International Journal of Engineering Research and Applications (IJERA)

Editor-In-Chief

Prof. Manju Sharma

Editorial Board Members

Dr. Hadi Arabshahi, Iran A. K. M Nazmus Sakib, Bangladesh

Dr. Eugen Axinte, Romanian Dr. Rao, P.hd, USA

Dr. Yaduvir Singh, India Dr. Aknuas William, Australia

Dr. Shahram Jamali, Iran

Associate Editorial Board members

Sukumar Senthil Kumar

Universiti Sains Malaysia, School of Mathematical Sciences, Malaysia

Dr. Bensafi Abd-El-Hamid

Abou Bekr Belkaid University of Tlemcen, Algeria Tamilnadu, India

Dr. Prasanta K Sinha

Deputy Director, Durgapur Institute of Advanced Technology & Management, West Bengal

Hari Mohan Pandey

Middle East College of Information Technology, Under Coventry University, U.K.

Dr. V S Giridhar Akula

Professor and Principal, Avanthi's Scientifi Technological and Research Academy (JNTU), Hyderabad

Dr. Prasanta K Sinha

Durgapur Institute of Advanced Technology & Management, Durgapur

Dr. A.V.Senthil Kumar

Director, MCA depart, Hindusthan College of Arts and Science,

Dr. Suresh Prasad Singh

H.O.D.(Chemical Engineering), B. I. T. Sindri, Dhanbad

Patrick Tiong Liq Yee

Universiti Teknologi Malaysia, Malaysia,

Dr. Santosh K. Pandey

Department of Information Technology Board of Studies , The Institute of Chartered Accountants of India

Contact Details

Ukraine Office

First floor, ST Street, Ivano-Frankivsk, 76008, Ukraine **India Office**

SC-89, Shastri Nagar, Ghaziabad, UP, India

Email: ijera.editor@gmail.com Website: www.ijera.com









ISSN: 2248-9622



International Journal of Engineering Research and Applications (IJERA)

Volume 15 - Issue 11 November 2025

Peer Reviewed Refereed Journal







All Papers are indexed in Index Copernicus



International Journal of Engineering Research and Applications (IJERA)

Volume : 15 Issue : 11 ISSN : 2248-9622 Nov. 2025

Contents:

Hybrid LSTM-CNN Deep Learning Model for Enhanced Day-Ahead Photovoltaic Power Forecasting	01-10
Air Conditioning Systems Pressure and Compresso	or 11-15
Full-Scale Service Load Test of 40m span FSLM 434P08-09 Girder in the Mumbai-Ahmedabad High-Speed Rail Project	16-25
Engineering Applications of Concrete Demolition Waste in Stabilizing Expansive Soils	26-34
Influence of Membrane Pore Size on Immobilized Urease Activity	35-37
Automated Customer Feedback Analyzer: A Comprehensive Automated Approach for Automated Sentiment and Sentiment Analysis	38-49
Vanadium-doped nickel cobaltite material for supercapacitor electrodes synthesized via the microwave hydrothermal technique: Augmented structural and electrochemical analysis	50-62
Dual-Scoring Knowledge Distillation for Anomaly Detection in Electroluminescence PV Images using Transformer-Guided Efficient-UNet	63-82 I
AI-Driven Bot Detection and Mitigation in Social Apps: A Case Study of SOYO	83-99
Performance-based Evaluation of Gravity based Design Moment Resisting Frames using Nonlinear Static Analysis	100-106
Post-Quantum Cryptography and Quantum Random Number Generators: Ensuring Security in Modern Communication	107-120
Evaluation of the thermo-diffusion (Soret effect) impact across two phases of the alloys and the crystal-melt interface in In0.5Ga0.5Sb un-seeded crystallization growth by the VDS process	131-132
A Study on the Standardization and Effectiveness Improvement of Emergency Response Procedures in Major Korean Shipping Companies	133-141
A Comprehensive Guide on DC Motor Efficiency	142-148
Performance review of a four Cylinder Petrol Engine –A Case Study	149-153