

**Program Schedule**

**2<sup>nd</sup> Indian Near Surface Geophysics Conference & Exhibition**  
**November 7-8, The Suryaa, MMA Rd, New Friends Colony, New Delhi- 110025**

**Hall Name: Ball Room**

**Day-1, November 7, 2023**

0800-0930	Registration with Welcome Tea
0930-1100 November 7	<p><b>Inaugural Function</b></p> <ul style="list-style-type: none"> <li>• Welcome Address by Mr. Marcel van Loon, Executive Director, EAGE Holding BV</li> <li>• Address by TBD</li> <li>• Address by TBD</li> <li>• Address by TBD</li> <li>• Address by Shri Ashwini Vaishnaw, Minister of Railways, Communications, and Electronics &amp; Information Technology*</li> <li>• Address by Shri Gajendra Singh Shekhawat, Union Cabinet Minister, Ministry of Jal Shakti*</li> <li>• Global Near Surface Geophysics Award Ceremony (by Aqua Foundation)</li> <li>• Vote of thanks by Dr. Sanjay Rana, Chairman, AF Academy</li> </ul>
1100-1130	Inauguration of Display area with Tea Break
1130-1300 November 7	<p><b>Technical Session-1</b>  <b>Theme: Engineering Geophysics</b>  <b>Session Chair: Dr. V M Tiwari</b>, Ex. Director &amp; Outstanding Scientist, CSIR-NGRI  <b>Shri S L Kapil</b>, Ex. Executive Director, NHPC &amp; President ISEG</p> <ol style="list-style-type: none"> <li>1. Enhancing large-scale tunnel pre-investigations in the Indian Himalayas through airborne geoscanning- <i>Dr. A. A. Pfaffhuber, CEO, Emerald Geomodelling</i></li> <li>2. Role of airborne magnetics in delineating weak zones vulnerable for tunneling in hilly region: joint interpretation of airborne magnetic and EM data- <i>Dr. Akhil Mishra, Scientist, CSIR – NGRI</i></li> <li>3. MASW-based Geophysical Testing and Bearing Capacity Assessment at Bridge Sites from Dolabari to Jamugurihat, Assam- <i>Dr. Arindam Dey, Associate Prof., Dept. of Civil Engineering &amp; CDMR, IIT Guwahati</i></li> <li>4. Enhancing Deep Information in Algerian Seismic data, Using Tomography Refraction statics- <i>Ms. Khedidja Achouri, Geophysical Engineer, Sonatrach</i></li> <li>5. Integration of wireless reflection seismic using a mechanized impact source into machine driven rock tunneling- <i>Mr. Kripal Choudhary, Geophysicist / Business Manager - TSP, Amberg</i></li> </ol>
1300-1400	Visit to Display Area with Lunch Break & Poster Session-1
1400-1530 November 7	<p><b>Technical Session-2</b>  <b>Theme- Water Resources Geophysics</b>  <b>Session Chair: Dr. P C Chandra</b>, Ex Reg. Director, CGWB &amp; Ex Consultant, The World Bank  <b>Dr. Shakeel Ahmed</b>, Professor, Maulana Azad National Urdu University</p> <ol style="list-style-type: none"> <li>1. sTEM: A next generation single site Transient Electro-Magnetic instrument for groundwater exploration- <i>Dr. Esben Auken, CEO, TEMcompany</i></li> <li>2. A 3D ERT and Induced Polarization approach for exploring deep aquifers- <i>Dr. Catherine Truffert, CEO, IRIS Instruments</i></li> <li>3. ERI's limited role for groundwater exploration in hard rock with underground utilities and Micro-gravity – <i>Prof. R. G. Sastry, Emeritus Professor, IIT Roorkee</i></li> <li>4. Application of Resistivity Tomography for Delineation of Sinkholes and Cavities Forming Subterranean Flow- <i>Dr. Subhash Chandra Singh, Rtd. Regional Director, CGWB</i></li> <li>5. Evaluating Vertical Resolution of AEM investigations for Near Surface Mapping- <i>Dr. Subash Chandra, Sr. Principal Scientist, CSIR - NGRI</i></li> </ol>

