

TECHNICAL PROGRAM

First International Seminar: EXOCMING, February 7-9, 2018

Organized by
INDIAN SCHOOL OF MINES ALUMNI ASSOCIATION (ISMAA) KOLKATA
CHAPTER
in association with

IIT (ISM) DHANBAD & GEOLOGICAL SURVEY OF INDIA, Kolkata

ON

EXPLORATION OF OIL, GAS, COAL, MINERALS AND GROUND WATER:
MODERN TECHNIQUES AND APPLIANCES

PROGRAMME SCHEDULE: FEBRUARY 6-9, 2018

Venue: Swissotel , Rajarhat, Kolkata

February 6, 2018	
EVENTS	TIMINGS
<ul style="list-style-type: none">• REGISTRATION & ICE BREAKING SESSION,	06:00 PM ONWARDS
February 7, 2018	
EVENTS	TIMINGS
<ul style="list-style-type: none">• REGISTRATION	08:00 AM- 9:30 AM
<ul style="list-style-type: none">• INAUGURAL <ol style="list-style-type: none">1) Invocation Song & Lighting of the Lamp by Chief Guest2) Welcome address: President ISMAA3) Convener's address	09:30 AM – 11:00 AM 09.30 AM - 09.40AM 09.40 AM – 09.50 AM 09.50 AM– 10.00 AM
4) Shri Utpal Bora , Chairman, Org. Committee: <i>Relevance of the Conference.</i>	10.00-10.10
5) Mr. N Kutumba Rao , Director General Geological Survey of India, <i>Exploration by GSI</i>	10.10-10.20
6) Prof. S.P. Banerjee , Chairman, Tech Committee: <i>Range of Technical Papers received.</i>	10.20 -10.30

7) Padmasri Harsh Gupta , Member Atomic Energy Regulatory Board - <i>Geosciences in the service of the Nation</i>	10.30-10.40
8) Address by Guest of Honour, Mr. Scott Caithness , Director-Exploration, Vedanta Group	10.40-10.50
9) Chief Guest's Address.	10.50-11.00
10) Vote of Thanks by the Secretary, ISMAA (Ajay Kumar Das)	11.00-11.05
INAUGURATION OF EXHIBITION by N.Kutumba Rao , Director General Geological Survey of India	11.05 AM-11.15 AM
HIGH TEA	11:15 AM -11:35 AM
<p>February 7, 2018 Technical Session-1 (Policy) Chairman: Padmasri H K Gupta Co-chairman: Dr N K Singh Rapporteur: Dr. Tarit K.Bhattacharya</p> <p>Keynote Address:</p> <ol style="list-style-type: none"> 1) N. K. Singh, Joint Secretary, MoM, <i>Exploration Policy of Government of India</i> 2) Harsh Gupta, <i>Artificial Water Reservoir Triggered Earthquakes and Deep Scientific Drilling.</i> 3) Scott Caithness, Director-Exploration, Vedanta Group: <i>Exploration Strategy in HZL</i> <p>Invited Papers:</p> <ol style="list-style-type: none"> 1) Shivaji Dasgupta : <i>Digitization in Petroleum Exploration and Production: The New Game Changer.</i> <p>Technical Papers:</p> <ol style="list-style-type: none"> 1) Souparna Lahiri: <i>Social License in Mining</i> 2) Asit K Samaddar: <i>Why Shale gas is prime option for us from Energy perspective and the multitasking software to address the related issues.</i> 	11:35 AM – 1:35 PM (120 minutes)

