Date: April 9, 2025

## Department of Electrical and Electronics Engineering Report

## EXPERT LECTURE ON POWER SYSTEM OPERATIONS & LOAD DISPATCH IN DELHI

The Department of Electrical and Electronics Engineering at Maharaja Surajmal Institute of Technology organized an 'Expert Lecture on Power System Operations and **Load Dispatch in Delhi'** on April 9, 2025. The lecture was delivered by **Mr. Naveen Kumar**, Deputy Manager at SLDC, Delhi Transco Limited, New Delhi.

The lecture began with an overview of India's power infrastructure, including the nation's installed generation capacity and the role of key regulatory bodies such as the Central Electricity Authority (CEA). The speaker emphasized the importance of the Electricity Act of 2003 in shaping policies for power distribution, transmission, and consumer rights.

A significant focus was placed on seasonal load management strategies. The speaker illustrated how power stations and substations adapt to fluctuating demand, particularly during extreme weather conditions. The speaker described the surge in electricity consumption during Delhi's summers and highlighted measures like demand forecasting and renewable energy integration to mitigate grid stress. The interconnected grid system's role in balancing supply and demand across states was underscored as a cornerstone of reliable operations.

The speaker discussed various energy generation methods, including fossil fuels, solar energy, and renewable energy sources. He highlighted real-time monitoring tools i.e. SCADA and dynamic pricing models to manage peak demand efficiently, promoting grid stability and sustainability through advanced technologies.

The speaker addressed all student inquiries regarding power system operations and load dispatch. The lecture concluded with an interactive questions and answers session where participants clarified their doubts. Overall, the expert lecture was highly informative and motivating, equipping attendees with valuable knowledge to navigate their careers in power systems and turn ideas into impactful solutions.

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