1530-1600 November 7	<b>Visit to Display Area with Tea Break &amp; Poster Session-2</b>
1600-1745 November 7	<p><b>Technical Session-3</b>  <b>Theme- Mining Geophysics &amp; Water Resources*</b>  <b>Session Chair: Dr. Catherine Truffert</b>, CEO, IRIS Instruments  <b>Dr. Pranaya Sangvai</b>, Executive Director, Samit</p> <ol style="list-style-type: none"> <li>Passive Seismic Technology for Near Surface Investigations- <i>Dr. Nikos Martakis, Chairman &amp; CEO, Seismotech</i></li> <li>Joint application of electromagnetic methods for mineral exploration: case studies- <i>Dr. Nikita Zorin, Sr. Researcher, Nord-West Company</i></li> <li>Exploring the potential of drone-based geophysical survey- <i>Mr. Cyriac Joseph, MD &amp; CEO, Squadrone Infra &amp; Mining Pvt. Ltd.</i></li> <li>Geological modelling and coal resource estimation using integration of 2D seismic and drill core data: A case study from Central India- <i>Dr. Sayan Ghosh, Manager (Geology), Central Mine Planning &amp; Design Institute Ltd.</i></li> <li>Electrical Resistivity Imaging with Borehole data for delineation of surface position of faults and coal seam Incrops- <i>Mr. Manik Jain, Executive Vice President, South West Pinnacle Exploration Ltd.</i></li> <li>*Identification of groundwater potential zones using electrical resistivity tomography technique- <i>Dr. Avtar Singh Jasrotia, HOD, Dept of Remote Sensing &amp; GIS, University of Jammu</i></li> </ol>

**Day-2, November 8, 2023**

0930-1100 November 8	<b>Visit to Display Area with Tea Break &amp; Poster Session-3</b>
1100-1130	<p><b>Technical Session-4</b>  <b>Theme: Mining Geophysics</b>  <b>Session Chair: Dr. A K Chaturvedi</b>, Ex. Additional Director, Atomic Minerals Directorate  <b>Dr. R.G. Sastri</b>, Emeritus Professor, IIT Roorkee</p> <ol style="list-style-type: none"> <li>Role of Multidisciplinary Geophysical Surveys GS in Mineral investigations –A cost benefit analysis for GS- <i>Dr. P V S RAJU, Chief Scientist, CSIR - NGRI</i></li> <li>Potash Mineralogical Estimates by Well-Logs in Hansera Evaporite Formations of Bikaner-Nagaur Basin- <i>Mr. G S Dhami, General Manager, MECL</i></li> <li>Gravity magnetic appraisal of the SandurSuperTerrane, Dharwar Craton, India for Shallow crustal architecture and mineralization- <i>Mr. Deepak Maurya, Assistant Geophysicist, GSI</i></li> <li>Geophysical evidences of concealed east coast sedimentary basin, Kavali-Nellore areas of Andhra Pradesh, South India- <i>Dr. Bangaru Babu Siriboyina, Superintending Geophysicist, GSI</i></li> <li>Delineation of Basement Structure of Alluvial Mega Fans using satellite gravity and multispectral data- <i>Ms. Swati Singh, Scientist - SE, NRSC</i></li> </ol>
1130-1300 November 8	<b>Visit to Display Area with Tea Break &amp; Poster Session-3</b>
1130-1300 November 8	<p><b>Technical Session-5</b>  <b>Theme- Machine Learning &amp; ERI*</b>  <b>Session Chair: Dr. A. A. Pfaffhuber</b>, CEO, EMerald Geomodelling  <b>Prof Satybir Teotia</b>, HOD, Geophysics (Retd.)- Kurukshetra University</p> <ol style="list-style-type: none"> <li>A Machine Learning-based Prediction of Pore Pressure from Geophysical Logs: Hinkurangi Tuaheni Zone- <i>Ms. Goutami Das, Sr. Research Fellow, Dept. of Applied Geophysics, IIT ISM Dhanbad</i></li> <li>Monitoring of CO2 Sequestration through Seismic Inversion using Simulated Annealing: Insight from Synthetic Data Analysis- <i>Ms. G Hema, PhD Scholar, Dept. of Geophysics, BHU</i></li> </ol>

