Dear all,

## RE: [Web-based GIS and Mapping Training Course](https://bit.ly/2wDj7dN)

## [FineResults Research Services](https://bit.ly/38Amsa7) would like to invite you to high impact training on [Web-based GIS and Mapping Training Course](https://bit.ly/2wDj7dN) to be held in Nairobi from 17/08/2020 to 28/08/2020

**COURSE PROFILE**

## Course Name: [Web-based GIS and Mapping Training Course](https://bit.ly/2wDj7dN)

**Date:** **17/08/2020 to 28/08/2020**

**Duration: 10 Days**

**Venue: FineResults Research Training Centre, Nairobi, Kenya**

**Cost: USD 1600**

**Online Registration**: [REGISTER HERE](https://bit.ly/2UqXdU4)

**INTRODUCTION**

Web mapping focuses on disseminating and processing geographic information by means of Internet and World Wide Web. Combination of the web and GIS (Geographic Information Systems) has unlocked the potential of GIS, and put online maps and geospatial intelligence in the offices/homes of millions and the hands of billions. The increasing flexibility and interoperability of web mapping technologies has opened new opportunities for Web Based Mappers. Both non-GIS users and GIS experts can do more now, than ever to share maps over the internet. Web maps can easily deliver up to date information,maps are generated automatically from databases, and they can display information in almost real-time. They don't need to be printed, mastered and distributed. Web GIS has immense applicability to e-government, e-business, e-science, and all aspects of daily life. Government employees can utilize Web GIS to improve public services delivery and boost collaboration across agencies.Regardless of the sector, businesses can use Web GIS to enhance their existing business models and create new ones. Researchers can find new solutions to meet the challenges of the new frontiers. Web GIS has great practical value to our world today and into the future.

**DURATION**

10 days

**LEARNING OBJECTIVES**

* To understand the importance of web services and to give you some experience making web maps with FOSS and open standards
* Acquire skills how to make different types of web map
* Understanding spatial databases
* Learn how to publish maps online using open source software (Carto DB, fusion Tables, Geoserver).
* Able to Read Data from various Data source
* Processing spatial data with FOSS
* Drawing and querying maps on the server using Web Map Service
* Putting layers together with a web mapping API
* Learn how to Explore open data, VGI, and crowdsourcing

**COURSE OUTLINE**

**Module 1**

**Introduction to key concepts in Web mapping**

* Introductions to principles and concepts of  GIS and web mapping
* Understanding OGC web mapping Standards
* Web GIS development cycle
* Evolution and types of web mapping Technology
* System architecture for web mapping
* Understanding Free and Open Source Software and its use in web mapping
* Exploring QGIS as an open source software
* Find and share web maps on CartoDB

**Module 2**

**Web Mapping Technologies**

* Understanding spatial databases
* Tiled web map
* WMS service
* HTML
* XML/XHTM
* CSS
* Java script
* Write a page using HTML and CSS

**Module 3**

**Designing web services and web maps using free open source software**

* System architecture for web mapping
* Elements of a web map
* Analytic web maps
* Animated and real time
* Collaborative web maps
* Static web maps

**Module 4**

**Reading Data from various Data source**

* Converting shapefiles to XML
* Reading Points from an XML file
* Adding Side bars
* KML
* Using Fusion Table as Data source
* Geocoding and reverse geocording
* Ajax
* Reading shapefiles using javascript libraries
* Mapping your own data

**Module 5**

**Processing spatial data with Free Open Source Software**

* Understanding data formats for use in web mapping
* Processing spatial data with Free Open source Software
* geo-processing and projecting vector data with QGIS and OGR
* Processing raster data set with QGIS and GDAL

**Module 6**

**Drawing and querying maps on the server using Web Map Service**

* Dynamically drawn map services
* Introduction to basics of Open specifications for web map services and WMS specification
* Basic and advanced styling  and symbolization with a WMS

**Module 7**

**Building tiled maps with Free Open Source Software**

* Introduction to Concepts of tiled maps
* Making the decision to build and maintain tiles
* Strategies for creating and serving map tiles
* Creating tiles with GeoServer using GeoWebCache
* Creating tiles with Mapnik using TileMill

**Module 8**

**Putting layers together with a web mapping API**

* Introduction to web mapping API
* Programming patterns with web mapping APIs
* Examining OpenLayers examples
* Overlaying a WMS on a tiled map with OpenLayers

**Google Maps API**

* Introduction to google maps
* Creating Custom Web maps without programming
* Orientation to Google maps API
* Building Google maps/ customization
* Adding Makers to Google maps

**Module 9**

**Web based data editing**

* drawing vector layers on the client side
* Working with vector KML
* Working with GeoJSON
* Symbolizing vector layers in OpenLayers
* Adding interactive GeoJSON layers in OpenLayers
* GIS analysis on the web
* OpenStreetMap and its application in open data
* Downloading source data from OpenStreetMap

**Module 10**

**Publishing maps using open source softwares (Geoserver)**

* Overview Geoserver
* Installing and configuring Geoserver
* Setting up Geosever
* The Geoserver Interface
* Publishing maps in Geoserver
* Data querying in Geoserver

**ACCOMMODATION**

Accommodation is arranged upon request. For reservations contact us through Mobile: +254 759 285 295 or Email: training@fineresultsresearch.org

**PAYMENT**

Payment should be transferred to FineResults Research Limited bank before commencement of training. Send proof of payment through the email: training@fineresultsresearch.org

**CANCELLATION POLICY**

• All requests for cancellations must be received in writing.

• Changes will become effective on the date of written confirmation being received.

**GENERAL NOTES**

* All our courses can be Tailor-made to participants needs
* The participant must be conversant with English
* Presentations are well guided, practical exercise, web based tutorials and group work. Our facilitators are expert with more than 10years of experience.
* Upon completion of training the participant will be issued with FineResults Research Services certificate
* Training will be done at FineResults Research Services center in Nairobi Kenya. We also offer more than five participants training at requested location within Kenya, more than ten participants within east Africa and more than twenty participants all over the world.
* Course duration is flexible and the contents can be modified to fit any number of days.
* The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and a Certificate of successful completion of Training. Participants will be responsible for their own travel expenses and arrangements, airport transfers, visa application dinners, health/accident insurance and other personal expenses.
* One year free Consultation and Coaching provided after the course.
* Register as a group of more than two and enjoy discount of (10% to 30%) plus free four hour adventure drive to the National game park, in Nairobi.

[Visit our website for more details](https://bit.ly/2pzFkWp)

**How to participate**

[Individual Registration](https://bit.ly/2UqXdU4)

**Contact information**

**Email:** [training@fineresultsresearch.org](mailto:training@fineresultsresearch.org)

**TEL:**  +254 759 285 295

**Website:** [fineresultsresearch.org/training/](https://bit.ly/2IWjXW8)

**Visit our** [face book page](https://bit.ly/2lOxV36)

**Visit our** [linkedin page](https://bit.ly/38qa4uE)

**Visit our** [twitter account](https://bit.ly/38oZRi7)