



# भारतीय खान ब्यूरो समाचार

# Indian Bureau of Mines

# NEWS

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## MTS: PMKKKY, 2 OTHER MODULES GOES LIVE



The officers of State Governments along with IBM officials at the valedictory of two-day training programme on "Processing and Implementation of Mining Plan under Capacity Building of State Governments" held at IBM HQ in Nagpur.

## CONTENTS

### 150 YEARS OF MAHATMA



The Hon'ble President of India, Shri Ram Nath Kovind has launched the logo and web portal for commemoration of 150<sup>th</sup> birth anniversary of Father of Nation, Mahatma Gandhi on 18 September, 2018. More information is available on the website, <http://gandhi.gov.in>. The portal has information related to Gandhian literature, philosophy, audios, videos, rare photos and website is participatory in nature and all organisations may upload their activities regarding the commemoration.

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#### 3 CONTROLLER GENERAL'S DESK

4 Cooperation in Mining & Geology:  
India, Morocco inks MoU

6 Secretary reviews preparedness for Auction of Mines

7 MTS: PMKKKY, 2 other modules goes live

10 Remote Sensing Centre becomes fully functional

13 Constitution Day observed

14 Technical Updates

15 हिन्दी कार्यशाला का आयोजन

16 'प्राकृतिक संसाधन खनिज' का विमोचन

## OTHERS PUBLICATION CORNER PERSONNEL NEWS

# From Controller General's Desk



Dr K. Rajeswara Rao, IAS

The year 2018 remained eventful and a period of attainment for Ministry of Mines and IBM. The finalisation of list of leases expiring in 2020 and ready for auctions saw good progress. More than 325 leases of various minerals are going to expire on 31 March, 2020. The Ministry and the IBM took proactive measures and held series of meetings with State Governments to identify about 101 leases where exploration is proposed to be taken up in a time bound manner.

The Ministry through IBM is providing handholding assistance to the State Governments in order to achieve desired results for various schemes like Pradhan Mantri Khanij Kshetra Kalyan Yojana (PMKKKY), Mining Tenement System (MTS), Mining Surveillance System (MSS) etc. Sustained efforts are on to resolve the impediments like forest clearances for which Secretary (Mines) has held a dialogue with his counterpart in Ministry of Environment, Forest and Climate Change. The ambitious MTS which aims automating the entire mine

life-cycle has gone live for Pradhan Mantri Khanij Kshetra Kalyan (PMKKKY) module for which an App will also be launched soon. The Registration and Returns modules are under testing stage and shall soon go live on the MTS portal.

IBM has signed an MoU with Geological Survey of India for mutual sharing of data for MTS. GSI will share regional geological maps and related exploration data with IBM and IBM on its part will share the mineral maps showing the boundary of the lease hold areas and areas under Prospecting Licence and Reconnaissance Permit. IBM will integrate the data received from GSI to its MTS as well as the GIS and Remote Sensing project. Also, Forest Survey of India (FSI), Dehradun and IBM have agreed in principle on mutual sharing of data and IBM is in talks with other agencies like NIC, NRSC and State Forest departments for similar pact. The mutual data sharing will develop a robust geological and mineral database which shall aid better planning and decision-making.

The web-enabled rating system for mines received good response from the mine operators in the past year. For the assessment year 2017-18 up to Dec 2018, 981 mines submitted the online templates out of which 272 are validated and 34 mines have been rated Five Star. The Ministry is working on preparation of a template for Rating of Minor Minerals in future. While, the MSS has come as a robust system to detect unauthorised mining through generation of triggers. In the second phase of trigger generation up to Dec 2018, 52 nos of triggers were generated for major minerals of which four cases were found to be unauthorised mining following inspection of such mines by state governments.

Though, there are challenges ahead on many fronts, the ongoing work on capacity improvement in IBM through various schemes and manpower development post Restructuring of IBM will prove a big advantage in delivery of IBM's mandate more effectively and timely.

**Dr K. Rajeswara Rao, IAS**  
Additional Secretary (Mines) &  
Controller General In-charge



Shri Narendra Singh Tomar, Hon'ble Union Minister of Rural Development and Mines (left) and Mr Aziz Rabbah, Minister of Energy, Mines and Sustainable Development of Kingdom of Morocco exchange MoU at a programme in New Delhi.

## Cooperation in Mining & Geology: India, Morocco inks MoU

Shri Narendra Singh Tomar, Hon'ble Union Minister of Rural Development and Mines and Mr Aziz Rabbah, Minister of Energy, Mines and Sustainable Development of Kingdom of Morocco signed a Memorandum of Understanding (MoU) in the field of Mining and Geology in New Delhi on 11 April, 2018. The MoU was signed during the official tour of the Moroccan Minister to India. It will provide an institutional mechanism between India and Morocco for cooperation in the field of geology and mining and will mutually benefit both the countries.

The MoU focuses on development of the geological infrastructure for geosciences maps and geochemical maps, strengthening geological research and evaluation of the potential of mineral resources, promoting exploration and mining through participation of both public and private sector.

Before signing of MoU, the visiting Moroccan Minister held a meeting with

Shri Narendra Singh Tomar. Shri Tomar appraised the visiting delegation about the huge geological potential and a wide variety of minerals available in India and recent legislative measures to bring transparency in grant of mineral concessions; development of mining affected areas through District Mineral Fund (DMF). He also informed the Moroccan Minister that the GSI was a pioneer exploratory agency in exploration to assist Morocco in geological mapping and mineral exploration. A specialised training institute can also impart training to Moroccans, he said.

Mr Aziz Rabbah stated that joint venture and B2B between Morocco and India for minerals would be welcome to improve the economy of Morocco and neighbouring markets as well. Meanwhile, the Union Cabinet chaired by Hon'ble Prime Minister Shri Narendra Modi gave its ex post facto approval to the MoU on May 16.

### Tunisian Minister visit

In a separate meeting, Hon'ble Union Minister Shri Narendra Singh Tomar met with Mr Hachem Hmidi, Secretary of State for Ministry of Energy, Mines & Renewable Energy of Tunisia in New Delhi.

The duo exchanged pleasantries and appraised each other about potential of their countries in mining and geology sector. Shri Tomar informed the Tunisian Minister that the Geological Survey of India was a pioneer agency in exploration and was willing to assist Tunisia in geological mapping and mineral exploration. A specialised Training Institute of GSI could train the professionals in Tunisia, he said.

Mr Hachem Hmidi informed his Indian counterpart about the important mineral commodities found in Tunisia. India accounts for over 50 per cent of Tunisia's global phosphoric acid exports. Tunisia wishes to enhance the export of Phosphate and Natural Gas and Petroleum to India, he said. The two sides agreed on entering into an MoU for mutual cooperation in the fields of Mining and Geology and strengthen the bilateral relations.

## Secretary (Mines) Anil G. Mukim attends Expo-Mina Peru-2018

Shri Anil G. Mukim, Secretary (Mines) led an Indian delegation to attend the Expo-Mina Peru - 2018, the largest mining event held in Peru during 12-14 September, 2018. An Indian Pavillion was set up in the Mining expo to showcase India's capabilities and opportunities in the mining sector.

During the visit, Shri Mukim also met with Mr Francisco Ismodes Mezzano, Energy and Mines Minister of Peru. He also met the Minister of Foreign Trade and Tourism of Peruvian Government and discussed furthering cooperation programme with Peru in Geology and Mineral Resources and opportunities for trade and investment in

various sectors in India.

He told the representatives of the host Government of Peru that India came out with a slew of reforms in mining sector with amendment to the mining legislations and introducing ease-of-doing business for the mining companies through speedy clearances for exploration licences.

# 4<sup>th</sup> National Conclave on Mines & Minerals held

The 4th National Conclave on Mines & Minerals organised under the auspices of the Ministry of Mines on 13 July, 2018 in Indore, Madhya Pradesh turned out to be a big success. The Conclave gave an opportunity for a fruitful stakeholder interaction, providing a boost to mineral industry.

Shri Narendra Singh Tomar, Hon'ble Union Minister of Mines inaugurated the Conclave. He was flanked by S/Shri Haribhai Parthibhai Choudhary, Hon'ble Union Minister of State for Mines, Shivaraj Singh Chouhan, then Chief Minister of Madhya Pradesh, Amitabh Kant, CEO of NITI Aayog, Anil G. Mukim, Secretary (Mines) and others. In his address, Shri Narendra Singh Tomar highlighted the notable turnaround the mineral sector witnessed following a series of reforms undertaken in Mines and Mineral policies. The reforms has brought a robust growth of 6 per cent in mineral production in terms of volume and 23.4 per cent in terms of value, he said adding that District Mineral Foundation (DMF) saw an average annual accrual of Rs 6000 crores.

"The DMF has ushered in positive perception about mineral industry in the community living around mines. The developmental works carried out in the mines area under DMF will ensure more positivity," he stated. Shri Haribhai Parthibhai Choudhary, emphasised the importance of mining sector as a key supplier of raw materials to many important industries in the country.

Shri Amitabh Kant, CEO of Niti Aayog said the mineral sector in India has a key role



Shri Narendra Singh Tomar, Hon'ble Union Minister of Mines lighting the lamp to inaugurate the 4th National Conclave on Mines and Minerals held in Indore on 13 July, 2018. S/Shri Haribhai Parthibhai Choudhary, Hon'ble Union Minister of State for Mines, Shivaraj Singh Chouhan, then Chief Minister of Madhya Pradesh and others look on.

to play in achieving desired results under Make in India programme. The growth of mining sector is important for the growth in the allied sectors and enabling sufficient job creation.

The Conclave saw exhibition in which various State Governments showcased the potential of about 100 mineral blocks which are ready to be auctioned in 2018-19. While, the government agencies like GSI, MECL, IBM, MOEFCC, DGPS Agency MECON also put up stalls to give information on various processes. The public and private sector companies also took part in the exhibition. The Mines Minister also held a round-table

conference with the industry leaders, in which key issues related to statutory clearances were discussed. The technical sessions held during the day-long Conclave also gave an insight to stakeholders on processes involved in approval of mining plan and grant of statutory clearances from the various agencies and stakeholders.

Dr K. Rajeswara Rao, Additional Secretary (Mines), Dr. N.K. Singh, Joint Secretary & then CG (I/c), IBM, S/Shri Mantu Biswas, CCOM (I/c), P.N. Sharma, COM, Smt Indira Ravindran, Director, MP Division, Shri S.K. Adhikari, CMG and other senior officers from IBM attended the Conclave.

## CCEC meet reviews various schemes

Shri Anil G. Mukim, Secretary (Mines), Government of India chaired the Coordination-cum-Empowered Committee (CCEC) meeting on 12 July, 2018 at Brilliant Convention Centre, Indore on the sidelines of the 4th National Conclave on Mines and Minerals.

The meeting reviewed and discussed the status of 43 blocks that went under the hammer, mineral blocks explored and ready for acution in 2018-19 and status of exploration and related issues, progress of Pradhan Mantri Khanij Kshetra Kalyan Yojana (PMKKKY), Star Rating of Mines, exploration of mineral blocks under the National Mineral

Exploration Trust (NMET), Mining Surveillance System (MSS) and Mining Tenement System (MTS). The Secretary gave a patient hearing to representatives of the State Governments and assured a dialogue with concerned ministry to resolve impediments in forest clearances for stepping up exploration.

