

# NEWSLETTER

Volume 3 *December 2019*

## OF 36<sup>th</sup> INTERNATIONAL GEOLOGICAL CONGRESS (36<sup>th</sup> IGC)

### Features:

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Meghalayan Age- A new chapter in Earth's History

Dear colleagues,  
Greetings from 36th International Geological Congress!

The December issue of Newsletter of 36<sup>th</sup> IGC comes at a time when the world is preparing for Christmas celebrations. The glittering and illuminated buildings and pathways are galore hinting at the festivities and joy all around. The year that we are bidding farewell, saw all of us at 36<sup>th</sup> IGC busy with tight time lines and targets to achieve.

With about two months left for the inauguration of mega event, the Secretariat is drawing final blue prints for various activities to make the visit of delegates fruitful and memorable. We are jubilant at having a robust response of nearly 7000 prospective delegates who have submitted their abstracts in 44 different themes.

We are also drawing inspiration from the experiences of the geoscientists who had attended the 22<sup>nd</sup> session of IGC in New Delhi in 1964 when the IGC arrived on Asian soil for the first time. This issue contains a fascinating account of remembrances of 22<sup>nd</sup> IGC from one of the globally known geoscientists which I am sure, will be an interesting reading for you. You will also get in this issue of newsletter, a glimpse of the Mawmluh caves of the hill state of Meghalaya, India which tell the story of the Meghalayan Age, a new chapter in Earth's History.

We look forward to your participation in 36<sup>th</sup> IGC.

Dr Rasik Ravindra  
Secretary General, 36<sup>th</sup> IGC

### Important timelines of 36<sup>th</sup> IGC

31 December 2019	Early Bird Registrations Close
	Field Trip Bookings Close
	Requests for Business Meetings Close
31 January 2020	Standard Congress Registrations Close
01 March 2020	Late Registrations Close
02 March 2020	Onsite Registrations Commence

*36<sup>th</sup> IGC wishes you a very happy and prosperous New Year 2020*

## 2<sup>nd</sup> International Workshop with co-host and neighbouring countries

The 2<sup>nd</sup> International Workshop with co-host and neighbouring countries was held at India Expo Mart Ltd. (IEML), Greater Noida on 15<sup>th</sup> October 2019 and at INSA, New Delhi on 16<sup>th</sup> October 2019. Director General, Geological Survey of India (GSI), Co-President, 36<sup>th</sup> IGC, Additional Secretary and Economic Advisor, Ministry of Mines (MoM), Government of India, representatives from Geological Survey of Bangladesh and Nepal Academy of Science and Technology along with members of Local Organising Committee (LOC) and 36<sup>th</sup> IGC Secretariat participated in the workshop. The prime objective of the workshop was fostering cooperation among the co-host and neighbouring countries, especially promoting and conducting fieldtrips in the sub-continent



The workshop began with a background of the overview of the ongoing activities related to 36<sup>th</sup> IGC, the Action Taken Report (ATR) on 1st International Workshop, and venue management for the Congress. Next, the visiting delegates were taken for a tour of IEML for a first hand appraisal of the registration area, halls for the technical sessions, plenary talks, Geo Expo area, enclosure for Business Meetings etc. and the facilities available in premises for organizing 36<sup>th</sup> IGC. The delegates were also apprised about the transportation and accommodation facilities for the Congress.



Two MoUs were signed by Prof. V.P. Dimri, President, 36<sup>th</sup> IGC in the presence of Alok Chandra, Economic Advisor, MoM, Government of India (GoI) with Saidul Hossain, Director (Geology), Geological Survey of Bangladesh alongside Dr. Rabindra Prasad Dhakal, Chief, Faculty of Technology, Nepal Academy of Science and Technology for organizing field trips in Nepal. The delegates from Nepal and Bangladesh were requested to interact with the universities, academicians, research scholars and geoscientists in their countries to encourage good participation in the field trips, science program, GeoExpo and registration of 36<sup>th</sup> IGC.



### 36<sup>th</sup> IGC at the Goldschmidt Conference 2019

A delegation comprising Bipul Pathak, Joint Secretary, MoM, Sudeep Manish Toppo and Raghuram, GSI participated in the Goldschmidt Conference, 2019 during 17-23 August 2019 to promote 36<sup>th</sup> IGC among the global geoscientists. Two booths were booked by the Secretariat in the Conference and the visitors were informed about the significance of various themes, sub themes and field excursions of 36<sup>th</sup> IGC. An invitation was extended to all delegates to participate in the Congress.



