

University of Malta
Faculty for the Built Environment
Department of Civil and Structural Engineering

Registration for Experimental Work

Name of Researcher / Student: _____

Telephone number: _____

Mobile number: _____

Email Address: _____

Name of Supervisor: _____

Title of Project: _____

Synopsis of Project: _____

Section A to be completed by the Supervisor / principal investigator at the stage at which the test programme is undertaken.

Declaration: I have authorized experimental work on this project, and have discussed the objectives and the general scheme of the tests with the named researcher / student. I have drawn attention to the following hazards and specific safety requirements:

Signed: _____ Date: _____
Supervisor / Principal Investigator

Section B to be completed by the researcher / student

Structures Section

Identified hazards given specific consideration in design of rig and / or establishment of operating procedures (tick or enter NA):

Overall robustness stability, buckling _____ Strength of primary members _____

Protection of moving parts potential trapping in gaps _____

Containment of failed test specimens _____ Adequate provision for lifting rig members _____

Adequate provision for lifting test specimens _____

Is there a positive limit on applied forces that lies within the safe working load of a rig? Yes / No

Is it certain that premature failure would be ductile and be noticed at an early stage? Yes / No

Has a written operating procedure been prepared? Yes / No

Will the apparatus be run unattended? Yes / No

Other hazards: _____

Concrete Section

Identified hazards given specific consideration in establishment of operating procedures (tick or enter NA):

Inhalation of high levels of cement dust _____ Allergic skin reaction _____

Exposure to airborne dust _____ Handling wet concrete or dry alkaline compounds _____

Excessive noise associated with the use of the vibrating table _____

Adequate provision for lifting test specimens _____

Has a written operating procedure been prepared? Yes / No

Other hazards: _____

Section C to be completed by the researcher / student

Type of equipment needed for the service required tick where appropriate):

Concrete Section

- | | |
|--|---|
| <input type="checkbox"/> Compression machine (Controls) | <input type="checkbox"/> Vebe consistometer |
| <input type="checkbox"/> Compression machine (Avery Denison) | <input type="checkbox"/> Flow table |
| <input type="checkbox"/> Pan mixer | <input type="checkbox"/> Cylinder capping frames |
| <input type="checkbox"/> Concrete drum mixer 190 litres | <input type="checkbox"/> Shrinkage apparatus |
| <input type="checkbox"/> Concrete drum mixer 100 litres | <input type="checkbox"/> Concrete test hammer |
| <input type="checkbox"/> Mortar mixer | <input type="checkbox"/> Ultrasonic concrete tester |
| <input type="checkbox"/> 100 mm cube mould | <input type="checkbox"/> Blaine apparatus |
| <input type="checkbox"/> 150 mm cube mould | <input type="checkbox"/> Le Chatelier flask |
| <input type="checkbox"/> Beam mould 100 by 100 by 500 mm | <input type="checkbox"/> Vicat frame |
| <input type="checkbox"/> Beam mould 150 by 150 by 750 mm | <input type="checkbox"/> Flow table for mortars (BS Standard) |
| <input type="checkbox"/> Cylinder mould 100 mm diameter | <input type="checkbox"/> Le Chatelier mould |
| <input type="checkbox"/> Cylinder mould 150 mm diameter | <input type="checkbox"/> Mortar mixer 5 litres |
| <input type="checkbox"/> Slump test | <input type="checkbox"/> Jolting table |
| <input type="checkbox"/> K-slump tester | <input type="checkbox"/> 50 mm mortar cubes |

- Three gang mould for mortar prisms
- Unit weight measure 10 litres capacity
- Cover meter
- Half-cell digital corrosion meter
- Pull-off / adhesion tester
- Pull out test apparatus
- Initial Surface Absorption test apparatus
- Concrete cylinder extensometer
- Mechanical strain gauge
- Coring machine

Aggregate Section

- Test sieves
- Bar sieves (flakiness index)
- Elongation index (BS Standard)
- Los Angeles machine
- Buoyancy balance
- Density baskets
- Unit weight measures
- Impact value tester
- Aggregate crushing value apparatus
- Jaw crusher

Rock Mechanics

- Laboratory coring machine
- Cut-off machines
- Hoek cells for triaxial tests
- Constant head apparatus
- Rock shear box apparatus
- Rock strength index apparatus
- Rock and masonry saw

Geotechnical

- Cone penetrometer
- Casagrande
- Sedimentation apparatus (hydrometer)
- Plastic limit apparatus
- Specific gravity apparatus
- Moisture content apparatus
- Oedometer
- Direct shear box
- Triaxial machine
- CBR equipment
- Proctor compaction machine
- Plate bearing test apparatus
- Clegg impact soil tester

Structures Section

- Data Logger (Peekel)
- Data Loggers (National Instruments)
- LVDTs ± 1 mm
- LVDTs ± 5 mm
- LVDTs ± 10 mm
- LVDTs ± 50 mm
- LVDTs ± 100 mm
- Strain Gauges
- Load cell 50 kN
- Load cell 200 kN
- Load cell 500 kN
- Load cell 1000 kN
- Mechanical screw jacks (50 kN)
- Hydraulic jacks
- Hydraulic pumps

Built Heritage

- Climatic chamber
- Salt spray machine
- Mercury porosimeter
- Multi pycnometer
- Ph meter
- Conductivity meter
- Stereo microscope (Wild)
- Microscope (Will)
- Furnaces

Others

- DC Power supply
- Sticky pad reader (dust monitoring)
- Light meter
- Laboratory water distiller
- Air Compressor
- Water baths

Workshop

- Surface grinder
- Electric drill
- Angle grinder
- Cordless drill
- Welding set
- Pillar drill
- Jigger
- Drill Compactor
- Generator