

FACILITIES IN THE DEPARTMENT

Our department has well equipped laboratories with state of art facilities, classrooms to support e-learning and department library for the benefits of faculty, students and researchers.

LIST OF LABORATORIES

- ELECTRONICS LABORATORY
- MARINE ELECTRICAL WORKSHOP
- MARINE AUTOMATION LABORATORY
- HIGH VOLTAGE AND SWITCH GEAR LABORATORY
- DIGITAL SIGNAL PROCESSING & EMBEDDED SYSTEM LABORATORY
- ELECTRICAL MACHINES LABORATORY
- INCUBATION CENTRE FOR ROBOTICS
- CENTER OF EXCELLENCE FOR ONBOARD SHIP AUTOMATION

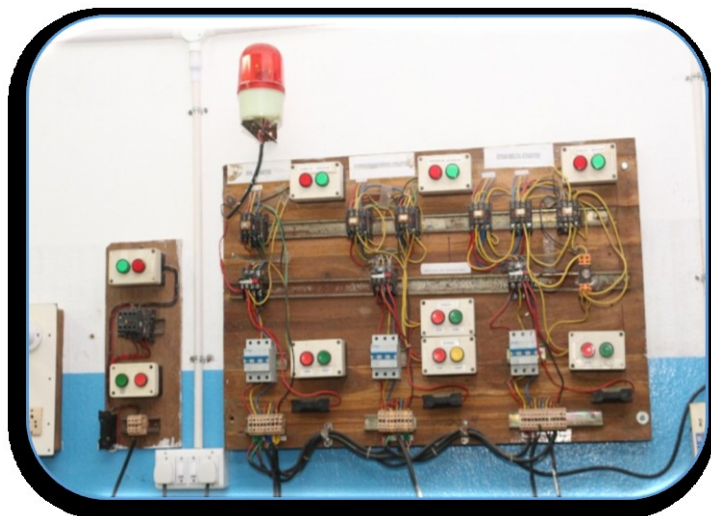
ELECTRONICS LABORATORY



LIST OF MAJOR EQUIPMENT'S

S. No	Name of the Equipment
1	100 MHz Digital storage Oscilloscope
2	Analog IC Trainer Kit
3	Digital IC Logic Trainer Kit
4	Linear IC Trainer Kit
5	Function Generator
6	Cathode ray oscilloscope, 30 MHZ
7	DC-DC Chopper with Buck Boost converter trainer Kit
8	Three Phase Full bridge converter and inverter Trainer Kit
9	Three Phase Fully Controlled Converter module
10	Three Phase Half Controlled Converter module
11	Three phase IGBT Based Inverter smart power module
12	Three Phase Inverter with SPWM
13	Step down & Step up chopper
14	Single phase IGBT Based PWM Inverter Power Module
15	Three phase IGBT Based PWM Inverter controller

