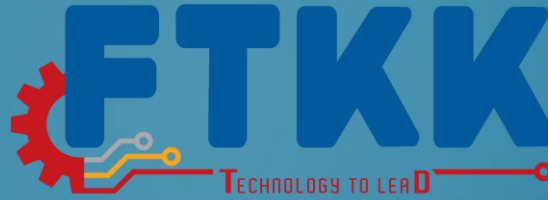




FACULTY OF OCEAN ENGINEERING TECHNOLOGY



Environmental Technology Laboratory



Laboratories and Equipment of Environmental Technology



- MBEND – Makmal Bendalir (Fluids Lab)
- MPAS – Makmal Persediaan Alam Sekitar (Environmental Preparation Lab)
- MCAD – Makmal CAD (CAD Lab)
- MKAAS – Makmal Kejuruteraan Air dan Air Sisa (Water Engineering and Wastewater Lab)



MCAD

MPAS

MKAAS

MBEND

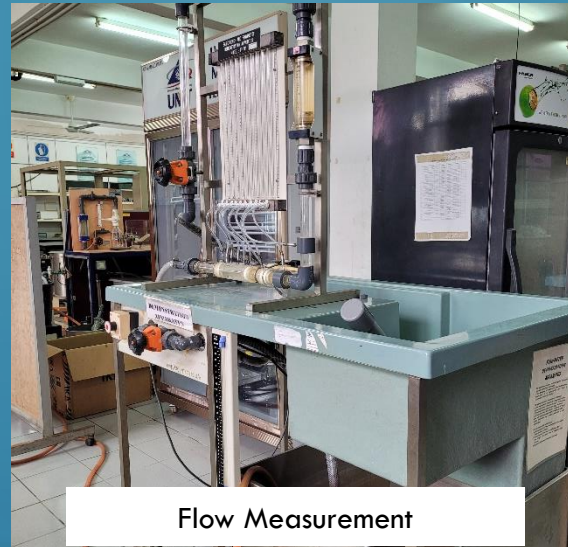


Functions:

- Carry out lab experiments related to Fluid Mechanics and Materials Engineering subjects.
- Conduct researches related to Fluid Mechanics, Materials Science, Membranes, Water Treatment and others

EQUIPMENT:

- Hydrostatics Bench
- Viscometer
- Flow Measurement Apparatus
- Oil/water bath
- Centrifugal pump
- Flow Channel & Flume Apparatus
- Renolds No. studies
- Shaker Bath
- Freezer/ Chiller
- Digital Balances
- Membrane Casting Machine
- Perchloric Fumehood
- Hotplate Stirrer
- Stone Mill



Flow Measurement



Viscometer



Flow Channel & Flume App.



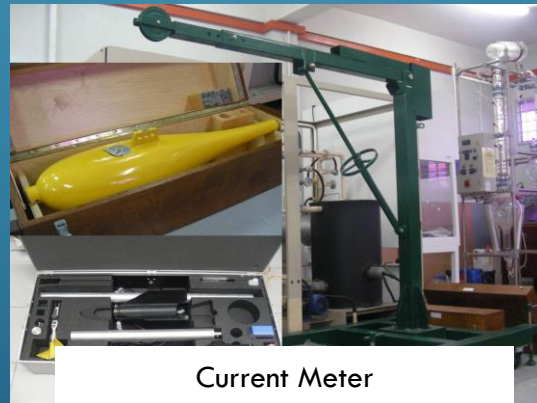
Hydrostatic Bench

EQUIPMENT:

- Current Meter
- Furnaces
- Ovens
- Sieve Shaker
- Incubator
- Floor Stand Drill
- Digital Overhead Stirrer
- ESCO Biosafety Cabinet
- Liquid Nitrogen Storage

Functions:

- Samples preparation that require use of equipment such as Furnaces, Ovens, Incubator, BSC, etc.
- Conduct researches related to Hydrology, Soil, Material Science, Membrane, Water Treatment and others.



Current Meter



Furnaces



Ovens & Incubator



Sieve Shaker

EQUIPMENT:

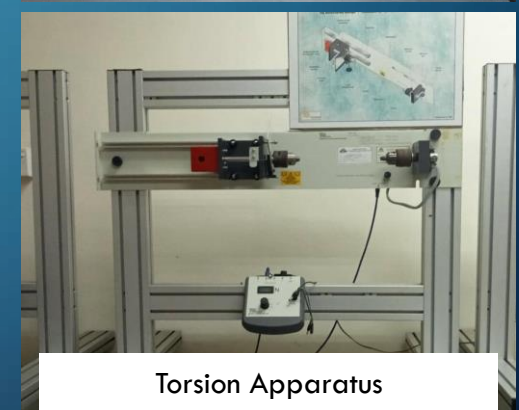
- Creep Test Machine
- Torsion Apparatus
- Deflection of Beam and Cantilever
- Unsymmetrical Bending

Function:

Carry out Material Engineering subject experiments for SMTAS, SMSGTM and SMTKM(SK) programmes.



