

G. COMPLETED PROJECTS AND PROGRAMMES

1. DIGITAL GEOSPATIAL DATA GENERATION AND TERRESTRIAL SCANNING FOR 3D RECONSTRUCTION OF HERITAGE SITE AT HAMPI

Project Investigator : Dr. U.T.Vijay
Budget & Funding Agency : Rs. 89,53,000/- DST, GOI
Duration : 3 years (2013-14 to 2016- 2017)

Background:

The Council has taken up this project under Indian Digital Heritage(IDH) programme initiated by the Department of Science and Technology, GOI. The main objective of this project is to demonstrate and document a process by which critical and valuable archaeological, cultural and heritage information can be captured and measured from using 3D Laser Scanning technologies in conjunction with Geo-spatial technologies, which would be helpful in virtual tourism, restoration and reconstruction of heritage sites, and, also how these extracted information, can substantially enhance understanding and knowledge about archaeological and cultural aspects of heritage sites.

Objectives:

- Laser scanning and 3D Modeling of 50 world heritage monuments by using Terrestrial Laser scanner
- Creation of high resolution spatial data base (2D) for core area of Hampi heritage site

Progress:

The execution of the project has been carried by initiating the following activities.

- 3D Laser scanning of 80 World Heritage Monuments including post processing, 3Dmodelling and generation of 3D mesh data and CAD drawings has been completed
- Generation of high resolution 2D maps on Hampi core area has also been completed on various themes such as Villages, Cadastral boundary, Roads, LU/LC, Drainage, water bodies using High resolution (0.6M) Satellite imagery and SOI topo-sheets.
- GPS survey, Photography and Data collection of 56 world heritage monuments along with infrastructure facilities (Drinking water, Education, Health, Roads, Banks, Hotels, etc.) of Hampi has been completed.
- Project Completion Report has been prepared and is due for submission

- Initiated the process with the Department of Archaeology, GOK and ASI, GOI to take up the 3D Laser scanning of other important Heritage monuments of Karnataka state under Karnataka Digital Heritage(KDH) using Geo-spatial and 3D Laser scanning technologies”.
- 3D Laser scanning of IISc main building has been completed and Post processing & Generation of 3D Point cloud, 3D Mesh Model and CAD drawing is under progress.

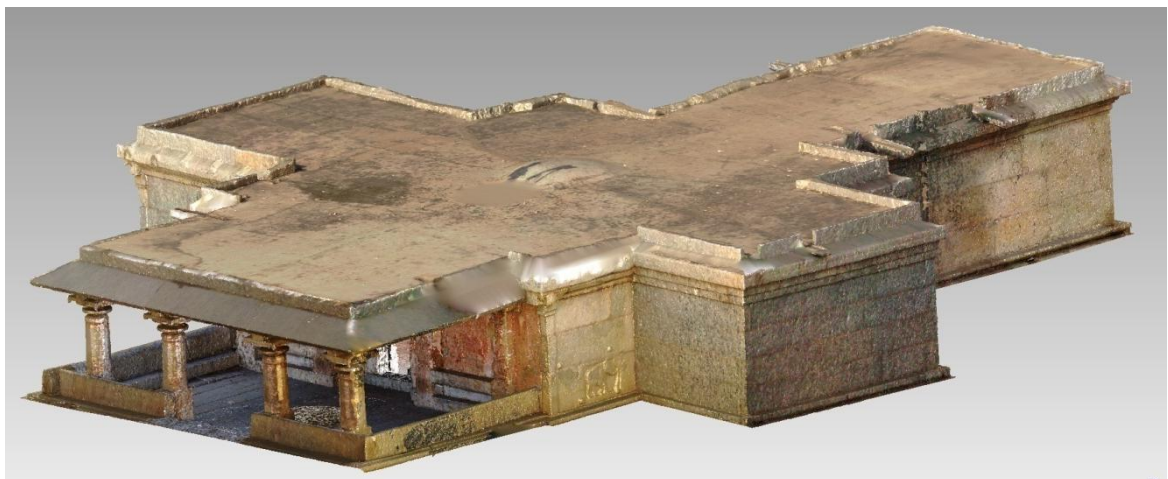
3D LASER SCANNING OUTPUTS



3D Point cloud data of Lotus Mahal in Hampi



3D Laser scanning of Elephant Stable in Hampi



3D Mesh Model of Jain Temple in Anegondi