The representatives of various states apprised the Secretary (Mines) the progress made in identifying mine blocks for auction, status of the mines auctioned and the exploration stages. Shri Mukim asked the GSI and other ministry officials to prepare a report of various blocks which reached

auction stage (G2) under exploration but yet to be listed for auction. The Ministry of Mines was committed to provide handholding assistance to the States, he said and laid stress for audit of funds accrued under District Mineral Fund and proposed a study about effectiveness of its utilisation. On the basis of study report, DMF could be improved, he added.

Dr K. Rajeswara Rao, Additional Secretary (Mines), Dr N.K. Singh, Joint Secretary (Mines) and then CG (I/c), Shri Mantu Biswas, CCOM, IBM and others were present during the meeting.

## Dr K. Rajeswara Rao, IAS is CG (I/c), IBM

Dr K. Rajeswara Rao, IAS, Additional Secretary (Mines) has been given the additional charge of the post of Controller General, Indian Bureau of Mines. An IAS officer of 1988 batch from Tripura cadre, Dr Rao took charge of the additional assignment on 20 December, 2018.

After taking charge, Dr Rao undertook a meeting of Divisional Heads and Senior Officers of IBM Headquarters via video conferencing on 2 January, 2019 and reviewed the division wise activities. The CG (I/c) took a detailed stock of achievements against targets and course of action for achieving the remaining targets.

Dr Rao has been serving as the Additional Secretary (Mines) since 26 July, 2017 and has worked in key posts in the Government of India and in his home cadre. He was the Principal Secretary to Chief Minister and Principal Secretary in the Planning and Coordination Department, Tripura Secretariat during 2014-16 following which he moved on Central deputation as Joint Secretary to the Union Ministry of Health and Family Welfare. He has worked as the Chief Vigilance Officer of Container Corporation of India Ltd, a Public Sector unit under Ministry of Railways and held several important posts in his home cadre. He has also served in Andhra Pradesh and brought in path-breaking reforms in each of these departments.

## Mineralogy Laboratory gets Rock Cutting Instrument

A Rock Cutting and Automatic Thin Section Preparation Instrument (Discoplan-TS Model) imported from Denmark has been installed at the Mineralogy Laboratory at Modern Mineral Processing Laboratory & Pilot Plant, Mineral Processing Division of IBM, Hingna, Nagpur.

Smt Indira Ravindran, Director (OD) and Head, Mineral Processing Division, IBM inaugurated the instrument on 23 October, 2018. Dr (Smt) Sandhya M. Lal, Chief Ore Dressing Officer, Dr Dillip R. Kanungo, Suptdg. Officer, (OD) and other officers and staff of MP Division were present. The instrument would be useful for cutting of wide range of ore/rock specimens, lumpy materials for preparation of sample. The automatic thin section preparation unit will be immensely helpful in making high quality and precision thin sections for Electron

## Secretary reviews preparedness for Auction of Mines

Shri Anil G. Mukim, Secretary (Mines) chaired a meeting to discuss the preparedness of States for auctioning the mining leases expiring on 31 March, 2020 in New Delhi on 23 May, 2018. Shri S.K. Adhikari, Chief Mining Geologist, IBM and senior officials of Ministry of Mines attended the meeting. During the meeting, Shri Mukim asked IBM to submit the status report and updated list of leases expiring in 2020 and has been keeping track of the progress hitherto.

Following the review meeting, the Regional offices of IBM furnished the status report and updated list of leases which were subsequently submitted to Ministry. A detailed status of 104 expiring leases was sent to the Ministry on 8 June, 2018.

### SoP for Determination of Bulk Density

The Committee constituted to prescribe a

standard procedure for Determination of Bulk Density of Rock (core/chips) during prospecting/exploration has submitted the final Standard Operating Procedure (SoP) to the CGPB Headquarters on 27 December, 2018.

The committee, under the chairmanship of Smt. Indira Ravindran, Director, MP Division, IBM held three different meetings during the last six months and finalised the report. The members of the committee included S/Shri S.K. Adhikari, Chief Mining Geologist, IBM, Vijay Kumar, Director, NM-II, GSI, Dr. S. Roy, Director, SU (Maharashtra), GSI, Dr Kamlakaram, Sr. Manager (Geology), MECL, Mohammed Nasim Ansari, Resource Planning Department, NMDC and Dr Rajesh Mukherjee, Principal Geologist, Tata Steel Ltd.

## Finalising exploration plan

The year 2020 will be a challenging year for the mining sector in India. More than 325 leases of various minerals shall be expiring on 31 March, 2020. Aware of the challenges, Ministry of Mines in coordination with IBM and State Governments has identified 101 leases suitable for auction in nine mineral-rich states. Of the 101 leases, 45 are working and 56 are non-working. IBM is closely monitoring the exploration activities in the 45 working leases so that the exploration is completed in a time-bound manner. The Geological report of all such leases is likely to be submitted by April 2019 to help the State Governments carry out the auction process. For exploration in non-working leases, the State Governments are required to send proposals for authorisation under Section 18A of the MMDR Act to the Central Government so that the exploration may be taken up by Geological Survey of India (GSI) or any other agency as may be specified.

Probe Micro Analysis (EPMA) and optical microscope studies for characterisation/ petro-mineragraphic study of different type of ores and rocks.

### CG (I/c) visits MMPL & Pilot Plant

Dr Niranjana Kumar Singh, Joint Secretary (Mines) & then CG (I/c), IBM visited Modern Mineral Processing Laboratory & Pilot Plant, IBM, MIDC, Nagpur on 15 November, 2018 and reviewed the facilities available in Mineralogy & Chemical Laboratory.

He held discussions with Smt Indira Ravindran, Director (OD), MP Division, Dr (Smt) S.M. Lal, Chief Ore Dressing Officer, Dr D.R. Kanungo, Suptdg. Officer (OD), and senior officers of MP Division with regard to technical and administrative matters. He



Smt Indira Ravindran, Director, Mineral Processing Division, IBM cutting tape to unveil the Rock Cutting and Automatic Thin Section Preparation Instrument at the Mineralogy Laboratory of Modern Mineral Processing Laboratory and Pilot plant, IBM, Nagpur.

appreciated the work being carried out by Mineral Processing Division and asked the officials to keep up the pace.



Shri J.R. Chaudhary, COM (South Zone) speaking at the Training Programme on Online Submission of Monthly and Annual Returns for Iron Ore under Rule 45 of MCDR 2017 for Mining Industry Personnel, organised by IBM Bengaluru Zonal office at NMDC Conference hall at Donimalai in Ballari district, Karnataka. Dr Y.G. Kale, RCOM, Goa and others are seen. (Right) The participants of the training programme.

## MTS: PMKKKY, 2 other modules goes live

*IBM, GSI ink MoU for sharing of data; FSI also to share data*

The ambitious Mining Tenement System (MTS) which aims automating the entire concession life-cycle of mines and connecting various stakeholders for real-time transfer of electronic files and exchange of data has gone live. The Registration, Pradhan Mantri Khanij Kshetra Kalyan Yojana (PMKKKY) and Returns modules have gone live on [mitra.ibm.gov.in](http://mitra.ibm.gov.in).

While the registration is open for the MTS, the PMKKKY is currently live for data entry at district level and most of the States have started data entry. The Returns module is also live on the portal. The grievance management and Mobile app for PMKKKY will be launched soon. Training is also being conducted on PMKKKY module for North, Central and South Zone. Shri Anil G. Mukim, Secretary (Mines) chaired a series of meetings in the last three quarters to review the progress of the MTS project. In a meeting held on 20 November, 2018 in Hyderabad, the Secretary directed IBM to do backward scheduling of all the Phase-I modules.

The meeting stressed the vitality of the MTS project and its timely implementation. Dr N.K. Singh, Joint Secretary (Mines) and then CG (I/c), IBM along with senior officers of Ministry of Mines and Indian Bureau of Mines, representatives of Implementing Agency, Wipro Ltd, Project Monitoring Unit NISG were present. While, Shri P.N. Sharma, COM, Shri G.K. Jangid, RCOM attended a series of meetings at the Wipro campus,

Hyderabad during June and December to discuss the modalities of the various modules with representatives of Wipro. Shri Prithul Kumar, Director, Ministry of Mines represented the Ministry of Mines in the meeting.

The MTS shall enable effective management of mineral concession regime and transparency in operations at the Centre and in the States. The MTS primarily involves automating the entire concession life-cycle starting from identification of area and ending with closure of the mine; and connecting various stakeholders. Meanwhile, regular follow up were taken up with regional offices for obtaining the maps & document.

About 1435 maps/documents out of the total 1589 working leases were provided to Wipro, the Implementing Agency of MTS for scanning and digitisation. Wipro has so far scanned and digitised 6656 maps and georeferenced 1336 maps and digitised 1066 maps. For the project integration, IBM has written to State Governments to make available the spatial data and also facilitated a meeting of state government officials with Wipro and NISG, the Project Management Unit of MTS.

### MoU with GSI & FSI

IBM and GSI signed an MoU for mutual data sharing of geological maps and related exploration data on 15 November, 2019. GSI would share regional geological maps and

related exploration data, geological reports, borehole data etc. IBM will share the lease maps, Reconnaissance Permit (RP) and Prospecting Licence (PL) area maps with GSI. IBM will integrate the data received from the GSI to its MTS as well as GIS and Remote Sensing Project. The PL, RP and Mining Lease (ML) data available with IBM and exploration related data received from other agencies authorised under Section 4 (1) of the MMDR Act 1957 and the GSI data shall be integrated. The mutual data sharing will go a long way in developing robust geological and mineral database which will be of immense use for all the stakeholders in decision-making.

IBM has also entered into a similar understanding with Forest Survey of India (FSI), Dehradun for sharing of forest maps. The Bureau is also in discussion with other agencies like State Forest Departments, NIC and NRSC for a similar understanding.

### MSS

In a separate development, under the Mining Surveillance System (MSS), the second round of trigger generation is underway. Till December 2018, total 52 triggers for major minerals were generated. All these triggers were sent to the respective State Governments for field verification. So far Field Verification report in respect of 36 major Mineral Triggers have been received, out of which unauthorised mining in 4 cases of major minerals are confirmed by the state governments.

## PEEK INTO HISTORY

# Automation of Mineral Info Systems

The beginning of the 1980s gave way for penetration of computerisation in the information management system. IBM also rolled out the first ever computer systems to handle the mineral information – data collection and dissemination under its technical consultancy programmes.

During April-June 1981, IBM established a mini computer with an objective to develop an efficient and sophisticated information system and began computerisation of data on mining leases, mineral inventories and mining operations. “With this important step, IBM hopes to be of even greater assistance to industry in making available to it current information with minimum delay, and undertake specific information collection and processing,” said Shri D.N. Bhargava, then Controller in From the Controller’s Desk column of IBM News, April-June issue.

