

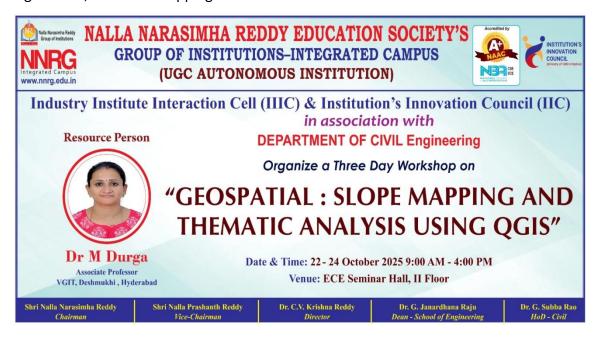


Industry Institute Interaction (IIIC) and Institution's Innovation Council (IIC) 24-10-2025

A report on three day workshop "QGIS: Slope Mapping and Thematic Analysis using QGIS"

The session began on 22nd Oct at 10AM with an introduction of the Resource Person Dr M Durga, Associate Professor, Vignan Institute of Technology & Science (VITS), Hyderabad. A total of 46 Civil engg III & IV year students and 04 faculty attended the workshops.

Aim of the Workshop: Understanding coordinate systems, projections, and spatial data formats, Vector and raster data handling, Map creation, georeferencing, and digitization, Thematic mapping etc.



The workshop is designed to help the Civil engg students of both III and IV year to understand various tools of Geospatial: Slope Mapping and Thematic Analysis using QGIS and its applications in Civil Engg field. Throughout the sessions, the Resource Person Dr M Durga enlightened about QGIS related applications.

Session Overview: This workshop was conducted a comprehensive series of sessions on **QGIS**, an open-source Geographic Information System software. The sessions were designed to build both **conceptual understanding and practical proficiency** among faculty members and students. The following key topics were explained in the three days workshop:

- Introduction to GIS and Remote Sensing concepts
- Overview and installation of QGIS software
- Understanding coordinate systems, projections, and spatial data formats
- Vector and raster data handling
- Map creation, georeferencing, and digitization
- Thematic mapping and data visualization
- Spatial analysis tools (buffering, overlay, and querying)
- Integration of GPS data and field mapping exercises
- Application of QGIS in Civil Engineering fields like water resources, transportation, and land use planning

Hands-on training sessions were included, where participants performed exercises such as creating base maps, analyzing spatial data, and producing professional-quality thematic maps.

Outcome of the Session: The workshop provided participants with:

- Fundamental knowledge of GIS and QGIS functionalities.
- Hands-on experience in using QGIS for real-time civil engineering applications.
- Improved capacity to integrate GIS tools in academic and research projects.
- Motivation to apply QGIS for data-driven decision-making in planning and resource management.

Participants expressed appreciation for the clarity, expertise, and interactive teaching styleof Resource Person, which greatly enhanced their learning experience.

Feedback and Remarks: The sessions by the resource person were highly informative, interactive, and practical. The participants commended the resource person for explaining complex GIS concepts in a simple manner and for providing valuable insights into the real-world applications of QGIS in civil and environmental engineering.

The Department extended heartfelt thanks to Dr. M.Durga for their valuable contribution and invited them for future collaborations in GIS-based research and training programs.













The session concluded with a recap of the key concepts like tools of Primavera P6 followed by a feedback of students and vote of thanks on 23^{rd} Aug 2015 at 4.00 PM.

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HOD-CE

Dr G JANARDHANA RAJU

Dean-SoE & Convener-IIC