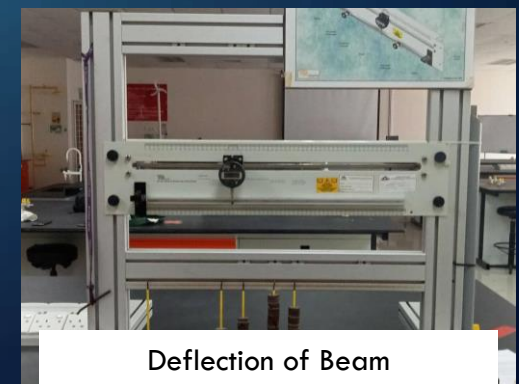
Creep Test Machine



Torsion Apparatus



Unsymmetrical Bending



Deflection of Beam

RESEARCH EQUIPMENT:

- Laboratory Mixer
- Tensile Tester 500N
- Hotpress moulding (50kN/manual)
- Metallurgical Microscope
- Hardness Tester
- Manual Injection Moulding
- Polishing Machine
- Precision Cutter
- Material Image Analyser

Equipment Function:

Materials Engineering related research equipment. These equipment are placed in the Fluids Laboratory.



Laboratory Mixer



Tensile Tester (UTM)



Hotpress



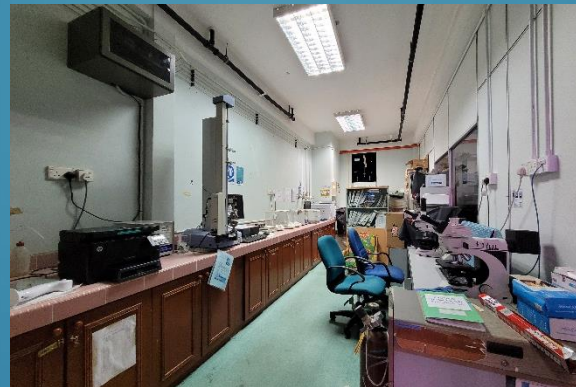
Metallurgical Microscope

EQUIPMENT:

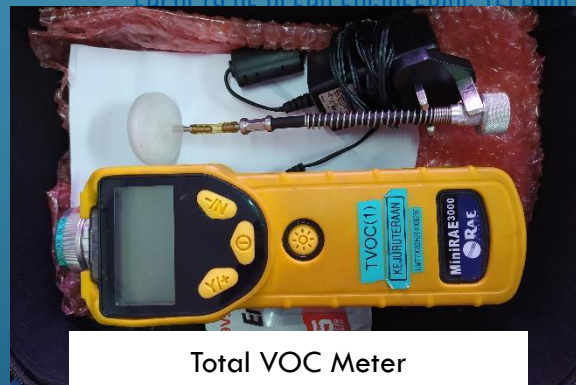
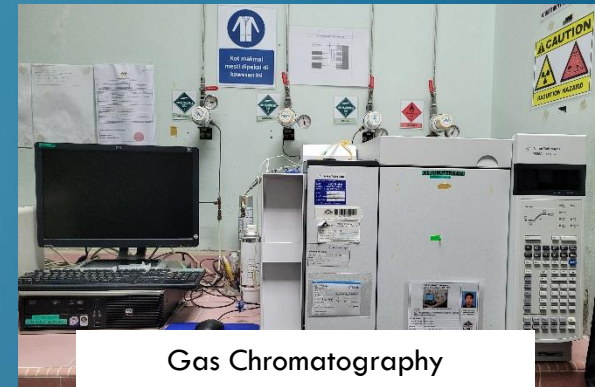
- Gas Chromatography
- Realtime Aerosol Monitoring
- HVAS
- Gas Samplers
- TVOC Meter
- IAQ meter
- Anemometer

Lab and Equipment functions:

Research equipment for Air Quality and Noise Control which includes monitoring of IAQ, Particulate Matter, Gases, Meteorology, Noise and others.



Gas Chromatography



Total VOC Meter



Realtime Aerosol Monitoring



IAQ Meter



Anemometer

EQUIPMENT:

- Formaldehyde Meter
- Personal Aerosol Monitor
- Microbiology air sampler
- Noise Meter
- Weather Station
- Air Sampling Pump
- etc.



