

First Circular

IGC-2013

**18<sup>th</sup>** Convention  
of  
**Indian Geological Congress**  
&  
**International Symposium**  
on

*Minerals and Mining in India -  
The way forward, inclusive of cooperative  
mineral-based industries in SAARC countries*

April 27-29, 2013, BHOPAL



Organised by :

Madhya Pradesh Council of Science & Technology  
(An autonomous organization of the Department of Science & Technology),  
Govt. of Madhya Pradesh  
BHOPAL – 462 003

Indian Geological Congress  
ROORKEE – 247 667



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## PROLOGUE

Preparations are well underway for the 18<sup>th</sup> Convention of the Indian Geological Congress, scheduled to be held from April 27-29, 2013 in Bhopal, first time in Madhya Pradesh.

The Convention will be hosted by the Madhya Pradesh Council of Science & Technology (MPCST) - an autonomous organisation of the Department of Science & Technology, Govt. of Madhya Pradesh. The logo is symbolic to service to science, the geosciences in particular, which play a leading role in the discovery, exploitation and processing of mineral wealth of the State – the heart of India – and how best they can contribute to sustainable economic development.

Among the States & Union Territories, Madhya Pradesh stands 4<sup>th</sup> in regard to mineral inventory. Nearly 13.5% of the total mining leases in the country exist in M.P., 4<sup>th</sup> in ranking. In regard to certain important minerals, it contributes 10% of the national production of bauxite (5<sup>th</sup> in rank), 100% of diamond, iron ore 25%, Mn-ore 21%, coal 78%, and the State has sizeable production of copper, limestone, dolomite, granite, marble and a host of other minerals. It is from the resources of these minerals, from which has sprung the dynamic mining heritage and mineral-based industries, *contributing significant revenue to its exchequer*.

The 18<sup>th</sup> Convention will focus on the growth pattern of mineral resources of India *vis-à-vis* of Madhya Pradesh and will also debate most aspects of future development and conservation of mineral resources, besides in-depth discussion on issues related to mining impacts on environment. In addition, the Convention will focus on two other sub-themes, namely ***“Geoinformatics in mineral & mining sector”*** and ***“Geoscience as Profession: Feminine issue in focus”***.

The Organising Committee has decided to publish two important documents: (1) Profile of the State's various mineral & mining enterprises, and (2) Inventory of mineral deposits, and mineral-based industries with prospects in the future of the State.

The Convention will be held under the auspices of the Madhya Pradesh Council of Science & Technology and has already showed encouraging sponsorship from the MoES, Govt. of India, Govt. of Madhya Pradesh, the mineral industry, both public & private, which will enable generation of the professional vibrant atmosphere for a memorable Convention. The Convention will honour its former Convention office-bearers and Patrons, who have contributed significantly to the growth and development of the Indian Geological Congress and geosciences in general. M.P.'s community of earth scientists, the government and the mineral industry will contribute to the hosting of this prime meeting of IGC, which will bring into focus overall aspects of economic geology of the Indian mineral deposits, inclusive of mineral statistics, mineral trade and commerce, sustainable utilization, conservation, etc. The future of our mineral industry, which is second in importance to agriculture, rests largely upon the functioning of economic geology for a continued and sustained supply of mineral materials.

The Organising Committee is headed by Prof. O.P. Varma, Past President of IGC, currently its Executive President and Editor; Prof. Pramod K. Verma, Convenor & Vice President IGC; Dr. J.P. Shukla, Co-conveor, Secretary, IGC; Prof. V.K.S. Dave, Secretary, IGC; Dr. N.K. Choubey, Joint-Secretary, IGC; with patronage of Shri N.M. Borah, its President.

Proposals for sessions & topics to be covered, apart from already mentioned in this circular, are invited through IGC e-mails: ***igcroorkee@gmail.com*** & ***igcroorkee@ymail.com***. Further information about the Convention is



also available on the website “[www.igcindia.net](http://www.igcindia.net)”. The Organising Committee looks forward to welcoming every anxious participant to the 18<sup>th</sup> Convention in April 2013 for a successful & fruitful accomplishments in the field of economic geology and its subsidiary branches of ore geology, mineral statistics, exploration, mining, mineral beneficiation & other stages of mineral-related sub-branches.

