investigation on exploring the viability of Glass Fibre Reinforced Polymer Rebars as an alternative to steel reinforcement in concrete beams
11.30 AM	MS 2687	Physics-Informed Explainable Machine Learning Framework for Strength Prediction and Mix Design Optimization of Ultra-High Performance Concrete
11.42 AM	MS 2696	Fabrication and Investigating the Features of New Ternary Nanocomposites for Biomedical Applications
11.54 AM	MS 2733	Self-healing Concrete Using Bacteria with IoT Integration
12.06 PM	MS 2744	Experimental Investigation of Temperature Gradient Driven Air Circulation in Concrete Blocks Using Fly Ash
12.18 PM	MS 2752	Seismic Response and Structural Efficiency of RCC, PSC, and SRC Bridge Piers: A Comparative Study
12.30 PM	MS 2763	Performance Evaluation of Steel Fiber Reinforced Geopolymer Concrete for Sustainable Structural Applications

### Session 3: CEE01 (Online)

Date: 29.05.2026

Time: 10.30 am to 01.00 pm

Session Chair: Dr. M. Sundar Rajan, ASP, EEE & Dr. M. Jenifer, AS, AI&DS

**Google Meet Link:** <https://meet.google.com/bmy-rydb-uxp>

Time	Paper ID	Paper Title
10.30 AM	MS 2625	Design and Simulation Performance Assessment of Speed Control of a DC Motor using Robust CRONE Controller
10.42 AM	MS 2677	Comparative Analysis of Machine Learning Approaches for Multi-Class Risk Classification in Deep Excavation Projects
10.54 AM	MS 2679	Metaheuristic Krill-herd Search and Deep learning based YOLO for Road and Lane Segmentation
11.06 AM	MS 2680	Diagnosis of Alzheimer's Disease Using Convolutional Neural Network with Select Slices by Landmark on Hippocampus in MRI Images
11.18 AM	MS 2709	Reducing Device Degradation and Early-Life Failures with Reliability- Aware Process Design Kits
11.30 AM	MS 2711	Achieving Robust and Interpretable Multi-Class Plant Disease Diagnosis using Stacked Deep Ensemble and LIME-SHAP Synergy
11.42 AM	MS 2724	Noise-Resistant Image Steganography with Encrypted and Enhanced Least Significant Bit Technique
11.54 AM	MS 2766	A Hybrid Autoencoder–OCSVM–Subspace Clustering Unsupervised Framework for Anomaly Detection
12.06 PM	MS 2806	RFID-Secured Intelligent Battery Management System with Predictive Analytics
12.18 PM	MS 2829	Design and Simulation based Warpage and Sink Mark Prediction for Sustainable Injection Molding
12.30 PM	MS 2836	Sustainable Self-Compacting Concrete Using Supplementary Cementitious Materials

## Session 4: ME01 (Online)

Date: 29.05.2026

Time: 10.30 am to 01.00 pm

Session Chair: Prof. C. Rajasekar, AP, Mechatronics Engineering

Google Meet Link: <https://meet.google.com/yaf-jsbe-iut>

Time	Paper ID	Paper Title
10.30 AM	MS 2616	Comparative Analysis of Strain Rate Effects on Austenite Grain Control during TMCP Rolling of API X70 Steel in Casting–Rolling Modules and Hot Strip Mills
10.42 AM	MS 2618	Optimisation of Tensile strength of additively manufactured acrylonitrile styrene acrylate using the Taguchi L9 design
10.54 AM	MS 2619	Investigations and Optimisation of FDM Process Variables on the Notched Izod Impact Strength of PETG Using the Taguchi Method
11.06 AM	MS 2622	An Experimental Study on the Combined Influence of Infill Pattern, Infill Density, and Layer Thickness on the Impact Strength of 3D-Printed ABS
11.18 AM	MS 2635	Estimating Weld-On Time in Resistance Spot Welding Through Pre- Weld Static Resistance Measurement at the Electrode–Workpiece Interface
11.30 AM	MS 2646	Design and Thermal Performance Analysis of a Biomass Fired Dryer with Ringed Inclined
11.42 AM	MS 2648	Impact of Arc Removal in Thermographs on the Performance of the Weld Defect Classification Deep Learning Techniques
11.54 AM	MS 2661	The chip breakability study and selection of machining parameters based on chip weight and von Mises stress generation during turning of EN 19 steel
12.06 PM	MS 2682	Experimental Exploration of Compression Moulded FRP and FML Composite Plates under High-Velocity Impact
12.18 PM	MS 2697	MHD Nanofluid Flow over a Vertical Porous Plate: Thermodynamic Irreversibility and Entropy Generation through Homotopy Perturbation Method
12.30 PM	MS 2702	Conceptual Design of Hybrid Bio-Inspired Aircraft Wing Combining Whale Tubercles and Shark Skin Riblets for Enhanced Aerodynamic Efficiency