	<ol style="list-style-type: none"> <li>Deep learning CNNs for Accurate Coastal Saline Water Delineation using HLEM data- <i>Mr. Kuldeep Sarkar, Sr. Research Fellow, Dept. of Applied Geophysics, IIT ISM Dhanbad</i></li> <li>DispersioNET: Joint inversion of Rayleigh-wave multimode phase velocity dispersion curves using convolutional neural networks- <i>Mr. Rohan Sharma, IIT ISM Dhanbad</i></li> <li>*Goelectrical resistivity survey and case studies in India- <i>Dr. D. C. Naskar, Retd. Director, GSI</i></li> </ol>
<b>1300-1400</b>	<b>Visit to Display Area with Lunch Break &amp; Poster Session-4</b>
<b>1400-1545 November 8</b>	<p><b>Technical Session-6</b> <b>Theme- Archaeological Geophysics, Geohazards and Disaster Mitigation</b> <b>Session Chair: Dr. Gopal Dhawan, Founder &amp; Chairman- DDAG Pvt. Ltd.</b> <b>Dr. Paras Pujari, Senior Principal Scientist- CSIR-NEERI</b></p> <ol style="list-style-type: none"> <li>Buried stepwell detection for cultural heritage restoration &amp; groundwater rejuvenation using non-destructive remote sensing and geophysical techniques- <i>Mr. Tushar Wankhede, Scientist/ Engineer - SE, NRSC</i></li> <li>Application of Geophysics to delineate Buried/ Paleochannel, Luhri Stage –II HEP (172MW)- <i>Dr. Naveen Kumar Kanyan, Manager (Geology), SJVN</i></li> <li>Geophysical study of a historical small suburban landfill site- <i>Mr. G. J. Street, Director, Loupe Geophysics</i></li> <li>Site characterization of few broadband seismic stations in Gujarat region, western India using microtremors – <i>Mr. Harsh Limbachiya, Scientist - B, ISR</i></li> <li>Magnetotelluric study of an intraplate seismic zone in the Eastern part of the Saurashtra region, Gujarat, India- <i>Mr. Dilip Singh Kushwaha, Scientist - B, ISR</i></li> <li>The newly revealed aspects of Himalayan tectonic-geodynamic evolution now require geophysical authentication- <i>Prof. Subrata Ghosh, Head (Geology), Durgapur Govt. College</i></li> </ol>
<b>1545-1615</b>	<b>Visit to Display Area with Tea Break &amp; Poster Session-5</b>
<b>1615-1730 November 8</b>	<p><b>Panel Discussion- A future look on the potential for Geophysical Investigation Methods</b> <b>Concluding session &amp; certificate distribution</b></p>
<b>Poster Presentations</b>	
<p><b>Theme: Engineering Geophysics &amp; Mining Geophysics</b> <b>Poster Session-1, November 7<sup>th</sup>, 1300-1400 Hrs</b></p> <ol style="list-style-type: none"> <li>Investigation of lateral and terminal moraines of Drang Drung glacier using Electrical Resistivity Tomography technique- <i>Mr. Suhail Ahmad, PhD Scholar, University of Jammu</i></li> <li>Study of the permafrost anisotropy using the controlled source radiomagnetotellurics and electrical resistivity tomography- <i>Dr. Sudha Agrahari, Assistant Professor, Dept. of Geology &amp; Geophysics, IIT Kharagpur</i></li> <li>Accuracy Analysis of Shear Wave Velocity Profile by Semicircular MASW and Seismic Downhole Tests- <i>Mr. Prabhakar Vishwakarma, Research Scholar, IIT Gandinagar</i></li> <li>Evaluation of optimum offset for MASW survey: A Novel weight drop seismic source signature characteristics- <i>Mr. Abul Aas, Research Fellow, Rajiv Gandhi Institute of Petroleum Technology</i></li> <li>Regression based Correlation between SPT-N and Goelectrical data of subsurface in India- <i>Ms. Aakriti Sharma, Research Scholar, IIT Ropar</i></li> <li>Search of Kimberlite Clan Rocks in Central Indian Diamond Province: Constraints from Aeromagnetic Data- <i>Dr. Abhijeet Mukherjee, General Manager, NMDC</i></li> </ol>	

**Theme: Engineering Geophysics & Water Resources Geophysics**

**Poster Session-2, November 7<sup>th</sup>, 1530-1600 Hrs**

7. Geophysical Investigations for Health Assessment of Embankment Dams- *Dr. Senthil P, Scientist C, CSMRS*
8. Detection of underground utilities for smart city development using non-destructive Ground Penetrating Radar technology- *Mr. Krishna Kumar Yadav, Sr. Research Fellow, Dept. of Petroleum & Geo-engineering, RGIPT*
9. PSO: a swarm-intelligence based optimization algorithm to infer Shear wave velocity variation- *Mr. Prabhakar Kumar, PhD Scholar, IIT Kanpur*
10. Electric field measurement in poor grounding conditions- *Dr. Nikita Zorin, Sr. Researcher, Nord - West Company*
11. Seepage Identification at an Earth Dam using 2D Electrical Resistivity Tomography- *Ms. Paavni Mittal, Geophysicist, PARSAN Overseas Pvt. Ltd.*
12. Identification of weak zones in the tunnel path using seismic refraction tomography- *Mr. Akshay Kumar, Geophysicist, PARSAN Overseas Pvt. Ltd.*
13. Groundwater exploration and pollution assessment of aquifer Southwest of River Wouri, Douala- *Mr. Kevin Zebaze, PhD Scholar, China University of Petroleum*