## ABOUT THE INDIAN GEOLOGICAL CONGRESS

The Indian Geological Congress, founded in 1976, was registered as a scientific society in December 1990 under the Societies Registration Act 1860. It is now the forerunner among the scientific societies in the area of Earth Sciences. Having made all-round development and notable expansion in scientific activities, the IGC continues to provide regular biennial meeting platforms, through its conventions, held in different parts of the country, to earth scientists, technologists, and engineers. In addition, the IGC offers several other programmes such as a series of three discourses designated as: (i) *Foundation Lecture*, (ii) *Professor Jhingran*, and (iii) *Professor Prem Bahadur Verma Memorial Lectures*, Executive Development Courses and training programmes, International and National symposia, seminars, workshops, conferences, etc., and awards on outstanding essays and research contributions to geoscientists & students in the area of earth sciences. Your Society brings out a regular biennial journal, incorporating research papers and other kinds of knowledge in earth science subjects. The IGC programmes have helped galvanising India and stepping up earth science research and education in traditional and new areas such as sustainable development of domestic mineral industry and technologies for geoexploration and mineral resources, appraisal and management, energy and water security, medical geology, natural hazard mitigation and risk reduction, mineralo-herbal products of the three heritage systems of medicine, multifaced development of earth science education, understanding and monitoring the consequences of climate change and several other thrust areas of research.

The IGC Commemorates Earth Day and it did with excellent programmes supported by MoES, Govt. of India, in 2011 and 2012. In its efforts to create awareness, the IGC reaches out to the people through lectures on geosciences in Hindi, to begin with in the State of Uttarakhand. It also creates public amenities in Roorkee and neighbouring towns under its Green Earth Revolution programme. This programme will soon be extended to other urban & rural areas. It has planned to address environmental protection issues by organising Green Earth Conference on Oct. 18 & 19, 2012 in WIHG, Dehradun. Outstanding problems of minerals, mining and mineral-based industries are to be debated in this Convention thread-bare, besides generating useful data-base on various crucial matters concerning domestic mineral and mining industry and current regulatory and policy framework.

Effective efforts of the organisers of the 17<sup>th</sup> Convention pushed up knowledge-base in the area of ore geology & other braches of geo-sciences by bringing out 852 p. Proc. Vol. & Souvenir-cum-Paper Abstracts.

Membership and subscription drive has helped the Society to touch a level of nearly 900 members and organisations in its role. Your society now moves on to fulfil the following four missions energetically:

- Service to geosciences and earth science fraternity,
- Boosting earth science research,
- Help improve quality teaching and talent generation, and
- Awareness creation about geosciences among the people.

## M.P. COUNCIL OF SCIENCE AND TECHNOLOGY

Madhya Pradesh Council of Science & Technology (MPCST) establishment is located in the western part of Bhopal City over a beautiful site on Kaliyasot Reservoir hill top. Vigyan Bhavan is about 5 km from Habibganj railway station, 8 km from Bhopal railway station and 20 km from the Raja Bhoj Airport, in Bhopal. Complete information can be had from Google Map of Bhopal City.

The MPCST, “[www.mpcost.nic.in](http://www.mpcost.nic.in)” is functioning as an autonomous organization since 1981 under the Department of Science and Technology, the Government of Madhya Pradesh. Apart from discharging the role as scientific advisory body to the Government of Madhya Pradesh, it undertakes projects and programs from various funding agencies that are targeted towards development and planning of M.P. through S&T interventions. It has been recognized as the best Scientific Council of India; it is ISO Certified Institute and has recently been awarded *the National Geospatial Award, 2012* and also for Applications of Geoinformatics for e-governance. In its role, there are more than 60 scientists working in near about 15 areas of science and public utility.

### The Theme: 18<sup>th</sup> Convention

The nature has endowed several treasures to India, about which Indians have to feel proudly fortunate – world's greatest tropical forests, the Himalaya and its life-supporting rivers, the varied biodiversity and a potential of great variety of minerals.

