

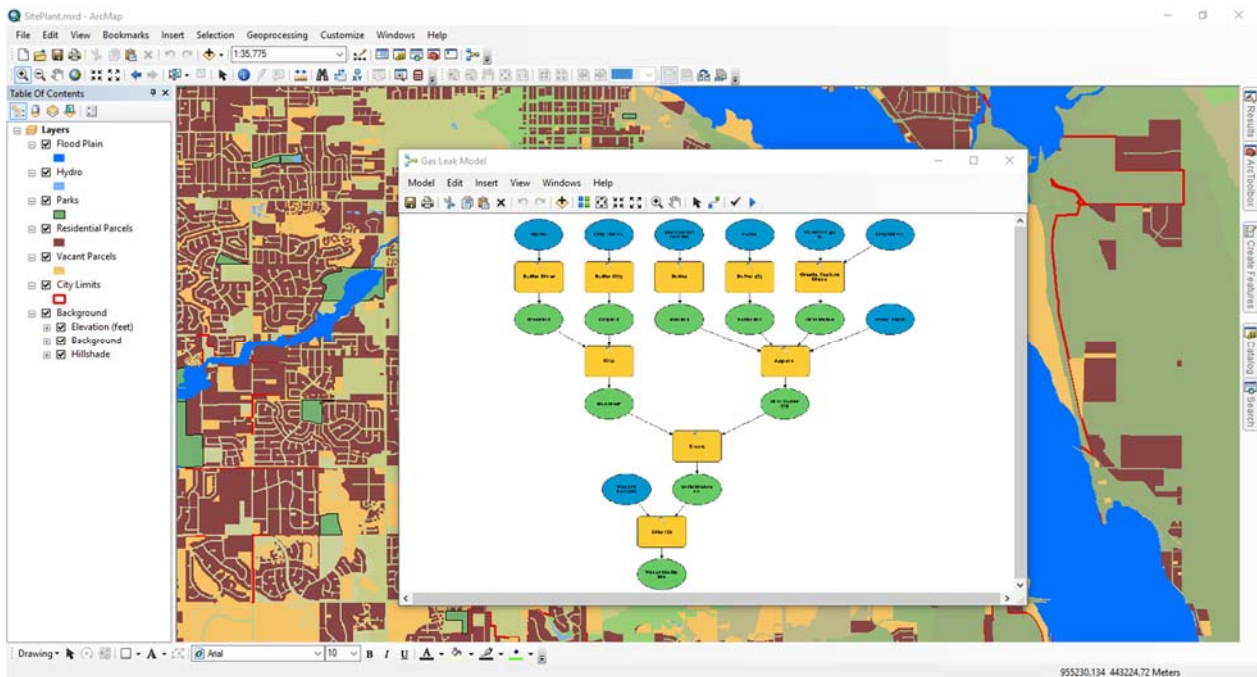


Training on: Harnessing the Power of ArcGIS for Desktop 10.5 (Basic + Advanced Level)

I. Introduction

A geographic information system (GIS) is the system that captures, stores, analyzes, manages, and presents data with reference to geographic location data. The GIS functionalities could be categorized into three main aspects including GIS database, GIS analysis, and GIS visualization.

In the simplest terms, GIS is a tool that could be used to transform geographic data into useful information or knowledge for better decision making. GIS could be used in many disciplines such as archaeology, geography, public utility management, natural resource management, precision agriculture, urban planning, emergency management, landscape architecture, navigation, real estate, public health, crime mapping, national defense, and sustainable development.



ArcMap: A powerful ArcGIS for Desktop's application for creating, analyzing, and visualizing GIS data

The main purpose of this training is to equip participants with essential theoretical knowledge and practical skills with ArcGIS for Desktop 10.4.1 software needed to perform most of everyday GIS tasks in the above-mentioned disciplines.





