Short Term Training Program

AUTOMATION

FOR ELECTRICAL / ELECTRONICS / INSTRUMENTATION / COMPUTER / MECHANICAL OR EQUIVALENT

B.SC. / M.SC. ELECTRONICS / COMPUTER SCIENCE

COURSE	CONTENTS	DURATION	REG FEE	COURSE FEES	GST
BASIC HYDRAULICS	INTRODUCTION, FUNDAMENTAL PRINCIPLES, ENERGY SUPPLY ELEMENTS, DIRECTIONAL CONTROL VALVES, CIRCUIT DESIGN & APPLICATION	**24 HRS 1 WEEK (4 HRS/DAY)**	**REGISTRATION FEE OF RS. 300/- APPLICABLE TO ALL COURSES / CANDIDATES**	**₹ 3,500/-**	**ALL INCLUDED (GST & REGISTRATION FEES)**
ELECTRO HYDRAULICS	INTRODUCTION, FUNDAMENTAL PRINCIPLES, ENERGY SUPPLY ELEMENTS, DIRECTIONAL CONTROL VALVES , CIRCUIT DESIGN & APPLICATION	**24 HRS 1 WEEK (4 HRS/DAY)**		**₹ 4,500/-**	
BASIC PNEUMATICS	INTRODUCTION, FUNDAMENTAL PRINCIPLES, ENERGY SUPPLY ELEMENTS, DIRECTIONAL CONTROL VALVES, CIRCUIT DESIGN & APPLICATION	**24 HRS 1 WEEK (4 HRS/DAY)**		**₹ 3,500/-**	
ELECTRO PNEUMATICS	INTRODUCTION, FUNDAMENTAL PRINCIPLES, ENERGY SUPPLY ELEMENTS, DIRECTIONAL CONTROL VALVES, CIRCUIT DESIGN & APPLICATION	**24 HRS 1 WEEK (4 HRS/DAY)**		**₹ 4,500/-**	
ADVANCE PNEUMATICS	INTRODUCTION, FUNDAMENTAL PRINCIPLES, ENERGY SUPPLY ELEMENTS, DIRECTIONAL CONTROL VALVES, FUNDAMENTALS OF CONTROL ENGINEERING, CIRCUIT DESIGN & APPLICATION	**24 HRS 1 WEEK (4 HRS/DAY)**		**₹ 5,500/-**	
PLC PROGRAMMING	INTRODUCTION OF INDUSTRIAL AUTOMATION, DETAILS OF PLC HARDWARE (SIEMENS), PROGRAMMING LANGUAGES DOWNLOADING PROGRAMME, INTERFACING BETWEEN PLC & VARIOUS FIELD DEVICES.	**96 HRS 4 WEEKS (4 HRS/DAY)**		**₹ 8,000/-**	
ADVANCE PLC PROGRAMMIMG	INTRODUCTION OF INDUSTRIAL AUTOMATION, DETAILS OF PLC HARDWARE (SIEMENS), CONCEPT OF FB, FC & DB, OPERATIONS WITH BIT LOGIC, JUMP & MATH FUNCTIONS, TOTAL INTEGRATED AUTOMATION V13,, INTERFACING WITH SIEMENS S7-300 / S7-1500	**96 HRS 4 WEEKS (4 HRS/DAY)**		**₹ 8,000/-**	
ELECTRICAL CAD (E-CAD)	AUTOCAD & CO-ORDINATE SYSTEM, ARRAY , MIRROR, COPY, MOVE, INSERTING COMPONENTS, WIRE & LADDERS, TRIM, PARENT- CHILD COMP., MULTIPLE WIRE BUS & EDIT COMPONENT, COMPONENT ALIGNMENT , ALIGNMENT, ATTRIBUTES, SCOOT, MOVE	**72 HRS 3 WEEKS (4 HRS/DAY)**		**₹ 4,500/-**	
HMI	INTRODUCTION OF HMI, COMPARISON BETWEEN SCADA & HMI, COMMUNICATION OF HMI WITH PLC, CREATING & EDITING GRAPHIC DISPLAY WITH ANIMATION, DATABASE OF TAGS & PROCESS TAGS & INTERNAL TAGS, APPLICATION OF LAD PROGRAM ON HMI, MOVING OBJECT & ALARM SYSTEM, MULTISCREEN TASKS, WORKING WITH ONLINE TREND CONTROL	**96 HRS 4 WEEKS (4 HRS/DAY)**		**₹ 8,000/-**	