LUNCH	01:35PM - 02:30 PM
<p>February 7, 2018 Technical Session- 2 (Energy: Oil & Gas) Chairman: Sri Utpal Bora Co-chairman: Dr V.M Tiwari Rapporteur: Sri I Barua</p> <p>Keynote Address: 1) Mikhail Varfolomeev, Cheng-Dong Yuan, Dmitrii A. Emelianov, Seyed Saeed Mehrabi-Kalajahi, and Muneer Suwaid (Russia): In-Situ Combustion Technology for EOR: Mechanisms, Ignition and Intensification.</p> <p>Invited paper:</p> <p>1) P. Gopalakrishnan: Impact of Modern Exploration Technologies on Reserves to Production Ratio.</p> <p>Technical Papers: 1) Mintu Bose, Richard Hatala, Gerald J. Gurba (Canada): Advances in the Realm of Exploration Geophysics: The emerging role of Quantum Geo Electrophysics in Exploration for Hydrocarbons, Minerals and Water.</p> <p>2) P. Bora, G. K. Duarah, P. K. Kakoti, Oil India Ltd.: Identification of gas bearing sweet spots within complex reservoirs by integrating modern geophysical measurements-Case Studies of Upper Assam Fields.</p>	<p>2:30 PM – 04:00 PM (90 minutes)</p>
<p>• TEA BREAK</p>	04:00 PM- 04:30 PM
<p>February 7, 2018 Technical Session-2 (Continued) (Energy: Oil & Gas)</p> <p>Chairman: Mr. Richard Hatala Co-chairperson: Dr Cheng-Dong Yuan</p>	<p>04:30 PM – 06.00 PM (90 minutes)</p>

<p>Rapporteur: Sri Tapas Datta</p> <p>Invited Papers:</p> <ol style="list-style-type: none"> 1) Kalachand Sain: <i>Gas Hydrates-Major unconventional Energy Resource for the next generation</i> 2) Rima Chatterjee and Dip Kumar Singha: <i>In-situ Stress Orientation, Prediction of Shear wave velocity and Finite element Stress Modeling: A Case Study from Krishna-Godavari Basin, India</i> <p>Technical papers:</p> <ol style="list-style-type: none"> 1) Suman Paul, M. Ali, and Rima Chatterjee: <i>In-situ Stress Studies for Coal Bed Methane Exploration in South Karanpura Coalfield, India.</i> 2) Ranjit Dutta, Pranjali Saharia, S. Yomdo, P. K. Kakoti, Oil India Ltd.: <i>Management of a Matured Oil Field through Understanding the Challenges: A Case Study from Upper Assam Basin.</i> 3) J.R. Kayal: <i>Hydraulic Fracturing and Microseismicity Monitoring: Global Perspective in Oil Exploration</i> 	
<ul style="list-style-type: none"> • Poster Session • Cultural Programme & DINNER 	<p>6.00 PM – 6.30.00 PM 6.30PM – 9.30 PM</p>

February 8, 2018	
EVENTS	TIMINGS
<p>Technical Session-3 (Ground Water)</p> <p>Chairman: Dr Dipankar Saha Co-Chairman: Prof. Pradip K. Sikdar Rapporteur: Sri Debashis Dhar</p> <p>Keynote Address:</p>	<p>09:30 AM – 11:00 AM (90 minutes)</p>

<p>1) Dipankar Saha: <i>National Programme on Mapping Aquifers and Framing up of Management Plans</i></p> <p>Technical paper:</p> <p>1) Subhash C. Singh, K Paramasivam : <i>Applicability of Resistivity Imaging for Ground water Exploration in in Hard Rock Terrain of Bundelkhand Region of Madhya Pradesh, India</i></p> <p>2) Pradip K Sikdar: <i>Effects of urbanisation on Groundwater Resource</i></p> <p>3) Nilanjana Roychowdhury, Subhojit Bhowmick, Madhurima Joardar, Anirban Biswas, Shibam Mitra, Soma Ghosh, Reshmi Das, Tarit Roychowdhury: <i>Investigation of Groundwater arsenic contamination with special reference to food chain in West Bengal, India: Impact and Mitigation Strategies</i></p> <p>4) Singh T.B.N, Goutam Roy, Kujur Anukaram & Beck Atul : <i>Evolving aquifer management plan through aquifer mapping interventions in parts of Ramgarh, Dhanbad and Bokaro district in Jharkhand state</i></p>	
<p>• TEA BREAK</p>	<p>11:00 AM -11:30 AM</p>
<p>February 8, 2018</p> <p>Technical Session-4 (Continued): (Ground Water)</p> <p>Chairman: Mr. K. C Naik Co-chairman: Prof Tarit Roy Chowdhury Rapporteur: Sri Intazar Alam</p> <p>Invited papers:</p> <p>1) Indrajit G. Roy (Australia): <i>Self-Potential: A low-cost geophysical methods in investigating groundwater and contaminant plume</i></p> <p>2) Md. Shofiqul Islam, Md. Ibrahim, A.K.M. Emranul Hoque Chowdhury, Rafin Hasan, Md. Khalid Hasan, Md. Zahidul Islam, Eshanul Karim, Reashed</p>	<p>11:30 AM – 01:10 PM (100 Minutes)</p>

