

# Mining Engineers' Journal



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**Mining Engineers' Association of India**

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No. 1

MONTHLY

August - 2022



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## *President's Message.....*

**Dear Members,**

Greetings...

I wish to share with you the activities undertaken by the our Association in the proceeding month.

The 4<sup>th</sup> Council meeting and the 49<sup>th</sup> AGM and MEAI Award function - 2021 was organized in the Hall of the Institution of Engineers (India), Bengaluru on 25-6-2022 in a grand way by the Bangalore Chapter. I congratulate the awardees honoured in the MEAI Award Ceremony - 2021. As we all know that the awards are given to the members of Mining Fraternity for their notable contribution to MEAI as well as to the Mining Industry.

It's very happy moment for the Mining Professionals across the Nation to have received the maximum number **Five-Star rating Awards** in the 6<sup>th</sup> National Conclave on Mines & Minerals held at New Delhi on 12-7-2022. My hearty congratulations to the mines' owners and the mining professionals who have worked hard to maintain their mines of the highest standards to achieve these awards.

It's a happy moment for MEAI members to note that Prof. Bhabesh C. Sarkar, Chairman Dhanbad Chapter, Prof. V.S.N. Murthy have received prestigious National Geoscience Award 2019. We are proud of their achievements and wish many more such laurels to their hard work and their contribution to mining industry.

I am very happy to share with you that during my recent visit to New Delhi, I met Shri. Rajesh Aggarwal, Secretary, Ministry of Skill development & Entrepreneurship and discussed the issue of providing Apprenticeship training to the freshly graduated students from the mining and geology disciplines. The discussions were very encouraging and the Secretary has agreed to extend all the help in this regard. I also met Shri. Sarath Pallerla, Director, MoEF & CC and appraised him regarding activities of MEAI and requested him to extend all possible help.

It was a good opportunity for me to meet members of the New Delhi Chapter during the Executive body meeting held on 13.7.2022 and shared my views on the path ahead for MEAI and how to take the Association to the greater levels.

I Congratulate the Raj-Udaipur Chapter for conducting 3-day training program for the aspirants of Mining Mate & Blaster and the Raj-Jaipur Chapter for conducting 2 day Training cum workshop on Exploration, Geology and resource estimation. Such activities will go a long way in realising the objectives of MEAI.

MEAI has always been putting in its best efforts to upgrade the skill and knowledge of the Mining Professionals engaged in the Mining Industry. As a part of this endeavour, in the last month, the Association launched its first "MEAI TECH SERIES" (MTS) program on 16-7-2022 and Dr. K. Ram Chandar from NIT, Suratkal has delivered a talk. My congratulations to Shri. Deepak Vidyarthi, Chairman Training Development Committee for conceiving this idea to deliver talks every month by eminent Mining Professionals.

It's my pleasure to share with you that Mines Safety Association of Karnataka and MEAI are conducting **MSAK Mine Conclave-2022** on 12 & 13 August 2022 at the Indian Institute of Science, Bengaluru. Also, Rajasthan Chapter - Udaipur & the Hindustan Zinc Ltd., Udaipur are jointly organizing a **National Seminar and Exhibition on "The Role of Innovation and Technology in Turnaround of Mining Industry"** during 26-28 August 2022.

I request our members to participate in these programs in large numbers and make them a grand success.

Wish you all Happy Independence Day.

Regards,

**K. MADHUSUDHANA**  
President



# Mining Engineers' Association of India

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## EDITOR'S DESK



**Dr. P.V. Rao**  
Editor, MEJ

Subdued deep-seated mineral exploration in the country may be attributed to the extant mineral concessions permitting system and the lawmakers' inability to comprehend the risky efforts that go into the discovery of mineral deposits. Exploration efforts by the private companies during 1996-2010 led to significant discoveries of Bunder diamond deposit in MP and Ganajur gold deposit in Karnataka and rolling them into the mining stage; and delineation of prospective blocks of gold, diamond and base metals.

The missing harmony between the National Mineral Policy and the relevant Mineral Acts and Rules & Regulations is apparent. The objective of attracting private investments in mineral exploration in the country is yet to be realised despite carrying out frequent amendments to the MMDR Act-2015, which are not attractive enough to grow mineral exploration as a business. Events such as cancellation of heavy mineral sand leases in AP and non-granting of Mining Leases for gold and other minerals and Prospecting Licence to the RP holders led to legal disputes and contributed to erosion of investors' confidence.

Natural resources experts opine that granting of mineral concessions through auctioning may result in undue concentration of natural resources in the hands of a few prosperous domestic entrepreneurs and negate the participation of small and mid-size investors. Foreign investors appear to be sitting on the sidelines while earnestly analysing and digesting the rationale behind amending the mineral laws in quick succession. Setting the egos aside, should not the government seriously engage with the mineral industry representatives and professional bodies in framing laws that would enhance the mineral sector's contribution to the national GDP.

To compensate the limited response evinced by the private companies, the PSUs and a few NMET-empowered private companies were pressed into action to embark on mineral exploration, though many of them, if not all, were not entirely equipped technically to perform such specialised interdisciplinary, geo-scientific ventures. Currently the mineral exploration has been virtually transformed into fast-paced drilling of a number of boreholes to fulfil the drilling targets by engaging drilling contractors with least QA/QC protocols in place. The quality of Geology Reports offered to the prospective investors that are willing to participate in the mineral blocks auction process, noticeably reflect such indiscriminate measures.

