



PLAIN TALK



Help Your Employees Learn More About the Electric Power System

IEEE Power & Energy Society offers basic power systems courses to help your new engineers and non-technical staff to better understand your business and work with their colleagues - Plain Talk About the Electric Power System!



On-Site Training Available - Let Us Come To You!

- Power System Basics - Understanding the Bulk Power System Works
- Distribution System - Delivering Power to the Customer
- Transmission System - The Interconnected Bulk Electric System

An in-house seminar can save your organization valuable time and money. Our instructors bring years of industry knowledge, expertise, and unique experience to you, that will enhance your current training program and keep your employees engaged. Contact us to discuss how we can customize our courses to your unique objectives and location.

- IEEE PES Plain Talk About the Electric Power System courses for the Power Industry Professional will help you to understand technical aspects of the Electric Power System
- Gain insight into the concerns of engineers, the demands of regulators and consumer groups, and the factors and trends that impact the operation of today's electric power systems.
- These courses are also appropriate for non-power engineers who are transitioning to the electric power industry.

Contact

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For More Information and to Register for an Upcoming Event:

<https://www.ieee-pes.org/professional-development/pes-university/pes-university-plain-talk>

COURSE DESCRIPTION

Power System Basics – Understanding How the Bulk Electric Power System Works

Day 1

The focus of this course is to provide a fundamental foundation in electric power systems, from basic formulas to the planning, operations, and equipment involved in generating, transmitting, and distributing electric power. Basic electrical terminology will be explained in simple to understand language with regard to design, construction, operation and maintenance of power plants, substations, and transmission and distribution lines. Anyone who is involved in some way with the electric utility industry can benefit from attendance at this course.

Topics covered in the course include an introduction to the fundamentals and basic formulas of electricity as well as the equipment involved in the electric power system.

An over- view of generation, substations, transmission, distribution, and utilization is provided. Protection, reliable operation, and safety are among the topics covered.

Distribution System – Delivering Power to the Customer

Day 2

Prerequisite for this course is Power System Basics or a familiarity with basic formulas and power system equipment.

The focus of this course is to provide attendees with an overview of the issues associated with the planning, engineering, design, operation, and automation of electrical distribution systems. Types of distribution systems and network circuits, as well as engineering issues related to distribution systems will be explored. New concepts in the design, challenges, and operation of smart grid will be addressed. This course is intended for those who are not familiar with the delivery of electricity to the end user.

Topics covered in the course include an introduction to the types of distribution systems, issues associated with distribution planning such as outages and reliability, distribution engineering considerations relating to radial and secondary networks, and distribution automation. The course also provides an overview of electrical distribution operations, including the roles of utility personnel, construction and maintenance considerations, and trends in the industry. Smart grid and its impact on the distribution system will be explored.

Transmission System – The Interconnected Bulk Electric System

Day 3

Prerequisite for this course is Power System Basics or a familiarity with basic formulas and power system equipment.

The focus of this course is to provide participants with knowledge of how electric power is transferred from generation sources to distribution systems via the interconnected electric bulk power system known as "the grid." Basic physical laws governing the grid will be introduced, as well as the regulatory agencies involved in its governance. The great blackouts will be explored. This course is intended to increase participant's understanding of the electric grid and how it functions in the electric power system.

Topics covered in the course include an introduction to the fundamental concepts of power, energy, and power system stability as they relate to the grid. The grid is explored in terms of its interconnections, power flow, North American interconnections, and governing bodies such as NERC/ERO, ISOs, and RTOs. Reliability standards and contingency analysis are addressed. Issues related to the planning and operation of the grid, such as transmission and economic constraints, determining transmission transfer capability, and dealing with congestion are reviewed. The course also discusses the great blackouts, their root causes, and lessons learned.

ABOUT PLAIN TALK

PES Plain Talk courses for the power industry professional will help you to understand technical aspects of the electric power industry, even if you do not have an engineering background. You will gain insights into the concerns of engineers, the demands of regulators and consumer groups, and the factors and trends that impact the operation of today's electric power systems. These courses are also appropriate for new engineers to the industry, or for engineers in other fields who are transitioning to the electric power industry.

ABOUT IEEE PES

The IEEE Power & Energy Society is the society of electric power and energy professionals throughout the world. It provides the world's largest forum for sharing the latest in technological developments in the electric power industry, for developing standards that guide the development and construction of equipment and systems, and for educating members of the industry and the general public.

CONTINUING EDUCATION CREDITS

Each Plain Talk one-day course is eligible for 0.8 CEUs (equivalent to 8 Professional Development Hours, or PDH). Participants who complete the full three-day series are eligible to earn 2.4 CEUs (equivalent to 24 PDH).

Breakfast, lunch and snacks are provided each day.



Contact

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Read Testimonials from
Plain Talk Participants