



Introduction to Civil and Construction Engineering Department (CCED)

[www. https://civil.uonbi.ac.ke/](https://civil.uonbi.ac.ke/)

- * Presentation by
- * Dulo S.O. PhD
- * Chairman CCED





The CCED

- * **Location**
- * **Thematic areas**
- * **Student life**
- * **Professional outlook**



Location in the Main Campus





CCED - Facilities

ITEM	NUMBER
1. Lecture Rooms	CB 231A, CB231B. CB232A, CB232B
1. Lecture Theatres	LT201 and LT 302
1. Laboratories	
I. Concrete,	
II. Geotechnical,	
III. Highways and pavements material,	
IV. Timber,	8
V. Model structures,	
VI. Hydraulics,	
VII. Public health,	
VIII. Computer	
1. Workshops	1



The Civil Block on Harry Thuku Road



CCED - Facilities



**The Highways
Geotech,
Concrete, and
Hydraulics
Laboratories**





CCED - Facilities



The EHE lab at Hyslop Building



The civil lecture theatres





Thematic areas



Geotechnical Engineering



Core cutting from a field investigation



Foundation pile driving



Core cutting in the field

University of Nairobi

ISO 9001:2015

8

Certified



Foundation excavation

<http://www.uonbi.ac.ke>



Geotechnical Engineering

Northern Collector Tunnel



Entrance to the Northern Collector Tunnel - Muranga



Inside the tunnel



Initial tunnelling phase



Geotechnical Engineering



SGR Tunnel CCCC used the New Austrian Tunnelling Method of drilling and blasting (CCCC SGR Head Office/Twitter)



The 4.5km Ngong tunnel, in Kajiado County on the outskirts of Nairobi, is part of the Standard Gauge Railway (SGR)



Geotechnical Engineering

Courtesy Eng. Moriasi



**Diversion Tunnelling for
Karimenu II Dam**

Inside a Tunnelling works in progress





Highway and Transportation Engineering



**Southern Bypass Ngong Road
Interchange**

Southern Bypass Langata Road Interchange





Highway and Transportation Engineering



The Jomo Kenyatta International Airport Nairobi





Structural Engineering

Courtesy Eng. Hayowa



The imposing CBK Pensions tower

The CBK Pensions tower with the view between the pioneer land marks





Structural Engineering

Courtesy Dr. Eng. Mumenya



**Integrated Earth Retaining
Drainage System**

**Stepped fish ponds on steep terrain to
check land slides**





Structural Engineering

Courtesy Eng. Maimba



ACK Taita-Taveta Diocese Cathedral, Voi



The Majestic Steelworks roofing



Structural Engineering

Courtesy Eng. Okoya



The KSMS Pedestrian Bridge





Structural Engineering

Green buildings in Nairobi



Garden city



The Coca-Cola Headquarters Nairobi



Environmental Health Engineering

Courtesy Dr. Dulo



**Boundary Waste Water
Treatment Works, Eldoret**



**Kajulu Water Treatment
Works, Kisumu**





Environmental Health Engineering

Courtesy of Eng. Kandie



Community water supply

- **Metered Borehole Water supply**
- Tested yield 72 Cub. M.;
 - **Installed pump delivering 65 cub. M per hour;**
 - **Solar pump installed at 150m for 172m deep borehole;**
 - **80mm GI pipe installed to the Pump level;**
 - **Solar Powered with 126 Panels each 265 W (Total: 33.4 Kw)**