According to him, to develop any industry on modern lines, a major requirement was the collection and assimilation of relevant information covering diverse aspects... The Bureau had a specific and vital role to play in providing the industry processed and ready information covering a broad range of technical and economic activities. This function was achieved through a host of periodical and ad hoc publications brought out by the department..., he opined and continued: “When the volume of information is vast and the requirement is

very specific and urgent, manual methods of search, analysis, processing and retrieval are all not only laborious and time-consuming, but also do not measure up to the expectations of the accuracy. Hence, the choice is clearly for automation, i.e. computerisation, the Controller stated in his column.

### Workshop on Geo-Science Information

Shri Bhargava represented India at the Workshop on Geo-Science Information – Practical Applications held at Bandung, Indonesia from 4-9 May, 1981.

The Workshop organised by the Regional Mineral Resources Development Centre, Bandung – a unit of the Economic and Social Commission for Asia and the Pacific (ESCAP) in collaboration with the Association of Geo-Scientists for International Development.

Shri Bhargava presented a paper about the information system on mines and minerals as practiced in IBM. The scope of the workshop was to evaluate ways in which mineral information was being handled in the ESCAP region countries; to consider practical application of modern information methods in the Geological surveys and Bureaux of Mines from participant countries; and to improve ways of exchanging mineral information in the region. 54 participants from 14 countries attended the Workshop.



Indian Bureau of Mines celebrated the 72nd Independence Day with pomp and pride on 15th August, 2018. Dr Niranjana Kumar Singh, Joint Secretary & then Controller General In-charge, IBM hoisted the National flag on the headquarter premises in Nagpur. The employees and their family members turned up in large numbers for the flag hoisting ceremony which was followed by rendering of the National Anthem. Dr Singh called upon the officers and employees of IBM to deliver their duties towards strengthening of the IBM and the Mines and Mineral sector.

## Rating for Minor Mineral mines soon

The Ministry of Mines through its subordinate office Indian Bureau of Mines (IBM) is working on the preparation of a template for Star Rating of Mines for minor minerals. Star Rating of Mines was evolved to ensure exhaustive and universal implementation of Sustainable Development Framework (SDF) in mining and evaluation templates was notified for major minerals in 2016.

The mining leases are being rated since

2016 based on their performance with 1 to 5 stars. The initiative has driven miners to quickly adopt sustainable mining practices. The Star Rating was included as Statutory Provision in the MCDR for time-bound achievement of minimum of 4 stars in a two-year period. A web-enabled online system for evaluation of measures was developed and ensured compliance. The template is filled by the mine owner and validated by IBM. The Mines Ministry is working on

preparing a similar template applicable for the minor minerals.

### Progress

Till December 2018, 981 leases submitted online templates of Star Rating under Rule 35 of MCDR 2017 out of which 272 cases have been validated. After validation, 34 leases have been rated 5 Stars and 100 leases under 4 Stars. The IBM is making progress on validation process of other leases.



## SNIPPETS

### IBM notifies threshold value of minerals

Based on the recommendation of a high-level Committee constituted to review and finalise the Threshold Value of minerals published in 2009, Controller General, IBM notified the new Threshold values of minerals for Apatite & Rock Phosphate, Bauxite, Chromite, Fluorite, Graphite, Iron Ore, Kyanite & Sillimante, Limestone, Magnesite, Manganese Ore and Wollastonite on 25 April, 2018. The new threshold value will help in augmentation of the resource base and also help in conservation and utilisation of low grade ore.

### Revision of royalty rates

The third meeting of the Study Group constituted on revision of rates of royalty and dead rent for mineral (other than coal, lignite, sand for stowing and minor minerals) and sub group was held in Hyderabad on 8 June, 2018. Shri Anil G. Mukim, Secretary (Mines) chaired the meeting, while Dr Niranjana Kumar Singh, Joint Secretary (Mines) and then CG (I/c), IBM, senior officials of IBM and other stakeholder agencies attended.

### MEMC week celebrated

The Indian Bureau of Mines celebrated Mines Environment and Mineral Conservation (MEMC) Week under the limits of its various regional offices during the year 2018. The IBM Gandhinagar Regional office celebrated the MEMC Week from 24 November 2018 to 3 December, 2018. While, the Ajmer Regional office organised the 19th MEMC Week at the Sirohi Limestone mine in association with the JK Laxmi Cement Ltd.

Under Goa region, the 11th MEMC Week was organised for the mechanised mines of Maharashtra and Karnataka and Small Mines of Karnataka from 26 November 2018 to 2 December, 2018. While, Dr N.K. Singh, Joint Secretary (Mines) and then CG (I/c) graced the valedictory of the MEMC Week celebration held under the jurisdiction of Bhubaneswar Regional office on 1 Sept, 2018.



(Clockwise) Smt Kamal Fulari, Chief, Patanjali Mahila Yogapeeth conducting a Yoga session at the IBM Regional office in Goa to mark the International Yoga Day. Officers and staff practising a posture at the International Yoga Day celebrations held at IBM HQ in Nagpur.

## International Yoga Day observed

The Indian Bureau of Mines observed the fourth International Yoga Day at its Headquarters in Nagpur and other Zonal/Regional offices on 21 June, 2018. This year, the theme for the International Yoga Day was "Yoga for Peace".

At the HQ in Nagpur, Shri Vinay Kumar Saxena, Senior Library and Information Assistant, IBM conducted the programme and demonstrated various Aasanas and Pranayama. Officers and staff of IBM who made it to the event also performed various yogic postures following the demonstration.

### Goa

Similarly, International Yoga Day was also celebrated at IBM's Goa Regional office. Smt Kamal Fulari, Chief, Patanjali Mahila Yogapeeth, Goa was the chief guest for the event and lighted the lamp to inaugurate the event. Shri Prem Prakash, Deputy Controller of Mines presided. The chief guest was offered a flower sapling following which Smt Fulari and her student Sushama Desai demonstrated different Aasanas for the employees and officers. All other Zonal and Regional offices also conducted various events to mark the International Yoga Day.

## TRAINING



Shri P.N. Sharma, Controller of Mines (P&C) speaking at a Training programme on "Processing and Implementation of Mining Plan under Capacity Building of State Governments" organised for the officers of State Governments at IBM HQ in Nagpur during 6-7, August, 2018. Shri Mantu Biswas, CCOM (I/c) and Controller of Mines, Shri S.K. Adhikari, CMG, Shri U.L. Gupta, SMG and In-charge, Training Centre are seen.



The officers of Mineral Processing Division, Indian Bureau of Mines receiving the best paper presentation awards – Khare Award and Peravadhanalu Award for best paper presentation on beneficiation and Characterisation, respectively at the 17th International Seminar on MPT-2018 held at the IIT-ISM campus in Dhanbad.

## IBM officials attend 17<sup>th</sup> International Seminar on MPT-2018

Indian Bureau of Mines took part in the 17th International Seminar on Mineral Processing Technology (MPT - 2018), organised under the joint auspices of Indian Institute of Technology-Indian School of Mines (IIT-ISM), Dhanbad and Indian Institute of Mineral Engineers, Dhanbad Chapter, at the IIT-ISM campus at Dhanbad during 10-12 October, 2018.

Smt Indira Ravindran, Director (OD), Dr (Smt) Sandhya M. Lal, CODO, Dr Dillip R. Kanungo, SO(OD), Dr V.A.J. Aruna, SO(OD), S/Shri B. Suresh Kumar, DODO, Shri V.V.R. Murty, Santosh Pani, Prasanna Kumar

Sampath Rao, AODOs represented IBM in the International Seminar. The theme of MPT-2018 was “Coal and Minerals Processing in Energy and Economic Development”. The officers presented seven technical papers during the three-day symposium. All the papers were well received and appreciated by the delegates. The IBM officers were awarded the Peravadhanalu Award (Best paper presented on Characterisation) for the paper, “Significance of Mineralogical Studies in Deducing Reducibility Characteristics of Manganese ores” presented by Dr Dillip R.

Kanungo, SOOD, IBM and Khare Award (Best paper presented on Mineral Beneficiation) for the paper, “Beneficiation of Limestone rejects for utilisation in Cement Industry - An impetus for Mineral Conservation and Resource Augmentation” presented by V.V.R. Murty, AODO, IBM. It is for the first time any organisation has won both the awards.

The officers from IBM actively participated and made detailed deliberations on various technical aspects with the participants from industry, R&D and academic institutions and equipment manufacturers during the event.

## Remote Sensing Centre becomes fully functional

The setting up of Remote Sensing Project under IBM-NRSC Memorandum of Understanding has been completed and the laboratories in IBM HQ in Nagpur and Hyderabad Regional office are fully functional as on December 2018.

The IBM signed an MoU with NRSC, Hyderabad for “Capacity Building and Technical Support for lab establishment for monitoring the activities/changes within the mining lease area and within the 2 km buffer of mining lease boundaries using time series satellite imagery”. With the guidance and hand-holding of NRSC, Hyderabad, IBM has set up two state-of-the-art remote sensing and GIS facilities at Nagpur and Hyderabad. The laboratories are equipped with latest software like Erdas Imagine Professional with Photogrammetry and ArcGIS Desktop Advance and its extension with machine hardwares.

Under Capacity building activity, the officers and staff of IBM were given a training in organisations like GSI and NRSC to handle the softwares. S/Shri T.K. Sonarkar, SMG, Dr Sudhakara T.L, SMG and S.K. Muduli, JMG

**With the guidance of NRSC, Hyderabad, IBM has set up two state-of-the-art remote sensing and GIS facilities at Nagpur and Hyderabad. The labs are equipped with latest software like Erdas Imagine Professional with Photogrammetry and ArcGIS Desktop Advance and its extension with machine hardwares**

attended two refresher courses in Advanced Geographic Information System and Remote Sensing and Digital Image Processing at GSI Training Institute in Hyderabad in the month of April and July, 2018. While, select officers and staff of GM & MM Cell underwent training Basics of GIS using Open Source Software at GSI Regional Training Institute, Nagpur in June, 2018.

## Workshop on Online Submission of Returns held

A Workshop-cum-Training programme on “Online Submission of Returns” was organised under jurisdiction of IBM East Zone office at Hotel Indismart in Kolkata during 1-2 November, 2018. Shri P.C. Naik, Executive Director, Raw Materials Division, SAIL was the chief guest and inaugurated the workshop and delivered inaugural speech on importance of submission of online returns. Shri Kulshrestha, COM, Eastern Zone, gave an overview on MCDR Rules 2017.

S/Shri Harkesh Meena, RCOM, Bhubaneshwar, Anupam Nandi, RCOM, Ranchi, P.K. Bhattacharya, RCOM, Guwahati, Gaurav Sharma, DME, ME Division, Niret Kurian, AME (S), MMS Division, Nagpur conducted various lectures. Participants included delegates from Central, State Public Sectors and Private Mining Companies.

# IBM officials attend World Mining Congress in Astana

Shri Amit Saran, Director, Ministry of Mines and Shri B.L. Kotriwala, Regional Controller of Mines, IBM attended the 25th World Mining Congress held at Astana, Kazakhstan held between 19 June and 22 June, 2018, organised by the Ministry of Investments and Development of the Republic of Kazakhstan.