Some may rightly argue that pointing out lacunae in the extant system, post facto, is much easier than actually advising adept solutions. However, the moot point remains that the Indian mineral industry, professional bodies and a few individual experts have been persistently articulating their disagreement with the investor unfriendly amendments proposed to the Act and the Rules & Regulations during the public consultation process, but of no avail. The consultations with the stakeholders look like more of a formality as the bureaucrats do not seem to be serious about the concerns expressed and suggestions offered to overcome the likely impact on the future of mineral exploration and mining in the country.

The Mines ministry and its advisors need to acknowledge the obvious that the government by utilising NMET funds would not be able to sustain the long-term financing requirements of the massive national mineral exploration campaign in expeditiously exploring deep-seated mineral (base, noble and strategic metals/ minerals) deposits. If the government persists with the extant Laws it will only imply deliberate deferring of the much-needed mineral discoveries. Since the investment in mineral exploration is accepted to be riskier, many investors might not be willing to take such high risk unless commensurate incentives are offered to them. Similarly, deploying the NMET funds in such uncertain deep-seated mineral exploration activity may not be desirable. The mineral industry experts from geosciences, mining and mineral processing engineering disciplines, who have better appreciation of the entire mine value chain, beginning from exploration to extraction to processing, must find a place in the advisory committees of the Mines ministry.

Assurance of granting mining leases to mineral discoverers, by creating a seamless transition from the prospecting stage to mining on FCFS basis, would enhance the probability of participation of private investors with large investments and modern technology in mineral exploration. SEBI should step in and make exclusive rules for the listing of mineral exploration and mining companies to raise funds from stock exchanges (the system that is followed by the large securities and exchange regulators in the world), who otherwise would not meet the extant listing disclosures that largely reflect the requirements of manufacturing industries. The government should consider accepting Resources/ Reserves reports that only comply with CRIRSCO international public reporting standards to build confidence in the prospective overseas investors and encourage them to participate in the extant mineral blocks auction process.

- Editor

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## NEWS FROM THE MINING WORLD

### ► **A new mining project could make Rajasthan India's next uranium hub**

India may be a step closer to expanding its uranium production. Rajasthan, a state in the western part of the country, is hoping to mine the rare mineral, according to a report in Business Standard. India's department of atomic energy first found uranium deposits in the state in 2012.

Officials project the deposits to be as much as 12 million tonnes, the Hindustan Times reported yesterday (June 27). The project is expected to be worth 3,000 crore rupees (\$380 million). Currently, the states of Jharkhand, Telangana, and Andhra Pradesh have India's largest uranium mines.

A letter of intent issued by the Rajasthan state government to the Uranium Corporation of India is, however, only the first step in the process. Not all uranium can be excavated and used for nuclear energy or other by-products. Nor can the quantum of uranium be understood without a detailed geologic survey.

For instance, till December 2020 (pdf), the Atomic Minerals Directorate for Exploration and Research had identified 44 uranium deposit sites in Andhra Pradesh, Telangana, Jharkhand, Meghalaya, Rajasthan, Karnataka, Chhattisgarh, Uttar Pradesh, Uttarakhand, Himachal Pradesh, and Maharashtra. But not all of these deposits are conducive to fruitful mining activities.

India also imports its rare mineral needs from the world's largest uranium-producing nations like Kazakhstan, Russia, Uzbekistan, and Canada.

*Quartz India, Manavi Kapur | June 28, 2022*

### ► **French President says deep-sea mining must not go ahead**

French President Emmanuel Macron said on Thursday a legal framework was needed to stop deep-sea mining from going ahead and urged countries to put their money on science to better understand and protect the world's oceans.

There is growing international interest in deep-sea mining but there is also pressure from some environmental groups and governments to either ban it or ensure it only goes ahead if appropriate regulations are in place.

Deep-sea mining would involve using heavy machinery to suck up off the ocean floor potato-sized rocks, or

nodules that contain cobalt, manganese, and other rare metals mostly used in batteries.

"We have ... to create the legal framework to stop high sea mining and to not allow new activities putting in danger these ecosystems," Macron said at an event on the sidelines of the UN Ocean Conference in Lisbon.

"But at the same time we need to promote our scientists and explorers to better know the high seas... we need to better understand in order to protect," Macron added.

Although he expressed concerns about deep-sea mining, France holds an exploration contract through the Institut Francais de Recherche pour l'Exploitation de la Mer, valid until June 2026, for a 75,000-square-kilometre (28,958-square-miles) area in the Clarion-Clipperton Zone in the North Pacific rich in polymetallic nodules.

The International Seabed Authority (ISA), a UN body, is drawing up regulations governing seabed mining in the high seas – areas outside any national jurisdiction. Until global rules are in place, seabed mining is not allowed.

Several nations, such as the Pacific islands of Palau and Fiji but also Chile, have called for a global moratorium on all deep-sea mining activities, citing environmental concerns and a lack of sufficient scientific data.

But not all countries are against it. China is a leader in deep-sea mining exploration, and small nations have also gotten involved. The tiny island nation of Nauru last year asked the ISA to fast-track the adoption of seabed mining regulations.

G7 countries last month agreed they would only consent to such mining projects if they did not seriously harm the environment. Peter Thomson, UN Special Envoy for the Ocean, told *Reuters* he believed regulations to counter those concerns will appear soon.

*Reuters | June 30, 2022*

### ► **The World Can't Wean Itself Off Chinese Lithium**

China dominates the global supply chain for lithium-ion batteries. Now rival countries are scrambling for more control over "white oil."