<p>Kamal Athay, Mohammed Asir Awosaf Cowdhury (Bangladesh): <i>Fresh water bearing zone identification using VES at Shahjalal University of Science & Technology Campus, Sylhet, Bangladesh</i></p> <p>Technical Papers:</p> <p>1) D. C. Naskar, R.L.Regar, Dinesh Gupta, P.C.Das, Manish Chopra: <i>Integrated Geophysical Survey for delineating aquifer zones in Sagar Area, South 24 Parganas, West Bengal</i></p> <p>2) Md. Intazar Alam: <i>Ground Water Contamination Byexploratory Drilling Formineral Exploration- A Case Study of Kolar Gold Field, Karnataka</i></p> <p>3) S.Kumar, A.Agarwal, D.Saha, A.S.Venkatesh, G.Udhaybhanu : <i>A comparative evaluation of ground water quality & its suitability for irrigation utilities in sub basins of Bihar</i></p> <p>4) Vittala, S.S., Reddy, G.R.C, Sooryanarayan, K.R. and Viswanath, K.M., CGWB. <i>Optimal land and water resources planning for sustainable development and management : A case study in an hard rock area of Ankasandra watershed, part of Tumkur, DI, Karnataka.</i></p>	
LUNCH	01:10 PM - 02:00 PM
<p>February 8, 2018 Technical Session-5 (Energy: Hydrocarbons)</p> <p>Chairperson: Prof Maria Jose Jurado Co-chairman: Mr. Shivaji Dasgupta Rapporteur: Sri Asit K Sammadar</p> <p>Invited Papers:</p> <p>1. Maria Jose Jurado (Spain): <i>Borehole geophysical logging: new sensors and innovation for subsurface exploration</i></p>	02:00 PM – 03:20 PM (80 Minutes)

<p>2. Nasima Begum(Bangladesh): <i>A Case Study of Reservoir Parameter Estimation in Norne Oil Field, Norway by using Ensemble Kalman Filter (EnKF)</i></p> <p>Technical paper:</p> <p>1. Baisakhi Das and Rima Chatterjee: <i>Wellbore Stability Modelling for Prediction of Mud Weight in Krishna-Godavari Basin, India</i></p> <p>2. Hirok Chaudhuri: <i>Study on geothermal potential of Bakreswar hot spring site, WB, TattaPani hot spring site, J&K and Baratang Mud volcano site, A&N through geochemical investigations</i></p>	
<p>TEA BREAK</p>	<p>03:30 PM- 04:00 PM</p>
<p>February 8, 2018 Technical Session-6 (Energy: Hydrocarbon, Geothermal, Coal)</p> <p>Chairman: Mr Shekhar Saran Co-chairman: Dr Kurt M Strack Rapporteur: Sri Kamal Ghosh</p> <p>Keynote paper:</p> <p>1) Shekhar Saran, CMD, CMPDIL</p> <p>Invited papers:</p> <p>1) Kurt. M. Strack (USA): <i>Synergy through integrated geophysical acquisition for geothermal & hydrocarbon exploration and production</i></p> <p>2) Manoj Mukhopadhyay (PAPUA NEW GUINEA): <i>Geophysical Exploration for Geothermal fields in Papua New Guinea-Scope for Renewable Energy search</i></p> <p>3) Atul Kumar Pandey, B. Choudhury, and Rima Chatterjee: <i>Estimation of Cementation factor for Reservoir Characterization in Cauvery Basin, India</i></p>	<p>04:00 PM – 06:30PM (150 Minutes)</p>

