

Electrical Engineering for Building Services



Course Date: 15th Oct – 19th Oct 2018.

Venue: IPEBS, Hyderabad, India.

Duration: 05 Days



PROGRAM DESCRIPTION

Electrical Engineering for Building Services

The scope of Electrical Engineering for Building Services includes Computing Total Power Required for Building / Space, Local Distribution of Power, Electrical Calculations including Cable selection, Circuit Breakers, Switch Gear, Transformers, Capacitor Banks, and Generators etc. Preparation of Electrical Drawings, Lighting & Power Distribution, Earthing & Lightning Protection Systems etc.

This training program gives comprehensive knowledge of Electrical Systems Design & installation for Building Services. The program focuses on the real time work related concepts, issues, which is enhanced by the inputs of the instructor's practical experience.

WHO WILL ATTEND

Electrical Engineers/ Designers / Draftsmen responsible for design, drafting, installation, estimation and maintenance of electrical systems for Building & Facilities.

MEP engineers/managers including mechanical, electrical instrumentation engineers who wish to understand / supervise Electro-Mechanical Projects.

Electrical Engineers who are at the entry level or junior level or senior level, who wish to streamline or enhance their existing knowledge and people of other fields who aspire to make a career in Electrical Engineering for Building Services.

WHAT YOU WILL LEARN

Upon the successful completion of the course, participants will be Able to understand:

- The scope of Electrical Engineers in Modern Construction Industry
- The fundamentals of Electrical Power Systems
- Electrical Codes & Standards
- Generation, Transmission & Distribution of Electricity
- Power System components- Circuit Breakers/ Transformers/ Capacitor banks etc.
- Switchgears & Panel Boards
- Power Cables & Applications
- Cable Management System- Conduits/ Trunking / Trays/ Duct Banks/ Trenches etc.
- Lighting Systems & Applications
- Earthing & Lightning Protection Systems
- Design Calculations
- Prepare Design, Shop & As- built Drawings

“Gain complete understanding of Electrical Systems Components, related Standards, Design Calculations, Installation / Maintenance Procedures & Electrical Drawings”

“Attend this knowledge – packed workshop & become a Electrical Specialist”

WHY TRAIN WITH US

IPEBS team develops the training programs based on the practical consulting and site construction expertise that has been built up over the years in various specialist areas.

We set out to teach top-quality engineering skills training courses and we have achieved this - we constantly strive to make them as good as it's possible to - but over the years we have also refined our methods, adding several enhancements to the construction stages of course description, design of the courses and assessment.

We believe that these are important to our training participants; it's easy to see what the courses consist of, what value they will gain from attending them and how they can apply their new knowledge and skills in their workplace in a structured, evidence-rich way.

**"POWER YOUR CAREER
FORWARD WITH IPEBS
SPECIALIZED TRAINING
COURSES"**



WORKSHOP OVERVIEW

Module 1- Electrical Fundamentals

- Basic Electrical Terms- Definitions, Glossary, Units, Abbreviations
- Electrical Codes & Standards - BS, NEC, IEE, IEEE, NFPA, IEC
- Generation, Transmission & Distribution of Electricity
- Home Wiring Diagrams
- Radial & Ring Circuits
- Basic Electrical Formulae

Module 2- Wiring Accessories & Cable Management Systems

- Switches & Sockets (Types and Applications)
- Isolators & Disconnect Switches
- Wires & Cables (Types and Applications)
- Conduit System, Cable Tray, Ladder, Trunking Systems
- Underground Cables (Directly Buried)
- Duct Banks & Cable Trenches
- BusDuct & BusBar Risers

Module 3- Power System Components

- Circuit Breakers (Types & Selection)
- RCD/ ELCB
- Panel Boards & Switchgears – Final DB, SMDB, MDB
- Motor Control Center (MCC) - Electric Motors & Starters
- Capacitor Banks - Power Factor Improvement
- Transformers
- Standby Diesel Generators (ATS & Changeover Switch)
- IP Protection