Weather Station



Sound Level Meter



Microbiology Air Sampler

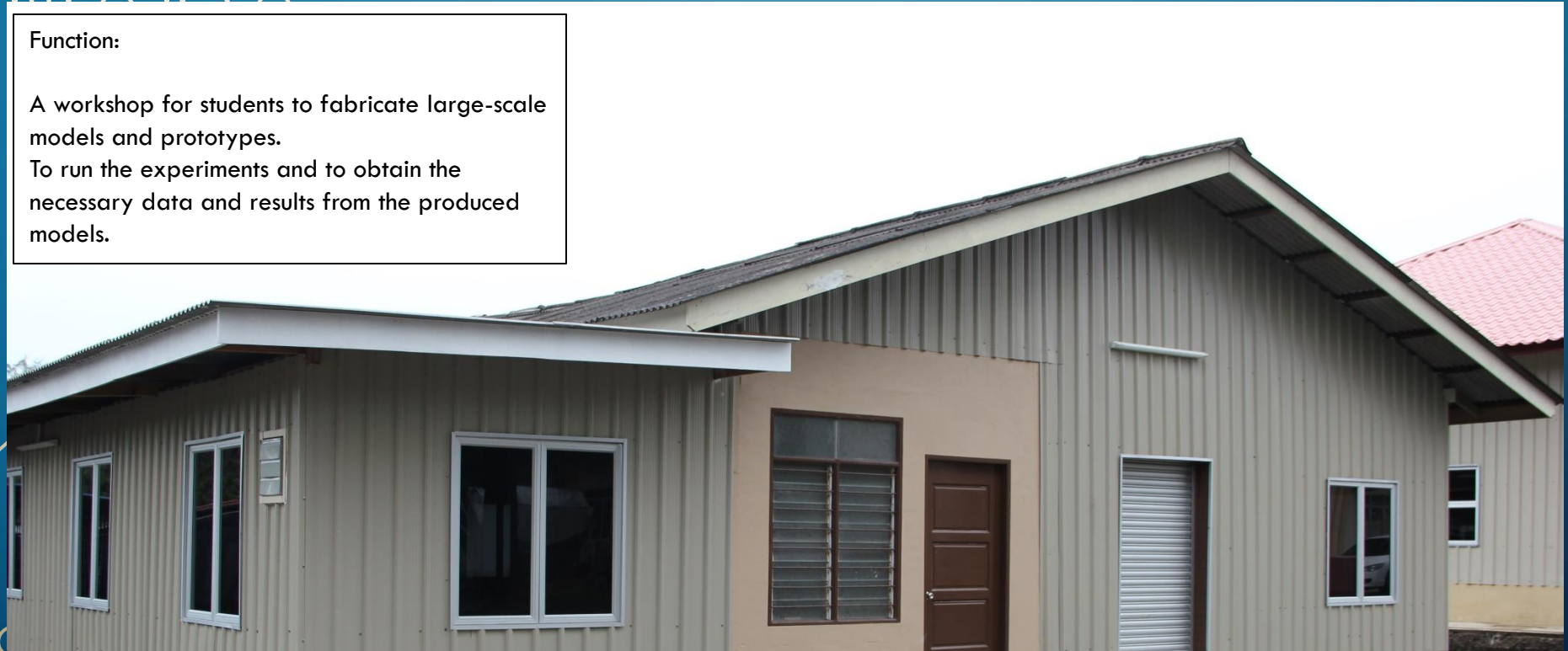


Formaldehyde Meter

Function:

A workshop for students to fabricate large-scale models and prototypes.

To run the experiments and to obtain the necessary data and results from the produced models.



EQUIPMENT:

- PC 40 units
- LCD Projector



Functions:

Simulations, design, and application software are used in this practical class.



EQUIPMENT:

- Biosafety Cabinet
- Fume Hood
- Automated Particle Size Analysis
- UV Vis Spectrophotometer
- Water Purification System
- Shaker Bath
- Portable Handheld TSS Meter
- Digital Balances
- Incubator Shaker 200 L
- Digital Heating Block
- Portable Conductivity Meter
- Multiparameter
- Etc.

Functions:

Research lab for Final Year Project (PITA) and post-grad students



RECYCLING AND WASTE RECOVERY LAB

EQUIPMENT:

- Fume Hood
- Dead End Cell
- Probe Sonicator
- Membrane Bio-reactor System
- Analytical Balance
- Incubator
- Water Distiller
- Etc.



Functions:

Research lab for Final Year Project (PITA) and post-grad students

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FACULTY OF OCEAN ENGINEERING TECHNOLOGY

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TECHNOLOGY TO LEAD

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