<p>4) P. D Chavan, G Sahu, A Banerjee, V Chauhan, N.K Gupta, S.Saha, S.DUtta, P. DUtta.P.K Singh : <i>Gasification of High Ash Indian Coals in Fluidised Bed Gasifier</i></p> <p>5) S.G Chaudhuri : Pyritic sulphur – its distribution, origin in coal seams and production of acids water in mines</p> <p>6) Ankur Roy,Dr. Edmund Perfect, Dr T apan Mukherji, IIT Kharagpur : <i>Lacunarity and Image Quilting – Multi – Scale studies of Fractured Reservoir Analogs</i></p>	
<p>February 8, 2018 Parallel Session</p>	
<p>Technical Session-7 (Mineral Exploration)</p> <p>Chairman: Mr. R.P. Ritolia Co-chairman: Dr Dinesh Gupta Rapporteur: Sri Robin Majumder</p> <p>Keynote Address:</p> <p>1) M. Finkelstein, Cheremisina E.N., Spiridonov V.A. and Lubimova A.V.(Russia):<i>New computer technology to solve geological problems for prospecting and exploration of mineral resources</i></p> <p>Technical Papers:</p> <p>1) Dinesh Gupta, J.V. Ramam Rao and V.Ramamurty:<i>National Geophysical Mapping In Geological Survey of India – An Impetus To Mineral Exploration</i></p> <p>2) Sikhendra Kisor De: <i>Satellite Gravity Anomalies: Defining Basement Structure of The Northern Bay of Bengal</i></p> <p>3) Yash Saragia and Sushanta Sarkar: <i>Intelligent well completion: Revive, Rethink and Reconsider</i></p>	<p>09.30 AM-11.00 AM (90 minutes)</p>

<p>2) Arbind Kumar, L.K. Das, Ajay K. Singh: " <i>Gravity Field: A potent tool in understanding the tectonic fabric and potential mineralization over a part of the Bastor Oraton , India</i></p>	
<p>TEA BREAK</p>	<p>11.00AM-11.30 AM</p>
<p>February 8, 2018 Parallel Session Technical Session- 8:Mineral Exploration</p> <p>Chairman: Dr L K Das Co-Chairman: Dr. Anand Kumar Chaturvedi. Rapporteur: Dr. Biplab Mukerji</p> <p>Invited Paper:</p> <p>1) S. P. Mohanty: <i>Exploration for manganese in the Sausar belt, central India: modern concept based approach</i></p> <p>Technical Papers:</p> <p>1) S. A. Sufiyan, Bijay Kumar, P. Hampaiah and Harish Mistry: <i>Exploration and Evaluation of Gold Resource In Ajjanahalli Block-C, SiraTaluk, Karnataka</i></p> <p>2) Biplab Mukerji: <i>Modern Techniques for targeting Mineralisation in Virgin Area</i></p> <p>3) Anand Kumar Chaturvedi: <i>Exploration of minerals for Nuclear Industry- Role of new technologies to meet future challenges.</i></p>	<p>11.30 AM-01.00 PM (90 Minutes)</p>
<p>LUNCH</p>	<p>1.00 PM-02.00 PM</p>

<p>February 8, 2018 Parallel Session Technical Session-9:(Modern Approaches)</p> <p>Chairman: Prof. B. C. Sarkar Co-Chairman: Mr. Pradipto Tarafdar Rapporteur: Mr. Harish Mistry</p> <p>Technical Papers :</p> <p>1). B.C Sarkar :<i>Essential elements of Geostatistics in mineral industry.</i></p> <p>2.)Gurram Vishwanath Reddy, A. A. Khan, Vaibhav Sharma, Indian Oil Corporation Ltd.: <i>Coal Bed Methane: Changing India’s Gas Market.</i></p> <p>3.)Pradipto Tarafdar, GSI: UNFC in Indian Context</p> <p>4.)A.K. Moitra: Minerals for Future Generation –An Indian Perspective</p> <p>5.) Pallabi Das, I Sinha, K.K.K. Singh, P.K Singh:“<i>Hydrogels as Novel Draw Solutes in Membrane Based Separation: Modeling and Design Aspects</i>”</p> <p>6.) Aparna Das and S.K.Paul: Achieving CO2 emission targets by predicting fuel mix in the Indian economy based upon household consumption</p>	<p>02.00 PM-03.30 PM (90 minutes)</p>
<p>TEA BREAK</p>	<p>03:30 PM -4:00 PM</p>
<p>February 8, 2018 Parallel Session Technical Session -10 : (Mineral Processing and Value Addition)</p>	<p>04:00 PM – 06:00 PM (95 Minutes)</p>

