

# Opportunities and Challenges of Geospatial (Geomatics/Surveying) Education in Nepal

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## SUMMARY

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Abstract:

As a history of surveying education in Nepal, the formal surveying training education started from survey training center since 1968. The school of Geomatics (SOG), established in 1999 and it started in Diploma in Survey Engineering from 2001. The Himalayan College of Geomatic Engineering and Land Resource Management (GIT), established in 2004 and it started Bachelor of Geomatic Engineering from 2005 affiliated with Purbanchal University. Kathmandu University and Land Management Training Center (LMTC) jointly started BE in Geomatics Engineering from 2007 and Tribhuvan University (TU), Institute of Engineering (IOE), Western Regional Campus (WRC), Pokhara started of BE in Geomatics Engineering from 2012. Kathmandu Forestry College (KAFCOL) started MSc in GIS course affiliated with University of Salzburg, Austria from 2012 and Kathmandu University and LMTC jointly started Master in Land Administration Course from 2013.

Geospatial/Geomatics education is fast growing discipline education which integrates acquiring, storing, modeling, analysis, retrieving, transforming, displaying and management of spatially data from different sources of airborne and satellite based spatial data. The courses of Geomatics education are Computer Science, Cartography, Topography, Astronomy, Geodesy, Photogrammetry, Remote Sensing, Global Positioning System (GPS), and Geographical Information System (GIS) etc. Geomatics education is the most technological education in

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surveying and mapping field. In recent year Global Navigation Satellite System (GNSS) widely used in monitoring the earth surface like as tectonic plate as an earthquake purpose, control point monitoring as a mapping and surveying purpose. After Gorkha earthquake 2015, Global Positioning System (GPS) is the continue observation for monitoring the earth surface as a shifted of earth surface. So, Geomatics education is highly demanded in the Nepal as well as in world.

At the starting time, surveying education as a training course, when colleges and universities are established then Geospatial education is started as an academic course. The main objectives of this courses are to produce the qualified academic manpower in Geomatic engineering field; to phase-out the training manpower replace from academic manpower; to production the competent professionals in the field of surveying and mapping; and to conduction and promotion of skill, knowledge, research and development activities in the field of Geomatics engineering. This education has a broad range of employment opportunities as well as offering challenging research, innovation and technical problems in a vast range of Geomatics engineering.