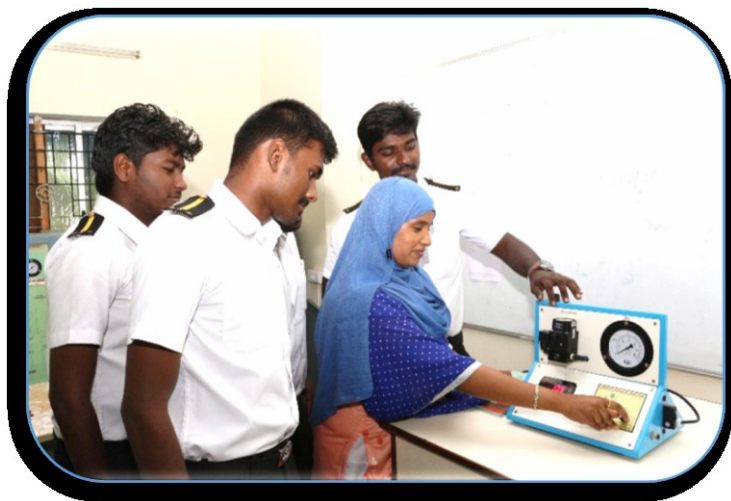
MARINE ELECTRICAL WORKSHOP LABORATORY



LIST OF MAJOR EQUIPMENT'S

S. No	Name of the Equipment
1	3Φ Alternator 2KVA, 400V, 50Hz, 1500rpm, excitation 230V, 3A, star connection.
2	Megger
3	Battery charger , lead acid battery(100aH,12v)
4	3 Phase , 0.37 kw 1400 rpm Induction motor
5	Chain block one ton capacity
6	Auto transformer 3Φ 50/60Hz , 10A

MARINE AUTOMATION LABORATORY



LIST OF MAJOR EQUIPMENT'S

S. No	Name of the Equipment
1	PLC (Digital Input - 8 Digital Output 6, Analog Input 4, Analog Output 2)
2	Multi process Trainer(Flow level, Temperature &Pressure)
3	Current to Pressure Converter
4	Calibration of Temperature Transmitter
5	Measurement Of Flow Using Venturimeter And Orifice Meter
6	Pressure To Current Converter
7	Hall Effect Transducer
8	Digital Shaft Angle Encoder
9	Piezoelectric Transducer
10	Capacitive Transducer
11	Thermocouple
12	Thermister
13	Dead Weight Tester

HIGH VOLTAGE AND SWITCH GEAR LABORATORY



LIST OF MAJOR EQUIPMENT'S

S. No	Name of the Equipment
1	Vacuum circuit breaker (VCB) Capacity -11kV Rated current- 400A
2	SF6 circuit breaker Capacity -12kV Basic insulation level - 28kV RMS
3	Overvoltage & under voltage relays protection circuit
4	Overvoltage & under voltage simulator with digital voltmeter
2	Marine power distribution simulator
3	High voltage generation onboard setup

DIGITAL SIGNAL PROCESSING & EMBEDDED SYSTEM LABORATORY



LIST OF MAJOR EQUIPMENT'S

S. No	Name of the Equipment
1	LabVIEW (5 User License)
2	Keil PK51-EDIO-LC(10 User License)
3	Matlab 2014a(10 User License)
4	EMTP Software (5 User License)
5	Intel Motherboard, i3- Processor, 4GB RAM, 500GB Hard Drive, 14" LCD Monitor
6	DSP Processor kit
7	FPGA Kit
8	8085 Microprocessor Trainer Kit
9	8051 Microcontroller Trainer kit
10	Stepper motor controller with motor
11	8 Digit Multiplexed Display Board

