

# Focus on CSIR facilities in Landward Sciences

CSIR Defence, Peace,  
Safety & Security  
2011

## Test, Measurement & Evaluation (TME) capabilities

- Pressure
- Stress/Strain
- Load/Force
- Time of Arrival (TOA)
- Velocity of Detonation (VOD)
- Acceleration
- Displacement
- Impulse
- Video Footage:
  - Medium and High Speed Photography
  - Ultra High Speed Photography
- Flash X-ray
- Human Response:
  - Landmine detonations
  - Blast injuries
  - Blunt trauma
- High speed data acquisition



## Facilities

- Electronics laboratory
- Drop test rig
- Lower Limb Impactor (LLI)
- Detonic, Ballistic and Explosive Laboratory (DBEL)

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## Detonic, Ballistic and Explosive Laboratory (DBEL)

### Capabilities

- Main explosives range – up to 50 kg NEC
- Small arms test range
- Test cubicles – for small scale tests up to 200 g
- Water facility
- Explosively Formed Projectile (EFP) test area
- Shaped Charge (SC) test area
- Mine characterisation facilities
- Protective shelters
- TME preparation and storage facility
- Explosives processing facility
- Mine ageing test facility
- Mechanical workshop
- Explosives magazines

### Measurement Fixtures

- Scientifically Instrumented Impulse Measurement Apparatus
- Human Response Test Rig
- Blast shelter
  - Flash X-ray
  - Ultra High Speed Camera
- Blast pendulum

