

DEPARTMENT OF CONSTRUCTION TECHNOLOGY AND MANAGEMENT

Laboratory facilities

- CADD Laboratory- CAD, MS Office Package and Primavera
- Building Services Lab. - Moisture meter, Sound meter, Light meter, Air sampling, Weather Monitoring Station and Air Velocity Level Meter.
- CRUT Lab (Center for Road Safety Urban Eco-system and Transportation) - Fatigue Testing machine, Vissim and Noise dosimeter

CAD laboratory

Computer application Laboratory is equipped with Twenty personal computers possessing the following drafting, analysis and project management software's namely:

- MS OFFICE PACKAGE
- PRIMAVERA P6
- STAAD PRO



CRUT laboratory

Centre for Road Safety Urban Eco- System and Transportation (CRUT):

Research Center at SJCE campus funded by TEQIP- II. The centre facilitates with the following facilities.

1. Noise Dosimeter
2. Vissim (a bundle of three licenses)
3. Fatigue testing machine

1. Noise Dosimeter



A sound level meter is a measuring instrument used to assess noise or sound levels by specifically measuring the noise exposure of a person integrated over a period of time. It is often referred to as a sound pressure level (SPL) meter, decibel (dB) meter, and noise meter or noise dosimeter.

Application

- Determination of noise levels in various zones.
- Qualitative and Quantitative analysis of in acoustic evaluation can be carried out.
- Assessment and measurement of exposure to noise and also provides data through which the significance and potential risk can be reduced.

2. Vissim (Three licenses)



Vissim is software used for the evaluation and planning of urban and extra-urban transport infrastructure. It provides a comprehensible planned infrastructure measures to decision-makers and the public.

Application

- Analysis of Road networks and junction geometries, analysing public transport priority schemes or considering the effects of certain signaling.
- Realistic modeling of city and inter-urban traffic movements.
- Private traffic also rail- and road-based public transport (PT) can be modelled

3. Fatigue testing machine



Fatigue test is a dynamic test used to simulate how a material will behave/fail under real life loading/stress conditions.

Application

Determination of the relationship between stress range and the number of times the dynamic load cycles can be applied before failure of specimen.

Behavior of materials under repeated loading

Building Services laboratory

1. Quest 2200 integrating - averaging Sound level meter type-2



Quest Basic series sound level meters is a extremely easy-to-use tools for obtaining the most commonly required noise measurements, such as SPL, Lmin, Lmax, Leq/Lavg, and Peak. Quest model 2200 integrating sound level meters offer superior noise measurement and analysis with General Purpose Class/Type 2 accuracy.

2. Light meter model LT-300



A light meter is a device used to measure the amount of light in lux or fc. The measurement of light intensity with a light meter is becoming increasingly important in the workplace due to

safety concerns. It is useful for measuring and optimizing environmental light levels in a wide range of environments, including office buildings, manufacturing plants and warehouses, university campuses, schools, hospitals, and many other locations. OSHA regulates workplace lighting because illumination must be adequate for assigned tasks, and light meters are used to verify regulatory compliance, as well as state and local public safety codes and ordinances.

3. Air sampling kit model 224pcxR8



PCXR8 universal sample pump used for measuring constant flow (from 5 to 5000 ml/min) air sampler. It is suitable for a broad range of applications. It is ideal for industrial hygiene studies as well as environmental testing. Specifically designed for "on-worker" and "fenceline" applications.

Amount of contaminates present

4. Advanced particulate with air quality and VOC monitor



The 3M Detection Solutions EVM-7 environmental monitor. Which simultaneously measures particulates, volatile organic compounds (VOCs) with PID, toxic gas, carbon dioxide, relative humidity, temperature, and air velocity. Use the EVM-7 for worksite monitoring, industrial hygiene surveys, air quality assessment, VOC screening and monitoring, military site compliance, and regulatory compliance.

5. Air velocity level meter-2 model- 2200



The QUES Temp° 36 used to measure air flow if the air probe accessory is used. The air probe uses an omni-directional anemometer sensor that measures air flow between 0 and 20 meters per second in 0.1m/s increments. The air probe may be either hand held or mounted behind the QUES Temp° 36 using the mounting bracket hooked to the sensor bar beneath the center bulb sensor.

6. Wood moisture meter



The non-destructive moisture meter which is an indispensable aid. It is used to measure surface moisture content of raw timber as well as semi-finished products, veneers, parquet, furniture and windows. This is extremely easy to use and with instantaneous moisture measurement it is a great tool for anyone who wants a fast and accurate measurement.