THE INDUSTRIAL PORT of Kwinana on Australia's western coast is a microcosm of the global energy industry. From 1955, it was home to one of the largest

oil refineries in the region, owned by British Petroleum when it was still the Anglo-Persian Oil Company. It once provided 70 percent of Western Australia's fuel supplies, and the metal husks of old tanks still dominate the shoreline, slowly turning to rust in the salt air.

The refinery shut down in March 2021, but it isn't just oil below the region's red soil: Australia is also home to almost half of the world's lithium supply. The trucks and machinery are humming once again, but now they're part of a race to secure the clean energy sources of the future—a race being dominated by China.

Over the past 30 years, lithium has become a prized resource. It's a vital component of batteries—for the phone or laptop you're reading this on, and for the electric vehicles that will soon rule the roads. But until recently, the lithium mined in Australia had to be refined and processed elsewhere. When it comes to processing lithium, China is in a league of its own. The superpower gobbled up about 40 percent of the 93,000 metric tons of raw lithium mined globally in 2021. Hundreds of so-called gigafactories across the country are churning out millions of EV batteries for both the domestic market and foreign carmakers like BMW, Volkswagen, and Tesla.

China's share of the market for lithium-ion batteries could be as high as 80 percent, according to estimates from BloombergNEF. Six of the 10 biggest EV battery producers are based in China—one of them, CATL, makes three out of every ten EV batteries globally. That dominance extends through the supply chain. Chinese companies have signed preferential deals with lithium-rich nations and benefited from huge government investment in the complex steps between mining and manufacturing. That's made the rest of the world nervous, and the United States and Europe are now scrambling to wean themselves off Chinese lithium before it's too late.

AN ELECTRIC CAR battery has between 30 and 60 kilos of lithium. It's estimated that by 2034, the US alone will need 500,000 metric tons of unrefined lithium a year for EV production. That's more than the global supply in 2020. Some experts fear a repeat of the oil crisis sparked by Russia's invasion of Ukraine, with geopolitical tension spilling over into a war of sanctions. Such a scenario could result in China shutting off its supply of batteries just as Western automakers need them to power the switch to EVs.

"If China decides to stick with the home market, lithium-ion batteries are going to be more expensive outside China," says Andrew Barron, a professor of low carbon

energy and the environment at Swansea University. That makes Western efforts to expand battery production capacity "more imperative than ever," he says.

Those efforts are taking shape, albeit slowly. If everything goes to plan, there will be 13 new gigafactories in the United States by 2025, joined by an additional 35 in Europe by 2035. (That's a big if, with many projects beset by logistical problems, protests, and NIMBYism, most notably Tesla's controversial gigafactory near Berlin.)

*Amit Katwala, SCIENCE | June 30, 2022*

### ➡ **India's Coal Crisis Is Far From Over**

India is facing a "severe and protracted" power crisis due to the price inflation of coal, which the country uses to generate as much as 75 percent of its power, Indian media report, citing S&P Global Commodity Insights.

India found itself in the middle of a power shortage as several factors combined, including rising coal prices, which discouraged imports, leaving stockpiles at critically low levels, and a heat wave that pushed demand earlier this year much higher.

The country is working on boosting its domestic production, and this went up by 28.6 percent in financial 2021/22, which ended on May 31. This was a record high, at 777 million tons. However, boosting domestic coal production to a level of self-sufficiency will take a long time, which coal is needed now to power the economy.

Meanwhile, the country was hit by a series of blackouts as a result of insufficient coal supplies, both domestic and imported. The situation became so grave that now the Indian authorities are threatening utilities that refuse to pay higher prices for imported coal to cut their access to local coal, according to S&P Global Commodity Insights.

In the past few weeks, the burden has eased, Reuters' John Kemp wrote, as hydropower and wind generation increased seasonally, picking up the slack from coal. Yet the shortage problem remains, and it needs solving.

Russia has become an important source of import coal because of the discounts traders offer on Russian coal, while Indonesia's most widely sold grade soared from a little over \$65 per ton to \$86 per ton.

Power shortages are likely to return in a couple of months, which makes securing enough coal stocks for September and October quite critical. By September,



the monsoon will be over, and hydro and wind output will decline, and have to be replaced with other forms of generation capacity.

*OILPRICE.com, Irina Slav - Jun 28, 2022*

### ► Mining giants warn of tougher times as world demand wavers

Mining giant BHP Group has joined rival Rio Tinto Group in signaling more turbulence to come for commodities producers as costs balloon and demand for everything from iron ore to copper hits headwinds.

The world's biggest miner warned Tuesday of an "overall slowing of global growth" amid the war in Ukraine, Europe's energy crisis and global monetary tightening. The commentary — from its latest quarterly output update — echoed remarks from Rio last week. BHP also said cost pressures would linger over the coming 12 months, while Vale SA trimmed its full-year iron ore production guidance, due in part to "current market conditions."

While profitability is still strong, both miners "are trying to prepare the market in case we see a significant slowdown in Chinese demand," Gavin Wendt, a senior resource analyst at MineLife Pty said by phone. "The tougher conditions are coming at a time when prices they're receiving from commodities are easing, putting pressure on margins."

Commodities prices have slumped in recent months as demand wavers in China and forecasts multiply for recessions across developed economies. Iron ore, the biggest earner for both companies, plunged below \$100 a ton last week as China tackled fresh turmoil in its beleaguered property market, including a wave of homebuyer boycotts of mortgage payments.

At the same time, miners face rising costs. "We expect the lag effect of inflationary pressures to continue through the 2023 financial year, along with labor market tightness and supply chain constraints," BHP's Chief Executive Officer Mike Henry said in the statement.