ELECTRICAL MACHINES LABORATORY

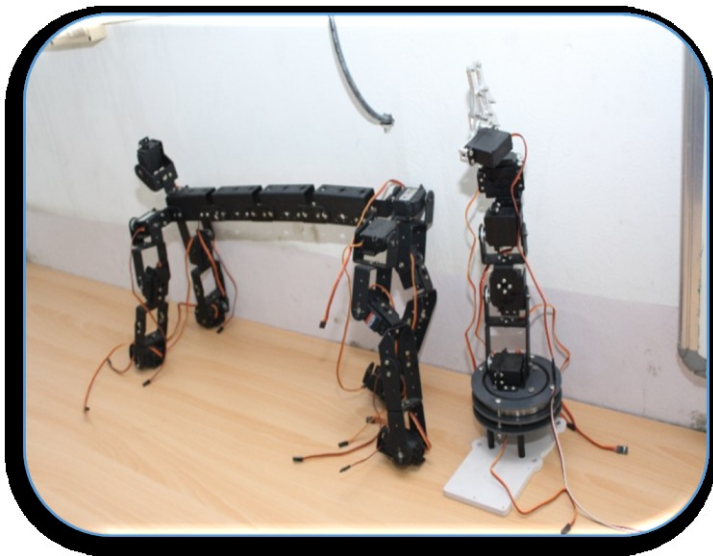
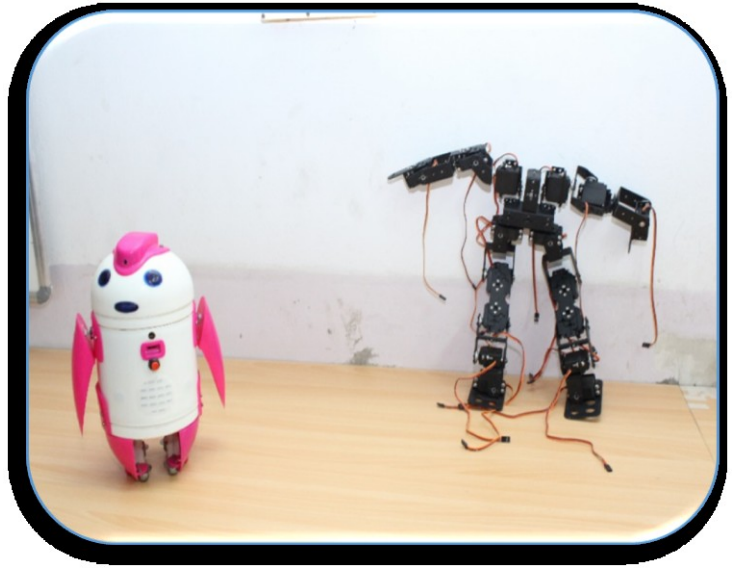


LIST OF MAJOR EQUIPMENT'S

S. No	Name of the Equipment
1	DC Shunt Motor
2	Transformer (1 Phase)
3	Transformer (3 Phase)
4	DC Series motor
5	DC shunt Generator
6	DC Series Generator
7	DC Compound Generator
8	DC Compound Motor with Load set
9	1 Φ Induction motor Load set 240V, 50Hz, 1440rpm, with panel board and with 2 load weigh scale.
10	3 Φ Induction motor and Auto transformer 5Hp, 415V, 8.10A, 1410rpm.
11	AC-Generator, Brushless

	3KVA,1800rpm,415V, 4.5A,3 Φ ,50Hz
12	Synchronous Motor 1500rpm,415v,4.5A,3 Φ , 5HP 50Hz
13	Auto transformer single phase
14	Auto transformer three phase
15	Slip ring induction motor
16	Three phase induction motor with speed control unit
17	Shunt generator with three phase induction motor with panel
18	Three phase alternator coupled with three phase induction motor with synchronizing panel
19	Shunt motor coupled with shunt generator
20	Compound generator coupled with DC shunt motor

INCUBATION CENTRE FOR ROBOTICS



LIST OF MAJOR EQUIPMENT'S

S. No	Name of the Equipment
1	Prince Robot
2	3D printer
3	Humanoid Robot
4	Robotic Arm
5	Animal Anatomy Robot (3D printer Dog and Cat)
6	Embedded system lab with accessories

CENTER OF EXCELLENCE FOR ONBOARD SHIP AUTOMATION



LIST OF MAJOR EQUIPMENT'S

S. No	Name of the Equipment
1	Switchgear panels , indication lamps, push buttons and limit switches
2	Sensors and controllers panels with Inductive and capacitive sensors, relays, contractors, timers and temp controllers.
3	PLC and HMI training kit with 20 IO Digital and 10 Inches color HMI with USB slot and RS232 and RS485 communications.
4	Variable frequency Drive. 3 phase Input and 3 Phase output, 2 HP capacity, 1.5Kw with MODBUS module.
5	2 HP motor, 3 Phase with Electro braking, Reduction Gearbox 1:29 Ratio.
6	Servo Drive with Motors. 3 phase Input and 3 Phase output, 1Kw with MODBUS module, encoder and all accessories.
7	Transducers kit - LVDT and Load cells with analogue output module and PID controller.
8	Pneumatics Kit with all actuators, control valves and air preparation units.
9	SCADA Supervisory Control and Data Acquisition module. Full version software, Delta make with PLC.