

# Indian Institute of Electrical Engineering Nashik Road

## Course Contents

Sr. No.	Course Title & Duration	Course Name	Course Content
1.	TARE 6 Weeks	Technical Advances in Railway Electrification	One week - Classroom on various aspects of management, Soft skill, Behavioral sciences, Humanities etc, Four weeks project work, One week - Open access, High speed trains, Metro course, Sustainable transport & Project presentation
2.	ASM TARE 6 Weeks	Advanced Strategic Management	One week - Classroom on various aspects of management, Soft skill, Behavioral sciences, Humanities etc, Four weeks project work, One week - Open access, High speed trains, Metro course, Sustainable transport & Project presentation
3.	SJ 03 Days	Silver Jubilee Course for Officers completed 25 years of service	Field visits, Group discussion of Advancement in Electrical department, Sustainable Transportation, Soft skills, Stress Management, Leadership
4.	TRD 01 Week	Traction Distribution - 2x25 kV	Refresher on TRD, Preparation of DPRs, Cost estimation in OHE & PSI, OHE design for yards, Bridges and Tunnels, High rise OHE, PSI design, OHE depot management, Tower wagons and cranes for OHE work, safety Block working, OHE and PSI design for 2x25 kV
5.	EEM 01 Week	Electrical Energy Management - including Open Access & Carbon Credit	Power Purchase in TRD, Open access and related issues for dealing with DISCOMs, Transmission lines issues, Carbon credit in Energy management
6.	SPL- METRO 3 Days	Special Course on Metro	Types of Traction systems in Metro in India and Abroad, design of traction system for Metro, ROCS in tunnel, Fire safety in metro
7.	GE –SET 01 Week	Green Energy- Sustainable Energy in Transport	Concept of sustainability in transports; Net zero policy & strategy; Case study for BESS by GUVNL; SMR reactor & its application, Solar Policy its implementation; Carbon credit trading; Visit to Non-Conventional Energy plants.
8.	GE – PPA 01 Week	Green Energy including Power Purchase Agreement	Concept of sustainability in transports; Net zero policy & strategy; Solar power purchase agreement, Power purchase agreement to solar power; Solar Policy its implementation; Visit to Non-Conventional Energy plants.
9.	SPL-BS 01 Week	SPL- 3 Days Special Traction Rolling OPERATION - Behaviors of science	Soft skills, Counseling techniques, Professional Approach at work place

Sr. No.	Course Title & Duration	Course Name	Course Content
10	TRS-TAELF	Traction Rolling Stock - Technical Advances in Electric Loco Field	EOTT system, SLAM, DPWCS, Kavach, 3 phase propulsion system, Hotel load converter, RTIS, Web applications in Loco management, Failure case studies
11	TRS -LSM	Traction Rolling Stock - Loco Shed Management	SLAM, Safety in loco sheds, Soft skills, Leadership, Stores management, Loco shed finances, M&P and RSP, MPP, Contract management, 3 phase loco system overview. Efficient Shed Management
12	SPL- MTTPL-1 -3PH	SPL- 3 Days Special Traction Rolling Stock- Moderisation Trend of Three Phase Loco	Soft skills, Counseling's techniques, Professional Approach at work place; Technology used in WAG-12
13	SSTP 02 Weeks	Special Strategy Training- (Newly Promote in JAG Officers)	Project Management, Emotional Intelligence, Soft skills, Refresher TRS, TRD, Refresher TRO, Advancement in Electrical department, Interdepartmental Co-ordination, Renewable Energy, Power systems, IS codes, IEC standards, High speed trains, Accident Management
14	CALM 01 Weeks	Coaching Auxiliary Load Management	Coaching depot Management, Integrated sick line management, Safety in Coaching stock, Fires in TL, AC & power cars, Hotel load converters.
15	GS-PSI	General Services - Including Power Supply Installation in Railways	Aspects of General Services, Colony power supply, substation maintenance, Stadium lighting, Tunnel lighting, HVAC, Energy Conservation, Energy Efficiency, Low voltage switchgears and selection, IS codes and IEC standards, Lifts and Escalators, Pumps, Earthing, Electrical Safety in working, LED lighting design, Panel Design
16	GS –MEPM	General Services - MEP Management	Design and Estimation of Electrical wiring, cabling, panels, Workshop lighting and Power supply design, Metro Car shed power supply design, electrical power supply, lighting, HVAC and Pumps design for Station Development project, A relevant case study
17	EMU 01 Week	Electric Multiple Unit / Main Line Electric Multiple Unit	Latest Development in EMUs; EMU Bogies Failures; Latest SMIs & MIs; Failures in Motor Coaches; Action Plan to address to issues; TCMS; Concepts of Three Phase EMUs
18	LOM 01 Week	Loco Operation Management	Crew links, Loco links, Foot plate inspection, Loco failure report, Running room management, Trip shed management, TLC organization, Lobby management, Counselling techniques, Accident enquiries
19	LVS 01 Week	Low Voltage Safety Including IE Rules & Codes	Insulation coordination, Fires in Low voltage installation, Short circuits in low voltage systems, Passenger area safety, Understanding and prevention of Electrocution

## Course Contents

### ON Line – One Day and Two Days Course

Sr. No.	Course Title	Duration	Course Content
1	OL-TRS - SPL - 1-2025	01 Day	3 phase system - Siemens converter
2	OL-TRS - SPL - 2-2025	01 Day	3 phase system - E 70 brake system
3	OL-TRS - SPL - 3-2025	01 Day	3 phase system - CCB system
4	OL -TLAC - SPL - 1 -2025 OL -TLAC - SPL - 4 -2025 OL -TLAC - SPL - 5 -2025 OL -TLAC - SPL - 6 -2025	01 Day	Hotel Load System: Overview, Operational & Maintenance issues
5	OL -TLAC - SPL - 2 -2025	01 Day	Fire incidents in Coaches and Power Cars: Case Studies and Learnings
6	OL -TLAC - SPL - 3 -2025	01 Day	LHB Power Cars: Safety systems and their Management
7	OL -TLAC - SPL - 4 -2025	01 Day	Hotel Load System: Overview, Operational & Maintenance issues
8	OL-TCQCEW - SPL- 1-2025 OL-TCQCEW - SPL- 2-2025 OL-TCQCEW - SPL- 3-2025 OL-TCQCEW - SPL- 4-2025 OL-TCQCEW - SPL- 4-2025 OL-TCQCEW - SPL- 5-2025	01 Day	Tendering Contract and Quality Control in Electrical Works
9	OL- GS - SPL - 1-2025	01 Day	Electrical Fire safety and prevention
10	OL- GS - SPL -2 -2025	02 Day	Pumps, Lifts & Escalators
11	OL- GS - SPL - 3-2025	01 Day	Electrical Earthing systems
12	OL- GS - SPL - 4-2025	01 Day	Efficient lighting design
13	OL- GS - SPL - 5-2025	2 Days	Tunnel lighting and Tunnel Ventilation
14	OL- GS - SPL - 6-2025	01 Day	Energy Efficiency in Electrical System & Star rating
15	OL-GE - SPL - 1-2025	01 Day	Wind Energy
16	OL-GE - SPL - 2-2025	01 Day	Solar Power generation and net metering
17	OL-EMU - SPL - 1-2025 OL-EMU - SPL - 1-2025 OL-EMU - SPL - 1-2025	01 Day	TPMS
18	OL-TRO - SPL - 1-2025	01 Day	Importance of SPM analysis
19	OL-TRO - SPL - 2-2025	01 Day	Importance of Footplate inspections
20	OL-TRO - SPL - 1-2025	01 Day	SPAD