## Session 5: ME02 (Online)

Date: 29.05.2026

Time: 10.30 am to 01.00 pm

Session Chair: Prof. V. Sureshkumar, AP, Mech

**Google Meet Link:** <https://meet.google.com/qex-vvpb-xva>

Time	Paper ID	Paper Title
10.30 AM	MS 2708	Thin-walled metal defect detection in welding using non-destructive inspection.
10.42 AM	MS 2715	Numerical Study on Thermal Behaviour of RC Columns and CFST Columns
10.54 AM	MS 2750	Optimization of Laser Engraving Parameters for micro texturing on Al7075+SiCp Composite
11.06 AM	MS 2770	Corrosion Protection of Steel Substrate via Hydrophobic Nanoparticle- Based Surface Modification in Chloride-Rich Environments
11.18 AM	MS 2772	Numerical Investigation for Localized Drop Impact Response of 5083-H116 Aluminum Stiffened Panel Model
11.30 AM	MS 2798	Comprehensive Study of Wear Characteristics in LM25-SiC Composites: Taguchi's Optimization Approach
11.42 AM	MS 2799	Investigation of Wear Behavior and Worn Surface Microstructure Analysis of Al- SiC Composite
11.54 AM	MS 2804	Investigation of Ballistic Impact Behaviour of Ceramic Armor Panels for Protective Headgear Applications
12.06 PM	MS 2811	A calculation study of the gravity center in the zone of yield strength on corroded steel S355JR
12.18 PM	MS 2813	Analysis and design of an innovative solar-powered groundwater pumping system for remote agricultural landscapes: A coupled hydraulic-electric model with dynamic drawdown compensation
12.30 PM	MS 2815	Microhardness Characteristics of Electroless Ni-P/Ni-P-SiO <sub>2</sub> Platings

## Session 6: APH01 (Online)

Date: 29.05.2026

Time: 10.30 am to 01.00 pm

Session Chair: Prof. R. Sangeetha, AP, Physics

Google Meet Link: <https://meet.google.com/uyi-cmbb-cnv>

Time	Paper ID	Paper Title
10.30 AM	MS 2678	Conductive and Flexible smart materials: Applications in Electronics, Wearable devices and E-textiles
10.42 AM	MS 2703	Structural, Optical and Non-Linear Optical Properties of Erbium Doped KDP Crystals Grown by Slow Evaporation Method
10.54 AM	MS 2704	Effect of Lanthanum-doping on the Structural, Optical, and Nonlinear Optical properties of KDP Single Crystals
11.06 AM	MS 2706	Microwave-assisted synthesis of gold-graphene quantum dots composite for sensitization of TiO <sub>2</sub> in dye-sensitized solar cells
11.18 AM	MS 2718	Growth and comprehensive characterization of L-arginine doped KDP crystals for enhanced nonlinear optical applications
11.30 AM	MS 2760	Synthesis and characterization of Cu doped ZnO for antifungal applications
11.42 AM	MS 2762	Structural, microstructural, spectroscopic, optical, and photocatalytic studies of Ba-doped ZnO nanoparticles synthesized by solution combustion
11.54 AM	MS 2771	Generalized Inverse of Centrosymmetric and K-Centrosymmetric Neutrosophic Hypersoft Rough Fuzzy Matrices
12.06 PM	MS 2774	Comparative Studies of Structural, Optical, Dielectric, Mechanical and Thermal Properties of Pure, Ni <sup>+2</sup> and Co <sup>+2</sup> Doped Potassium Hydrogen Phthalate (KHP) Crystal
12.18 PM	MS 2801	Non-contact generation and detection of ultrasonic low frequency plate waves using electromagnetic acoustic transducer (EMAT) and LASER
12.30 PM	MS 2814	Thermodynamic, microscopic and transport characteristics of In-Sb melts at 900 K