<p>Chairman: Mr Santosh Sharma, Co-Chairman: : Prof. Arun Mazumdar Rapporteur: Mr.Pradipta Tarafdar</p> <p>Invited Papers:</p> <p>1) N. K. Nanda, NMDC Ltd:</p> <p>Technical Papers:</p> <p>1) Bibhuti Bhushan Mondal: <i>Health risk of exposure to noise in coal preparation and Mineral Processing Plants</i></p> <p>2) Ashok Agarwal: <i>How the knowledge of coal preparation and material handling helped in setting up a modern rice processing plant</i></p> <p>3) Ajit Singh Choudhary and A. K. Moitra: <i>Impact of Coal testing on washery design</i></p> <p>4) Achyuta Krishna Ghosh, Sumantra Bhattacharya and Dilip Kumbhakar: <i>Overburden processing for value recovery.</i></p> <p>5) Ashish Rajoria: <i>Advanced Process Control for Mineral Processing Operations</i></p>	
<p>Poster Session</p> <p>.....</p> <p>February 9, 2018</p>	<p>6.00PM -6.30 PM</p> <p>.....</p>
<p>EVENTS</p>	<p>TIMINGS</p>
<p>Technical Session-11: (Mineral Exploration)</p> <p>Chairman: Prof. B. B. Bhattacharya Co-Chairperson: Prof. Elena Sokolova Rapporteur: Sri S A Sufiyan</p> <p>Keynote Address:</p> <p>1)Elena Sokolova,., <i>Mints M.V., Pushkarev P. Yu Yaholav A.G and Ladoga W.G (Russia): Integrated geophysical studies of</i></p>	<p>09.00 AM - 11.00 AM (120 Minutes)</p>

<p><i>Precambrian mobile belts to constrain evolutionary and mineragenic crustal models (experience from Fennoscandian Shield)</i></p> <p>Invited Papers:</p> <p>1) Dipankar Sarkar: <i>Development of crustal seismic experiments in India – a time line.</i></p> <p>2) O P Pandey: <i>Understanding Indian Crust: A Paradigm shift.</i></p> <p>Technical papers:</p> <p>1) 1) Satyabrata Nayak and Debadutta Mohanty: <i>Qualitative Seismic Geomorphology in Analysis of Depositional Environment and Facies Prediction</i></p> <p>2) Paresh Nath Singha Roy, Debjeeet Mondal and P.K.Behera: <i>Application of Neural Network for identification of Stressed Zones within Under Ground Mines</i></p> <p>3) Ajay Singh, DMT, Kolkata:</p>	
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TEA BREAK	11:00 AM -11:30 AM
<p>February 9, 2018 Technical Session-12: (Sustainability, Mining & Environment)</p> <p>Chairman: Prof S. P. Banerjee Co-chairman: Prof. A.K. Singh Rapporteur: Sri S R Panja</p> <p>Technical papers:</p> <p>1) Jayanta Bhattacharya: <i>Geogenic Sulfate-rich Wastewater: Sources, Characteristics, Effects and Treatment Technologies</i></p>	11:30 AM – 1:30 PM (120 Minutes)

