

# 20th Convention

# INDIAN GEOLOGICAL CONGRESS

October 3-5, 2017

**Theme:** Make in India: Challenges and Opportunities For Mineral, Mining, and Energy Resources

# Sponsored by

















(FIMI)







**Venue :** Chitnavis Centre/BSNL Auditorium Nagpur, Maharashtra



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**Nagpur** 

# Message from the President, and Members of the Advisory and the Organizing Committees

As the 20<sup>th</sup> Convention approaches, the Organizing Committee members are stepping up efforts to ensure that the Convention is memorable one for each and every delegate, scientifically, academically and industrially.

Minerals are indispensable for economic & industrial progress of a country. Apart from minerals – metallic & non-metallic – natural fuels, which include petroleum & gas, coal and radioactive minerals, are widely used for moving the wheels of the industry. Role of renewal energy sources is fast growing. The Convention will look into their sources & technological development and how far these can be harnessed indigenously by 2022, the Diamond Jubilee Year of Independence of India.

We the geoscientists are fully aware that insatiable demand for minerals & energy will continue to grow in mineral market & manufacturing sector, nationally & internationally. Sustained mineral supplies are inherently central for the growth of mineral-based industries and foreign mineral trade, especially for the gigantic steel industry, India is third largest consumer of steel and is poised to commendable growth.

More people on planet earth, India at the forefront, means more water shortages and other shortages, too, including energy. The Convention gives a clarion call to all the Indian geoscientists, mining engineers, experts from energy sector, steel industry & other mineral-based industries to come forward to join hands with their co-workers and transform India into strongly startup nation.

THEME: "Make in India: Challenges and Opportunities For Mineral, Mining, and Energy Resources"

# Sub - Themes:

- Critical assessment of economic mineral raw-materials metallic & non-metallic minerals in India's bowl and upcoming domestic demands, supplies, imports and exports.
- Make in India: The domestic iron and steel industry's ambitious production target of 300 mt by 2030 debate on indigenous supplies of mineral raw-materials for steel industry. Are these adequate in our inventory for the targeted steel production?
- > Special focus on iron-ore deposits, & deposits of alloying metals for steel manufacture. Wrongs & rights of our foreign trade in ores of these metals Fe, Mn, & Cr ores in particular.
- Focus on aluminum & cement industries: sufficiency & non-sufficiency of their basic raw minerals and future requirements at home.
- > Focus on base metals, rare metals, and associated alloying metals, and their strategic values.
- > Resources, reserves and inventories of economic minerals critique applications at home as standard terminology.
- Environmental issues concerned with mining methods on earth, deep sea, and planetary bodies Moon & asteroids in particular, considering development of space colonies two decades ahead.
- Natural fuels: coal, oil & gas, gas hydrates, & nuclear energy, their future scope & limitations.
- Renewable sources of energy, solar, wind & tidal energy with special focus on solar panels.
- ➤ How to cope with the surge in energy and water demands?
- Academic bodies in geosciences & mining: What role they can play to prevent rampart illegal mining and mineral trade by mafia at district levels, and as watchdog on wrong mineral policies mineral & mining and statutes of the government.
- Audit of current courses in academies on Economic Geology, Mineral Economics, and Mineral Exploration measures to upgrade their teaching & research areas that are vitally concerned to India.

#### **CALL FOR PAPERS**

Scientific programme of the Convention (IGC-2017) will comprise keynote addresses, special invited lectures and addressees of the Chief-Guest and Guests-of-Honour at the Inaugural and Valedictory Functions relevant to the Convention theme/sub-themes and other pertinent topics. Only full papers will be accepted for presentation. Paper abstract submission will close on **July 15, 2017.** Abstract may be extended up to 300 words with not more than two illustrations & a data table. The contributors should fully comply with the format specifications of the Journal of the Indian Geological Congress (visit IGC website for details). Full papers in MS Word, containing text and neatly drawn figures and decent photographs with references are to be submitted by Email to *igcroorkee@gmail.com* or *igcroorkee@ymail.com* or by post in CD through courier or speed-post to the **Conference Convenor, Nagpur or to the Editor, Indian Geological Congress, 402/1, 35A, Civil Lines, Roorkee-247 667 (Uttarakhand**) by **July 31, 2017.** Contributed papers will be peer-reviewed and published either in a special volume or IGC Journal.

