Abstract
This study describes the development and implementation of a PV Roof Integration Analysis Tool integrated into a GIS system in order to be used in conducting research within alternative energy field. The tool introduces a set of analytical functions in a software application with the purpose of obtaining a suite of analysis functions, where their code is fully available and it can be accessed with the possibility of modifying or even adding more functions. The toolbox was developed on VBA because of the VBA allows modify the code with anyone with basic programming skills. In order to manage tables, map, etc. in ArcMap the ArcObjects COM-library was used. The different functions of the tool are: show address, find building rooftop... (More)

Abstract
This study describes the development and implementation of a Photo Voltaic (PV) Roof Integration Analysis Tool integrated into a GIS system in order to be used in conducting research within alternative energy field. This study focuses on the Dokki district in Greater Cairo that was used as a case for developing the idea of a tool to assess the possibility of the roofs of existing buildings to install PV modules in order to electrify building through developing a tool that works within the environment of ArcGIS software. Nowadays, the reduction of greenhouse gases is playing most important role around the world. By using other energy sources instead of ordinary fossil fuels, such as renewable energies, we can help to meet... (More)
Development of a Photo Voltaic
Building Rooftop Integration
Analysis Tool for GIS for Dahki
District, Cairo, Egypt

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Hello, I'm a full-stack developer | GIS Developer. I have more than 3 years of professional experience in GIS and GIS development. I have experience in ArcGIS desktop and server software; also knowledgeable about QGIS and Geoserver. I also have experience in web application development. Home » GIS Analysis » 7 Geoprocessing Tools Every GIS Analyst Should Know. 7 Geoprocessing Tools Every GIS Analyst Should Know. Examples of Spatial Analysis Tools. By: GIS Geography · Last Updated: October 17, 2020. The clip tool is an overlay function that cuts out an input layer with the extent of a defined feature boundary. The result of this tool is a new clipped output layer. If you can picture a cookie cutter, this is like using the clip tool. Because we preserve attributes from both input data sets. You need the building type from the dwellings layer. You need the precinct ID from the residential layer. When you run an intersect with the dwellings and residential layers, the output will have all the points that overlap for each precinct.