Mr Askar Mamin, First Deputy Prime Minister of Kazakhstan inaugurated the event. The theme of the 25th World Mining Congress was "Innovative superiority is a step forward on the way to the growth of the World Mining Industry". The Indian contingent at the Congress was represented by Ministry of Mines and Coal and various CPSUs from the mining sector like Coal India Ltd, NMDC Ltd, CIMFR, IIT (ISM) Dhanbad, BIT Mesra, Tata Steel Ltd and others.

The delegates from India presented various technical papers on subjects like state-of-the-art technology to promote sustainability in Coal Mining; Reserve Estimation complications in a heterogenous Iron Ore Body and its Mitigation; Development of Environmentally Clean Tailings storage system; Optimisation of

Binder Alternative for Cemented Paste Fill in Underground Metal Mines; Problems of Slope Stability in Indian Coal Industry; Alternate Transport System for Indian Iron Ore Mining Industry; Renewable Energy etc.

About 2389 delegates from 50 countries participated, which included 368 author speakers from 37 countries, 58 associations, and 79 universities. The World Mining Congress (WMC) is an UN affiliated organisation, which runs by the permanent secretariat seated in the Central Mining Institute, Katowice in Poland. The WMC is a world mining event that takes place every two to three years to promote and support both technical and scientific cooperation for national and international development of mineral areas and resources; implement a global information network concerning mineral science, technology, economy occupational health and environmental protection. The event was supported by The Association of Mining and Metallurgical Enterprises (AMME), largest mines & mineral industrial association of Kazakhstan.



Shri Amit Saran, Director, Ministry of Mines and Shri B.L. Kotriwala, Regional Controller of Mines, IBM during the 25th World Mining Congress held at Astana, Kazakhstan. The officials interacted with the delegates from various countries attending the Mining Conference.

## Swachhta Awareness Held in IBM



Students and NMDC officials taking out a Swachhta Awareness rally at Kirandul Complex of NMDC Ltd at an event conducted by IBM Regional office.

Indian Bureau of Mines observed the Swachhta Pakhwara during 16-31 October, 2018 at the Headquarters in Nagpur and at the Zonal/Regional as well as and Ore Dressing labs in Nagpur, Ajmer and Bengaluru.

### Raipur region

The Raipur Regional office of Indian Bureau of Mines (IBM) organised a Swachhta Awareness campaign during 16-31 October, 2018 as part of the Swachhta Pakhwara programme. The officers and employees carried out a wider publicity on cleanliness through various initiatives.

The Raipur office issued a circular with Swachhta message to all the mines under its jurisdiction. In association with various mines, activities with regard to Shramadan in and around mines and cleaning office premises were planned. These included taking pledge for cleanliness, holding plantation in mining lease area, Swachhta awareness campaign in schools and villages through Nukkad Natak (Skit) and various competitions for school students and villagers. The IBM officials along with school students took out a rally holding placards and banners depicting messages on cleanliness. The programme was spread across mines, plants, townships, schools and hospitals and nearby villages of Kirandul Complex of NMDC Ltd. Similar events were also organised in and around Limestone mines of Cement Industry in Baloda, Durg, Bilaspur and Raipur. A plantation programme and workshop was organised at Rawan Jhipan Limestone Mine of Ultratech Cement Ltd and at Jamui Limestone Mine of ACC Ltd. A door-to-door campaign on Waste Management, Waste Segregation, campaign against Open Defecation was conducted.

## Training on Bhavishya for administrative officials

The Administration wing of Indian Bureau of Mines in association with Training Centre organised a two-day Training Programme on Bhavishya (Online Pension Sanction and Payment Tracking System), Public Financial Management System (PFMS), NPS, Employees Information System (EIS) and Bharat-Kosh for officers and staff at IBM HQ in Nagpur on 30-31 July, 2018.

About 70 participants which included Assistant Administrative Officers/Drawing and Disbursement Officers/Assistants and UDCs from various Divisional, Zonal and Regional offices of IBM. Shri Arle Harikumar, Sujit Kumar, Smt S Gadpalyle, PAOs, Shri D.S. Betwar, AAO from NSSO & IBM conducted the lectures.



The officers and staff of IBM pose for a photograph on the valedictory ceremony of the Training Programme on “Store Procurement and Government E-marketplace (GeM)” at the IBM Headquarters in Nagpur. Shri D.K. Swamy, Sr. Administrative Officer and others are seen.

## IBM officials undergo training on GeM

The Training Centre, Indian Bureau of Mines organised a Training Programme on “Store Procurement and Government E-Marketplace (GeM) for officials at IBM Headquarters in Nagpur during 3-4 December, 2018.

The training was conducted in six different sessions covering topics like Introduction of e-procurement and online tender process through e-Wizard portal, Government E-Marketplace and its implementation, Budget and Expenditure Control, Basic Fundamentals of Purchase Procedures to implement GeM, Procurement through GeM (Practical Basics) and Provision of Store Procurement as per GFR-2017 & CVC guidelines. The faculties included officers from IBM and other departments. S/Shri Dinesh Kumar, AO (Budget), Sanjay Kumar Singh, AO and S.K. Chourey, ASO

from IBM conducted various sessions. While, the guest faculties included Shri Abhinav Bharat from Indian Telephone Industries, New Delhi, Shri Rahul Vyas (MECL, Nagpur), Shri Arle Harikumar, Sr. Accounts Officer, NSSO, Nagpur. The sessions were followed by a lively group discussion. Shri D.K. Swamy, Sr. Administrative Officer chaired the Valedictory programme.

A total of 41 IBM officials dealing with Store Procurement and drawn from Zonal/Regional Offices/Regional Mineral Processing Laboratories/All Divisional Offices at Nagpur HQ participated in the training programme. Shri U.L. Gupta, SMG & In-charge of Training Centre inaugurated the programme. Shri S.K. Chourey, Assistant Stores Officer was the Course Director and Shri Madan Kalwit, AME, Training Centre was the Course Coordinator.

## Training programme on Beneficiation of lean ores

The Mineral Processing Division of IBM organised a three-day “Training programme on Beneficiation of Lean ores/rejects/dumps & Recovery of Associated Minerals” for Industry Persons & New Recruits of MP Division from 26th to 28th September’ 2018 at Modern Mineral Processing Laboratory & Pilot Plant (MMPL & Pilot Plant) MIDC, Hingna Road, Nagpur.

Smt Indira Ravindran, Director (OD), MP Division inaugurated the training programme, while Dr (Smt) Sandhya Lal, CODO presided. Shri V.A. Sontakkey, DODO, was the course director. The inaugural function concluded with a vote of thanks.

The course module comprised of various topics pertaining to mineral beneficiation, mineral characterisation and chemical analysis.

A total of 35 executives from various Mineral Industries like SAIL, India Cements, HZL Agucha Vedanta, MOIL, RMD SAIL, Tata Steel, NMDC, JSW Cements, HCL, Odisha Mining corporation Ltd, Thriveni Earthmovers, Hindalco, A. P. Trivedi Sons, Dalmia Cements, Zinc Smelter Debari & Fomento Resources Goa, and from IBM, Nagpur attended. A group discussion was followed by valedictory programme. Kum. Prathama Diwakar, ARO was the Course Coordinator.

## Training on Characterisation of Ores and Minerals

The MP Division in association with Training Centre, IBM conducted a two-day Training Programme on “Characterisation of Ores & Minerals and Chemical Analysis” for Executives of Mining & Mineral Industry and State DGMS during 26-27 November, 2018 at MMPL & Pilot Plant in Nagpur. Smt. Indira Ravindran, Director (OD) inaugurated the training programme, while Dr (Smt) Sandhya Lal, CODO presided.

A total of 28 executives from various industries participated in the training programme. Smt Indira Ravindran, Director, MP Division and Dr (Smt) Sandhya Lal, CODO also delivered lectures during the two-day programme. The comprehensive course module comprised of various topics of wet and instrumental chemical analysis. Shri U.L.Gupta, Senior Mining Geologist & In-charge Training Centre, IBM was present. The participants were awarded a Certificate at the valedictory of the two-day training. The trainees were given Evaluation sheets and feedback was obtained.

The participants expressed satisfaction regarding the technical literature and training provided. Dr (Smt) Jyoti Shrivastav, Chemist was the Course Director and Shri Atul Dhande, Asstt. Chemist was course coordinator.



Smt. Indira Ravindran, Director, MP Division speaking at the Training Programme on Beneficiation of Lean Ores/rejects/dumps and Recovery of Associated Minerals” organised for the industry persons and new recruits of MP Division at MMPL & Pilot Plant, in Nagpur.



The participants pose for a photograph on the final day of the two-day Workshop-cum-Training programme on "Scrutiny, Processing and Implementation of Mining plan" held in Thiruvananthapuram. Dr Y.G. Kale, RCOM, IBM and others are seen.

## IBM holds workshop-cum-Training

A two-day Workshop-cum-Training Programme on "Scrutiny Processing and Implementation of Mining Plan" was organised for the officers of Kerala State under Capacity Building programme of IBM during 28-29 September, 2018 at the Conference Hall of the Directorate of Mines and Geology, Thiruvananthapuram.

Dr Y.G. Kale, RCOM, Goa and Dr. A.N. Murthy, Suptdg. Mining Geologist, IBM and Arun Kumar, Deputy Controller of Mines conducted the workshop in the capacity of key faculties. The officers or participants had a fruitful interaction with the faculty members of IBM. Dr. A.N. Murthy, SMG, IBM, Bengaluru was the course director, while, Shri Biju Sebastian, Senior Geologist, DGM, Kerala was the course coordinator. About 48 officers from Mines & Geology department participated in the workshop, organised by the Training Centre, IBM HQ, Nagpur.

## AMBEDKAR JAYANTI



best-suited people to govern the country. The Constitution can be used as an apparatus or weapon to overcome the problems of the country," he asserted. In her remarks, Smt Indira Ravindran, Director, MP Division congratulated the office and the Ambedkar Smruti Samiti for successfully organising the day with a lecture programme.

## Constitution Day observed

Indian Bureau of Mines observed the Constitution Day at its Headquarters and all other regional and zonal offices on 26 November, 2018. The day marks the adoption and enactment of the Constitution by the Constituent Assembly on 26th November, 1949 and is being observed as Constitution Day since the year 2015.

### IBM HQ, Nagpur

The IBM Headquarters in Nagpur hosted the main event in which noted lawyer Shri Firdos Mirza was invited as the chief guest for delivering a lecture on Indian Constitution. Shri K. Thomas, Deputy Director General (Statistics), Shri Mantu Biswas, CCOM (I/c) and Controller of Mines and Smt Indira Ravindran, Director, MP Division and Shri D.W. Beck, Suptdg. Mineral Economist and president of Ambedkar Smruti Samiti were present.