Module 4- Lighting System

- Lighting Fixtures (Types & Applications)
- Lighting Design- Illumination Lux Levels
- Emergency & Exit Lighting System

Module 5- Earthing & Lightning Protection System

- Earthing Systems (Types, Methods & Installation)
- Lightning Protection Systems

SELECTED CLIENTS



WORKSHOP OVERVIEW (cont'd)

Module 6- Electrical Design Calculation

- Circuit Breaker Sizing, Selection & Calculation
- RCD/ ELCB Sizing & Selection
- Branch & Main Feeder Cable Sizing, Selection & Calculation
- Total Connected Load (TCL) & Max. or Peak Demand Calculation based on Diversity Factors
- Load Distribution Schedules & Load Balancing– Final DB, SMDB, MCC, MDB
- Cable Tray Sizing
- Transformer Sizing Calculations
- Standby Generator Sizing Calculations
- Capacitor Bank Calculations
- Lighting Illumination Calculations
- Voltage Drop Calculations
- Short Circuit Calculations

Module 7-Electrical System Drafting

- Met Preparation of Lighting Layouts (Design, Shop & As- built Drawings)
- Preparation of Power Layouts (Design, Shop & As- built Drawings)
- Preparation of Single Line Diagrams (SLD) or Riser Diagrams

Module 8 – Electrical Installations & Maintenance

- Installation Procedures
- Maintenance Schedules

GENERAL INFORMATION:

- Workshop begins at 09:00 AM and ends at 05:30 PM. Participants are expected to be present each day and during all training periods. Participants who do not fulfill the attendance requirement will not be certified. Please remember this when making your travel arrangements.
- Exact venue of the workshop will be notified 2 weeks prior to the course start date.
- Participant fee includes printed course material (containing all slides and presentation handouts), participation certificate, Coffee/Tea/Snacks on arrival, morning & afternoon and buffet luncheon.
- Accommodation can be arranged for the participants at the workshop venue (accommodation is not included in the participants fee).
- The workshop is restricted to registered participants only, Visitors are not permitted.
- Workshop attendance certificate will be issued to all participants.
- Use of mobile phones, Personal Data Assistants (PDA, Blackberry) and pagers is not permitted during workshop training periods. Same applies for use of laptop, tablet, and computer for any purpose (E-mail, games etc.) other than workshop training.
- The recommended attire is business casual.
- Participants are expected to maintain a professional standard of appearance and behavior. Any participant wearing inappropriate attire or behaving in an unprofessional manner will be given a verbal warning. Further incidents may result in the participant being asked to leave the class without refunding their fee.
- Failure to meet or comply with these requirements will result in non-certification.

ABOUT IPEBS

“ Energizing Engineering – Empowering Engineers”

IPEBS is a premium professional training service provider based in Hyderabad, India.

IPEBS has expertise in providing knowledge packed training courses related to Plant Engineering with specialized training programs in Mechanical, Electrical, Instrumentation & Control, Civil/Structural, Process Engineering & Projects Management.

IPEBS core team comprises of Internationally renowned course speakers and domain specialists.

People behind IPEBS have trained thousands of engineers/draftman from all over the Globe.

IPEBS trainers are Subject Matter Experts with real time Consulting & Construction experience.

INSTRUCTOR PROFILE

Md. Mateenuddin,
Electrical Engineering & Design Specialist.
Certified Electrical Engineer – UAE
FEWA Licensed Electrical Engineer & Consultant – UAE.
ADDC (Abudhabi Distribution Company) Licensed Engineer Ref No. 1173494

Summary

Mr. Mateenuddin, B. Tech (EEE) has over 12 years of experience in Electrical Engineering including Design, Installation & Maintenance of Electrical Systems with international Experience.

He has served in Gulf countries like Kingdom of Saudi Arabia, UAE, Qatar & India, as Senior Electrical Engineer & MEP Projects Manager and is a certified Electrical Engineer from Abu Dhabi & Federal Electricity (UAE).

During his career, Mr. Mateen was involved in many prestigious projects like including Industrial Plants, 5 Star Hotels, Residential & Commercial Buildings, and School & Telecom Projects. He was involved in Design, Construction & Management of Electrical Services projects & MEP projects in India & abroad.