**Theme: Engineering Geophysics**

**Poster Session-3, November 8<sup>th</sup>, 1100-1130 Hrs**

14. Review on Underwater MASW with respect to Source and Wave Characteristics- *Ms. Asmita Dey, M.Tech. Student, IIT Guwahati (Reserved Paper\*\*-1)*
15. Application of MASW to assess stiffness of mine boundaries surrounded by water bodies- A case study- *Mr. Mayur Kailas Mitkari, Project Associate, CSIR – NEERI ((Reserved Paper\*\*-2)*
16. An integrated approach to detect seepage path using Streaming Potential & Electrical Resistivity in Tailing dam- *Mr. Chendhoor Baskaran, Geophysicist, PARSAN Overseas Pvt. Ltd.*
17. 2D Electrical Resistivity Imaging for Lineament Mapping- *Mr. Shivanshu Kalia, M.Sc. Applied Geophysics, IIT Bombay*

**Theme: Machine Learning**

**Poster Session-4, November 8<sup>th</sup>, 1300-1400 Hrs**

18. Use of Drone-Based Ground Penetrating Radar to Detect Clandestine Tunnels: A Simulation Approach- *Dr. Sanjay Rana, Managing Director, Parsan Overseas Pvt. Ltd.*
19. Generating Signature Library of Ground Penetrating Radar Using Simulation – *Dr. Sanjay Rana, Managing Director, Parsan Overseas Pvt. Ltd.*
20. Estimation of Cole-Cole parameters using simulated annealing - heat bath algorithm- *Ms. Debopriya Das, Jr. Research Scholar, Dept. of Geology & Geophysics, IIT Kharagpur*
21. Deep Learning for Subsurface Conductivity Characterization and Contamination Assessment: A Colorado Wetland Case Study- *Mr. Abhishek Kumar, Sr. Research Fellow, Dept. of Applied Geophysics, IIT ISM Dhanbad*

**Theme: Geohazards and Disaster Mitigation**

**Poster Session-5, November 8<sup>th</sup>, 1530-1600 Hrs**

22. Delineation of resistivity anisotropy of schists using ERT data in the Sighbhum Shear Zone, Ghatshila- *Dr. Sudha Agrahari, Assistant Professor, Dept. of Geology & Geophysics, IIT Kharagpur*
23. Simulation of Seismic Wave Propagation using Spectral-Element Method for Uttarakhand Himalayan Region with SPECFEM3D- *Mr. Vikas Kumar, PhD Scholar, IIT Roorkee*

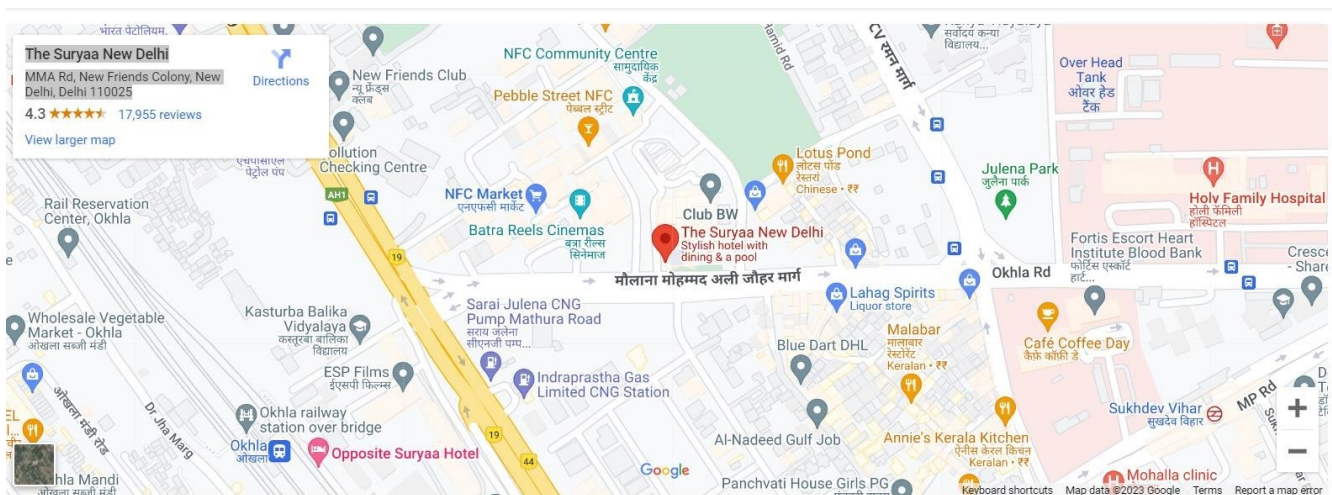
24. Delineation of shear zones using Magnetotellurics in the Eastern Ghats Province, India-  
*Mr. Abhishek Yadav, Research Scholar, Dept. of Geology & Geophysics, IIT Kharagpur*

\*Invited, to be confirmed

\*\*Reserved Paper: To be moved to Oral in case of any last-minute changes

## Venue Map

**The Suryaa, MMA Rd, New Friends Colony, New Delhi, 110025**



[Click here to open navigation link in google maps or copy-paste in your browser.](https://maps.app.goo.gl/X8VpJd89aUa7uRUR8)

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