DIGITAL LAND SURVEYING AND MAPPING (DLS&M)

PROF. JAYANTA KUMAR GHOSH
Department of Civil Engineering
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TYPE OF COURSE: Rerun | Elective | UG
COURSE DURATION : 8 weeks (21 Feb' 22 - 15 Apr' 22)
EXAM DATE : 23 Apr 2022

PRE-REQUISITES : Basics of Physics and mathematics upto 12th standard and familiarity with use of computer

INTENDED AUDIENCE : Diploma/Degree students in Civil Engineering/Geo-spatial technology; Master/Doctoral students in Geomatics/Geospatial technology; Field surveyors; Professional persons dealing with Land surveying.

INDUSTRIES APPLICABLE TO : http://dir.indiamart.com/impcat/topographicsurvey- services.html

COURSE OUTLINE :
The objective of the course is to provide basics of digital surveying and mapping of earth surface using total station, GPS and mapping software. The course starts with introduction to land surveying followed by fundamentals of total station and its working & measurements for land surveying. Then, fundamentals, working & measurements using GPS for land surveying will be discussed. Followed by mapping fundamentals, digital surveying procedure, working, data reduction etc. Finally, the course will deals with working and demonstration of a digital land surveying and mapping of an area.
This course will uncover all the major topics in pericyclic reactions and organic photochemistry. In addition to lectures there will be tutorial sessions and assignments in this course.

ABOUT INSTRUCTOR :
Prof. Jayanta Kumar Ghosh is working as Associate Professor in the Civil Engineering Department (Geomatics Engineering Group) of Indian Institute of Technology Roorkee. He is engaged in teaching, research and consultancy works in Geomatics engineering for more than 31 years. He is pioneer in introducing courses on GPS surveying in the UG & PG curriculum of Engineering education in India, since 1999. He has conducted many short term courses on Surveying for the building professionals as early as 2000. He has published TWO books on Surveying – Elementary Engineering Surveying and Introduction to GPS Surveying. He is member of different National and International technical associations.

COURSE PLAN :

Week 1**:** Fundamentals of Land Surveying & GPS

Week 2**:** Global Positioning System (GPS)

Week 3**:** Global Positioning System (GPS)

Week 4**:** TOTAL STATION(TS)

Week 5**:** TS & DIGITAL LAND SURVEYING (DLS)

Week 6**:** DLS& DIGITAL MAPPING (DM)

Week 7**:** DM & DIGITAL DATA MANIPULATION (DDM)

Week 8**:** DIGITAL LAND SURVEYING AND MAPPING (DLS&M)