Stimulus measures in China would boost growth there over the coming year, Henry said. Asia's biggest economy grew by only 0.4% last quarter, and there's uncertainty over when government steps to shore up the economy will take effect. Rio has described the headwinds in China as "considerable."

#### Iron giant

BHP's shipments of the steel-making material from Western Australia's Pilbara region reached 72.8 million

tons in the three months ended June 30, down 1.2% from a year earlier and up 8.5% from the previous quarter, which was impacted by Covid-19 disruptions. That compares with a median estimate from three analysts of 73.1 million tons. Rio last week announced a 5% increase in its quarterly iron ore shipments.

Vale, which vies with BHP for the No. 2 spot behind Rio in iron ore output, churned out 74.1 million tons of the steelmaking ingredient last quarter, missing estimates. The Brazilian mining giant also sounded the alarm as it cut its iron ore output guidance for 2022 to 310-320 million tons of iron ore, from a previous forecast of 320-335 million tons.

The Rio de Janeiro-based company is seeking greater flexibility in production "due to current market conditions," it said Tuesday. Vale is sticking to its "value over volume" strategy, which focuses on margin maximization.

"There's definitely been more uncertainty seen in some time and that's been reflected in the outlook" provided by BHP and Rio, said David Radclyffe, senior mining analyst at Global Mining Research Pty Ltd. Still, he added "their balance sheets have never been so good; they're well-placed" to weather the downturn.

BHP is due to report its earnings for the period on Aug. 16. On Tuesday it forecast iron ore output from its Western Australian operations for the year started July 1 of between 246 million tons and 256 million tons, after it reached 253 million tons in the 12 months just completed.

*Bloomberg News | July 19, 2022*

### ► Ancient piece of earth's crust defines location of economically important minerals



*A beach sand sample collection site near Augusta, WA. (Image courtesy of Curtin University).*

Researchers at Curtin University have found evidence of an almost four-billion-year-old piece of the earth's crust that lies beneath the southwestern part of Western Australia.

In a paper published in the journal *Terra Nova*, the scientists explain that the edge of the ancient piece appears to define an important crustal boundary controlling where economically important minerals are found.

In their view, recognizing these ancient crustal remnants is important for the future of optimized sustainable resource exploration. In addition to this, their findings help explain our planet's evolution from uninhabitable to life-supporting and, thus, may give clues as to how life may form on other planets.

"There is evidence that an up to four billion-year-old piece of crust about the size of Ireland has been influencing the geological evolution of WA for the past few billions of years and is a key ingredient of rocks formed in WA across this time," lead researcher Maximilian Droellner said in a media statement. "This piece of the crust has survived multiple mountain-building events between Australia, India and Antarctica and appears to still exist at tens of kilometres of depth under the southwest corner of WA."

According to Droellner, when comparing these findings to existing data, it appears many regions around the world experienced a similar timing of early crust formation and preservation.

"This suggests a significant change in the evolution of the earth some four billion years ago, as meteorite bombardment waned, crust stabilized and life on earth began to establish," the researcher pointed out.

#### How they reached the crust

Droellner and his supervisor Milo Barham made the discovery after firing lasers finer than a human hair at tiny grains of a mineral extracted from beach sand.

In detail, the lasers were used to vaporize portions of individual grains of the mineral zircon and revealed where the grains were originally eroded from, as well as the geological history of the region.

Prior to this, no large-scale study of this region had been done.

*Valentina Ruiz Leotaud | July 17, 2022*

#### ➡ **Coal Secretary stresses on need to increase production of dry-fuel**

Jain said NCL is eager to promote sustainable coal

mining which is getting reflected in the recent initiatives by the coal ministry, the coal ministry said in a statement.



Coal Secretary Anil Kumar Jain on Friday stressed the need for increasing the output and dispatches of dry fuel in a sustainable manner to make the country self-reliant in the energy sector.

While interacting with senior officials of Coal India-arm Northern Coalfields Ltd (NCL), the secretary also called for the adoption of innovative techniques while mining to lessen its impact on the environment.

He also asked the PSU to adopt business diversification strategies.

Jain said NCL is eager to promote sustainable coal mining which is getting reflected in the recent initiatives by the coal ministry, the coal ministry said in a statement.

Jain along with Joint Secretary Vismita Tej was on a visit to NCL to assess the overall performance of the company. NCL CMD Bhola Singh and other senior officials were also present.

Jain also laid the foundation stone for a 50 MW solar power plant in the Nigahi Area of Madhya Pradesh. The plant will be set up over an area of 129.35 hectares of land with a total power generating capacity of 94 million units per year and will lead to reducing carbon emission by 78020 tonnes per year.

The generated power will be used for operational and other purposes by NCL.



The company is set to achieve 273-megawatt power generation in the coming time from renewable sources to achieve the target of Net Zero.

Jain visited the Nigahi open cast coal mine and oversaw the mine operation. He also inspected the site of the ongoing First Mile Connectivity Project at Jayant Area. NCL is working on nine First Mile Connectivity Projects with an investment of more than Rs 3,100 crore out of which two projects have already been completed.

With the completion of these FMC projects by FY'24, NCL will be capable to despatch entire coal produced through eco-friendly and mechanized mode.

NCL produces more than 122 million tonnes of coal annually from its 10 highly mechanized opencast mines based in Singrauli and Sonbhadra districts of MP and UP states.

*Press Trust of India, New Delhi | July 15, 2022*

#### ► **Formation of mining conglomerate to enhance capacity: Hindustan Copper**

Hindustan Copper CMD Arun Kumar Shukla suggested this to the government at a round-table discussion held during the 6<sup>th</sup> National Conclave on Mines and Minerals

Hindustan Copper CMD Arun Kumar Shukla has pitched for the formation of a large mining conglomerate with a basket of minerals to ensure the country's self-reliance in strategic minerals.

