## Dr. Mahalingam College of Engineering and Technology, Pollachi-642 003 (An Autonomous Institution)

#### Office of Dean - Research & Innovation

#### **Major Equipments Available for Research and Consultancy**

#### 1. Computerized VCR Engine Test Rig / APex



#### 2. Ultrasonicator / LAbman



## 3. Acquisition System / Keysight



#### 4. Microwave Sintering Machine / Nanotech



#### 5. Wear and friction Monitor / Wear and friction Mointor TR20LE



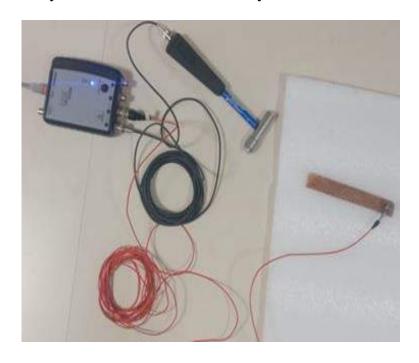
## 6. Hydraulic Power Unit & Actuator / Load Capacity 25kN, 50kN and 150kN



## 7. Instron-Impact Test / Ranging from 50 - 500J



#### 8. FFT Analyser / Four Channel FFT Analyzer



#### 9. MQL Set up / 50 mL/hour of lubricant



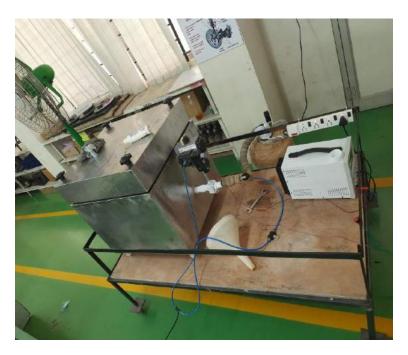
#### 10. Lathe Tool Dynamometer / IEICOS Type Lathe Tool Dynamometer



#### 11. Light Optical Microscope / Magnification PL 40x



#### 12. Cryogenic Treatment Chamber / -60 degree celsius chamber



#### 13. FANUC Industrial Robot / 6-Axis Robot Arm



# 14. Triaxial Compression Test Equipment / Constant Pressure System, Oil Water Type with Single Cell



15. Tile Flexural Test Equipment / Rollers with 40mm dia or 12 mm dia as per relevant standards test requirement with capacity of 200 kg



#### 16. CBR Test Equipment / Motorised with three speed (MS Mould)



# 17. Standard Penetration Test Equipment / Split spoon sampler with 63.5 kg weight falling freely through a height of 750 mm



#### 18. Compression Testing Machine / Analogue & Digital 2000 kN capacity



# 19. Rapid Chloride Concrete Permeability Testing Apparatus / 3 Cell Model for 150 mm cube with compressor



# 20. Universal Testing Machine / Digital 1000 kN capacity with data acquisition system



21. Loading Frame / Hydraulic remote type jack, hydraulic power pack with hose (100KN), control panel with 50 tonne capacity, load cell (100 KN) with digital indicator  $\,$ 



#### 22. Impact Echo Apparatus / Impact Echo System a with wireless



23. Atomic Absorption Spectrophotometer (AAS) / Elico with Single Beam including 12 lamps (Nickel, Zinc, Lead, Iron, Cobalt, Manganese, Copper, Mercury, Cadmium, Silver, Aluminium, Chromium



#### 24. Tubular Furnace with Hot Zone / 1110& Indfurr



#### 25. Double Beam UV-VIS Spectrophotometer / Elico



#### 26. Electrochemical Work Station / CHI 600 C - CH instruments



## 27. Industrial IoT Lab Equipmental kit with Smart sensors with IO Link and Sensors for Object detection/ TP1312, TP1311 & Festo



#### 28. Wireless Differential Pressure Transmitter / LW2RM2510 & Rosemount



#### 29. Mini heat Exchanger Process Controller / Vi micro systems



## 30. Chroma 62100H 600S DC Power Source S/N 62100EC0208, Choroma Thermal Interface Model



## 31. Hand Held Solar Irradiation Sensor Meter / Make: Seaward Model:PV200 Multifunction Irradiation Meter



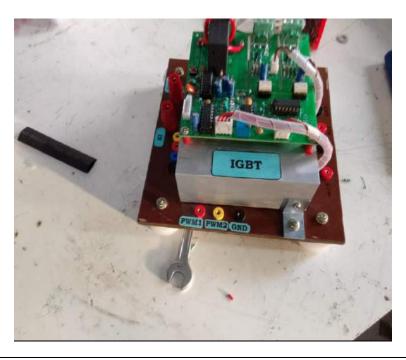
## 32. 3 Phase Power Quality and Energy Analyser (Fluke 435-II, With Accessories)