To begin with, the Preamble of the Indian Constitution was read. Later, in his address, Shri Mirza said people should understand the different provisions of the Constitution. The country and its constitution have a symbiotic relationship where one does not work without the other. "People should elect the

### Goa

The Goa Regional office of IBM also celebrated the Constitution Day with lighting the traditional lamp. Dr Y.G. Kale, RCOM inaugurated the programme followed by reading of the Preamble. In his address, Dr. Kale congratulated the audience for having a gratified Constitution for the country. He named the members of the Constituent Assembly and explained their great contributions. The Constitution was soul of Indian democracy and Preamble explained its objectives. He also called upon the employees to give equal importance to Rights and Responsibilities of the Constitution.

Shri, Suresh Prasad, Deputy Controller of Mines, Shri N. Sheshadri, AAO were present.



Shri Firdos Mirza (centre), noted lawyer was the chief guest of the Constitution Day observed at the IBM HQ in Nagpur. (From Right) S/Shri M. Biswas, then CCOM (I/c), K. Thomas, DDG (S), Smt Indira Ravindran, Director, MP Division, Shri D.W. Beck, Suptdg. Mineral Economist are seen.

Shri Shrihari Aney, former Advocate General, Government of Maharashtra speaking at the Dr Babasaheb Ambedkar Jayanti celebrations organised under the aegis of Dr Babasaheb Ambedkar Smruti Samiti at IBM HQs in Nagpur. Shri Ranjan Sahai, then CG, IBM, Adv. (Smt) Kumkum Vikas Sirupurkar, S/Shri D.W. Beck, A.A. Gawai, Vinit Rotke of Dr Babasaheb Ambedkar Smruti Samiti are seen.

## TECHNICAL UPDATES

### Recovery of gold from jewellery waste

A slag of jewellery waste from SBRA Chemicals, Chennai, Tamil Nadu was received through Shiva Analyticals (India) Private Limited, Hoskote, Bengaluru. The objective of the investigation was to characterise the slag of jewellery waste and to evolve a suitable process flow sheet for the recovery of gold present in the sample.

The as received sample assayed Au 8.4 ppm, Ag 80 ppm, As 25 ppm, Ba 1250 ppm, Cu 945 ppm, Ni 110 ppm, Pb 2.2%, S 3215 ppm, Zn 1350 ppm, Zr 191 ppm, V 158 ppm, Sr 374 ppm, Sb 150 ppm and Cr 627 ppm, FC 3.2%,  $Al_2O_3$  10.6%,  $SiO_2$  52.7,  $Fe_2O_3$  8.2%,  $Na_2O$  2.8%,  $K_2O$  1.1%, CaO 8.0%, MgO 2.5%, MnO 0.1%,  $P_2O_5$  0.5%,  $TiO_2$  0.9%, and LOI 9.4.

Direct intensive cyanidation by bottle roll method simulating agitation leaching of the as received sample at -150 mesh size extracted 74.8% Au in solution. The leach residue assayed 2.13 ppm Au with Au distribution of 25.2%.

Agglomeration of the as received sample followed by percolation column leaching simulating heap leaching method extracted 54.0% Au in solution. The leach residue assayed 4.15 ppm Au with Au distribution of 46.0%. The leached solution was continuously passed through the activated carbon for gold absorption. The gold loaded activated carbon

**Pre-concentration of gold by flotation of the sample ground to -150 mesh yielded a gold pre-concentrate float assaying 29.98 ppm Au with 66.2% Au recovery (Wt. % yield: 19.7)**

assayed 580 ppm Au, where the Au distribution is 39.2%. The recirculated solution after carbon absorption after 10 days assayed 0.85 ppm with Au distribution of 6.6%. The residue was thoroughly rinsed with water to collect the leached gold present along with the residue. The residue washed liquor assayed 0.65 ppm Au with Au distribution of 8.2 in the circuit.

Pre-concentration of gold by flotation of the as received sample ground to -150 mesh yielded a gold pre-concentrate float assaying 29.98 ppm Au with 66.2% Au recovery (Wt. % yield: 19.7). The rougher tails assayed 3.75 ppm Au with 33.8% Au distribution (Wt. % yield: 80.3). The rougher float concentrate may be subjected to direct smelting of gold.

The beneficiation studies reveal that the slag sample is amenable for gold leaching.

### Beneficiation study on low grade copper ore

A very low grade copper exploratory drill core sample was received from North of Golwa, Mahendragarh Dist, Haryana from Geological Survey of India, Chandigarh.

The as received sample assayed 0.29% Cu, 42.25%  $SiO_2$ , 9.98%  $Al_2O_3$ , 18.47% CaO, 4.87% MgO, 0.25% C, and 10.55% LOI. The mineralogical studies on the as received sample indicate that the sample consist copper bearing phases chalcopyrite, bornite, and chalcocite/covellite are present in traces. The sample consist major amounts of carbonates (dolomite, calcite) with subordinate amounts of mica (muscovite, biotite), chlorite, quartz and minor amounts of amphibole and very minor to traces of tourmaline, hematite and zircon.

The beneficiation route employed flotation process yielded a final concentrate assayed 21.75% Cu, 14.85%  $SiO_2$ , 2.38%  $Al_2O_3$ , with 86.8% Cu recovery with 1.16 weight per cent yield. A by-product carbonate concentrate suitable for cement industry was produced by treating the copper flotation reject by flotation and a concentrate assayed 45.75% CaO, 3.57% MgO, 6.09%  $SiO_2$ , 1.31  $Al_2O_3$  and 38.11% LOI with 49.1% CaO recovery with 19.8 weight per cent yield.

### Bench scale beneficiation of Bauxite

A medium grade bauxite sample was received from Ashapura, Jamnagar, Gujarat for conducting bench scale beneficiation studies at the Modern Mineral Processing Laboratory & Pilot Plant, Indian Bureau of Mines, Nagpur. The objective of the investigation was to reduce silica content less than 3% and to produce a bauxite concentrate suitable for industrial use.

The as received sample assayed 44.38%  $Al_2O_3$ , 8.08%  $SiO_2(T)$ , 7.63% reactive silica, 16.99%  $Fe_2O_3$ , 24.80% LOI, 2.15%  $TiO_2$ , 1.10% CaO, 0.38% MgO, 0.22%  $Na_2O$ , 0.23%  $K_2O$ , 0.19%  $P_2O_5$ , 0.22% Mn & 0.79% moisture. Gibbsite is the main aluminium bearing mineral in the sample with minor amount of boehmite and diasporite. Clay (Kaolinite) is

noticed in subordinate amount. Hematite and goethite/ limonite are the iron minerals present in subordinate amount. Carbonates (calcite, siderite), quartz, rutile/anatase, mica (muscovite, biotite), pyroxene (diopside), and Arsenopyrite are also noticed in very minor to trace amount in the sample.

The beneficiation processes adopted were (i) attrition scrubbing followed by screening could yield a composite concentrate assaying 49.85%  $Al_2O_3$ , 2.27%  $SiO_2(T)$ , 17.36%  $Fe_2O_3$  and 27.48% LOI with 54.9%  $Al_2O_3$  recovery (Wt% yield 49.2) and (ii) as received sample was subjected to scrubbing in a Sayaji concrete mixer followed by screening could yield a



composite concentrate (-50+1mm) assaying 48.94%  $Al_2O_3$ , 2.49%  $SiO_2(T)$ , 17.92%  $Fe_2O_3$  and 26.71 % LOI with 56.98%  $Al_2O_3$  recovery (Wt% yield 51.8).

Both the concentrates produced may be suitable for industrial use where the silica content is less than 3%.

# हिन्दी अनुभाग



भारतीय खान ब्यूरो मुख्यालय में आयोजित एक दिवसीय हिंदी कार्यशाला में वक्तव्य देते हुए महालेखाकार कार्यालय के राजभाषा अधिकारी श्री सतीश दुबे एवं प्रतिभागी (दाएँ) दीप प्रज्ज्वलन कर कार्यशाला का उद्घाटन करती लेखिका श्रीमती ज्योति कुलकर्णी तथा उपस्थित उप खान नियंत्रक श्री सुरेश प्रसाद

## हिन्दी कार्यशाला का आयोजन

**भारत सरकार की राजभाषा नीति के कार्यान्वयन एवं हिंदी के प्रचार-प्रसार व प्रगति के उद्देश्य को ध्यान में रखते हुए भारतीय खान ब्यूरो के विभिन्न कार्यालयों में समय-समय पर हिंदी कार्यशालाओं का आयोजन किया जाता है.**

**भारतीय खान ब्यूरो, मुख्यालय** – मुख्यालय में 11 दिसंबर 2018 को अधिकारियों एवं कर्मचारियों हेतु एक पूर्ण दिवसीय हिंदी कार्यशाला का आयोजन किया गया. उक्त कार्यशाला में कुल 34 अधिकारियों एवं कर्मचारियों ने उत्साहपूर्वक भाग लिया. कार्यशाला में व्याख्यान देने हेतु महालेखाकार कार्यालय के राजभाषा अधिकारी श्री सतीश दुबे एवं कर्मचारी राज्य बीमा निगम कार्यालय के वरिष्ठ अनुवादक श्री जय प्रकाश को आमंत्रित किया गया था.

**खनिज प्रसंस्करण** – भारतीय खान ब्यूरो के खनिज प्रसंस्करण प्रभाग की निदेशक (अ.प्र.) के मार्गदर्शन में खनिज प्रसंस्करण प्रभाग, एम.आई.डी.सी., हिंणगा में 24 अक्टूबर 2018 को एक दिवसीय हिंदी कार्यशाला का आयोजन किया गया. इस अवसर पर कार्यक्रम की अध्यक्षता मुख्य अयस्क प्रसाधन अधिकारी डॉ.संध्या लाल ने की.

कार्यशाला की अवधि में खनिज प्रसंस्करण प्रभाग के व्याख्याताओं ने विभिन्न प्रशासनिक एवं तकनीकी विषयों पर व्याख्यान दिए. उक्त कार्यशाला में 15 तकनीकी अधिकारियों ने भाग लिया. कार्यशाला के प्रथम सत्र में खनिज प्रसंस्करण प्रभाग की डॉ.(श्रीमती) संध्या लाल, मुख्य अयस्क प्रसाधन अधिकारी ने 'कार्यालयीन

हिंदी का स्वरूप', सहायक अयस्क प्रसाधन अधिकारी श्री वी.वी.आर.मूर्ती ने 'इंडस्ट्रीयल स्केल/कमर्शियल प्लांट की प्री-फिजीबिलिटी स्टडी में बैंच स्केल और पायलट प्लांट स्केल इन्वेस्टीगेशन की भूमिका' पर व्याख्यान दिए तथा दूसरे सत्र में सहायक प्रशासन अधिकारी (ख.प्र.) श्री अवनीश कौशिक ने सामान्य प्रशासन से संबंधित विषय पर तथा सहायक अयस्क प्रसाधन अधिकारी एवं हिंदी संपर्क अधिकारी श्री अंचित गोयल ने टिप्पणी लेखन से संबंधित विषय पर व्याख्यान दिए.

इस अवसर पर कार्यशाला में विभिन्न प्रतिभागियों ने अपने पूछे हुए प्रश्नों का व्याख्याताओं से समाधान प्राप्त किया तथा इसी प्रकार के कार्यशाला पुनः आयोजित करने की इच्छा व्यक्त की.