Online submission of paper abstracts is also possible. Details for submission and the abstract template are available at IGC website **www.igcroorkee.net** and will close down on **15**<sup>th</sup> **July, 2017.** 

#### POSTER SUBMISSION

Poster contributions are welcome from all categories of scientists, researchers, students, and administrators, etc. Adequate space for display of posters will be available.

Every contributor to Poster Session is required to submit abstract written in about 250 words. Befitting illustrations may be included. These should be either computer-generated or cartographically drawn on tracing paper. Illustrations should be such as to allow 25 percent reduction. Hard copy of the complete poster presentation with author's postal address and Email ID must reach the Convenor by the 31th August, 2017. Electronic submission will be preferred. A line in confirmation for participation in the poster session (along with registration fee, if any) should be communicated to the Convenor by the given deadline date.

#### **INSTRUCTIONS**

- Each poster should not be more than 75 x 60 cm and only one poster will be accepted by one contributor, or a group of contributors, on anyone of the listed sub-themes. Written materials should be in 20 font size in times new roman.
- Poster contributions can be with single or joint authorship.
- As usual, there will be many awards, certificates and mementos for the contributors, who will present their papers
  personally. There will, however, be three awards for the poster contributors, open only to IGC members, apart
  from a few awards to the paper contributors open to both members and non-members of IGC. Names of
  awardees will be announced in the Plenary Session on the last day of the event.
- Awards will be given in cash along with citation at the Concluding Session by the Chief Guest, only to such winners whose full papers have been received.
- No separate registration fee is required to be paid by poster contributors.

# **IGC AWARDS**

As a part of its promotional activities for the growth and development of earthscience-related technologies and innovations and spread of accruing societal benefits, the Organizing Committee, on behalf of the Executive Council of

IGC, has great pleasure in announcing the following awards/prizes for paper and poster contributions to the Convention.

- For the Best, the Second Best and the Third Best Papers Rs.5000/=, Rs.3000/= and Rs.2000/=, respectively. Awards are restricted to the members of IGC.
- For Posters, the awards will be as shown below:

First Prize	Rs. 5000/=	One Award (open to all)
Second Prize	Rs. 3000/=	Three Awards (open to all)
Third Prize	Rs. 2000/=	Five Awards (open to all)

#### **GSI AWARD**

GSI Award of **Rs. 5000/-** in value will be given along with citation to the contributor of the paper, (only IGC member), adjudged as the best among the research papers contributed to the Convention. If there are more than one authors of the best paper, the cash award will be given to the first author along with citation, including citation to the other authors as well.

#### PROFESSOR O. P. VARMA BEST PAPER AWARD

Cash Award of **Rs.10,000/-** will be given for the best paper published in IGC Journal of the previous year, that is Vol.7(1&2). The adjudged best of all paper will be announced by the Head office of IGC at least three months before the Convention dates & the awardee will also be duly informed to receive the award personally.

## DR. M. L. JHANWAR SECOND BEST PAPER AWARD

Cash award of **Rs. 5000/-** will be given for the Second Best Paper published in IGC Journal of the each year. First award will be given for Vol.8(1&2) during the 20<sup>th</sup> Convention. Future awards will normally be given during the Convention as far possible, otherwise at any other suitable time. The Award will comprise a certificate and a plaque.

#### **CONDITIONS FOR AWARDS**

- In case of GSI Award the awardee should be member of IGC, should submit award-winning full-paper within one month from the date of announcement of the award, and the author(s) should certify that the paper is of original contribution and has not been published or accepted for publication elsewhere.
- For publication in IGC Journal the paper will be peer-reviewed. The award will be accompanied by a certificate and citation.
- Besides the above awards, the IGC also intends to honour former academics and distinguished office-bearers of IGC by presenting special awards.