### 36<sup>th</sup> IGC at GSA 2019 at Phoenix, Arizona

A four member delegation comprising M. Chandradas, Tanay Dutta Gupta, and Dr.Sangeeta Gupta (GSI) and, Pradeep Singh, Director (Technical), MoM, GoI participated in Geological Society of America (GSA) Annual Meeting –2019 at Phoenix, Arizona from 22<sup>nd</sup> to 25<sup>th</sup> September 2019 as part of promotional and outreach program of 36<sup>th</sup> IGC. The stall displayed major attractions of 36<sup>th</sup> IGC drawing a large number of visitors from various countries who expressed intrigue in being a part of this event. Visitors also showed keen interest in the field trips and science program. Several onsite registrations, GeoExpo booth bookings and accompanying persons registration were carried out during this outreach program.



### 36<sup>th</sup> IGC at NCPS 2019

A two member delegation comprising Dr. H. S. Mandal, Ministry of Earth Sciences (MoES), GoI and Dr.Sangeeta Gupta, GSI participated in the 2<sup>nd</sup> National Conference on Polar Sciences (NCPS) 2019 organised at National Centre for Polar and Ocean Research (NCPOR), Goa, India from 20<sup>th</sup> to 22<sup>nd</sup> August 2019 with an aim to showcase various activities and attractions of the 36<sup>th</sup> IGC and garner maximum participation of the geological community in the Congress. A large number of delegates visited the booth and showed keen interest in participating in the field trips as well as the science program. The delegates in the conference were enthusiastic about extending financial support to students and research scholars for participation in the congress.



### 36<sup>th</sup> IGC at 16<sup>th</sup> International Congress of Brazilian Geophysical Society

Amit Saini, WAPCOS Ltd. and Deepti Chhabra, Fusion Corporate Solution Pvt. Ltd. participated in the 16<sup>th</sup> International Congress of the Brazilian Geophysical Society during 19-22 August, 2019 at Rio de Janeiro, Brazil. The team interacted with the academia and held meeting with potential business partners to encourage participation in the forthcoming 36<sup>th</sup> IGC.



In the month of February 1961, as I approached the brick red building in the Chowringhee Lane of Calcutta, I was thrilled at the sight of the board GEOLOGICAL SURVEY OF INDIA (GSI), the Mecca of Indian Geology, where I was joining as an Assistant Geologist. I looked in awe at the portraits of the stalwarts who had built the geological edifice of India. I was trying to gain knowledge about the organization from the seniors. In the course of it, I also got snippets of functions and duties I had to perform. Even at that time I used to hear of India hosting the 22<sup>nd</sup> session of the International Geological Congress (IGC) at New Delhi, in the winter of 1964.

Next, I reported at GSI Lucknow office and from there was directed to proceed for Larji-Banjar of the present Himachal Himalaya for geological mapping. The terrain was awe-inspiring and mapping was inspirational. Later I was posted to Punjab-Himachal Circle of GSI having its headquarters at Shimla, for geological mapping in the Himalayan area. Besides my regular mapping, I was also assigned to study geology along the excursion routes for the 22<sup>nd</sup> IGC. It turned out to be a great learning experience for me. During the years preceding the IGC, particularly in the later months of 1964, I was assigned to the excursion route of Kalka – Shimla section and also other sections of Shimla – Tattapani and Shimla – Chail. I was specially assigned an item referred as IGC Field work and mapping and asked to carry out mapping of Tattapani area by plane table survey to delineate the thrust contact between the Shali carbonates and the pelitic cover rocks then referred as Chail. The IGC fieldwork provided me with enormous insight into the complexity of the Shimla Himalaya and the awareness of many anomalous interpretations of the past. This proved to be a harbinger for my scientific work in the Himalaya and elsewhere for the rest of my career in the GSI till 1993.



One for the memory, the delegates of the 22<sup>nd</sup> IGC at Pinjor Gardens

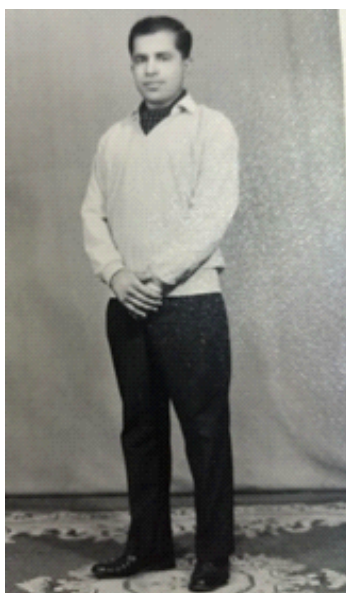
The A-1 Shimla excursions were to be guided in the pre-Congress period and were planned with meticulous attention with regard to their stay, movement and stops. J. Swami Nath and H.N. Singh were the leaders of Shimla excursion. The IGC delegates were received at Kalka on 7<sup>th</sup> December 1964 from where they travelled to Shimla by road. The field excursions were conducted from 7<sup>th</sup> to 12<sup>th</sup> December 1964 and covered the enroute geology from Shimla to Kalka, Tattapani, Kandaghat, Jutogh and Chail sections. The delegates included Prof. John Rogers, Dr. B. C. Heezen and Dr. Marie Tharp (USA) who were pioneers of ocean floor mapping, delegates from U.S universities as well as USGS including Dr. Calkin; Dr. D.K. Norris of Canadian Geological Survey, Prof. Nalvikin (USSR) and Dr. Bender (West Germany, who later became the Head of the German Geological Survey). Prof. A. Berthelsen of Aarhus University (Denmark) was the only geologist who had taken traverses earlier in Rampur and Tso Murari sectors of Ladakh. There were also delegates from Latin American countries who were keen to know about the Himalaya. In one of the trips we had the unforeseen experience of unseasonal snowfall. Our bus was stuck and we had to bring the delegates back to Shimla in jeeps and other vehicles right in time for dinner! This rescue operation had received great appreciation from the delegates. The trip to Chail Hill station, besides studying Geology along the route, gave them a glimpse of the highest cricket pitch at that time and a fabulous lunch - courtesy the erstwhile Maharaja of Patiala. Prof. Rogers tried his skill on the piano kept in the palace to the delight of everyone.