कार्यशाला का संचालन एवं धन्यवाद ज्ञापन श्री अंचित गोयल ने किया. अनुवादक श्री संजय डोंगरे ने कार्यशाला को सफल बनाने में सहयोग दिया.

**गोवा क्षेत्रीय कार्यालय** – राजभाषा नीति के क्रियान्वयन में 26 सितंबर 2018 को गोवा क्षेत्रीय कार्यालय में एक पूर्ण दिवसीय कार्यशाला का आयोजन किया गया जिसमें कुल पांच पाठ आयोजित किए गए.

उद्घाटन समारोह के मुख्य अतिथि हिंदी प्राध्यापक (से.नि.) एवं लेखिका श्रीमती ज्योति कुलकर्णी के कर कमलों से दीप प्रज्ज्वलन कर कार्यशाला का विधिवत उद्घाटन किया गया. समारोह की अध्यक्षता उप खान नियंत्रक श्री सुरेश प्रसाद ने की. अध्यक्षीय संबोधन में श्री प्रसाद ने राजभाषा के रूप में हिंदी के महत्व और योगदान पर विस्तार से प्रकाश डाला तथा ऐसी कार्यशालाओं का लाभ उठाने की अपील की. मुख्य



मुख्यालय में 11 दिसंबर 2018 को आयोजित एक पूर्ण दिवसीय हिंदी कार्यशाला में भाग लेते अधिकारी/कर्मचारी.

अतिथि श्रीमती कुलकर्णी ने हिंदी के प्रयोग से जुड़े अपने अनुभव साझा किए.

उच्च श्रेणी लिपिक श्री आर.डी. मंगाने के आभार प्रदर्शन के साथ उद्घाटन समारोह का समापन हुआ. इस कार्यशाला में चार अधिकारियों और पाँच कर्मचारियों को प्रशिक्षण प्रदान किया गया.

**उदयपुर क्षेत्रीय कार्यालय** – भारतीय खान ब्यूरो के उदयपुर क्षेत्रीय कार्यालय में 26 से 27 सितंबर 2018 के दौरान दो दिवसीय हिंदी कार्यशाला का आयोजन किया गया.

26 सितंबर को खान नियंत्रक श्री टी.के.रथ ने दीप प्रज्ज्वलन कर कार्यक्रम का उद्घाटन किया. कार्यशाला में सर्वप्रथम 'राजभाषा संबंधी नियमों की जानकारी' विषयक व्याख्यान आयोजित किया गया.

27 सितंबर 2018 को 'हिंदी में भंडार संबंधी जानकारी' विषय पर भंडारपाल (तकनीकी) श्री ललित कुमार नागदा ने व्याख्यान प्रस्तुत किया.



बंगलूर में आयोजित हिंदी पखवाड़ा का विधिवत उद्घाटन करते खान नियंत्रक (द.अ.) श्री जे.आर.चौधरी तथा उपस्थित अन्य. मुख्यालय में हिंदी पखवाड़ा उद्घाटन समारोह का दीप प्रज्वलन कर उद्घाटन करते कार्यक्रम के अध्यक्ष श्री के.थॉमस तथा उपस्थित कार्यक्रम के मुख्य अतिथि परमाणु खनिज अन्वेषण एवं अनुसंधान निदेशालय के क्षेत्रीय निदेशक श्री सुरेश कुमार एवं राजभाषा अधिकारी डा.जैन.

## हर्षोल्लास के साथ मनाया गया हिंदी पखवाड़ा

भाषा किसी भी राष्ट्र की सामाजिक एवं सांस्कृतिक धरोहर की संवाहक होती है और साथ ही संपूर्ण राष्ट्र की एकता और अखंडता की एक महत्वपूर्ण कड़ी भी होती है. हिन्दी को राष्ट्रीय स्वाभिमान का अंग एवं प्रेरणा स्रोत के रूप में सर्वाधिक उपयुक्त समझते हुए भारतीय संविधान सभा द्वारा 14 सितंबर 1949 को भारत संघ की राजभाषा के रूप में अंगीकार किया गया. इसी तथ्य को मद्देनजर रखते हुए विभिन्न सरकारी कार्यालयों में सितंबर माह के प्रथम सप्ताह में हिन्दी पखवाड़ा का आयोजन किया जाता है. भारतीय खान ब्यूरो मुख्यालय, क्षेत्रीय कार्यालय एवं उप क्षेत्रीय कार्यालय में हिन्दी पखवाड़ा उत्साहपूर्वक मनाया गया.

**भारतीय खान ब्यूरो, मुख्यालय-** भारतीय खान ब्यूरो (मुख्यालय) में 4 से 14 सितंबर 2018 के दौरान हिंदी पखवाड़ा का आयोजन किया गया. पखवाड़े का शुभारंभ 4 सितंबर को परमाणु खनिज अन्वेषण एवं अनुसंधान निदेशालय के क्षेत्रीय निदेशक श्री सुरेश कुमार के करकमलों से किया गया. कार्यक्रम की अध्यक्षता (सांख्यिकी) श्री के. थॉमस ने की. परंपरागत दीप प्रज्वलन से कार्यक्रम का शुभारंभ हुआ.

इस अवसर पर मंच पर मुख्य खान नियंत्रक (प्रभारी) श्री मूंदू विश्वास, खनिज प्रसंस्करण प्रभाग की निदेशक श्रीमती इंदिरा रविन्द्रन, मुख्य खनिज अर्थशास्त्री एवं राजभाषा अधिकारी डा.पी.के.जैन तथा उप-निदेशक (राजभाषा) श्री प्रमोद एस.सांगोले उपस्थित थे.

अपने अध्यक्षीय संबोधन में श्री थॉमस ने दैनंदिन कार्यालयीन कार्य में हिंदी का अधिक से अधिक प्रयोग करने पर जोर दिया. समारोह के मुख्य अतिथि श्री सुरेश कुमार ने सभा को संबोधित करते हुए कहा कि हिंदी में कार्य करना हमारा कर्तव्य है. इससे पूर्व राजभाषा अधिकारी डा.जैन ने स्वागत भाषण प्रस्तुत किया. हिंदी पखवाड़े के दौरान हिंदी सामान्य एवं तकनीकी निबंध प्रतियोगिता, हिंदी टिप्पण-आलेखन प्रतियोगिता, हिंदी शुद्ध लेखन प्रतियोगिता, हिंदी अनुवाद प्रतियोगिता, हिंदी टंकण प्रतियोगिता, हिंदी प्रश्नोत्तरी प्रतियोगिता, हिंदी अनुवाद प्रतियोगिता एवं हिंदी प्रश्नमंच प्रतियोगिता का आयोजन किया गया.

14 सितंबर को समापन समारोह का आयोजन किया गया. कार्यक्रम की अध्यक्षता मुख्य खनन भूविज्ञानी श्री एस.के. अधिकारी ने की. इस अवसर पर प्रसिद्ध व्यंग कवि, गीतकार, गजलकार एवं मंच संचालक डा.सागर खादीवाला मुख्य अतिथि के रूप में उपस्थित थे. कार्यक्रम के आरंभ में डा.पी. के.जैन ने माननीय गृह मंत्री श्री राजनाथ सिंह का संदेश वाचन किया. श्री पी.एन.शर्मा द्वारा माननीय खान मंत्री श्री नरेंद्र सिंह तोमर जी का संदेश एवं महानियंत्रक का संदेश श्री प्रमोद सांगोले ने पढ़कर सुनाया.

**उदयपुर क्षेत्रीय कार्यालय -** भारतीय खान ब्यूरो के उदयपुर क्षेत्रीय कार्यालय में 31 अगस्त से 14 सितंबर तक हिंदी पखवाड़ा आयोजित किया गया. जिसके अंतर्गत विभिन्न प्रतियोगिताओं का आयोजन कर कर्मचारियों में हिंदी के प्रति जागरूकता लाने का प्रयास किया गया.

हिंदी पखवाड़े का उद्घाटन खान नियंत्रक श्री टी.के.रथ ने परंपरागत दीप प्रज्वलन से किया. इस अवसर पर उप खान नियंत्रक एवं कार्यालय अध्यक्ष श्री के.के.टारडिया एवं वरिष्ठ सांख्यिकी अधिकारी एवं हिंदी संपर्क अधिकारी श्रीमती नीता कोठारी प्रमुखता से उपस्थित थे.

समापन समारोह का आयोजन 14 सितंबर को किया गया जिसमें श्री के.के.टारडिया ने माननीय गृहमंत्री श्री राजनाथ सिंह के संदेश का वाचन किया. पश्चात प्रतियोगिता के विजेताओं को पुरस्कृत किया गया. समारोह का संचालन

कनि. सांख्यिकी अधिकारी श्री अक्षत याज्ञनिक ने किया जबकि धन्यवाद ज्ञापन सहायक खनन अभियंता श्री मनीष गुप्ता ने प्रस्तुत किया.

**बंगलूर क्षेत्रीय कार्यालय -** भारतीय खान ब्यूरो के आंचलिक, क्षेत्रीय एवं क्षेत्रीय खनिज प्रसंस्करण प्रयोगशाला के संयुक्त तत्वावधान में 3 से 14 सितंबर 2018 तक हिंदी पखवाड़ा हर्षोल्लास के साथ मनाया गया. पखवाड़े का शुभारंभ खान नियंत्रक (द.अ.) श्री जे.आर.चौधरी के हस्ते दीप प्रज्वलन से हुआ. अपने संबोधन में उन्होंने कहा कि हिंदी देश की आत्मा है और राष्ट्र की वाणी है. हिंदी तेजी से विश्व की भाषा बनती जा रही है.

कार्यालय में हिंदी पखवाड़े के अवसर पर विभिन्न प्रतियोगिताओं का आयोजन किया गया. जिसमें सभी ने बढ़-चढ़कर हिस्सा लिया. पखवाड़े का समापन समारोह 14 सितंबर 2018 को आयोजित किया गया था जिसमें श्री जे.आर.चौधरी ने माननीय गृह मंत्री श्री राजनाथ सिंह का संदेश पढ़कर सुनाया. हिंदी पखवाड़े के अवसर पर बंगलूर दक्षिण आंचल कार्यालय में कार्यरत चारों क्षेत्रीय खान नियंत्रक भी उपस्थित थे. गोवा क्षेत्रीय कार्यालय के क्षेत्रीय खान नियंत्रक डा.वाई.जी.काले ने अपने वक्तव्य में कहा कि हिंदी विश्व की सबसे बड़ी बोलचाल की भाषा है. हिंदी पखवाड़े के सफल आयोजन में सहायक खनन अभियंता श्री अश्वनी कुमार, हिंदी अनुवादक श्री आशीष घोषाल, आशुलिपिक ग्रेड - 1, उच्च श्रेणी लिपिक श्रीमती के.कनकवल्ली तथा अधिकारियों/कर्मचारियों ने पूर्ण सहयोग प्रदान किया.

