COURSE MODULE
Course No. CE 39: Special Course on Unimat 2S/3S/4S & MPT
Duration: 1Week Effective Days:06

CM No.	Subjects wise Contents	Periods	Total Periods
39.1	**Electrical & Electronics:**		10
	Engine circuit, Troubleshooting.	2	
	Z.F. Circuit and Troubleshooting.	2	
	Tamping Unit Control Circuit, Depth selector, Transducers, PCBs EK132V, EK176V, Calibration, Testing & Troubleshooting	1	
	Power Supply PCBs EK813 & EK812, Calibration & Troubleshooting	1	
	Front Input PCB & Front Input Potentiometers.	1	
	Tamping Unit Control Circuit, Depth selector, Transducers, PCBs EK132V, EK176V, Calibration, Testing & Troubleshooting.	1	
	Lining Control Circuit, PCBs, Calibration & Troubleshooting	1	
	Leveling & Lifting Control Circuit, Transducers, Calibration & Troubleshooting	1	
39.2	**Hydraulics, Pneumatics & Mechanical**		10
	Vane pump, Axial Piston pump, Relief valve, Unloader valve &Troubleshooting.	2	
	Spring Centred valve, Spring Offset valve, Check valve, POC Valve, Logic Valve, Proportional valve, Servo valve & Troubleshooting.	2	
	Hydraulic Circuits of Unimat 2S/3S/4S	2	
	Air compressor, Safety valve, Water separator, Air Oiler, Air dryer, Working circuit, Brake circuit	2	
	Z.F. & other Gear Boxes / related Assemblies - Maintenance aspects & Troubleshooting.	2	
39.3	**I.C. Engine:** Construction, Working Principle & Main Systems, Maintenance Schedule/Steps &Troubleshooting.	2	
39.4	**Track Machines & Working Principles:**		6
	Operation & Main Assemblies of UNIMAT2S/3S, Working Principles of Tamping Machines.	2	
	Operation & Main Assemblies of MPT, Working Principles of Tamping Machines.	2	
	Operation & Main Assemblies of UNIMAT4-S, Working Principles of Tamping Machines.	2	
39.6	**Computer:** Basic Introduction of ALC, DRP, CMS, CWS & Hands On ALC software.	6	6
39.7	**Introduction and Valediction**	2	2
	Total	**34**	**34**

Note: 1. Eligibility: SSE/JE and Technicians
2. Practical demonstration in Model rooms shall be given along with theoretical s as and when required.