INSTITUTIONAL TRAINING COURSE

Strathmore UNIVERSITY

ICRC

Electricity for Construction Engineers

Training code: 0619

Learning mode: Blended

Duration: 6 weeks preliminary eLearning, 5 days f2f, 2-months post course assignment

Unit in charge: ICRC Water and Habitat department

Functional competencies: Architecture & Engineering

Training type:

Specialized course

Languages available:

English

Course description

The course aims at consolidating the participants' competence in the following fields:

- Electricity related to buildings (network and safety protections)
- Power supply (genset and transformer sizing and renewable energies like solar, wind turbine and hybrid solutions)
- Need assessment, proposal development for small and medium scale projects and evaluate contractual tender offers and supervise projects implementation for medium to large scale interventions.

What you will learn?

During the training participants will learn:

- Understand how to deliver estimated power loads to be utilised by contractors.
- Ability to make simple power calculations.
- Recognise quality and professionalism of proposed designs in offers (IE diagrams, protection systems, power supplies, BoQ's, sizing of cables, PV installations, etc.)
- Understand associated risks during implementation and commissioning with regards to electrical safety and quality of installations
- Understand pros and cons of different power sources.

What changes can you expect after this training?

Critical work behaviours expected from participants after completion of the course.

- Complete energy assessments/designs utilising ICRC tools and procurement guidelines involving all stakeholders.
- Give precise and applicable work specification to contractors.
- Choose accurate procurement methods for critical electrical components.
- Closer supervision of contractors during project implementation, designs and conducting independent commissioning
- Choose the most well adapted power source solution.
- Check that electrical systems/installations are sufficient to ensure people and equipment safety. Operational Health Safety and Environment

Teams expected results.

- Understand how to deliver estimated power loads to be utilised by contractors.
- Ability to make simple power calculations.
- Recognise quality and professionalism of proposed designs in offers (IE diagrams, protection systems, power supplies, BoQ's, sizing of cables, PV installations, etc.)
- Understand associated risks during implementation and commissioning with regards to electrical safety and quality of installations
- Understand pros and cons of different power sources.

Organizational expected results

- Improved power solutions => more sustainable and energy efficient
- Better specifications => improvement of electrical components and electrical supervision
- Ensure people and equipment safety with adapted quality of buildings installations => safeguarding investment, duty of care

Who should attend?

Construction engineers who deal with construction including electrical installations from small-medium scale projects

Where will it take place?

The training courses are taking place in Nairobi (within Strathmore Energy Research Center).

Training cost?

The total course cost will be **2650 EUR (1750 course fees + 900 hotel).**

Course fees include venue, facilitation, lunch, and snacks during the days of the course.

You have the option of having the ICRC organize your accommodation or arranging it yourself. If you organize it yourself, you will only pay the course fees **(1750 EUR).**

Flight and transport are entirely your/your organization's responsibility in terms of organization and coverage.

How to register?

Please use the registration form link:

https://forms.office.com/e/zWzDPrGzBy

Contact

wathabtraining@icrc.org

Calendar

Cohort 1 19th to 23rd January 2026

Cohort 2 22nd to 26th June 2026