<p>2) Siddharth Sharma and P.V.S. Eswar: <i>Environmental Sustainability of Drilling Fluids</i></p> <p>3) Manoj Kumar, Praveen K Singh, R. Nawaz, CCL: <i>Estimation of C B Ratio for Opencast Mine in forestry clearance.</i></p> <p>4) Debadutta Mohanty, <i>SujoyChattaraj and Ajay Kumar Singh:Sorption characteristics of Raniganj Coals, Damodar Valley, India</i></p> <p>5) Singh U, Singh A.K, Singh DB , Mohanty D , Mahapatra SS: <i>Geochemistry of coal bed methane co-produced water from different coalfields of India: Implication for selection of treatment options.</i></p> <p>6) R.E Masto , J George, V. A Selvi , R.C Tripathi , N.K Srivastav : <i>Human health risk from potentially toxic elements in soils of coal mining area</i></p> <p>7) Subhabrata Dev, Byong-Hun, Jeon Soon, Woong Chan, Jayanta Bhattacharya:<i>Marine waste extract as cost effective nitrogen supplement to improve the biological treatment of acid mine water.</i></p> <p>8) N. Basavaiah: <i>Magnetic records associated with lake and deltaic sediments: Possible climate and pollution proxy</i></p>	
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<p>February 9, 2018 Parallel Session Technical session-13: (Energy:Oil & Gas)</p> <p>Chairman: Dr. Amalendu Sinha Co-Chairman: Mr.Mintu Bose</p>	<p>09.00 AM - 11.00 AM (120 Minutes)</p>
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<p>Rapporteur: S. K. Dey Keynote address :</p> <p>1.) P.K Singh : <i>Coal mine water : A potential alternate source of drinking water”</i></p> <p>Technical Papers:</p> <p>1) Adam Suting, Sanjiv Kalita, Pankaj Kakoty : <i>3D Seismic Expression of a paleo channel within Barail Argillaceous and its Hydrocarbon Prospect</i></p> <p>2.) S.Nawaz, B.R.Bharali, S.K.Jena : <i>High Pressure- High Temperature (HPHT) Wells- Challenges and its Mitigation</i></p> <p>3.) S.Chakraborty, T. Ramprasad ,J Phukan : <i>Application and integration of seismic attributes for enhancing structural interpretation and risk mitigation towards oil exploration: A case study from Upper Assam Basin, India</i></p> <p>4.) Kartik Sharma, D.S Manral,GUJ Rao,: <i>Effective attenuation of coherent and random noises in seismic data</i></p> <p>5.) K.K. Deka, S.S Deb , S. Purohit : <i>Viscosity Reduction of highly viscous heavy oil using different chemicals/solvents in Laboratory as well as Field Testing</i></p> <p>6.) Ram Madhav Bhattacharya & A.K Dash : <i>Disaster Prevention Strategies for Indian Mines: an Approach</i></p>	
TEA BREAK	11:00 AM -11:30 AM
LUNCH	1.30 PM-02.30 PM
VALEDICTORY SESSION	2.30 PM-04.30 PM

HIGH TEA	4.30 PM-05.30 PM
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POSTER SESSION

INTERNATIONAL SEMINAR & EXHIBITION ON:
EXPLORATION OF OIL, GAS, COAL, MINERALS AND
GROUND WATER: MODERN TECHNIQUES &
APPLIANCES, FEBRUARY 7-9, 2018, KOLKATA

Venue: Swissotel, Rajarhat, Kolkata

POSTER SESSION: February 7-8, 2018

SL NO	NAME OF THE AUTHOR(S)	TITLE OF THE POSTER
P1	MS. JENIFER ALAM IIT-ISM, Dhanbad	Poroelastic Modelling for Stress Estimation in Upper Assam Basin, India
P2	UMA GHOSH Lalbaba College, Howrah	Seismic Hazard Assessment in North East India region
P3	MS. TRIVENI GOGOI IIT-ISM, Dhanbad	Prediction of Reservoir Properties using Regression and Neural Network Techniques in Upper Assam Basin, India
P4	Bineet Kumar Tripathi & Dr. Tarun Kr Naiya, IIT-ISM, Dhanbad	Demulsification of heavy crude oil at low temperature
P5	PROF BAGESHWARI SANGA CSIR-CIMFR, Dhanbad	Numerical Simulation for Prediction of Syngas Composition from Underground Coal Gasification
P6	MR. SUMIT NARAYAN CHOWDHURI GSI, Kolkata	Fractal Dimension and Earthquake Frequency Magnitude Distribution in West Patna Fault, Bihar
P7	Mr. Amritansh Agarwal IIT-ISM, Dhanbad	Application of remote sensing in rock mass characterization

P8	LokavathKrishnaprasad&KekaOjha, IIT-ISM, Dhanbad	Selecting and Synthesizing a suitable Nanocomposite Hydrogel for water shut –off
P9	A.K Gupta , SaiquaDilbash,PragyaKumari, SaliniPriya, Subodh Kumar and SaumyaAnand, Sri Arbind Mahila College,Patna ,Bihar	Surface and sub-surface water quality and its assessment for drinking and irrigation in Samastipur district of Bihar
P10	DR E N CHEREMISINA (Moscow, Russia)	New computer technology for geological problem solving