8051 MICRO-CONTROLLER	INTRODUCTION MICROCONTROLLER, BASICS OF DIGITAL ELECTRONICS, BASICS OF 'C' LANGUAGE, TEST EQUIPMENT, INTRODUCTION TO 8051, 8051 ASSEMBLY/EMBEDDED C PROGRAMMING, INTERNAL PERIPHERALS OF 8051, LIVE PRACTICE: ON DEMO BOARDS	**96 HRS 4 WEEKS (4 HRS/DAY)**		**₹ 8,000/-**	
SENSORS AND APPLICATIONS	TEMPERATURE SENSOR, LIGHT SENSOR, IR SENSOR, PRESSURE SENSOR, LVDT COIL, LOAD CELL, PIEZO ELECTRIC SENSOR, GAS SENSOR, ALCOHOL SENSOR, HUMIDITY SENSOR, FIRE SENSOR, SMOKE SENSOR, FLOW SENSOR	**48 HRS 2 WEEKS (4 HRS/DAY)**		**₹ 5,500/-**	
AC DRIVES	INTRODUCTION TO DRIVES, DIFFERENTS BETWEEN AC DRIVES AND DC DRIVES, STUDY OF VARIOUS KINDS OF MOTOR, THEIR APPLICATION AND SPEED CONTROL, INTRODUCTION OF SEIMENS G120 DRIVE, TYPES OF OPERATION, INTERFACING WITH PLC	**48 HRS 2 WEEKS (4 HRS/DAY)**		**₹ 5,500/-**	
MICROPROCESSOR PROGRAMMING	INTRODUCTION, INSTRUCTION SET, ASSEMBLY LANGUAGE, PROGRAMMING, INTERFACING, PROGRAMMALE PERIPHERAL INTERFACE, **LIVE PRACTICE: ON DEMO BOARDS**	**96 HRS 4 WEEKS (4 HRS/DAY)**		**₹ 8,000/-**	
MATLAB	INTRODUCTION TO MATLAB, BASICS OF DIGITAL ELECTRONICS, PARALLEL COMPUTING, CONTROL SYSTEM DESIGN & ANALYSIS, SIGNAL PROCESSING AND COMMUNICATION, TEST AND MESURMENT, CODE GENERATION & VERIFICATION, APPLICATION DATABASE,CONNECTIVITY AND REPORTING	**72 HRS 3 WEEKS (4 HRS/DAY)**		**₹ 8,000/-**	
ANSYS LF	INTRODUCTION, MAXWELL BASIC, GEOMETRY IMPORT, MAGNETOSTATIC , EDDY CURRENT SOLVER, AC/DC SOLVER, MESH LINKING, POST PROCESSING, OPTIMAZATION	**72 HRS 3WEEKS (4 HRS/DAY)**		**₹ 9,000/-**	
ANSYS HFSS	INTRODUCTION, HFSS 3D MODELER, DESIGN SETUP, PARALLER SOLVER & HPC, HFSS 3D LAYOUT, ELECTROSTATIC DISCHARGE, POST PROCESSING	**72 HRS 3WEEKS (4 HRS/DAY)**		**₹ 9,000/-**	
SCADA	INTRODUCTION OF INDUSTRIAL AUTOMATION, CREATING A NEW SCADA APPLICATION, DETAILS OF PROCESS TAGS & INTERAL TAGS, LIVE PRACTICE: CREATING A PROCESS CONTROL WINDOW WITH ALL APPLICATIONS.	**96 HRS 4 WEEKS (4 HRS/DAY)**		**₹ 8,000/-**	
VLSI	INTRODUCTION VLSI, BASICS OF DIGITAL ELECTRONICS IN FRONT END DESIGN, IMPLEMENTATION OF LOGIC IN MOSFET IN FRONT END, DESIGN,BACK END DESIGN VHDL / VERILOG HDL, ASIC, LIVE PRACTICE: ON DEMO BOARDS	**96 HRS 4 WEEKS (4 HRS/DAY)**		**₹ 8,000/-**	
EMBEDDED SYSTEMS	INTRODUCTION EMBEDDED SYSTEMS, BASICS OF DIGITAL ELECTRONICS & "C" LANGUAGE, TEST EQUIPMENT,INTRODUCTION TO ARM7, LPC 2148 PROGRAMMING, INTERNAL PERIPHERALS OF LPC 1248, LIVE PRACTICE: ON DEMO BOARDS	**96 HRS 4 WEEKS (4 HRS/DAY)**		**₹ 8,000/-**	