Shukla suggested this to the government at a round-table discussion held during the 6<sup>th</sup> National Conclave on Mines and Minerals.

"I, from my 37 years of mining experience, recommend formation of a large Indian mining conglomerate having multi-mineral portfolio, which will enhance the capability of the country in respect of geostrategic reach, sustainability, socio-economic development of the backward mining areas..." he said.

He said with the setting up of a large company, the sector will be able to ensure "ESG compliance, smooth transition to climate-neutral economy, profitability and resilience to withstand the ever-changing dynamic global market situation".

Besides, "more virgin mines will come into production and will give a huge boost to India's GDP," he added.

Shukla is of the view that the key to success of global multinational mining firms like Rio-Tinto and BHP is having a basket of minerals under one company. He said the formula has been working successfully world over and is time-tested.

In the proposed concept, he explained, the existing domestic mining PSUs (Public Sector Undertakings) like MOIL, HCL, KIOCL and NMDC, which own mines and operate in only certain minerals having a large pool of expertise of human resources in the field of mining and exploration, can be further strengthened through amalgamation.

This, he said, would maintain sustainable sourcing of important minerals from within the country as well as from overseas through acquisition of foreign mining assets.

PSUs like SAIL and Nalco, which have their processing plants, can be given mines for their captive use. On the other hand, the proposed mineral conglomerate will supply raw materials to the efficient manufacturing units that do not have sufficient mining rights or captive mines, he suggested.

According to Shukla, the setting up of a large Indian mining conglomerate will give a boost to exploration and mining sector's contribution to the country's gross domestic product.

*Press Trust of India, New Delhi | July 14, 2022*

#### ► **Goa government to e-auction iron ore mining leases, says CM Sawant**

Goa Chief Minister Pramod Sawant on Wednesday said the state government is geared up to take over 88 leases, whose renewal was cancelled by the Supreme Court in 2018

Goa Chief Minister Pramod Sawant on Wednesday said the state government is geared up to take over 88 leases, whose renewal was cancelled by the Supreme Court in 2018, and also to initiate the process of e-auctioning of these and other leases.

The e-auctioning of leases will pave the way for resumption of Goa's mining activities that came to a standstill in March 2018 after the apex court quashed the second renewal of iron ore mining leases given to 88 companies in Goa in 2015. At that time, the apex court had allowed auctioning of these and other mining leases in the state for mineral exploration.

Addressing a state-level function held to mark 100 days in office in his second term as chief minister, Sawant listed out various achievements of his government. The BJP retained power in the state following the Legislative Assembly elections held in February this year.

Speaking about the mining sector, Sawant said, "The government took a proactive step and initiated the process to take over the 88 leases. It is also geared up to begin the process of e-auctioning of mining leases." Recently, the state government had formed Mineral Exploration Corporation Limited to explore the possibility of auctioning 90 mining leases.

On the industrial sector, Sawant said that new 'Industrial Growth and Investment Promotion Policy-2022' has been unveiled to strengthen and improve the 'ease of doing business'.

He said that initiatives and reforms implemented by the department relating to the Business Reform Action Plan are being reviewed by the government with the focus of improving our services to provide ease of doing business.

"As per the Department for Promotion of Industry and Internal Trade, Goa has improved its ranking from 24 to 16," the chief minister said.

In yet another achievement, Rs 20 crore are allocated for restoration of temples destroyed during the Portuguese era, he added.

Talking about the tourism sector, Sawant said that online approval and registration services were launched for renewal of permission of all types. These services were launched for ease of doing business for the stakeholders, Sawant said.

Tourism sector in Goa has witnessed a steady growth in tourist footfalls despite being affected by three COVID-19 waves, he said, adding, "Even after three coronavirus waves, 19,40,683 domestic and 33,841 foreign tourists visited Goa from March 2022 to May 2022.

*Press Trust of India, Panaji | July 6, 2022*

➡ **The skyrocketing price of one critical metal could put a stop to new solar projects worldwide**

The price of the ultra-conductive metal that is crucial to the production of solar panels soared 2.3% on Wednesday to \$38.05 per kilogram. Since January 2021, polysilicon prices have jumped more than 190% to their highest level in a decade, according to

a Wednesday research note from Solarbe, a Chinese solar industry analysis firm.

As a result, contract prices for solar from large-scale projects are up more than 25% from a year ago, Reuters reported on Thursday. Solarbe analysts argue that if the polysilicon price hikes continue, it could make major solar projects around the world uneconomical, slowing the pace of clean energy adoption. "If polysilicon prices continue at a high level, all ground utility-scale projects will be stalled," they said.

Backing up that claim, Morgan Stanley analysts said in a note last week that the Chinese firm Longi Green Energy Technology, the world's largest solar developer, believes the industry is nearing a point where price levels no longer make sense for developers of large-scale solar projects, Bloomberg reported this week.

**How we got here**

The incredible rise in polysilicon prices began with a surge in demand for solar power in 2021 from both corporations and governments worldwide. China, for example, installed a record 54.88 gigawatts of solar capacity last year. And in 2022, Chinese officials expect to double that figure, installing 108 gigawatts of solar power nationwide. Corporations worldwide also purchased a record 31 gigawatts worth of clean energy through long-term projects in 2021, with two-thirds of the spending going toward solar.

