

Power and Energy– Programmes for 2021-22

S.No.	Programme Title	Days	Dates	Mode of Conduct
1	Renewable Energy and Challenges & Solutions for integration with grid	3	06- 08 Apr, 21	Online
2	Distribution Transformers - Failures - Trends in O&M	3	27- 29 Apr, 21	Classroom
3	Power System Protection, Control and Monitoring & Digital Substations	5	03 - 07 May, 21	Online
4	Basic Principles of Vibration Analysis, Condition Monitoring, Leveling, Alignment and Balancing Procedures for high speed Rotating Machinery in Power Plants and Process Industries (With Practical Demos)	4	10 - 13 May, 21	Classroom
5	Rooftop Solar Grid Engineer-Design, Erection, Installation, Commissioning & Maintenance	5	17 - 21 May, 21	Classroom
6	Energy Audit & Loss Reduction in T&D Systems	3	25 - 27 May, 21	Online
7	Maintenance of Transmission lines (To include topics like thermal imaging, hotline maintenance- Bare hand techniques, use of helicopters and robots etc.)	5	07 - 11 Jun, 21	Classroom
8	Heat Exchangers Design and Performance Evaluation in Power Plants & Process Industry	4	15 - 18 Jun, 21	Online
9	Distribution Network Planning and Analysis employs GIS Application	3	22 - 24 Jun, 21	Classroom
10	Cost reduction by Energy Auditing, Management & Design of Solar Energy Systems	5	28 Jun - 02 Jul, 21	Online
11	Substation Automation and Smart Grids	3	07 - 09 Jul, 21	Classroom
12	Environmental Issues & Challenges and Pollution Control Strategies in Thermal Power Plants	3	13 - 15 Jul, 21	Classroom
13	Smart Grid & Smart Metering Technologies & Applications	3	27 - 29 Jul, 21	Classroom
14	Power system protection including Distributed generator protection	3	03 - 05 Aug, 21	Classroom
15	Best Practices in O&M of Industrial Valves & Actuators for Heavy Industries & Power Plants	3	10 - 12 Aug, 21	Classroom
16	Recent Trends and Emerging Opportunities in Electric Vehicle and Charging Stations	3	17 - 19 Aug, 21	Online
17	Gas Insulated Substations - Design features, Construction, Testing, Operation and Maintenance	3	24 - 26 Aug, 21	Classroom
18	Operation & Maintenance Testing of Power Transformers and HT Circuit Breakers	4	31 Aug-03 Sep, 21	Classroom
19	Interstate Transmission Charges and Loss Sharing	2	06 -07 Sep, 21	Online
20	Erection, Commissioning & Best Practices in O&M and Failure Analysis of Synchronous Generators, Large Motors including static excitation in Power Plants & Process Industries	5	13 - 17 Sep, 21	Classroom
21	Rooftop Solar Grid Engineer-Design, Erection, Commissioning & Maintenance	5	20 - 24 Sep, 21	Classroom

S.No.	Programme Title	Days	Dates	Mode of Conduct
22	Power Quality, Harmonics Mitigation and Reactive Power Management in T&D Systems	3	28 - 30 Sep, 21	Online
23	Open Access, Power Trading - ABT Scenario	3	05 - 07 Oct, 21	Online
24	Latest techniques in Control & Instrumentation in Power Plants and process industries applications	3	19 - 21 Oct, 21	Classroom
25	Operation & Maintenance of Distribution Transformers and Leading to Zero Breakdowns	3	26 - 28 Oct, 21	Classroom
26	Solar Energy Storage and Related Issues.	3	01 - 03 Nov, 21	Online
27	Transmission line Construction (survey, design of lines and construction practices)	4	09 - 12 Nov, 21	Classroom
28	PAT Mechanism for Power Plants and DISCOMs	4	16 - 19 Nov, 21	Online
29	Electrical Safety Procedures & Accident Prevention	4	22 - 25 Nov, 21	Classroom
30	Power Cables Selection, Testing, Laying & Commissioning	5	06 - 10 Dec, 21	Classroom
31	Challenges and opportunities in Electric Vehicles (EVs), Charging Stations & Grid Infrastructures (Prospectus for Smart Electric Vehicle (EV) Charging and Grid Integration apparatus & Methods)	4	14 - 17 Dec, 21	Classroom
32	Pumps Operation, Maintenance & Performance Monitoring for Power Plant Applications	3	20 - 22 Dec, 21	Classroom
33	Testing, Commissioning & Protection of Distribution Substations	4	27 - 30 Dec, 21	Online
34	Condition monitoring of substation equipment (Transformers, Circuit breakers, Lightning Arrestors)	3	04 - 06 Jan, 22	Online
35	Basic Electronics - Analog & Digital for Power Utilities Applications	3	10 - 12 Jan, 22	Classroom
36	Operation & Maintenance of Oil Field Equipment	5	17 - 21 Jan, 22	Classroom
37	Power Trading, Power Exchanges & Merchant Power Plants	3	19 - 21 Jan, 22	Classroom
38	Power system operation including IEGC and Congestion management	3	02 - 04 Feb, 22	Classroom
39	Insurance and Risk Management in Power Utilities	3	08 - 10 Feb, 22	Online
40	Recent Trends and Emerging Opportunities in Electric Vehicle and Charging Stations	3	15 - 17 Feb, 22	Classroom
41	Pilferage of Electricity - Detection & Prevention - Issues & Challenges	4	22 -25 Feb, 22	Classroom
42	Reactive Power Management (concepts of SIL, FACTS devices)	3	01 - 03 Mar, 22	Online
43	Testing of High Voltage Power Equipment	3	08 - 10 Mar, 22	Classroom
44	Best Practices in Distribution system Operation & Management	3	14 - 16 Mar, 22	Classroom
45	Product Development for Control , Monitoring and Protection of Power system - for Utilities & Startups	3	22 - 24 Mar, 22	Classroom
46	Customer Relationship Management- Modernization of Metering, Billing, Collections in Distribution System	4	28 - 31 Mar, 22	Classroom

Note : We also undertake tailor made In-house training programmes on the above subjects or any other subjects at Clients location or at ESCI.

Consultancy

- Consultancy works like 3rd party assessment & inspection for Engineering Issues and solutions.
- Departmental tests for Engineers, Diploma holders by setting Question papers, evaluation of answer sheets and awarding the marks either for departmental Cadre promotion or Conversion from Lower grade to higher grade.
- Energy Audit of firms and consultancy service. We are having two Senior Faculties in Power & Energy, who are Certified Energy Auditors and also were trained as Trainers by National Institute of Solar Energy (NISE) as part of accreditation of ESCI. The division is also empanelled by APSECM & TSREDCO.

Finishing School

Power & Energy Division will organize training based on the finishing school model in the following domains to facilitate placement of ITI & Diploma level students in the following areas:

(i) Electrical:

- Transformer repair and rewinding skills
- Motor repair and rewinding skills
- House wiring skills and
- Net metering skills.

(ii) Mechanical:

- Motor cars (diesel, petrol) repairs and alignment
- Dynamic balancing of small rotating equipment
- Fabrication and welding technology and related NDT techniques
- Roof top solar photovoltaic system
- Metrology – Measurement and inspection techniques
- Pumps repairs and maintenance etc.

Certification Course:

S.No.	Name of the course	Remarks
1	Earthing of AC Power System	Duration: 5 days
2	Operations of centrifugal pumps	Duration: 3 days

TEAM

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“Pump Performance Assessment Trails and Testing” for the Executives of Naval Dockyard, Visakhapatnam, from 21 – 24 December 2020