ROBOTICS	INTRODUCTION TO ROBOTICS, TYPES OF ROBOT,ACTUATORS & DRIVES SYSTEM, PROGRAMMING OF ROBOT, PROGRAMMING USING TEACH BOX, PROGRAMMING USING SOFTWARE	**72 HRS 3WEEKS (4 HRS/DAY)**		**₹ 5,000/-**
AUTOMATION WITH PNEUMATICS USING PLC	**BASIC , ELECTRO & ADVANCE PNEUMATICS** INTRODUCTION, FUNDAMENTAL PRINCIPLES, ENERGY SUPPLY ELEMENTS, DIRECTIONAL CONTROL VALVES, FUNDAMENTALS OF CONTROL ENGINEERING CIRCUIT DESIGN & APPLICATION **PLC** INTRODUCTION OF INDUSTRIAL AUTOMATION, DETAILS OF PLC HARDWARE (SIEMENS) PROGRAMMING LANGUAGES, DOWNLOADING PROGRAMME, INTERFACING BETWEEN PLC & VARIOUS FIELD DEVICES.	**144 HRS 6 WEEKS (4 HRS/DAY)**		**₹ 14,500/-**
AUTOMATION WITH HYDRUALIC USING PLC	**BASIC , ELECTRO & ADVANCE HYDRAULICS** INTRODUCTION, FUNDAMENTAL PRINCIPLES, ENERGY SUPPLY ELEMENTS, DIRECTIONAL CONTROL VALVES, FUNDAMENTALS OF CONTROL ENGINEERING CIRCUIT DESIGN & APPLICATION **PLC** INTRODUCTION OF INDUSTRIAL AUTOMATION, DETAILS OF PLC HARDWARE (SIEMENS) PROGRAMMING LANGUAGES, DOWNLOADING PROGRAMME, INTERFACING BETWEEN PLC & VARIOUS FIELD DEVICES.	**144 HRS 6 WEEKS (4 HRS/DAY)**		**₹ 14,500/-**
BASIC MECHATRONICS	PLC PROGRAMMING, BASIC PNEUMATICS, ELECTRO PNEUMATICS, MECHATRONICS PROJECTS KITS	**192 HRS 8 WEEKS (4 HRS/DAY)**		**₹ 17,000/-**
E - PLAN	INTRODUCTION TO E PLAN, CREATING SCHEMATIC IN E PLAN, CROSS REFERENCES, SELESCTIOBN OF PARTS, MACRO CONCEPT, LAYOUT DRAWING, PROJECT MANAGEMENT, REPORTS GENERATION	**72 HRS 3WEEKS (4 HRS/DAY)**		**₹ 4,500/-**
ROBOTICS & AUTOMATION	INTRODUCTION, C++ PROGRAMMING, LGROBO KIT, PROGRAMMING IOF SENSORS, INTERFACE WITH MOTORS, PROGRAMMING OF MOBILE ROBOT (6 AXIS ROBOT).	**96 HRS 4 WEEKS (4 HRS/DAY)**		**₹ 8,000/-**
EMBEDDED IN ROBOTICS & AUTOMATION	INTRODUCTION, C++ PROGRAMMING, ARM BASICS, LPC2148 PROGRAMMING, INTERFACING OF SENSORS, PROGRAMMING OF MOBILE ROBOT (6 AXIS ROBOT).	**144 HRS 6 WEEKS (4 HRS/DAY)**		**₹ 15,000/-**
SEMICONDUCTOR TESTING	INTRODUCTION, PROJECT PLAN, SPECIFICATION & TEST PROGRAM, DC PARAMETERS TEST, FUNCTIONAL TEST, DEBUG TOOLS & DEBUGGING, INTRODUCTION TO DESIGN FOR TESTABILITY.	**72 HRS 3 WEEKS (4 HRS/DAY)**		**₹ 8,000/-**
ROBOTINO	INTRODUCTION TO ROBOTINO, MOTION CONTROL OF ROBOTINO, OBSTACLE DETECTION, SUPERVISORY CONTROL USING CAMERA, LINE FOLLOWER, COLLISSION DETECTION USING BUMPER.	**48 HRS 2 WEEKS (4 HRS/DAY)**		**₹ 6,000/-**

Note

- **One batch will be started from the First & Third Monday of every month for all courses.**
- **Institute reserves right to incorporate changes in course contents, course duration, Intake Capacity, No. of batches & course fees without prior notice.**
- **For Non NSQF compliance courses course fee exemption in case of SC ST candidates is not applicable**