All of that additional demand has led to skyrocketing prices for the raw materials used in solar panel production, including polysilicon. And an explosion at a polysilicon manufacturing plant in Xinjiang, China, in June has only added to the problem.

**China's solar dominance**

Over the past decade, solar power has become the cheapest source of green energy worldwide, largely owing to China's "instrumental" role in the manufacturing of low-cost solar panels, International Energy Agency (IEA) officials said in a recent report. The only issue is that the world is now almost "completely" dependent on China to supply the base metals used in solar panel production, and the IEA expects that will remain the case through 2025. That could be a problem if solar demand continues, and China's polysilicon manufacturers aren't willing or able to sufficiently increase production. "This level of concentration in any global supply chain would represent a considerable vulnerability, [and] solar PV [photovoltaics] is no exception," IEA officials said.

**Relief in sight**

The good news is that there should be some relief for the solar industry in August. China's Silicon Industry

*(Continued on Page 25)*



# WATERSHED DEVELOPMENT AND SOCIO-ECONOMIC DEVELOPMENTS AT KATTANBHAVI-NINGENATTI, BELAGAVI: A CASE STUDY OF WORK DONE BY WATERMAN OF BELGAUM

## SHRI SHIVAJI KAGNIKAR

P. T. Hanamgond, S. Y. Prabhu and A. K. Mense

### *Abstract*

*This paper is a case study of work done by Shri Shivaji Kagnikar, known as the waterman of Belgaum, who has undertaken watershed development programmes at Kattanbhavi and Ningenhatti villages in Belgaum. The work and its outcome are worth mentioning and even a visit to these places. The watershed development programme has certainly elevated the socio-economic status of the people living in these villages and has made them self-reliant. This work is definitely an inspiration to others to come forward and extend the watershed development works at their respective places too.*

### 1. Introduction

Shri Shivaji Kagnikar, is working in the field of watershed management and socio-economic development of villages around Belgaum but amongst them Kattanbhavi and Ningyanatti can be treated as model villages of his dedication and service above self-work (Figure 1).



Figure 1. Location map of the area

Authors of the present paper visited these two villages to understand the work done by Shri Shivaji Kagnikar and to study the temporal changes in the area. The faculty members visited these villages several times and interviewed the communities. Following report is the outcome of these visits.

### 2. Watershed Development work- Case studies

#### 2.1 Kattanbhavi

Before the year 1990, village Kattanbhavi was facing acute water scarcity. There was only one well for the entire village. In the month of May 1990, people were getting water on

the rationing basis. Literally, they used to get into the well using ladder and fill water by hand. Due to scarcity of water, there was no life stalk such as cows, buffalos, goats etc in the village. They were let free in the surrounding jungle. There was no employment for men and women because of poor agricultural activity. Because of unemployment, youths were addicted to liquor. For petty finance, they were completely depending upon private moneylenders and they used to pay hefty interest to the moneylenders. To pay back the loan they were compelled to work as bonded laborers. In such situation Shivaji Kagnikar, Advocate Ram Apte, Sadashivrao Bhosle called for a meeting of villagers during 1970's. They interacted with the villagers and explained them about the work and importance of watershed management. Initially Palna Ghar by Govind Dham Shikshan Sadhna Trust and night schools by NGO Jana Jagran were started. To convince the people about the watershed development they were taken to Ralegan Siddhi in Ahmad Nagar. The conditions of Ralegan Siddhi before Anna Hazare started the work there was similar to Kattanbhavi. When villagers visited Ralegan Siddhi village and seeing similar type of works done by missionaries, they were inspired by the work carried out by Shri. Anna Hazare and the missionaries. So, the villagers decided to work for the village development. In 1990, work started in Kattanbhavi under the supervision of Shivaji Kagnikar and his colleagues and the work is being continued.

The peoples' movement geared up and decided to take up plantation work in government land as well as private land through the support of government rozgar yojana. There were many misconceptions in the minds of the villagers about the plantations such as after plantation is completed the government may acquire the land. However, when got convinced they came forward for plantation work. Then

G.S. Science College, Belgaum-590006

around Kattanbhavi village, trenches were dug by using indigenous methods (Continuous Contour Trenches Figure 2). Problem arose regarding who should pay the wages. To solve this problem “NGO Jan Jagran” came forward to extend the financial support. With this support, they could pay to the villages for their expenses. In trenches over a lakh trees were planted. Problem arose on protecting the trees. To mitigate this problem a local committee was formed to safeguard the trees. When these trees started growing, people started experiencing the changes in and around the village. Slowly, the only well, on which entire village was depending upon started recouping with water. Even in peak summer, the well has water. Villagers have constructed earthen dams/check dams along streamlets, small reservoirs are constructed, artificial ponds were introduced, and plantation farms were created. There is a natural pond near to the well. Villagers took up de-siltation of the pond. Now, there is sufficient water in the pond, which caters to the cattle. Because of the watershed programme and plantation, the growth of the forest has been observed. It is said that, various birds, insects, animals such as wild boars, bison, good number of peacocks and even a cheetahs were also spotted. Overall, there is a spectacular rise in the bio-diversity.

Because of planned watershed development, there was improvement in agriculture. Since, water was available, people stopped letting their cattle free in the jungle. They started purchasing good quality cattle, goats etc. Before 1990, in the entire Kattanbhavi village the collection of milk was just 30 liters / day. Now, it has grown to 1200 liters / day. Now there are two co-operative societies working in the milk sector.

Every family started growing cattle and the villagers were introduced to Bio (Gobar) Gas plants. At present, the Kattanbhavi has reached 100% for Gobar Gas connections. Because of this they are getting good manure for agriculture, energy for cooking that saved human labour for firewood collection, and cutting of trees was reduced substantially.

