Mindluster Platform

# About the course Electrical distribution system analysis

## Course Presenter : IIT Roorkee July 2018

Unlock the fundamentals of electrical distribution system analysis with this comprehensive online training course designed for engineering professionals in the Middle East, including Saudi Arabia and the UAE. This course offers valuable insights into the design, operation, and maintenance of electrical distribution networks, equipping you with essential skills to advance your career in the dynamic field of electrical engineering. Whether you are seeking to enhance your professional skills or aiming for career growth, this certified course provides a solid foundation to support your goals. During this training course, you will learn to: - Understand the principles of electrical distribution systems and their components - Analyze distribution network performance and identify optimization opportunities - Apply best practices for system reliability and efficiency - Conduct fault analysis and troubleshoot electrical distribution issues - Utilize industry-standard tools and software for system modeling and simulation - Comprehend regulatory standards and safety protocols relevant to electrical distribution This course is ideal for electrical engineers, technical specialists, and professionals involved in the design, operation, or maintenance of electrical distribution systems in the Middle East. It is also suitable for those seeking a recognized certification to enhance their professional portfolio and improve employment prospects. Choosing this course on our platform ensures you receive high-quality, up-to-date training developed by industry experts. Our flexible online format allows you to learn at your own pace, making it easier to balance your professional commitments while gaining valuable knowledge and skills. Upon completion, you will earn a professional certificate validating your expertise in electrical distribution system analysis. This certification can significantly boost your career opportunities within the electrical engineering sector, opening doors to roles in utility companies, consulting firms, and industrial plants across the Middle East. Invest in your professional development today with this certified online course and take a confident step toward advancing your engineering career in the electrical distribution domain. IIT Roorkee July 2018

**Engineering Category's Courses**

# Course Lesson(60)


Lesson 1 : **Electrical Distribution System Analysis**

Lesson 2 : **Introduction to Electrical Distribution System**

Lesson 3 : **Components of Distribution System Substation and Busbar Layouts**

Lesson 4 : **Components of Distribution System and Feeder Configurations**

Lesson 5 : **Nature of Loads in a Distribution System**

Lesson 6 : **Load Allocation in a Distribution System**

Lesson 7 : **K Factors and Their Applications**

Lesson 8 : **Analysis of Uniformly Distributed Loads**

Lesson 9 : **Lumping Loads in Geometric Configurations Rectangular**

Lesson 10 : **Lumping Loads in Geometric Configurations Triangular**

Lesson 11 : **Impedance of Distribution Lines and Feeders Part I**

Lesson 12 : **Series Impedance of Distribution Lines and Feeders Part II**

Lesson 13 : **Models of Distribution Lines and Cables**

Lesson 14 : **Modelling of Single Phase and Three Phase Transformers**

Lesson 15 : **Modelling of Three Phase Transformers Part I**

Lesson 16 : **Modelling of Three Phase Transformers Part II**

Lesson 17 : **Modelling of Three Phase Transformers Part III**

Lesson 18 : **Modelling of Three Phase Transformers Part IV**

Lesson 19 : **Modelling of Step Voltage Regulators Part I**

Lesson 20 : **Modelling of Step Voltage Regulators Part II**

Lesson 21 : **Modelling of Step Voltage Regulators Part III**

Lesson 22 : **Modelling of Step Voltage Regulators Part IV**

Lesson 23 : **Load Models in Distribution System Part I**

Lesson 24 : **Load Models in Distribution System Part II**

Lesson 25 : **Modelling of Distributed Generation**

Lesson 26 : **Applications and Modeling of Capacitor Banks**

Lesson 27 : **Summary of Modelling of Distribution System Components**

Lesson 28 : **Backward Forward Sweep Load Flow Analysis Part I**

Lesson 29 : **Backward Forward Sweep Load Flow Analysis Part II**

Lesson 30 : **Direct Approach Based Load Flow Analysis Part I**

Lesson 31 : **Direct Approach Based Load Flow Analysis Part II**

Lesson 32 : **Direct Approach Based Load Flow Analysis Part III**

Lesson 33 : **Direct Approach Based Load Flow Analysis Weakly Meshed System**

Lesson 34 : **Gauss Implicit Z matrix Method**

Lesson 35 : **Sequence Component Based Short Circuit Analysis**

Lesson 36 : **Thevenin s Equivalent and Phase Variable Based Short Circuit Analysis**

Lesson 37 : **Direct Approach for Short Circuit Analysis Introduction and LG Fault**

Lesson 38 : **Direct Approach for Short Circuit Analysis LLG and LLLG Fault**

Lesson 39 : **Direct Approach for Short Circuit Analysis LL Fault and Examples**

Lesson 40 : **Direct Approach for Short Circuit Analysis Weakly Meshed System**

Lesson 41 : **Applications of Distribution System Analysis**

Lesson 42 : **Distributed Generation Integration Issues in Distribution System**

Lesson 43 : **Distribution System Protection Issues**

Lesson 44 : **Design and Operation Part I**

Lesson 45 : **Design and Operation Part II**

Lesson 46 : **Definition and objective of Volt var control VVC**

Lesson 47 : **Traditional approaches of VVC**

Lesson 48 : **Distribution Automation**

Lesson 49 : **SCADA Based VVC and Integrated VVC**

Lesson 50 : **Advanced technologies for VVC Part I**

Lesson 51 : **Advanced technologies for VVC Part II**

Lesson 52 : **System Planning Part I**

Lesson 53 : **System Planning Part II**

Lesson 54 : **Electricity Forecasting**

Lesson 55 : **Case study IIT Roorkee distribution system**

Lesson 56 : **Optimization techniques**

Lesson 57 : **Optimal location and sizing battery energy storage system BESS**

Lesson 58 : **Practical Insights into Electrical Distribution Systems**

Lesson 59 : **Field Deployment of BESS**

Lesson 60 : **Emerging Technologies and Future Trends**

# Related courses

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for Business Contact
business@mindluster.com