India is the 5<sup>th</sup> mineral resource-rich country in the world that forms the backbone of industries and economy; they are also the pillars to modern civilization. This is a very important side of geology which is studied in great detail by every student as most of the raw-materials of modern industry come from the earth – coal, petroleum, iron-ore, the ores of the useful metals, the precious metals, the rare metals, a host of industrial minerals, salt and fertilisers, refractories and abrasives, all are obtained from the earth. Soil is geological material, building stones and all kinds of materials of construction, too, are mineral - or rock-products. Presently, India produces as many as 87 minerals, fuel 4, metallic 10, non-metallic 47, atomic 3 and minor minerals 23, excluding building and other mineral material, being at different development and inventory stages.

This non-renewable wealth is, now, threatened by over-exploitation and unsustainable development projects. We, therefore, have to prepare a comprehensive, well-balanced and informative guidelines, focusing on various measures for their sustainable exploitation, balancing with natural environment and ecological security. Thoughtfully dictated messages are to be documented by the Convention for sustainable conservation and systematic & discerning development practices of these resources in harmony with the nature and the civil society, involving local communities down to *Gramsabha* level to avoid conflict with the aspirations of the local people.

Mining is considered to have a direct negative bearing on the sustenance of the country's rich biodiversity. The Convention, therefore, has to find out such measures that could promote ecologically sustainable mining with biodiversity conservation and protection of environment. As such, broad-based scientific canvas designing is vital for healthy adaptable mining methods. This is a great field of economic or applied geology and other disciplines of geosciences to take on study in association with mining engineers. Integrated approach thus must be modelled.

To take the industrial growth and economy of India and the region around us forward, mineral resources and their sustained and adequate supplies have to be assured, as these are critical both for economic development and power generation. Unfortunately, power shortages have become endemic across all major states in India. SAARC nations are far behind in the development of mineral resources for the benefit of their own people and sharing their mineral inventories for planning cooperative mineral-based industries at appropriate venues in the region, primarily based on economic and technical feasibility reports.

Moreover, impacts of exploration, mining, transportation and mineral-based industries in harmony with natural environment, ecology and landscapes are also the key issues, which have not so far been evaluated at a combined forum participated by SAARC geoscientists. The Indian Geological Congress, therefore, has planned and initiated debate on this very crucial subject for these nations to bring out possibilities of setting up heavy mineral-based industries and at the same time discuss their overall effects on environment and ecology. Building of the planned and the profitable industries like iron & the steel, cement, aluminium, petroleum refineries, base-metal smelters, gems & gemstones cutting and polishing and so on should be a positive step forward towards peace and prosperity and progress of the people of the Southeast Asian neighbours. Increase in the development of such ventures and trade volumes will also help improve people-to-people contacts; besides furthering enhancement of trade ties in other spheres. It should also built up confidence for developing bilateral ties to give fillip to scientific, technical & educational cooperation. The organisers, therefore, visualize that industrial cooperation of this nature will solve many other problems, too.

## **FOCUS ON M.P. MINERAL RESOURCES**

The 18<sup>th</sup> Convention is wholly a scientific business of the current policies and problems & future of minerals and mineral raw-materials for domestically hospitable industries with special focus on mineral resources of M.P., and their wise exploitation, wholly beneficial to the people. New technologies, processes and policies will be dealt with by keynote speakers and later on debated by panelists in a Panel Discussion for the most productive routes India ought to follow for wholesale benefits from the precious and fortuitous mineral wealth in its territory.

The State of Madhya Pradesh has sizeable resources of iron & manganese ore, bauxite, gems & gem-stones (diamond, ruby & sapphire, emerald, etc.), coal, limestone and marble, which constitute people's rightful wealth. The Convention will focus on such issues that could benefit the State on their sustainable and proficient exploitation. The Convention will also have a good & sensible discussion on most of the other related issues and produce a comprehensive document that could help both public & private investors on the development of future mineral & mining industry in the State.

