GEOMORPHOLOGY

PROF. PITAMBAR PATI
Department of Earth Sciences
IIT Roorkee

TYPE OF COURSE : Rerun | Core | PG
COURSE DURATION : 12 weeks (24 Jan' 22 - 15 Apr' 22)
EXAM DATE : 24 Apr 2022


INTENDED AUDIENCE : Civil Engineering

INDUSTRIES APPLICABLE TO : All companies that deals with Civil infrastructure development

COURSE OUTLINE :
Geomorphology deals with the activities of different natural surface and subsurface agents engaged in removal of old and formation of new landforms on the earth’s surface. In modern days geomorphic evaluation of each and every area is utmost important for sustainable development. It helps in many fields such as groundwater exploration and storage, flood control, waste disposal, smart city development, oil and natural gas exploration, infrastructure development etc.

ABOUT INSTRUCTOR :
Prof. Pitambar Pati completed his Ph.D in 2008 from IIT Roorkee and working as a geologist in Geological Survey on India up to 2012. He has five years of industrial work experience in Geological Survey of India and more than six years of teaching experience as assistant professor of this institute since 2013. The instructor is working as Associate Professor in the Department of Earth Sciences in IIT Roorkee at present. The instructor was shortlisted among the outstanding teachers list of the institute in 2018 in PG level.

COURSE PLAN :
Week 1: Introduction to Geomorphology
Week 2: Weathering
Week 3: Mass wasting processes – classification and hillslope evolution
Week 4: Fluvial Geomorphology
Week 5: Desert Geomorphology
Week 6: Glacial Geomorphology
Week 7: Coastal geomorphology
Week 8: Tectonic Geomorphology
Week 9: Seismic Geomorphology
Week 10: Exploration geomorphology
Week 11: Engineering geomorphology
Week 12: Geomorphological mapping