The discussions during the trips and breaks centred on the day's observations, and in particular on glacial origin of the Blaini Boulder Bed and its age. The delegates spent considerable time at the Blaini Boulder Bed at Simla to examine its glacial characteristics. The nature of sedimentation of the various pelitic rocks of the Shimla Himalaya, the tectonics of crystalline nappes, nature and period of metamorphism were also topics which elicited interest. At Tattapani, along the Satluj, the detailed plane table map prepared by me was shown to the delegates and it elicited considerable discussion on the tectonics of the Precambrian Shali and the cover rocks. The delegates had also examined the thermal springs at Tattapani and we, in turn, tried to understand about the Alps from Prof. Berthelsen and about Appalachian Geology from Prof. Rogers.

Before dispersal, on a request by J. Swami Nath, the delegates expressed their individual impression on geological excursions. They appreciated the tour management and the opportunity to study a part of Himalayan Geology. They made a special reference to our rescue efforts on the day there was a breakdown of the delegate bus in heavy snowfall.

The 22<sup>nd</sup> IGC was inaugurated at Vigyan Bhawan New Delhi by Dr. S. Radhakrishnan, the Philosopher President of India. Some of the delegates who met me immediately after the President's speech, referred to it as a great speech.

Hosting of IGC by India and co-host countries Bangladesh, Nepal, Pakistan and Sri Lanka after a gap of 56 years is a matter of immense pride for us. I wish 36<sup>th</sup> IGC a resounding success.



*S.V. Srikantia with a long distinguished career in Geological Survey of India is one of the pioneer workers in the field of Himalayan Geology. The photo on left dates back to 22<sup>nd</sup> IGC; in right frame, he is seen in the backdrop of his own painting of the Himalaya.*

## Professional Development Workshops at 36<sup>th</sup> IGC

The 36<sup>th</sup> IGC is offering opportunities to the **registered delegates** to participate in the following Professional Development Workshops/ Short Courses. All these workshops/ short courses will be held during 4-7 March 2020 at the Congress venue. The exact timings and duration of the courses will be notified soon.

Interested delegates booking the workshops/ short courses are to complete their Congress registration at the earliest, preferably by **31 January, 2020** to confirm their berths for joining. The confirmation will be given once the registration is completed. The last date is **31 January, 2020**. However, the berths will be filled up strictly on 'first come-first serve' basis.

For any queries related to the Workshop/ Short Courses, please reach us at [bm.wsc@36igc.org](mailto:bm.wsc@36igc.org).

### In the spotlight Meghalayan Age - A new chapter in Earth's History

Mawmluh, one of the longest caves in the north-eastern hill state of Meghalaya, India is the latest attraction in geology. Declaration of Global Boundary Stratotype Section and Point (GSSP) of Meghalayan Age ranging from 4200 years to present from this cave by IUGS on the basis of stable isotopic studies of stalagmite has become the raging topic of discussion in the geological world. Meghalayan Age is unique among the many intervals in the geological time scale as its beginning coincides with a mega drought on global scale, impacting many civilisations.

Mawmluh cave is located at the southern fringe of Meghalaya plateau close to the contact of the dolomitic limestone and Therria sandstone of the Shella Formation. The cave is a nearly 7 km long maze and the Mawmluh river sinks into the main entrance of the cave. The main entrance is located about 1160 m above MSL. Development of attractive array of stalactites and stalagmites have given the cave a mesmerising appearance that adds to its geological appeal.



*(Photo courtesy: Geological Survey of India, NER)*

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*Panoramic view of Brahmaputra basin*



*Rock cut caves at Jogighopa, Assam*



**36<sup>th</sup> International  
Geological Congress**  
2-8 March, 2020 | Delhi | India