Environmental Health Engineering

Courtesy Dr. Dulo



**Boundary Waste Water
Treatment Works, Eldoret**



**Kajulu River Water Quality
Sampling and Testing**

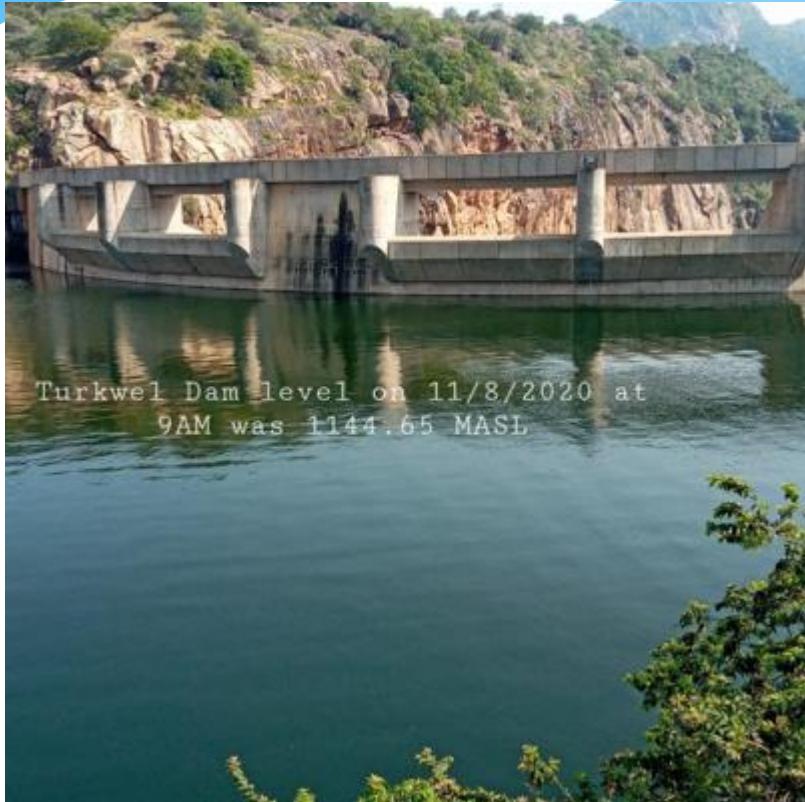


**Inspecting community shallow
wells in Lukaya, Uganda**



Water Resources Engineering

Courtesy KenGen



Turkwell Dam Spillway

Masinga Dam Spillway





Water Resources Engineering

Courtesy Dr. Dulo



**Borehole drilling in Kudho
School, Kisumu**



**Final year project student measuring
solar pump performance in Lodwar
Municipality**



Engineering Students Conference 2018



Student life



Student Obligations

- * Shall satisfactorily complete such course work/practical assignments as may be required for each scheme of study.





Student Obligations

Satisfactory completion of any such requirements shall be a condition of admission to the examination at the end of that semester of study.





