

Master Advanced GIS with Point Cloud Technology

with WebODM, CloudCompare, Potree, QSWAT+ & GitHub

Drone Photogrammetry · LiDAR Processing · Hydrological Modelling — Survey to Web Deployment



BIM MANTRA
ACADEMY

70

DAYS
Duration

5

MODULES
Topics

3

CAPSTONE
Projects

INR 30,000

INR 43,000
30% OFF

Software & Tools Covered

WebODM	Drone photogrammetry — orthophoto, DSM, DTM & point cloud generation
CloudCompare	LiDAR point cloud cleaning, classification & analysis
Potree	Web-based interactive 3D point cloud visualisation
VS Code + GitHub	Code editing, version control & GitHub Pages web hosting
QSWAT+ / SWAT+	Watershed delineation & hydrological modelling

What's Included

Live Online Classes Streamed on BIM Mantra platform — attend from anywhere	Industry Expert Faculty Taught by professionals from top GIS & survey firms
Hands-On Projects Real drone & LiDAR datasets used in every module	Placement Assistance CV prep & connections to hiring firms
Mock Interview Prep Role-specific sessions for GIS & survey positions	Certificate of Completion Industry-recognised program completion certificate

Curriculum — 5 In-Depth Modules Across 2 Tracks

TRACK 1 · Drone Photogrammetry & Point Cloud Processing

01 WebODM for Point Cloud Generation

- Installing WebODM & interface overview
- Creating and exporting orthophoto
- Generating DSM, DTM & point cloud
- Mesh, textured model & quality settings

02 CloudCompare for LiDAR Processing

- CloudCompare interface & point cloud cleaning
- Classification, filtering & analysis
- Registration, alignment & integration
- Exporting to other platforms

03 Potree Point Cloud Viewer

- Web-based point cloud visualisation intro
- Installing Potree & converting data
- Potree viewer basics & navigation
- Advanced Potree features

04 VS Code & GitHub Hosting

- Introduction to Git and GitHub
- Git installation, setup & basic commands
- Working with repositories
- GitHub Pages hosting & deployment

TRACK 2 · Web Deployment & Hydrological Modelling

05 QSWAT+ for Hydrological Modelling

- Introduction to hydrology & installing QSWAT+
- Input data preparation & watershed delineation
- HRU generation & weather data integration
- Running SWAT+ & output analysis

Capstone Portfolio Projects

Capstone 01	Drone Survey to Web Viewer Process real drone imagery in WebODM, export point cloud, host live on Potree via GitHub Pages.
Capstone 02	LiDAR Classification & Analysis Report Import LiDAR data into CloudCompare, clean and classify, then export DEM and full analysis report.
Capstone 03	Watershed Hydrological Model Run a full QSWAT+ watershed model — HRU delineation, SWAT+ simulation, output analysis & maps.

Each project delivers: Point cloud dataset • 3D web viewer • Analysis report • PDF portfolio package

Course Fees

Program	Duration	Mode	Projects	Fee
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EMI options available. Prerequisite: Basic GIS knowledge or 1+ year field experience. Offer valid for limited seats — enrol at www.bimmantra.com