सत्यमेव जयते
Government of India

अमृत
Atal Mission for Rejuvenation and Urban Transformation

Schedule of training (**Capsule-3**) on Need based (Specialised) programme on **GIS applications** for the Engineers of ULbs/KUWS&DB/KUIDFC under "AMRUT" Mission (MOUD)

Implemented Schedule

Batch – 1
Date: 14th to 16th February 2017
Venue: Nethravathi Hostel, SIUD, Mysuru

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Aim:

1. To equip the Trainees with Importance, Role & Basic concepts of Remote sensing(RS), Global positioning system(GPS) & Geographic Information system (GIS) in ULB Services along with applications of Web based GIS & Android phones.
2. To familiar about GIS soft wares, Building the GIS process with Raster & Vector layers, Coordinate systems & Map projections, Geo registering of maps, Digitization of topology of Point, line & polygon features, attribute data tables & its contents, Data base Entry **through hands on exercises** with computers.
3. To impart skills and knowledge in preparation of vector maps, Conversion of existing paper maps to a digital form, Extraction of features from raster topo sheets, satellite image, Jpeg format, Google earth image to vector layers with hands on exercises.
4. To develop skill set in linking of data base with maps, spatial analysis, Geo coding data, Network Analysis, Buffer analysis, Overlay Analysis with Monitoring and management through layer operations with hands on exercises.
5. To motivate the participants through sharing of different applications of GIS with best practices/case study/field exposure in the field of water supply, Sewerage (UGD) system, Solid waste management, Water & Power audit, Automation of network system, SCADA etc; in ULB services.
6. To Gain knowledge on about various applications of GIS planning in urban Disaster Mitigation and Disaster Management Type of urban Disasters including strategic mapping & planning, Guidelines & code to be followed as per NBC etc;

Objectives:

After the completion of the 3 days training programme, the participants will be able to

a) List the importance, uses & applications of Remote sensing(RS)/Global positioning system (GPS)/ Geographic information system (GIS) in ULB services etc;
b) Explain about GIS soft wares, process involved in GIS building/preparation process such as, Geo coding, Digitization, Raster & Vector layer, topology, data base etc;
c) Describe in preparation of vector maps, Conversion of existing maps to a digital maps, Extraction of features from raster topo sheets, satellite image, Jpeg format, Google earth & Bhuvan image to vector layers
d) Describe linking of data base with maps, spatial analysis, Network Analysis, Buffer analysis, Overlay Analysis with Monitoring and management through layer operations.
e) List the various applications of GIS in ULB services such as water supply, Sewerage (UGD) system, Solid waste management, Property tax mapping, Storm drains, Water & Power audit, Automation of network system, SCADA etc;
f) Explain about GIS planning & mapping in urban Disaster Mitigation and Disaster Management, Guidelines & code to be followed as per NBC etc;

Course Methodology:

1. Lecture/Presentation through PPTs
2. Interactions & asking questions
3. Soft copy of GIS soft ware Manual
4. Group Discussions.

Target Group:

Engineers from ULBs/KUWS&DB/KUIDFC will be the participants for the training.

Duration: The course is scheduled for 3 days

Schedule on Application of Remote sensing (RS), Global positioning system (GPS) & Geographic Information system (GIS) for ULB Services under AMRUT Mission of MoUD (Capsule-3, Batch-1)

Time	Topics / Sessions	Resource Persons
Day 1 - 14.02.2017 (Tuesday)		
9.30 to 10.15	Registration	**Sri. Umesh B,** Course Assistant
10.15 to 10.30 am	Welcome Key Note Address and Objectives	**Sri G. Venkatesh Kadagadakai,** Director , SIUD, Mysore **Sri Ramesha H** Faculty, SIUD, Mysore
10.30 to 1.45 pm (11.45 to 12.00 Tea Break)	**Basics of Remote sensing :** ➢ Basic Principles of Remote sensing ➢ Importance/Role of Remote sensing for urban local bodies ➢ Types and Stages in Remote Sensing Process of applications ➢ Selection of Resolutions of Satellite Images for Remote Sensing applications in ULBs ➢ Types and factors to be considered in extension of town/city spatial planning, land availability & suitability for developments using RS images with **case studies** **Basic concepts of GPS:** ➢ Surveying with Levels, Total stations, GPS, DGPS, Smart stations etc; ➢ Importance/Role of GPS for urban local bodies ➢ Working principles of GPS, Functioning process of GPS system ➢ Types of GPS applications, ➢ Concepts of Map projection system, Coordinates system **Basics of GIS :** ➢ Basic principles of GIS ➢ Importance/Role of GIS ➢ Concept of layers in GIS ➢ Raster and vector maps ➢ Fundamentals of point, line & polygon ➢ Importance of data base	**Prof. P.Nanjundaswamy,** SJCE, Mysore. Mobile-9449264365 Email: pnswamy@yahoo.com
01.45 to 02.30 pm Lunch Break		
2.30 pm to 5.45 pm (04.00 to 04.15 Tea Break)	**Hands on excises on GIS -1** ➢ Introduction of different types of soft wares, Considerations for Selection of type of soft ware ➢ Introduction to QGIS software and its advantages ➢ Geo refereeing of raster, Coordinate system, Map projections	**Sri Mahalingam,** Faculty, Dept.of Geography, University of Mysore. Mobile- 7349615383 Email: mahabose@gmail.com Maha_bose@yahoo.com