



Safety Rules for Work in DTU Elektro Laboratories

(for PowerLabDK additional rules apply)



Introduction

The purpose of these safety rules is to avoid accidents and to ensure that the laboratories are a safe working place. All persons working in the laboratories inside and outside normal working hours must follow the rules listed below in order to prevent personal injury and equipment damage.

General

- Test setups, which are in operation or switched on, may not be abandoned or left unattended.
- Long-term experiments should be marked with a sign [*Switched on – Long-term experiment*] and contact information on responsible person (name, email, and cell phone number).
- Changes on a test setup or circuit may only take place when the power supply is turned off.

Setups and labs carrying voltages > 60 V DC or > 25 V AC (RMS)

- Test setups carrying voltages > 60 V DC or > 25 V AC must be clearly marked with warning signs ⚠ and only skilled or instructed personnel are allowed near the setups.
- If necessary, live parts must be shielded to avoid unintended contact.
- At least one other person must be present on the same floor when work on experiments carrying voltages > 60 V DC or > 25 V AC is ongoing. This other person must be instructed to have his/her secondary attention to the ongoing experiment as well as accept not to leave the floor while the experiment is ongoing. This attention can be in the form of video and audio surveillance from the same, a connecting or an adjacent building if it is accepted as a part of the approval of the setup.
- Setups must be approved by a skilled person before being used.

Equipment

- Test setups intended to be operated from the mains must be galvanic isolated from the mains by means of a transformer or a stand-alone AC power supply.
- Instruments provided with safety earth may only be connected to the mains using a 3-pin plug with safety earth. Thus, **safety earth must always** be used.
- Only test leads with isolated banana plugs must be used in the laboratories.
- When you have finished working on your setup, remember to put all the equipment back in its original place.

Other restrictions

- Food is prohibited.
- The test setup and its surroundings must be kept clean and tidy.
- The last person leaving the laboratory must ensure that all equipment is turned off and that the doors are locked and that all windows are closed.

In case of personal injury

- Make a primary survey/assess the situation:
 - Make the area safe (turn off power!).
 - Assess any casualties.
 - Call for the emergency services (dial 112 (one one two)).
 - Start lifesaving first aid (Give chest compressions and rescue breaths (CPR) / Use the automated external defibrillator (AED)).
- Report the incident to the local safety group.