His expertise includes Electrical Design for Building Services as per IS, BS & NEC Codes, Low Current Systems (CCTV, FAS) and Coordination MEP Services.

Currently Mr. Mateenuddin is a Lead Electrical Engineer with IPEBS and is responsible for consulting & training including providing his specialist design & management services to MEP projects.

He has successfully trained more than 500 Electrical engineers from different nationalities for Electrical courses organized by IPEBS.

PARTICIPANT FEES:

Electrical Engineering for Building Services 5- Day Workshop	Early Registration	*Registration Fee	Group Discounts
	<i>At least 45 Days Prior to start of class</i>	<i>Less than 45 days prior to start of class</i>	
Indian Participant	25200/- INR	28000/- INR	2 or more at 10% off 5 or more at 15% off 8 or more at 20% off
International Participant	1170 US \$	1300 US \$	
Account Name: IPEBS Branch Name : Abids. Swift Code: HDFCINBB All bank charges to be borne by payer. Please ensure that IPEBS receives the full invoiced amount.			Group discounts are provided based on the *Registration Fee.
Account No : 03182020005287 Bank Name : HDFC			
Interested in Onsite training - save over 40% off in total fees, for further information on Onsite training please contact, E-mail : corptrain@ipebs.in Mobile- +91- 9885946711			

Terms & conditions:

CANCELLATIONS & SUBSTITUTIONS: Cancellations done 2 weeks prior to the course start date a full refund will be promptly made after a written cancellation is received. Cancellations done 1 week prior to the course start date a minimum charge of 50% of the total fee will be charged. No cancellations are accepted 6 Days before the course start date. However, credit maybe granted to a later workshop or you could send a substitute participant. After registration you may substitute a participant anytime.

COURSE MATERIAL AGREEMENT: It is the intention of IPEBS that the course text and materials supplied to participants at IPEBS courses are prepared and issued for the participants' sole use. Codes and standards constantly change and interpretations are issued by the publishing societies. Information contained in IPEBS course materials is based on the best available data obtained by IPEBS at the time of publication. IPEBS is in no way responsible for subsequent use regardless of intention.

PROGRAM CHANGE POLICY: Please note that instructors and topics were confirmed at the time of publishing this document; however, circumstances beyond the control of the workshop organizers may necessitate substitutions, alterations or cancellations of the instructors and/or topics. As such, IPEBS reserves the right to alter or modify the instructors and/or topics if necessary. Any substitutions or alterations will be updated on our web site.

COURSE CANCELLATION BY IPEBS: IPEBS reserves the right to cancel any WORKSHOP/course due to circumstances beyond our control. All tuition fees will be refunded in the event of cancellation. IPEBS liability is limited to only those tuition fees paid in advance.

FORCE MAJEURE: Except for the obligations to make money payments as outlined hereunder, neither party shall be responsible to the other for delay or failure to perform any of the terms and conditions, or other activities, of this agreement if such delay or failure is caused by strike, war, act of God, or force majeure.

REGISTRATION

Please print or type clearly & use separate form for each Participant.

Please visit www.ipebs.in for details on courses we offer and more updated information. You can also Register online.

For applications by E-mail, please fill the form below and send to register@ipebs.in

Course Title: Electrical Engineering for Building Services

COURSE DATE: _____ COURSE LOCATION: _____

NAME: _____

QUALIFICATION: _____ WORK EXPERIENCE (if any): _____

JOB TITLE: _____ COMPANY: _____

ADDRESS: _____

CITY: _____ STATE: _____ POSTAL CODE: _____ COUNTRY: _____

PHONE: _____ FAX: _____ EMAIL: _____

In case of Emergency, contact

NAME: _____ PHONE: _____

ADDRESS: _____

EMAIL: _____

NOTE: Registrations are not confirmed until full payment is received, course confirmation will be sent via Email.

I, acknowledge to the terms & conditions of the organizer.

Date: _____

Signature: _____

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