## **TIMELINES OF SCIENTIFIC & TECHNICAL PROGRAMME**

To the 17<sup>th</sup> Convention, the participants made impressive contributions on various vital issues concerning Earth's mineral resources. Proceedings of deliberations on all such issues are published in a special volume, titled "*New paradigms of exploration and sustainable mineral development : Vision 2050*, 852 p.". In the 18<sup>th</sup> Convention, the delegates will debate the theme "*Indian Minerals and Mining Sector in India – The Way Forward, inclusive of co-operative material – based industries in SAARC Countries*" - a continuation of efforts towards sorting out various other problems – geoscientists will find their strongest footing on mineral industries and mining services to industry & business. Mineral wealth plunder looms large, illegal mining



remains unchecked, and exploitation by opportunists for selfish gains is not uncommon. The Convention will provide opportunity of serious and solution-searching debate on these and other confronted problems to mining & mineral sector under the following sub-themes:

#### **A. Industrial Minerals, Mineral Fuels and Water Problems**

- Industrial Minerals – current status and small scale mining.
- Fossil fuels versus energy security.
- Water management and Security.
- Nuclear minerals and nuclear energy scenario.
- Mineral exploration strategies.
- Geoinformatics in mineral and mining Sector.

#### **B. Mineral Economics and Other Bizarre Issues**

- The role of minerals in economic development of the country.
- Government's contributions, policy, etc., for exploitation of mineral resources for Country's benefit.
- Role of public and private sectors – corporate investment considerations.
- Environment management and land reclamation & rehabilitation policies.
- Valuation of National Mineral Policy, mineral taxation, evasion, penalties, etc.
- Role of geosciences in health issues.
- Geosciences education in sustainable exploitation of mineral resources.

### **VENUE**

The Convention will be organised at the Madhya Pradesh Council of Science & Technology (MPCST), Vigyan Bhawan, Nehru Nagar, Bhopal - 462003 (M.P.)

### **INVITATION TO PARTICIPATE**

The Organising Committee extends warm and cordial invitation to earth scientists, mining & mineral engineers, environmentalists and other specialists, including petroleum geologists, exploration geologists, hydrogeologists and engineering geologists to share the platform of the IGC's 18<sup>th</sup> Convention (IGC-2013) and help in finding satisfactory solution to problems related to the focal theme “*Minerals and Mining in India – The way Forward, inclusive of cooperative mineral based Industries in SAARC Countries.*” Equally relevant are the sub-themes of the Convention & the Symposium in the present context of mineral and mining security measures.

## Call for abstracts/full papers/posters

Authors are requested to contribute technical papers relevant to the symposium theme. Full papers will be accepted after peer review and published in a Special Issue of the Journal of Indian Geological Congress. The authors are advised to submit abstracts of about 500 words on or before *December 1, 2012* and manuscript of full length paper by *January 31, 2013* in the standard format of the Journ. Ind. Geol. Cong. (refer recent issue). Full papers in MS Word, containing text and figures, is to be submitted as email attached to *18igcbhopal@gmail.com* or *igcroorkee@ymail.com/gmail.com* and also in CD by courier or speed post to the Convenor of the symposium.

## POSTER SUBMISSION

Poster contribution will be welcome from all the categories of scientists, researchers and students. Adequate space for posters will be available.

Every contributor to poster session is required to submit abstract written in 250 words. Two or three illustrations may be included. These should either be computer-generated or cartographically in tracing paper. Illustrations should be such as to allow 25% reduction. Hard copy of the complete poster presentation with author's full address and e-mail ID must reach the Convenor by November 30, 2012. Electronic submission will be preferred.

## Instructions

- Each poster should not be more than 75x 60 cm and only one poster will be accepted by one contributor, or a group of contributors on any one of the listed themes.
- Poster contribution can be with single or joint authorship.
- There will be many awards, certificates and mementos for contributors, who will present their papers personally. *There will, however, be only three awards for the poster contributors, open only to IGC members.*
- IGC Awards for paper contributors will, however, be open to both members and non-members of IGC. Names of awardees will be announced in the Plenary Session.
- Awards will be given in cash along with citation at the Concluding Session by the Chief Guest

## IGC AWARDS

As a part of IGC's promotional activities to develop earthscience-related technologies, growth of geosciences in general and spread of accruing societal benefits, the Organising Committee, on behalf of the Executive Council of IGC, has great pleasure in announcing the following awards for three best papers in order of merit :

First Prize	Rs.5000/-
Second Prize	Rs.3000/-
Third Award	Rs.2000/-

## GSI Sesquicentennial Commemorative Award

GSI Award of Rs. 5000/- in value will be given, subject to the fulfilling of the following conditions along with citation to the contributor of the paper, 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.