**खनिज प्रसंस्करण प्रभाग -** भारतीय खान ब्यूरो के हिंगणा स्थित खनिज प्रसंस्करण प्रभाग में 4 सितंबर 2018 को हिंदी पखवाड़े का शुभारंभ हुआ. मुख्य अतिथि के तौर पर निदेशक (अयस्क प्रसाधन) श्रीमती इंदिरा रविन्द्रन तथा मुख्य अयस्क प्रसाधन अधिकारी डा.श्रीमती संध्या लाल ने कार्यक्रम की अध्यक्षता की. परंपरागत दीप प्रज्वलन से कार्यक्रम की शुरुआत हुई.





खनिज प्रसंस्करण प्रभाग में आयोजित हिंदी पखवाड़ा अवसर पर विचार व्यक्त करती मुख्य अयस्क प्रसाधन अधिकारी डा.श्रीमती संध्या लाल तथा मंच पर उपस्थित निदेशक (अयस्क प्रसाधन) श्रीमती इंदिरा रविंद्रन एवं हिंदी संपर्क अधिकारी श्री अंचित गोयल

सहायक अयस्क प्रसाधन अधिकारी एवं हिंदी संपर्क अधिकारी श्री अंचित गोयल ने राजभाषा नियमों के अनुपालन संबंधी जानकारी एवं प्रभाग में हिंदी कार्यान्वयन संबंधी प्रगति की समीक्षा प्रस्तुत की कार्यक्रम की अध्यक्षता डा.लाल ने प्रभाग में हिंदी कार्य की प्रगति पर संतोष व्यक्त किया और सभी कार्मिकों को हिंदी में कार्य करने का आह्वान किया साथ ही हिंदी में कार्य करने वाले सभी कार्मिकों की प्रशंसा की.

कार्यक्रम की प्रस्तावना एवं मंच संचालन सहायक रसायनविद् श्रीमती प्रीति मिश्रा ने रखी. आभार प्रदर्शन श्री अंचित गोयल ने किया.



हिंदी पखवाड़ा प्रतियोगिताओं के विजेताओं को पुरस्कृत करते क्षेत्रीय खान नियंत्रक श्री बी.एल.गुर्जर.

**रायपुर क्षेत्रीय कार्यालय** – रायपुर क्षेत्रीय कार्यालय में 3 से 14 सितंबर 2018 तक हिंदी पखवाड़े का आयोजन किया गया. पखवाड़े का उद्घाटन समारोह 3 सितंबर को क्षेत्रीय खान नियंत्रक श्री बी.एल.गुर्जर की अध्यक्षता में आयोजित किया गया था. अपने संबोधन में उन्होंने कहा कि भारत सरकार की नीति के तहत हिंदी भाषा को प्रोत्साहित करने के लिए पखवाड़ा मनाया जाता है. अतः सरकारी कर्मचारियों का यह कर्तव्य है कि हम सरकारी आदेश का अनुपालन सही तरीके से करें.

17 सितंबर 2018 को आयोजित समापन समारोह की अध्यक्षता श्री बी.एल.गुर्जर ने की. पश्चात श्री बी.एल.गुर्जर के हस्ते पखवाड़े के दौरान आयोजित प्रतियोगिताओं के विजेताओं को पुरस्कृत किया गया.

**रांची क्षेत्रीय कार्यालय** – रांची क्षेत्रीय कार्यालय में 4 से 14 सितंबर के दौरान हिंदी पखवाड़ा मनाया गया. पखवाड़े का शुभारंभ क्षेत्रीय खान नियंत्रक श्री अनुपम नंदी ने किया. उद्घाटन अवसर पर हिंदी संपर्क अधिकारी श्री नमन एक्का द्वारा हिंदी पखवाड़ा के दौरान आयोजित होनेवाली विभिन्न प्रतियोगिताओं की जानकारी दी गई तथा कार्मिकों से कार्यक्रम में अत्साह के साथ भाग लेने तथा पखवाड़ा को सफल बनाने की अपील की गई.पखवाड़ा के दौरान हिंदी निबंध, वाद-विवाद, श्रुतिलेख, टिप्पण-प्रारूपण, मौखिक प्रश्नोत्तरी आदि का आयोजन किया गया. 14 सितंबर 2018 को समापन समारोह आयोजित किया गया. श्री नंदी ने हिंदी दिवस पर चर्चा की तथा हिंदी माध्यम से कार्य करने में आने वाली कठिनाइयों को दूर करने के बाबत भी विचार-विमर्श किया गया.

**अजमेर क्षेत्रीय कार्यालय** – अजमेर क्षेत्रीय कार्यालय तथा क्षेत्रीय खनिज प्रसंस्करण प्रयोगशाला ने संयुक्त रूप से 4 से 14 सितंबर 2018 तक हिंदी पखवाड़े का आयोजन हर्षोल्लास से किया. इस दौरान राजभाषा हिंदी के प्रचार एवं प्रसार तथा उत्तरोत्तर प्रगति हेतु विभिन्न प्रतियोगिताओं का आयोजन किया गया. पखवाड़े का शुभारंभ क्षेत्रीय खान नियंत्रक श्री बी.एल.कोटड़ीवाला की अध्यक्षता में किया गया. इस अवसर पर अयस्क प्रसाधन अधिकारी एवं प्रभारी अधिकारी श्री एस.एन.गोस्वामी तथा वरिष्ठ खनन भूविज्ञानी एवं पखवाड़ा आयोजन समिति के अध्यक्ष डा.ए.जेड.खान ने भी अपने विचार व्यक्त किए. समापन समारोह के अवसर पर केंद्रीय गृहमंत्री माननीय श्री राजनाथ सिंह का हिंदी दिवस पर प्राप्त संदेश श्री कोटड़ीवाला ने पढ़कर सुनाया. पश्चात पखवाड़े के दौरान आयोजित प्रतियोगिताओं के विजेताओं को पुरस्कृत किया गया.

**गोवा क्षेत्रीय कार्यालय** – गोवा क्षेत्रीय कार्यालय में विभिन्न प्रतियोगिताओं एवं कार्यक्रमों के साथ हिंदी पखवाड़ा मनाया गया. उद्घाटन समारोह के मुख्य अतिथि (से.नि.) हिंदी प्राध्यापक श्री नारायण कुलकर्णी तथा मंचासीन अधिकारियों



गोवा क्षेत्रीय कार्यालय में हिंदी पखवाड़े के उद्घाटन अवसर पर वक्तव्य करते हिंदी प्राध्यापक (से.नि.) श्री नारायण कुलकर्णी तथा मंच पर उपस्थित क्षेत्रीय खान नियंत्रक डा.काले.

**गोवा क्षेत्रीय कार्यालय में विभिन्न प्रतियोगिताओं एवं कार्यक्रमों के साथ हिंदी पखवाड़ा मनाया गया. उद्घाटन समारोह के मुख्य अतिथि (से.नि.) हिंदी प्राध्यापक श्री नारायण कुलकर्णी तथा मंचासीन अधिकारियों के हस्ते दीप प्रज्वलन कर कार्यक्रम का शुभारंभ हुआ.**

के हस्ते दीप प्रज्वलन कर कार्यक्रम का शुभारंभ हुआ. अध्यक्षीय संबोधन में क्षेत्रीय खान नियंत्रक डा.वाय.जी.काले ने अधिकारियों/कर्मचारियों से सभी प्रतिस्पर्धाओं में बढ़-चढ़कर भाग लेने की अपील की. पखवाड़े के दौरान विभिन्न प्रतियोगिताओं का आयोजन किया गया. 14 सितंबर 2018 को उप खान नियंत्रक एवं हिंदी संपर्क अधिकारी श्री प्रेम प्रकाश ने माननीय गृह मंत्री श्री राजनाथ सिंह जी का हिंदी दिवस पर संदेश पढ़कर सुनाया.

19 सितंबर को पुरस्कार वितरण कार्यक्रम का आयोजन किया गया. उद्घाटन समारोह एवं समापन समारोह में स्वागत भाषण हिंदी संपर्क अधिकारी श्री प्रेम प्रकाश ने दिया तथा धन्यवाद प्रस्ताव उप खान नियंत्रक श्री सुरेश प्रसाद ने प्रस्तुत किया.

**कोलकाता क्षेत्रीय कार्यालय** – कोलकाता क्षेत्रीय कार्यालय में 3 से 14 सितंबर के दौरान हिंदी पखवाड़े का आयोजन किया गया. उद्घाटन समारोह में क्षेत्रीय खनन भूविज्ञानी एवं हिंदी संपर्क अधिकारी डा.सुनील कुमार झा ने सभी से पखवाड़े में बढ़-चढ़कर हिस्सा लेने की अपील की.

पखवाड़े के दौरान सुलेख, पत्र लेखन, वाद-विवाद, श्रुतिलेख, टिप्पणी लेखन, निबंध लेखन, नारा लेखन तथा प्रश्नोत्तर प्रतियोगिताओं का आयोजन किया गया. जिसमें अधिकारियों/कर्मचारियों ने उत्साहपूर्वक भाग लिया.

समापन समारोह की अध्यक्षता खान नियंत्रक (पूर्वांचल) श्री पंकज कुलश्रेष्ठ ने की. इस अवसर पर कनिष्ठ सांख्यिकीय अधिकारी श्री प्रबालजीत दे, नवशानवीस श्री आनंद दास, अपर श्रेणी लिपिक श्री शांतनु बनर्जी तथा अपर श्रेणी लिपिक श्री देवाशीष तथा एम.टी.एस. श्री मंटू प्रसाद ने अपने विचार व्यक्त किए. अंत में नवशानवीस श्री आनंद दास के धन्यवाद ज्ञापन के साथ हिंदी पखवाड़ा का समापन हुआ.



‘प्राकृतिक संसाधन खनिज’ का विमोचन करते प्रसिद्ध व्यंगकार, गीतकार डा.सागर खादीवाला मंच पर उपस्थित पुस्तक के लेखक डा.पी.के.जैन, मुख्य खनन भूविज्ञानी श्री एस.के.अधिकारी, खान नियंत्रक श्री पी.एन.शर्मा, खनिज अर्थशास्त्री श्री एम.यु.सिद्दीकी

## ‘प्राकृतिक संसाधन खनिज’ का विमोचन

भारतीय खान ब्यूरो मुख्यालय में आयोजित हिंदी परखवाड़े के समापन समारोह में मुख्य खनिज अर्थशास्त्री डा.पी.के.जैन द्वारा रचित पुस्तक ‘प्राकृतिक संसाधन खनिज’ का विमोचन 14 सितंबर 2018 को किया गया. इस अवसर पर मुख्य अतिथि के रूप में उपस्थित प्रसिद्ध व्यंगकार, गीतकार एवं गजलकार डा.सागर खादीवाला के कर-कमलों से पुस्तक का विमोचन किया गया.

उपर्युक्त पुस्तक प्राकृतिक संसाधन खनिज में 13 आलेखों का संकलन है, जिसमें राष्ट्रीय खनिज नीति, इस्पात नीति खनिज संरक्षण विकास एवं पर्यावरण सुरक्षा आदि पर लेखों का समावेश है.

आवश्यकतानुसार तालिकाओं में आंकड़ों एवं चित्रों के माध्यम से तकनीकी विषयों को पाठकों के लिए रुचिकर बनाने का प्रयास किया गया है.