# **OFFICIAL LANGUAGE**

Official language of the Convention will be English.

For further information, interested participants may visit the IGC website www.igcroorkee.net

# MARKER DATES for 20th Convention (IGC-2017); October 3-5, 2017

<b>September 30, 2016</b>
<b>June 30, 2017</b>
July 15, 2017
July 31, 2017
April 15, 2017
July 31, 2017
<b>July 31, 2017</b>
August 31, 2017

# REGISTRATION FEE PER DELEGATE

CATEGORY	Before June 30, 2017	After June 30, 2017 & Spot Registration
Foreign Delegates	US \$300	US \$400
Accompanying person of Foreign Delegates	US \$100	US \$200
Delegates from SAARC	US \$150	US \$200
Indian Delegates (Corporate/Industry)	Rs.10,000	Rs.15,000
Indian Delegates from Academic/R&D Organisations /Govt. Bodies/PSU	Rs.5,000	Rs.6,000
Accompanying person of Indian Delegates	Rs.2,000	Rs.3,000
Research Scholar	Rs.2,000	Rs.3,000
Student	Rs.1000	Rs.1,500

**Note:** Individual IGC members (excluding student category) will be allowed to avail 50% discount. Payment to be made in the name of Indian Geological Congress address to: **The Secretary,** Indian Geological Congress, Post Box No. 114, 402/1, 35 A, Civil Lines, **ROORKEE - 247 667.** Payment can be made online in **Account No. 10054220724 of** Indian Geological Congress at **State Bank of India,** Branch-IDO, **Roorkee -** 247 667 under intimation to the IGC secretariate.

#### **SPONSORSHIP**

Platinum Sponsorship	<b>Rs. 5.00 lakh</b> (5 delegates free)	
Gold Sponsorship	Rs. 3.00 lakh (3 delegates free)	
Silver Sponsorship	Rs. 2.00 lakh (2 delegates free)	
Bronze Sponsorship	Rs. 1.00 lakh (1 delegate free)	

# **ADVERTISEMENT IN PRE-CONVENTION VOLUME**

Back Cover (colour)	Rs. 50,000
Inside Cover (colour)	Rs. 30,000
Inside Full Page (colour)	Rs. 20,000
Inside Full page (B & W)	Rs. 15,000
Inside Half Page (B & W)	Rs. 7,000

#### **ABOUT NAGPUR**

Nagpur city is situated precisely at the heart of India with the zero mile marker specifying the geographical center of India. Nagpur is famous for its oranges and also known as Tiger land of Maharashtra State. Being the centre of the India, the links with Nagpur are best between the major means of transport, that is by road, by train, and by air. Nagpur has been identified as the best city in India by topping the livability, greenery, public transport and health care indices. It has tropical savannah climate with dry conditions prevailing for most of the year. Woolens are not required during October.

The city symbolizes as a second home for geoscientists with offices of the Indian Bureau of Mines, Central Mine Planning & Design Institute Ltd., Mineral Exploration Corporation, Manganese Ore India, Geological Survey of India, Western Coalfields Ltd., Department of Mines & Geology of Maharashtra. Nagpur University (Geology Department), National Environmental Engineering Research Institute, Jawaharlal Nehru Aluminium Research Development and Design Centre (JNARDDC), and other like private mining institutions & consulting enterprises.

#### **ACCOMMODATION**

The Organising Committee has resolved to satisfy budgetary provisions of each & every delegate by providing accommodation in hostels, dormitories, guest houses, & hotels as per prescribed tariffs on the basic of first come first-served. Daily tariffs of some selected hotels are shown below. Delegates requiring accommodation reservation in hotels will have to send in advance payment of one day's rental value to Shri Ashu Mathur, Sr. Manager (Geology)/TS to CMD, MECL, Seminary Hills, Nagpur.

**Hotel Nagpur Ashok :** Three star certified hotel by the Ministry of Tourism, Govt. of India, at 8 Rasta Square, WHC Road, Laxmi Nagar, Nagpur.

