ABSTRACT

Geomatics Technology plays a vital role in the development of nations in this century. So, now its time for researchers, decision makers, and academicians to talk about the significance of Geomatics Technology, which can be put into action by various nations for development purpose. To be a developed nation, it is required to develop the rural areas in the various fields related to socio-economic, industrial, village basic facilities, educational infrastructures, etc.

India is a developing country in which 65% of the population is residing in rural sector and rest of the 27% of the population resides in urban areas. To develop the rural areas, it is required to make a structured planning for the infrastructure facilities and development of activities in the rural areas.

Andhra Pradesh is a state, mostly dependent on agriculture and facing a lot of problems in developing the rural areas. The main reason behind it is lack of digital database for rural areas in the form of spatial and non-spatial information at large scale.

This research work shows the power of Geomatics Technology, which helps the planners, communication professionals, decision makers, officials and administrators from different organizations of the state government of Andhra Pradesh to know and examine spatial information by using database stored in ArcGis platform for the development of the rural areas.

For this entire research work Karamchedu Mandal is selected as a study area from Prakasam district, A.P, India.
Planning is only possible when the precise data information is available at suitable place and time. Population and social characteristics create a complex situation in Indian economy for planning; therefore, it is required to create proper digital database at village level.

This study was carried for the rural development in Prakasam district, A.P. India to express the integration of spatial and non-spatial data of the villages in Karamchedu Mandal with the help of Geomatics Technology.

Village Information System for Karamchedu Mandal will help the planners, geographers, decision makers, academicians and government officers to better evaluate and understand spatial and non-spatial data by creating graphical displays and retrieve all the information stored in the database.

For the entire database ERDAS and ArcGis software were used to generate topographic, thematic and spatial data corresponding to layers including settlements, roads, topography, land use/land cover, geomorphology, soil, etc., from high resolution satellite data IRS-P6 LISS-IV MX, Survey of India topomaps, existing datasets, and field data. An user-friendly decision support system has been developed for Karamchedu Mandal using Visual Basic 6.0 software.