

MAKERERE



UNIVERSITY

The Makerere University GIS Centre in collaboration with SIDA,
announces the crosscutting course:

‘Fundamentals of GIS and Spatial Data Analysis’

Dates: Monday 14th to Friday 18th December 2020

Venue: GIS Centre Laboratory, CEDAT New Building, Ground Floor, Makerere University and online through Zoom.

Course Content:

The content will include:

- **Introduction to GIS** – Definition of GIS, Why GIS is hot, Applications of GIS, Spatial Data Types (Vector data, Raster data), Coordinate Systems and Map projections, QGIS (Layout, Plugins)
- **Working with vector and raster data** – Projection systems (overview of projection support, specifying a projection system, define on the fly (OTF) projection, Vector data Models (Importing vector data, vector properties dialogue), Raster Data Models (Importing raster data, Raster properties dialogue)
- **Spatial data analysis basics** – Geo-referencing, Digitizing, Topology Checking, GPS data collection (Field procedures, GPS data download, Importing GPS data), Coordinate capture and layer creation.
- **Introduction to Spatial / Geodatabases** – Keys, integrity Constraints, Conceptual, logical, Physical data models, relational, network, object oriented, Object Oriented Relational, Hierarchical data structures.
- **Spatial Data Acquisition Techniques** – Spatial Selection Queries (Objects and table connections, Query builder), Vector Geo-processing (Clipping, Difference, Intersection, Union, Buffers), Raster Geo-processing (DEM extraction, Contour extraction, Slope extraction, Raster Calculation).
- **GIS data Visualization** – Map preparation and Cosmetics, Map printing.

Target audience/Eligibility: Academic Staff and Graduate students (MSc and PhD students). Physically attendance at the GIS Centre laboratory and online participation will be assigned as first come-first serve basis.

Interested participants should send an application to gis-centre@cedat.mak.ac.ug, copy to: mak2brian@gmail.com, ivanson5@gmail.com, allanmazimwe@gmail.com not later than Friday 9th December, 2020.

NB: THE SELECTED APPLICANTS WILL BE INFORMED BY 11th DEC. 2020.