



भारत सरकार
GOVERNMENT OF INDIA
भारतीय भूवैज्ञानिक सर्वेक्षण प्रशिक्षण संस्थान
GEOLOGICAL SURVEY OF INDIA TRAINING INSTITUTE
हैदराबाद
Hyderabad



खनिज अन्वेषण के जी 2 चरण हेतु सर्पेक का उपयोग करते हुए
3-डी मॉडलिंग पर प्रशिक्षण
(3 अप्रैल से 13 अप्रैल, 2019)

**TRAINING ON 3-D MODELLING USING SURPAC FOR G2 STAGE
OF MINERAL EXPLORATION
(3rd April to 13th April, 2019)**

COURSE REPORT

The training on 3-D modeling using Surpac software for G2 stage of mineral exploration was inaugurated on the 3rd April, 2019 by Shri Ch. Venkateswara Rao, Dy. Director General & Head Mission - V, GSITI in the august presence of Shri P. S. Anil Kumar, Dy. Director General, RTD & FTC, GSITI, Dr. Taraknath Pal, Director (TC) and other faculty members of the GSITI. The training programme was conducted a part of the regular FSP proposals and VAQ recommendations at CGMT, GSITI, Hyderabad from 3rd April 2019 to 13th April 2019.

In conformation with the MMDR amendment act 2015 and the thrust for G2 stage investigations by GSI, the Surpac software was procured by GSITI to empower its Officers associated with mineral exploration activities for utilising the store house of data available with GSI for arriving at future prospecting strategies and augmentation of resources.

This course was envisaged for imparting training to the participants in the capture & visualisation of collated geological subsurface information for creation of model of the mineralised area of interest. The resulting model would serve as exploratory tool for resource estimation, exploration and sustainable exploitation.

Course content:

The course included:

- Fundamentals of Geovia Surpac
- Creation and editing of point, segment and string data
- Importing survey data into Surpac
- DTM concepts and its application
- Geological Database
- Drill hole composite
- Statistical modeling and generation of variograms
- Solid Modeling
- Block Modeling
- Reserve Estimation
- Slice plan or sectioning of block model

After covering the basic aspects of the software using the standard data sets, the participants were exposed to the different utilities of the software using the data sets brought by the respective participants, especially for resource estimation / block modeling studies, which they carried out as a part of their project work. Subsequently each participant delivered a presentation on the project work carried out by them, which were duly evaluated.

Project Work:

Participants carried out project work utilizing various data processing and modeling techniques acquired during the training programme and made presentation on the same.

Course Material:

The participants were provided with tutorial datasets, soft copy help files and screen capture videos covering different aspects of the software covered as a part of the training programme.

Course Coordinator: Shri R. Balaji, Director, CGMT, GSITI, Hyderabad.

Faculty:

Core Faculty from CGMT, GSITI	Guest Faculty
Smt. Nidhi Misra, Senior Geologist	Shri Kanishka Dutta Principal Geologist, Tata Steel Ltd., Jamshedpur
Shri Amrit Chandan Patra, Senior Geologist	Dr. Hanuma Prasad Modali, CEO, Geomysore Services Pvt. Ltd. (GMSI)
Core Faculty from GSITI	
Shri Harish Mistry, Senior Geologist	Shri C. Karthikeyan Geologist, Geomysore Services Pvt. Ltd. (GMSI)
	Shri Amjad Basha, EDS Technologies Pvt. Ltd.

List of Participants:

Sl. no.	Name	Designation	Employee ID	Organization/Place of Posting
1	Ms. Nusrat Eliyas	Senior Geologist	120577	SU:P, H & HP, NR, GSI, Chandigarh
2	Shri Abhishek Kumar Singh	Geologist	121406	SU:P, H & HP, NR, GSI, Chandigarh
3	Shri Shiva Reddy	Geologist	122267	SU:P, H & HP, NR, GSI, Chandigarh
4	Smt. Aditi Das	Senior Geologist	120285	SU: Jharkhand, ER, GSI, Ranchi
5	Shri Biswajit Bharali	Geologist	121910	SU: Jharkhand, ER, GSI, Ranchi
6	Shri Ringphami Awungshi	Geologist	121545	SU: Bihar, ER, GSI, Patna
7	Ms. Maya Tripathi	Geologist	121609	SU: Odisha, ER, GSI, Bhubaneswar

Sl. no.	Name	Designation	Employee ID	Organization/Place of Posting
8	Shri Mukut Singha Konwar	Geologist	121467	SU: K & G, SR, GSI, Bangalore
9	Shri Ambikesh	Geologist	121895	SU: AP, SR, GSI, Hyderabad
10	Shri Raghunath Mishra	Geologist	122308	SU: AP, SR, GSI, Hyderabad
11	Shri Raghupathi Chanagoni	Senior Geologist	120652	SU: Telangana, SR, GSI, Hyderabad
12	Ms. Avantika Singh	Geologist	121797	SU: Telangana, SR, GSI, Hyderabad
13	Shri D. Ravichandran	Senior Geologist	121170	SU: TNP, SR, GSI, Chennai

Feedback:

The trainees in their feedback appreciated the efforts of the faculty in making them understand the concepts and its application and indicated that the training was well organized and systematic. They lauded the faculty for clarity in demonstrations and practical exercises. They lauded the guest faculties Shri Kanishka Dutta, Principal Geologist from M/s. Tata Steel Ltd., who helped in understanding the most essential concepts of Geo-statistics and its application in mineral exploration and Shri Hanuma Prasad Modali, CEO, GMSI for explaining the various entities from exploration to mining in Indian scenario.

The participants stated that the course will prove to be useful in their present as well as future assignments. Overall the participants expressed their satisfaction towards the content, delivery and the cooperation extended by the faculty during the course.



Inauguration of the course by Shri Ch. Venkateswara Rao, Dy. Director General & Head Mission-V, GSITI



Lecture by Shri Kanishka Datta, Principal Geologist, Tata Steel Ltd., Jamshedpur



Lecture by Dr. Hanuma Prasad Modali, CEO, GMSI



Presentation by the trainees on the project work carried out as a part of the training course



Valediction of the course by Shri Ch. Venkateswara Rao, Dy. Director General & Head M-V, GSITI



Certificate distribution to the candidates after successful completion of the training course



Group photo of faculty and participants