Because of the growth in the economy, people started coming together regularly, and then workshops were conducted for them by eminent social activists.

### 2.1.1 Economic and Social Reforms

The people were introduced to the concept of micro finance and self-help groups. At present, there are 10 self-help groups in Kattanbhavi, which are monitored by Jan-Jagran. Yeshwant Bhandurge and Piraji Mahut monitor these groups. Now people do not go to money lenders for finance. Self-help groups take care of the need. As a part of social reform, people were asked to stop making and drinking

country liquor. The people undertook sanitation projects such as gutters and road developments in the village. A new bigger well has come up in the village, which was dug by the people of the village.

### 2.2.2 Education

Once upon a time Kattanbhavi village was totally illiterate. Now, there is a full fledged anganwadi for children and a primary school for Kannada and Marathi medium students up to 7<sup>th</sup> standard. Remarkable work is seen among women. Night school for women/ girls was started during 1978. After completing 4<sup>th</sup> standard in Kattanbhavi, girls started going to Kadoli village for high school education. There are two communities in Kattanbhavi- Maratha and Berad, which live in harmony. They work together for the progress of the village. When interviewed Shri. Kareppa Bhandurge (49years), a native of Kattanbhavi, speaks out very fluently about the transformation in the village. He is an eyewitness to the change and he is a gram panchayat member. He gives real credit to Shri. Shivaji Kagnikar for this welcome development in the village.

What we feel in this effort of villagers and Shri Shivaji Kagnikar is that, the work is not completely over. It should be continuously undertaken and for which some government agency or the NGO or any philanthropic institutions should come forward and extend financial support to continue the development work in both the villages and around.

### 2.3 Ningenhatti

After tasting the success of Kattanbhavi village, Shri. Shivaji Kagnikar and his colleagues adopted Ningenhatti village. The work started there in 2008. Initially Shri. Basgonda Appayya Patil came forward for plantation work in his private land with about 500 mango saplings in 5 acres planting on his own. In this orchard CCT were dug for every tree with the financial support of the Jan Jagran. These CCT block water and support the sapling. The dug out mud was used to provide support to the sapling. This has worked out successfully and now mango trees are giving good income to the owner and this activity built confidence in the minds of villagers.

Taking into the account of importance of Ayurveda, the following trees were planted in Ningenhatti area. 50 acres of forestland and 25 acres of private land was selected to undertake the plantation work. Among the trees – vaiyvadang, shatawari, awala, reetha, shikakai, karanji, arjunarishta, neem, jambul and the wood which is required for the house construction for that Matti and teak. For economic purpose trees such as mango, cashew, sitafal, ghaypath, karipatta, bamboo; and to protect the land glycederia which grows fast, protects trees and can be good manure. In all 1,12,000 saplings were planted in 75 acres of land. The survival rate was 85%.



After the plantation of trees watershed development work was undertaken. The entire village was involved in digging 3 lakes. Out of three, two are in private land and one in the government land. The villagers who participated in digging work were given the daily wages and again the Jan Jagran and some government schemes supported this.

Apart from digging of lakes, CCT's and parallel to contour trenches were dug. Wherever, the nalla/streams were there, gully plugging was done to block the water for water recharge. This has led to water recharge resulting into fast growth of trees as well as increase of groundwater. Because of such methods even in the month of May, there is sufficient water in all the three lakes.

Like Kattanbhavi, there is a considerable change in the biodiversity of Ningenhatti. A decade back Ningenhatti was a barren land. Now, there are different types of trees in the area, good grass is available for cattle and wild fauna. Out of three lakes, one lake has been kept reserved for wild animals.

Since the development of grassland, people of Ningenhatti started growing livestock - cows, buffaloes, goats and poultry. There are 150 families and the population is about 750. Because of availability of cow dung, 60 families have gobar gas plants with toilets. Remaining 15 families are on the way to construct. Because of bio (gobar) gas, they get good manure. So there is good agriculture activity. Some people have also taken up organic farming. Formal training of wormiculture is given to the interested villagers.

By agriculture activity, dairy and poultry people are getting sufficient work at their hometown, leading to reduction in migration of people for work to city. Since migration is contained they have started admitting their children to anganwadi and primary schools. There is a Kannada medium primary school catering up to 6<sup>th</sup> standard.

Since they are organized for a particular cause, Jan Jagran, Shri. Shivaji Kagnikar and his colleagues are successful in stopping the manufacture, selling and drinking of country liquor. Many of them have stopped drinking. A committee "Gram Aranya Saunrakshan Samity" has been formed led by the villagers people like Ramesh Mallappa Hagedal, Basavraj Hagedal; Yellappa Gangappa Naik (Kattanbhavi), Kallappa Belgaumkar (Kadoli), Yellappa Ghasti (Gudnetti) and they are working day and night. 95% population belongs to Nayak community, which was predominantly under the influence of superstitions. With great efforts, reforms have been brought in to change them. They used to spend huge money on fairs and marriages. To avoid expenditure on this, community marriages have been introduced. They have stopped child marriages too. Crime rate has been almost brought to near zero. There is a ration shop to distribute the essential commodities to the villages.