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Six modules covering three main aspects of GIS that will be presented and discussed in the training class include:

- Module 01: Introducing GIS concepts, ArcMap and ArcToolbox
- Module 02: Working with map symbology and labels
- Module 03: Managing GIS coordinate systems
- Module 04: Managing GIS databases
- Module 05: Creating professional-looking maps
- Module 06: Performing GIS analysis

The key topics for each module of the training can be found at the last section of this announcement. The topics were carefully selected from basic and advanced GIS training courses that the trainer have done many times before so that they are most relevant to what GIS people are doing in Cambodia.

II. About the training

- Trainer: **Mr. LA Vaha**
- Venue: TBC
- Date and time: 10 days - TBC
- Fee: \$500 per participant
- Training manual: English language
- Prerequisite: The participants should have basic knowledge of computer and could read some common English words. Participants should use their own computer laptops.

III. About the trainer

Mr. LA Vaha will be the key trainer of this course. He has completed Master of Spatial Information Science from the University of Melbourne, Australia and had extensive work experiences as GIS Specialist for different projects. He is currently the Managing Director of EZ Surveying Co. Ltd.

He has been the freelance GIS trainer of the following GIS courses:

- Learning Basics of ArcGIS® Desktop 10
- Learning Advanced ArcGIS® Desktop 10 Series: Geodatabase Development and Management
- Spatial Analysis and Modeling with ArcGIS® for Desktop 10
- Automatic Download of Google Satellite Images and Maps for ArcGIS or QGIS
- Getting Google Earth Images into ArcGIS
- Converting Online Map and Satellite Images into GIS Data
- Creating Portable Maps for Windows and Mobile Devices
- Advanced Topics in ArcGIS for Desktop 10
- Learning ArcGIS Pro 1.2





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- Downloading and Using Google Satellite and Road Maps for Creating Geographic Data and Information
- Harnessing the Power of ArcGIS for Desktop 10.4.1 (Basic + Advanced Level)
- Aerial Mapping and 3D Modeling with DJI Phantom Drones

IV. Contact

For more information about the training, please contact the trainer:

- Name: Mr. LA Vaha
- Phone: 015 718 466 / 077 718466
- Email: ezsurveying@gmail.com / laveha_lmla@yahoo.com

V. Key topics for each module of the training

Module 01: Introducing GIS, ArcMap and ArcToolbox

- Introducing GIS concepts
- Introducing ArcMap and ArcToolbox

Module 02: Working with map symbology and labels

- Creating maps with simple symbols and labels
- Creating maps showing categories and quantities data with complex labels
- Converting labels to annotations

Module 03: Managing GIS coordinate systems

- Introducing geographic and projected coordinate systems
- Managing coordinate systems of vector and raster data
 - Defining coordinate systems for vector and raster data
 - Converting coordinate systems of vector and raster data
 - Working with coordinate system of an ArcMap's data frame

Module 04: Managing GIS databases

- Introducing GIS data models and formats
- Creating a GIS database
- Maintaining a GIS database
 - Creating new point, line, and polygon features based on orthophoto and XY coordinates.
 - Editing existing point, line, and polygon features based on updated information.
 - Using advanced editing tools.
 - Using attribute domains and subtypes
 - Working with geodatabase topology
- Working with raster data
 - Download Google satellite images and georeference it





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- Converting raster images into different formats
- Adding raster images to geodatabase
- Data conversion between different applications (ArcGIS, KML, and CAD)
- Sharing data with other's ArcGIS users with layer package and map package
- Introducing GPS concepts
 - Collecting data with handheld GPS devices and mobile smartphones.
 - Adding GPS data to a GIS database

Module 05: Creating professional-looking maps

- Introducing cartographic design principles
- Working with ArcMap layout
- Designing maps that works with Khmer Unicode
- Creating maps for mobile smartphones
- Working with cartographic representations

Module 06: Performing GIS analysis

- Conducting GIS site selection analysis
- Conducting 3D analysis
 - Creating contour lines, flow directions, and elevation points from DTM data.
 - Calculating area and volume statistics and cut-and-fill
- Building models for GIS analysis