<b>Room Category</b>	<b>Expected Special Tariff (in Rs.)</b>
Deluxe Single	2500
Deluxe Double	3500
Super Deluxe Single	3500
Super Deluxe Double	4500
Queen Suite Single	4500
Queen Suite Double	5500
King Suite	5500
Family Room Double/Triple/Four	6000

**Tel.:** 0712-6888859, 2240780, **Mob.:** 8888870722, **Email:** booking@thenagpurashok.com

- Taxes extra at Rs. 19.00%
- Extra Bed @ Rs. 1500/- on CP

• Rates are valid till 31<sup>st</sup> March 2018. In-house hotel facilities offered include: Complimentary Buffet Breakfast, in room tea/coffee maker, complimentary daily news paper, two bottles of water, complimentary pick up & drop

<b>Types of Rooms</b>	Discounted rates (in Rs.) on CP		
D 1	Single	Double	from airport & railway station (shuttle service) <b>Hotel Pride, Nagpur :</b> Opp. Airport, Wardha Road,
Deluxe	4000	4500	Nagpur - 440 025
Superior	5000	5500	
Premium	6000	6500	

**Tel.:** 0712-6622555, **Email:** reservations.nagpur@pridehotel.com

• Taxes extra @22%

Room Type	Corporate Rate (SGL) (in Rs.)	
Superior/Premium Room Business Class Executive Suite Deluxe Suite	5000 7000 12000 20000	Buffet breakfast included, Tea/Coffee makers in rooms, complimentary airport pickup and drops together other facilities.

Hotel Redisson Blu: Nagpur, 7 Wardha Road, Nagpur - 440 015

**Tel.:** 0712-6665888, **Email :** *sm@rdnagpur.com* 

- Taxes extra @ 19.10%
- Buffet breakfast, both ways sharing airport transfer, Room Tea/Coffee maker, Wi-Fi internet access, daily newspaper, etc.

## **EXECUTIVE COUNCIL MEETING**

Meeting of the Executive Council of Indian Geological Congress will be held on October 2, 2017 at 18.00 hrs in the meeting room of MECL at its H.O in Nagpur. All the members of the Executive Council are invited to attend.

# **GENERAL BODY MEETING**

The 20<sup>th</sup> Biennial General Body Meeting will be held on October 3, 2017 at 4:00 P.M. in the auditorium of the Plenary Session of the Convention. All participating IGC members are invited to attend. Agenda for the meeting will be available at the registration counter. Non-members are invited to attend as guests.



# INDIAN GEOLOGICAL CONGRESS

20th Convention (IGC-2017)

**October 3-5, 2017** 

# **PRE-REGISTRATION FORM**

Name (in capital	letters) :	
Organization :		
Position :		
Country:		
	<b>:</b>	
Telephone:	Fax:	
Cellphone :		
Please tick the r		
1.	I / We intend to attend IGC-2017	]
2.	I / We intend to submit poster presentation	]
3.	I / We intend to book an advertisement in souvenir	]
4.	I / We intend to sponsor the conference/IGC-2017	J
5.	Number of accompanying person(s)	]
	r Presentation / Invited Keynote address	
Date :	Signature	

Completed Application
Form be sent to:

Shri S. N. Rao, Organizing Secretary, 20<sup>th</sup> Convention & Ex. GM (Geology), CMPDI, House No. HIG-193, Kanan Vihar, Phase-1, Post-Patia, Bhubaneswar - 751 024 (Orissa).
Email: raosnrao@gmail.com, Cell: 09437287197

*Or* 

**Shri Ashu Mathur,** *Joint Secretary,* 20<sup>th</sup> Convention & Senior Manager (Geology), TS to CMD, **MECL,** Dr. Babasaheb Ambedkar Bhawan, High Land Drive Road, Seminarry Hills, **Nagpur - 440 006** (**Maharashtra**). **Email:** *ashumecl@gmail.com,* **Cell:** 09423637256

Prof. V. K. S. Dave, Secretary, Indian Geological Congress, 402/1, 35 A, Civil Lines, ROORKEE - 247 667 (Uttarakhand) Emails: igcroorkee@gmail.com, igcroorkee@ymail.com Tel.: 01332-277827, Cell: 9897888368

# **Information on forthcoming IODP Expeditions**

# Exp. 376: Brother Arc Flux Expedition: 5 May to 5 July 2018

Based on IODP proposal 818-Full2 the ultimate scientific goal of Expedition 376 is to discover the key processes that distinguish submarine arc-hosted hydrothermal systems from those linked to spreading centers, which results from the flux of magmatic fluid commonly being much higher in volcanic arcs.