उपर्युक्त पुस्तक प्राकृतिक संसाधन खनिज में 13 आलेखों का संकलन है, जिसमें राष्ट्रीय खनिज नीति, इस्पात नीति खनिज संरक्षण विकास एवं पर्यावरण सुरक्षा आदि पर लेखों का समावेश है.

## दस हजार शब्दों की शब्दावली तैयार

खान मंत्रालय, भारत सरकार की अक्टूबर 2016 में हिंदी सलाहकार समिति की बैठक में लिए गए निर्णयानुसार विभिन्न संस्थानों ने मिलकर खनिज एवं खनन क्षेत्र के दस हजार शब्दों का हिंदी अनुवाद पूर्ण किया है.

खनिज गवेषण निगम लिमिटेड, जवाहर लाल एल्युमिनियम कंपनी लिमिटेड, एन.आई.एम.एच. के प्रतिनिधियों को सदस्य के रूप में समाहित कर एक समिति का गठन किया गया. जिनके सदस्यों ने मिलकर 22 एवं 23 मई को आयोजित दो दिवसीय संगोष्ठी में मंत्रालय स्तर पर संकलित शब्दों का चयन किया. इस संगोष्ठी में भारतीय खान ब्यूरो की ओर से खनिज अर्थशास्त्री एवं राजभाषा अधिकारी डा.पी.के. जैन, उप निदेशक (राजभाषा) श्री प्रमोद एस.सांगोले ने भाग लिया.

## नगर राजभाषा कार्यान्वयन समिति पुरस्कार 2017



भारतीय खान ब्यूरो (मुख्यालय), नागपुर को वर्ष 2017 के लिए राजभाषा कार्यान्वयन के क्षेत्र में उत्कृष्ट कार्य करने हेतु द्वितीय पुरस्कार तथा कार्यालय की गृह पत्रिका “खान भारती” को उत्कृष्ट पत्रिका की श्रेणी में द्वितीय पुरस्कार से सम्मानित किया गया. 30 मई 2018 को आयोजित समारोह में क्षेत्रीय कार्यान्वयन कार्यालय (पश्चिम क्षेत्र), नवी मुंबई की उप – निदेशक एवं प्रभारी अधिकारी डॉ. सुनिता यादव एवं दक्षिण – पूर्व – मध्य रेल की मंडल रेल प्रबंधक श्रीमती शोभना बंदोपाध्याय के कर – कमलों से डॉ. प्रदीप कुमार जैन, मुख्य खनिज अर्थशास्त्री एवं राजभाषा अधिकारी तथा श्री प्रमोद एस. सांगोले, उप –निदेशक (राजभाषा) ने पुरस्कार ग्रहण किए.



मुख्यालय में 19 अप्रैल 2018 को आयोजित अखिल भारतीय राजभाषा तकनीकी सेमिनार का दीप प्रज्वलन कर उद्घाटन करते नीरी के मुख्य वैज्ञानिक डा. जयशंकर पाण्डे तथा उपस्थित महानियंत्रक श्री रंजन सहाय, राष्ट्र संत तुकडोजी महाराज विश्वविद्यालय, हिंदी विभाग के प्राध्यापक एवं अध्यक्ष डा. प्रमोद शर्मा एवं मुख्य खनिज अर्थशास्त्री डॉ. पी.के. जैन साथ ही सेमिनार में उपस्थित प्रतिभागी.

## अखिल भारतीय तकनीकी सेमिनार का आयोजन

इस अवसर पर एक स्मारिका का विमोचन किया गया. इस राजभाषा तकनीकी सेमिनार में भारतीय खान ब्यूरो के अलावा खान मंत्रालय के अन्य कार्यालयों/विभागों जैसे एमईसीएल, जेएनआरडीसी, एमआईएमएच, नागपुर विश्वविद्यालय आदि के प्रतिनिधियों ने भी भाग लिया.

भारतीय खान ब्यूरो, मुख्यालय में 19 अप्रैल 2018 को महानियंत्रक श्री रंजन सहाय की अध्यक्षता में 'संपोषित विकास के परिप्रेक्ष्य में खनन क्षेत्र की भूमिका' विषय पर अखिल भारतीय राजभाषा तकनीकी सेमिनार का आयोजन किया गया. इस अवसर पर राष्ट्र संत तुकडोजी महाराज विश्वविद्यालय, हिंदी विभाग के प्राध्यापक एवं अध्यक्ष डा. प्रमोद शर्मा मुख्य अतिथि के रूप में तथा नीरी के मुख्य वैज्ञानिक डा. जयशंकर पाण्डे विशिष्ट अतिथि के तौर पर उपस्थित थे.

अपने अध्यक्षीय संबोधन में श्री रंजन सहाय ने सभा को संबोधित करते हुए कहा कि हमें सिर्फ सरकारी आंकड़ों तक ही सीमित नहीं रहना चाहिए बल्कि हिंदी के उत्तरोत्तर विकास के लिए ठोस कार्य करना चाहिए.

मुख्य अतिथि डा. प्रमोद शर्मा ने कहा कि हिंदी को दुरुह बनाने का प्रयास नहीं होना चाहिए बल्कि इसे जन-सामान्य की भाषा के अनुकूल बनाना चाहिए. विशिष्ट अतिथि श्री जयशंकर पाण्डेय ने कहा कि हिंदी से संबंधित अनेक ज्वलंत

पृष्ठ 20 पर

## नगर राजभाषा कार्यान्वयन समिति पुरस्कार 2017



नगर राजभाषा कार्यान्वयन समिति, मडगांव, दक्षिण गोवा की छमाही बैठक का आयोजन 29 मई 2018 को भारतीय खान ब्यूरो परिसर, गोवा में संपन्न हुआ. मुख्य अतिथि के तौर पर कोंकण रेलवे के क्षेत्रीय रेल प्रबंधक श्री मोहम्मद आसिम सुलेमान को आमंत्रित किया गया था. जबकि बैठक के विशिष्ट अतिथि ओ. एन. जी. सी., बेतुल, गोवा के महा प्रबंधक श्री अतुल गर्ग थे. परंपरागत दीप प्रज्वलन के साथ नराकास, मडगांव की चौदहवीं छमाही बैठक की विधिवत शुरुआत हुई.

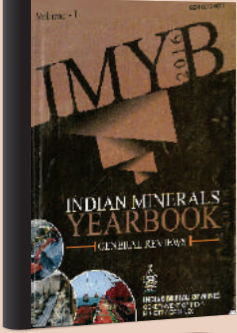
## कोलकाता कार्यालय ने मनाया योग दिवस

भारतीय खान ब्यूरो के कोलकाता क्षेत्रीय कार्यालय में 21 जून को अंतर्राष्ट्रीय योग दिवस मनाया गया. इस अवसर पर सर्वप्रथम सहायक खनन अभियंत श्री श्रीधर रजवार ने योग के महत्व पर प्रकाश डालते हुए कहा कि प्राचीन काल से ही योग भारतीय परंपरा का एक अभिन्न अंग रहा है जो न केवल मनुष्य के तन को स्वस्थ बनाता है बल्कि मन-मस्तिष्क को भी सुदृढ़ बनाता है. उन्होंने कहा कि यदि हम प्रतिदिन अपने समय से केवल 1 घंटा निकाले तो न केवल हमारी बिमारियां दूर होगी बल्कि होने वाली बीमारियों से भी हम दूर रहेंगे. इसके पश्चात कार्यालय अध्यक्ष श्री एल. च छांगटे सहित सभी पदाधिकारियों ने योग अभ्यास किया. जिसमें सर्वश्री वरिष्ठ तकनीकी सहायक (ड्राईंग) मनोरंजन घोष, एमटीएस मन्टू प्रसाद हेम्रम ने स्वस्तिकासन, गोमुखासन, गोरक्षासन, अर्द्धमत्स्येन्द्रासन, योगमुद्रासन, शंखासन, सर्वासन तथा अनुलोम-विलोम, कपालभारती, भ्रामरी प्राणायामों का अभ्यास कराया.

सभी पदाधिकारियों ने प्रतिदिन योग करने की शपथ ली.

## ‘भविष्य’

## PUBLICATION CORNER



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IMYB 2016  
(Vol. I, II & III)

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## PERSONNEL NEWS

### Appointment

**Smt Praseeja P.** as Joint Director (Statistics),  
w.e.f. 18.5.2018

**Kum. Naushida N.A.** as Joint Director  
(Statistics) w.e.f. 18.5.2018

### Retirements

**Shri M.V. Sonkushale** as Deputy Mineral  
Economist (S) w.e.f. 30.6.2018



भारतीय खान ब्यूरो मुख्यालय के प्रशिक्षण केंद्र द्वारा 30 एवं 31 जुलाई 2018 को भविष्य (आनलाइन पेंशन सैंक्शन एंड पेमेंट ट्रेकिंग सिस्टम) पर दो दिवसीय प्रशिक्षण कार्यक्रम का आयोजन किया गया. प्रशिक्षण कार्यक्रम में 70 प्रतिभागियों ने भाग लिया.

### पुष्ठ 19 से

प्रश्न हमारे सामने खड़े हैं, हिंदी अभी भी उच्च शिक्षा का माध्यम नहीं बन पाई है, अतः इस विषय में ठोस उपाय किए जाने चाहिए. इसके पूर्व मुख्य खनिज अर्थशास्त्री एवं राजभाषा अधिकारी ने अपने स्वागत भाषण में भारतीय खान ब्यूरो द्वारा हिंदी कार्यान्वयन के क्षेत्र में किए गए कार्यों की जानकारी दी.

इस अवसर पर एक स्मारिका का विमोचन किया गया. इस राजभाषा तकनीकी सेमिनार में भारतीय खान ब्यूरो के अलावा खान मंत्रालय के अन्य कार्यालयों / विभागों जैसे एमईसीएल, जेएनआरडीसी,

एमआईएमएच, राष्ट्रसंत तुकडोजी महाराज नागपुर विश्वविद्यालय आदि के प्रतिनिधियों ने भी भाग लिया. राजभाषा तकनीकी सेमिनार का कार्यक्रम दो सत्रों में आयोजित किया गया जिसमें पूर्वाह्न में कुल 6 आलेख तकनीकी विशेषज्ञों द्वारा पावर पाइंट प्रजेंटेशन के माध्यम से प्रस्तुत किए गए तत्पश्चात दूसरे सत्र में 8 आलेख तकनीकी विशेषज्ञों द्वारा प्रस्तुत किए गए. अध्यक्ष के रूप में डा.पी.के.जैन एवं रिपोर्टियर के रूप में श्रीमती वर्षा घरोटे एवं श्री पुखराज नेगवाल ने अपना योगदान दिया.



अखिल भारतीय तकनीकी सेमिनार के अवसर पर स्मारिका का विमोचन करते नीरी के मुख्य वैज्ञानिक डा.जयशंकर पाण्डे, महानियंत्रक श्री रंजन सहाय, राष्ट्रसंत तुकडोजी महाराज नागपुर विश्वविद्यालय, हिंदी विभाग के प्राध्यापक एवं अध्यक्ष डा.प्रमोद शर्मा एवं मुख्य खनिज अर्थशास्त्री डॉ.पी.के.जैन.