National Institute of Technology Rourkela

Departmental Seminar

Seminar Title	: Artificial Intelligence-driven Algorithms for Precision Forecasting in Electricity Pricing
Speaker	: Dr. Hanumantha Rao Bokkisam
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Venue	: EE Department (Room No. EE 205)
Date and Time	: 07 Jan 2025 (05:00 PM)
Abstract	: This talk will present four deep learning-based models—Multilayer Perceptron (MLP), Recurrent Neural Network (RNN), Long Short-Term Memory (LSTM), and a hybrid Convolutional Neural Network-Long Short-Term Memory (CNNLSTM)—to forecast electricity prices in the Nord Pool Spot Market. The approach utilizes historical electricity price data, making it a univariate time-series forecasting method. The performance of these models is assessed using various accuracy metrics and visualized through box plots. The simulation results indicate that the CNN-LSTM model consistently outperforms the other three models across most evaluation metrics.