The primary objectives are to (1) Characterize the subsurface, magma-derived volatile phase for testing models predicting the existence of either a single-phase gas or a two-phase brine-vapor; (2) Explore the distribution of base and precious metals and metalloids at depth as well as the reactions that have taken place during their precipitation along fluid migration pathways to the seafloor; (3) Quantify the mechanisms and extent of fluid-rock interaction, and what this implies for the mass flux of metals and metalloids to the ocean as well as the role of magma-derived carbon and sulfur species in acting as agents for those fluxes; and (4) Assess the diversity, extent, and metabolic pathways of microbial life in an extreme, acidic, and metal-toxic (sub)volcanic environment.

# Exp. 381: Corinth Active Rift Development: October and November, 2017

Based on proposal **879-Full** this expedition aims to resolve at a high temporal and spatial resolution how faults evolve, how strain is (re-) distributed, and how the landscape responds within the first few Myrs in a non-volcanic continental rift, as modulated by Quaternary changes in sea level and climate. High horizontal spatial resolution (~1-3 km) is provided by a dense grid of seismic profiles offshore that have been recently fully integrated, complemented by extensive outcrops and fault analysis onshore. High temporal resolution (~20-50ka) will be provided by seismic stratigraphy tied to core and log data from three carefully located boreholes to sample the recent syn-rift sequence.

The expedition aims to drill, core, and log up to 750m-deep boreholes at three sites in the central and eastern Gulf of Corinth. The procurement process to contract platform and drilling services is currently being undertaken by ESO, and it is envisaged that the setup will involve a geotechnical vessel equipped with a coring rig, and outfitted with ESO's laboratory containers.

# **Important Notes**

- 1. For more information on the above expeditions please visit www.iodp.org and use the link iodp.tamu.edu/scienceops/
- 2. Applications in prescribed format (available on the website www.ncaor.gov.in) shall be considered.
- 3. Last date by which NCAOR receives nominations  $15^{th}$  May, 2017.
- 4. A scientific plan is mandatory for a successful nomination. Once nominated candidates will have to submit a detailed science plan along with sample data request which may also form a basis for collaborative research programs between their host organization and NCAOR.

# National Centre for Antarctic & Ocean Research



(Ministry of Earth Sciences, Govt. of India) Headland Sada, Vasco-da-Gama, Goa - 403 804



Advt No: NCAOR/22/17

# Invites Nominations from Scientists/Researchers for forthcoming IODP Expeditions

The Director, National Centre for Antarctic & Ocean Research (NCAOR), on behalf of IODP - India invites nominations *in a prescribed format* along with detailed bio-data and research/professional experience, from geoscientists/researchers working in established national institutions/organizations and universities, to participate in the forthcoming Integrated Ocean Discovery Program (IODP) expedition 376 (BROTHER ARC FLUX EXPEDTION) and expedition 381 (CORIENTH ACTIVE RIFT DEVELOPMENT). NCAOR will provide the requisite financial support to the selected candidates towards their participation in the said expedition. However, it will be the responsibility of the candidates to obtain the necessary Visas / permissions from the countries of embarkation and disembarkation on their own. A scientific plan is mandatory for a successful nomination. Once nominated, candidates will have to submit a detailed science plan along with sample data request which may also form a basis for collaborative research programs between their host organization and NCAOR.

Further details including last date of nominations and format can be obtained at **www.ncaor.gov.in** or by email to *iodp.india@ncaor.gov.in* 

For and on behalf of NCAOR Program Officer (IODP-India)

Complete nominations may kindly be emailed to iodp.india@ncaor.gov.in

Continued on reverse.....