Impact Laboratory

The Impact Laboratory is built in a partly below ground space. The space of this specially reinforced concrete laboratory is comprised of a control and operation room with a special safety and operational controller and different electrical mechanical and computational facilities. The laboratory aims at testing the impact response of structural elements and materials to low velocity and high velocity impact load, to investigate penetration processes in structural and geotechnical systems and to study the blast response of structural elements.

The laboratory floor includes 2 large isolated foundation blocks supporting a shooting gun system and a target holder system. Specially constructed interior reinforced concrete walls provide separation of different safety zones.

The specific equipment in this lab includes:

- Air guns: For high velocity impact, and a moderate velocity air gun system
- Low velocity impact system.
- Small caliber shooting system.
- High speed cameras: A high speed monitoring system.
- High speed velocity measurement system.
- Monitoring systems: For dynamic acceleration, pressure, strain and displacement.
- Blast shock tube: Under development.