### Conditions for Awards

- 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.
- The paper will be peer-reviewed and published in IGC Journal. 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 website **[www.igcbhopal.org](http://www.igcbhopal.org)** or IGC website **[www.igcindia.net](http://www.igcindia.net)**.

### MARKER DATES

Despatch of First Circular	August 15, 2012
Despatch of Second Circular	November 15, 2012
Submission of Abstract	November 30, 2012
Early Registration Deadline	November 30, 2012
Communication for acceptance of Abstract	December 30, 2012
Submission of Full Paper	January 31, 2013
Communication for acceptance of Paper/ Poster	February 28, 2013
Last date for Registration/Participation Confirmation of lodging-boarding on receiving advance payment for accommodation reservation	March 15, 2013

## REGISTRATION FEE

Category	Before November 30, 2012	After November 30, 2012	Spot Registration
Foreign Delegates	US \$250	US \$300	US \$400
Accompanying person of Foreign Delegates	US \$100	US \$100	US \$200
Delegates from SAARC Nations	US \$150	US \$175	US \$200
Indian Delegates (Corporate/Industry/MNC/PSU)	Rs.5,000	Rs.6,000	Rs.7,000
Indian Delegates from Academic/R&D Organisations /Govt. bodies	Rs.4,000	Rs.5,000	Rs.6,000
Accompanying person of Indian Delegates	Rs.1,500	Rs.1,500	Rs.2,000
Research Scholar	Rs.1,500	Rs.2,000	Rs.2,500
Student	Rs.500	Rs.750	Rs.1,000

*Note: Individual IGC members (excluding student category) will be allowed to avail 50% discount*

## ACCOMMODATION

A limited accommodation will be available for individual guests in the Institute's guest house, guest-houses of nearby organisations and hotels on payment basis. Delegates can book their accommodation in hotels (names and telephone Nos. will be given in website) directly under intimation to the Conference Secretariat for which chargeable tariffs may range from Rs.800/- to Rs.10,000/- per day.

## SPONSORSHIP

Platinum Sponsorship	Rs.5.0 lakh (10 delegates free)
Gold Sponsorship	Rs.3.0 lakh (07 delegates free)
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Co-Sponsorship	Rs.50,000 (02 delegates free)

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## ABOUT BHOPAL

Bhopal, the capital of Madhya Pradesh, was built by Raja Bhoj of the Parmar dynasty in the 11<sup>th</sup> Century. Originally known as Bhojpal, the new city of Bhopal has come a long way in time to become one of the most historically rich and cultural treasure of M.P. and India. Bhopal is situated on the west-central part of Madhya Pradesh. The city is beautiful with picturesque natural landforms carved over Deccan Trap and the Vindhyan Sandstone. This city is also well-known as the City of Lakes, rocks and rolls. Lakes and greenery in Bhopal quietly make their charm felt because of their immaculate beauty that provides an opportunity to visitors to undertake eco-tourism and abundant fun and frolic. It is well connected by air, rail and road to all major cities of India.

### Climate

Bhopal has a humid subtropical climate with mild, dry winters, a hot summer and a humid monsoon season. Summer starts in late March and go on till mid-june, average temperature being around 30°C with peak summer



in May, when the highs regularly exceed 40°C. Monsoon starts late in June and ends in September. These months normally have about 40 inches of precipitation, frequent thunder storms and flooding. The average temperature is around 25°C and humidity is quite high. Temperature rises again until late October, when winter starts, lasting upto early March. Winters in Bhopal are mild, sunny and dry with average temperature around 18°C with little or no rain. The winter peaks in January, when temperatures may drop close to freezing in some nights. The climate of Bhopal during April is expected to be quite warm.

# 18<sup>th</sup> Convention of the Indian Geological Congress and International Symposium

on

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