

## **Bhuvan: Gateway to Geospatial world**

Bhuvan is an online Geoportal launched in 2009 and started by providing images and map visualization services of the Indian subcontinent. Since then, it has diversified into versatile viewing platform with capabilities such as providing 2D/2.5D/3D photo-realistic textured pictures draped on image-based footprints providing a unique viewing/animation experience, full-fledged interactive thematic services and free data downloads from National Open Earth Observation Data Archive (NOEDA). The website is supported with information from 1000 weather stations and has wide range of administrative and land services vector layers. More than 20,000 unique visitors logon to Bhuvan every month and about 2.5GB of data transfer takes place every day. So far about 2,60,000 free products are downloaded by users across the globe.

Bhuvan has initiated many application-centric projects with various ministries in the form of proving geospatial services and some of the important are

- Realized State Geoportals of 10 Indian States
- Bhuvan-NUIS portal has Master plans prepared by respective State/ District level urban local bodies of Ministry of Urban Development.
- Under Integrated Watershed Management Programme, Dept of Land Resources MoRD is likely to use Bhuvan for planning and monitoring .
- Bhuvan-Panchayat for decentralized planning at panchayat level through Ministry of Panchayat Raj.
- State Forest Departments of Karnataka and Himachal have taken up forest applications on Bhuvan.

Bhuvan Geoportal has rendered exemplary service by providing near real-time disaster support to NDRF in Uttarakhand Floods in 2013. Through its crowd sourcing initiative it has attracted large number of users and nearly 19,000 point field information were fed by public directly to the Bhuvan portal. Significant contributions were made during HudHud Cyclone impact in Andhra Pradesh, Phyllin Cyclone, J&K Floods and forest fires in Nagarahole and Bandipur, to name a few.

To further improve response time, Bhuvan has implemented distributed computer architecture with 4 additional servers distributed in different regions in country.

### **Training on Bhuvan**

The two days training on Bhuvan will enable participants to familiarize with entire functionalities and utilities of Bhuvan, increase awareness on Bhuvan, share services and collaborative applications, initiate government and other

organizations to collaborate with Bhuvan and attract Public/Academicians to participate in crowd sourcing.

### **Who can Apply?**

In service officials from Central/State Governments, PSU, Autonomous Organizations, Private / NGOs and faculty from Academic institutions, having Bachelor's Degree can apply. Students and Research Scholars from Academic Institutions can also attend by forwarding sponsorship form duly attested by research guide/professor. However, sponsorship is not required for locals of Hyderabad.

### **Course Content:**

The training comprises of an overview of all the functionalities on Bhuvan like Visualization, Data down load, services provided, Map services, crowd sourcing, API and Applications carried out for Ministries & State Government departments and Disaster Support Services on Bhuvan etc., including Hands-on exposure on Bhuvan portal.

### **How to Apply:**

1. There is no fee for attending the 2-days training. However, the TA/DA and local conveyance are to be met by participants.
2. Those who are interested can register for training through on-line registration. The admissions will be on first come first serves basis. Please download Application and Sponsorship form available in this website for use.
3. For outstation participants, accommodation can be provided at NRSC Guest House-II located inside the campus on twin sharing basis @ Rs. 35/- per day per person on submission of sponsorship certificate.
4. The hard copies of the duly filled in Application and Original sponsorship forms can be submitted while joining the course in person. Please send scanned copies of application & sponsorship forms by email to **[chandrasekhar\\_p@nrsc.gov.in](mailto:chandrasekhar_p@nrsc.gov.in)** / **[training@nrsc.gov.in](mailto:training@nrsc.gov.in)** (attachments size not to exceed 2 MB)
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