## 33. Thermal Imaginer Camera / Flir T420BX (1200 Degree Celsius)



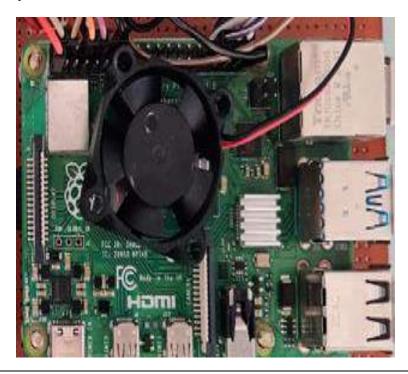
## 34. Dual IGBT Module with Current Sensor & Protection / IGBT Rating @600v/40a.



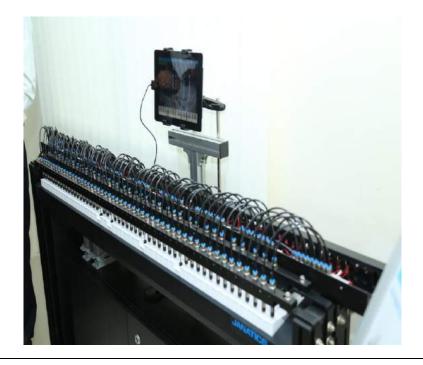
## 35. MOSFET Module with Current Sensor & Protection / MOSFET Rating @600v/40a.



#### 36. Raspberry Pi 4 with accessories



#### 37. Automated Piano / Janatics India Pvt. Ltd.



#### 38. Do it Yourself Kids (4 Numbers) / Janatics India Pvt. Ltd.



#### 39. EPS Fuel Pump Test Bench



#### **40. CNC Simulator**



#### 41. Pick and Place Mechanism



#### **42.** Automation Trainer Kit



#### 43. Smart Sensors with IO Link



## 44. MTAB - CNC Turning and Machining Center



## 45. FANUC - CNC Turning Center



## 46. Grinding Machine



## 47. FANUC – Drill Tap Center



## 48. Gear Shaping Machine



## 49. Minarc Tig Evo 200 MLP/ Kemppi India Private Limited



## 50. Master Tig Mls 3003/ Kemppi India Private Limited



## $51.\ FAST\ MIG\ Pulse\ 350\ /\ Kemppi\ India\ Private\ Limited$



#### 52. Hi Arc M400i / Kemppi India Private Limited



#### 53. Digital Utrasonic Flaw Detector and Accessories / Modsonic Instruments Manufacturing Co (P) Ltd



#### 54. Aura Welding Simulator / Skillveri



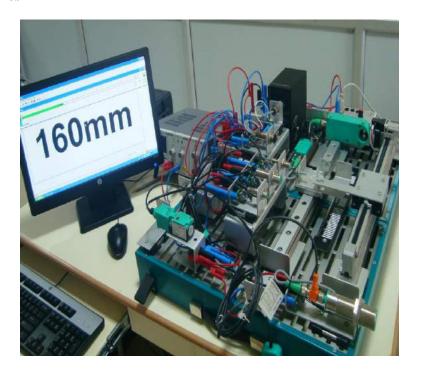
## **55.** Hydraulics and Pneumatics Stations



#### 56. MTX



#### **57. Sensorics**



## **58.** Mobile Hydraulics



## **59.** Modular Mechatronics System



#### 60. IoT Enabler



#### 61. MLD & VFD



## 62. PLC\_HMI\_SCADA



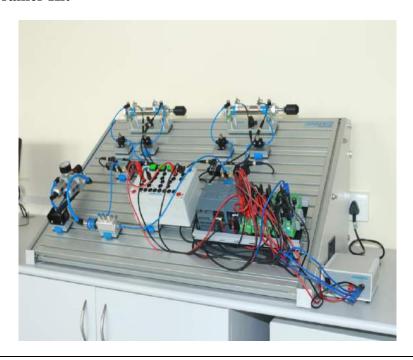
## 63. Handling System



## 64. PLC Controller



#### 65. PLC Trainer Kit



## 66. Digital Oscilloscope



- 67. Mobile Workstation and Colour VU Camera, NVR, POE switch, HDD, POE injector & Power adapter
- 68. Cadence University PG Bundle
- 69. Mentor Graphics Back End –HEP1 (30 User)-IC Nanometer Design Tools