Student Obligations



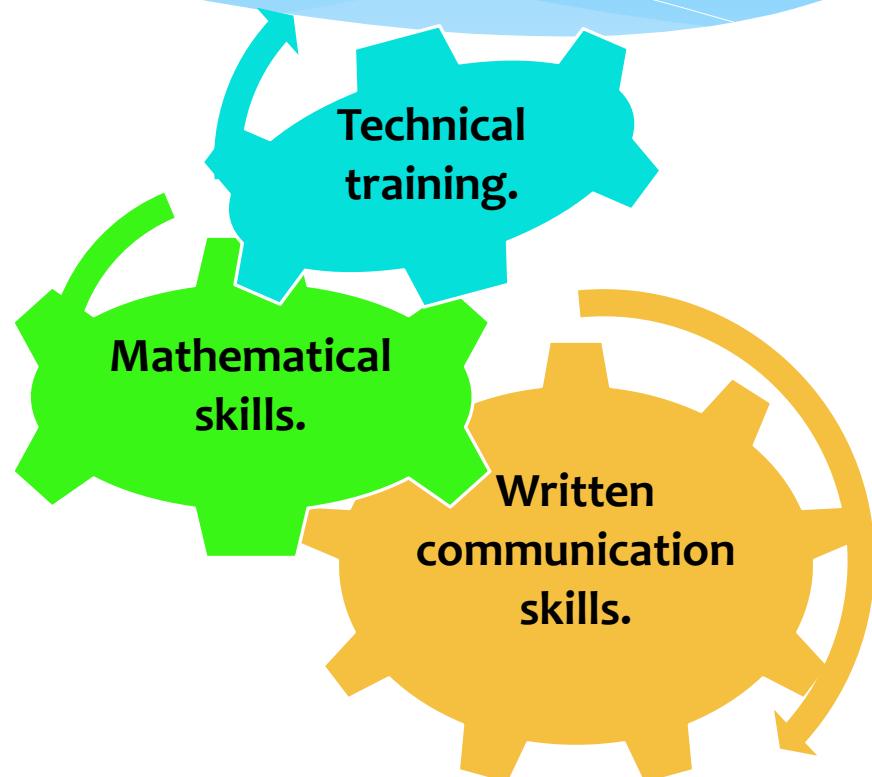
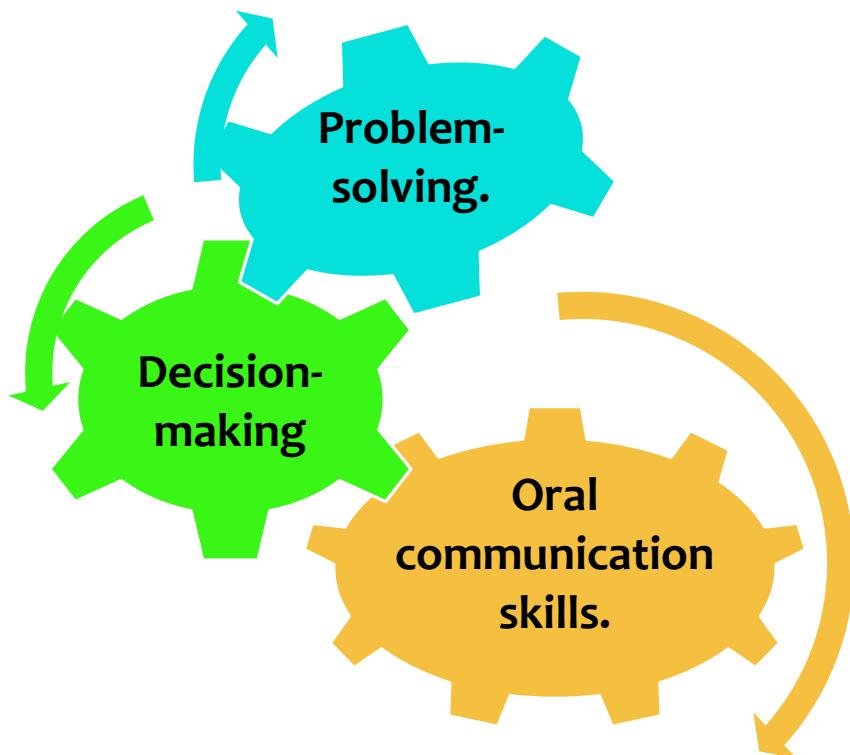
- * **Attendance of not less than two-thirds of the total lecture hours of all prescribed courses shall be a condition for admission to the examination at the end of that semester of study.**



The fountain of knowledge in the foreground of the great court



Essential Skills





Transformative Education

**Inculcated
Organizational skills.**

**Learnt
Essential skills**

**Engineering
Leadership skills**

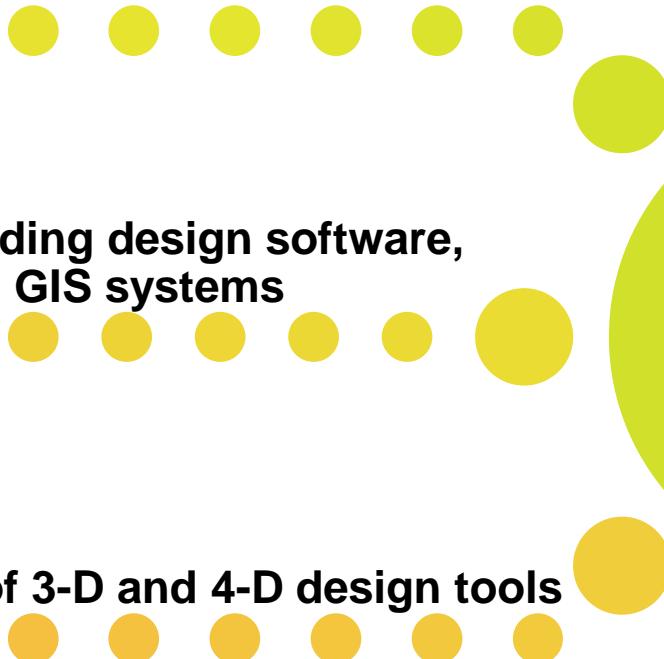


Professional outlook



Civil engineering

By continually embracing technical information



Apply
the
skills

Robust solutions to
industry problems



The University of Nairobi

Welcome to

A department fostering growth of
‘A world-class university committed
to scholarly excellence’