### 3. Summary and conclusion

Shri. Shivaji Kagnikar, Jana Jagran and its group has worked with great dedication to bring out the changes in the above two villages viz. Kattanbhavi and Ningenhatti. The faculty of GSS has seen the impact of this work on the nearby villages also. This work has grown to a certain stage, but it is not over yet. To complete the work, which is pending in these two villages, a continuous source of finance is essential. Of course, there are certain schemes made by the government of Karnataka and these two villages are utilizing them. However, since this is not sufficient for the completion of work some more agencies should come forward to extend the additional financial support. The authors sincerely feel that even the industrial houses, philanthropists; charitable institutions should come forward and extend their help to complete the undertaken work. The authors express their deep sense of gratitude for the work carried out by the villagers under the leadership, able guidance and supervision of Shri. Shivaji Kagnikar and wish every success in their future endeavors.







Photographs at Kattnabhavi: (From top left) Water level in the well and lake even during May month, indigenous method for CCT's, contour trenches along hill slopes, plantation along the hill slopes; and bio (gobar) gas plants with toilet facilities.



## 4<sup>TH</sup> COUNCIL MEETING OF MEAI HELD AT BENGALURU ON 26<sup>TH</sup> JUNE 2022



Shri. K. Madhusudhana, President, addressing at the Council Meeting



Shri. D.B. Sundara Ramam, Vice President – III, addressing at the Council Meeting



Front row: Shri. Meda Venkataiah, Past President, Shri. Sanjay Kumar Pattnaik, Immediate Past President, Dr. P.V. Rao, Editor (MEJ), Shri. G. Dhananjay Reddy, Chairman Bangalore Chapter attending the Council Meeting



Shri. K. Madhusudhana (Center), Shri. D.B. Sundara Ramam (Left), Shri. M. Narsaiah, Secretary General (Right) conducting the Council Meeting



MEAI Members attending 4<sup>th</sup> Council Meeting

## 49<sup>TH</sup> ANNUAL GENERAL MEETING HELD AT BENGALURU ON 25<sup>TH</sup> JUNE 2022



Shri. K. Madhusudhana, President lighting the lamp of knowledge before commencing the 49<sup>th</sup> Annual General Meeting



Shri. K. Madhusudhana, President MEAI, D.B. Sundara Ramam, Vice President – III, Shri. M. Narsaiah, Secretary General, Shri. B.S.P. Raju, Joint Secretary cum Treasurer releasing the 49<sup>th</sup> Annual Report of MEAI



Shri. K. Madhusudhana, President, MEAI addressing the General Body



## MEAI ANNUAL AWARDS FUNCTION, BENGALURU 25-6-2022



Shri. T. Saminathan, CMD, KIOCL, Chief Guest of Award Ceremony being welcomed with floral bouquet by Shri. N. Rajendran, Secretary, Bangalore Chapter



Shri. T. Saminathan, Chief Guest launching the MEAI Website (in the picture) in the presence of Shri. K. Madhusudhana, Shri. Sanjay Kumar Pattnaik, Shri. D. B. Sundara Ramam, and Shri. M. Narsaiah, Secretary General and the General Body



Shri. T. Saminathan, Chief Guest addressing the MEAI Members

## MEAI LIFETIME ACHIEVEMENT AWARDS FOR 2021



Shri. Raghavendara Rao, Former Joint President, Ambuja Cement Ltd being presented with MEAI Lifetime Achievement Award for the year 2021



Dr. P. V. Rao, Former Chief of Geological Services Division, TATA Steel, Co-Chair NACRI and Editor MEJ being presented with MEAI, Lifetime Achievement Award for the year 2021

## MEAI SERVICE EXCELLENCE AWARDS



Shri. D.B. Sundara Ramam, Vice President – III receiving MEAI Service Excellence Award



Shri. Pukhraj Neniwal, Regional Controller of Mines and Chairman Jabalpur Chapter receiving MEAI Service Excellence Award





**Shri. BRV Susheel Kumar**, Director, Govt of Telangana & Past Chairman Hyderabad Chapter accompanied by his wife receiving MEAI Service Excellence Award



**Prof. M S Venkata Ramayya**, Vice chairman, Hyderabad chapter receiving MEAI Service Excellence Award



**Dr. N.K. Nanda**, Former Director Technical, NMDC and & Former Chairman Hyderabad Chapter, receiving MEAI Service Excellence Award



**Shri. B.K Purandara**, Chairman Belgaum Chapter receiving MEAI Service Excellence Award



**Shri. Dhananjay Reddy G**, Chairman Bangalore Chapter, MEAI, receiving MEAI Service Excellence Award



**Dr. C.H. Rao**, Chairman Vishakhapatnam Chapter receiving MEAI Service Excellence Award



**Shri. Deepak Vidyarthi**, Former Executive Director, NMDC Ltd and Council Member, MEAI, receiving MEAI Service Excellence Award



**Shri. K. Prabhakar Reddy**, Chairman Bellary-Hospet Chapter receiving MEAI Service Excellence Award



**Shri. S K Jain**, General Manager, NMDC Ltd, receiving MEAI Service Excellence Award





**Prof. Bhabesh C. Sarkar**, Department of Applied Geology at IIT(ISM) Dhanbad and Chairman Dhanbad Chapter receiving MEAI Service Excellence Award



**Shri. N. Rajendran**, Secretary Bangalore Chapter, receiving MEAI Service Excellence Award



**Shri. B. Mahesh**, Dy. General Manager, SCCL and Secretary Hyderabad Chapter receiving MEAI Service Excellence Award



**Shri. T.R. Rajasekhar**, NACRI member receiving MEAI Service Excellence Award



**Shri. Rakesh MM**, Co- Founder - Mine Magma, receiving MEAI Service Excellence Award



**Shri. Prasad Teli**, Assistant Manager, J K Cement receiving MEAI Service Excellence Award



**Shri. M.S. Rachappa**, Vice President, M/s. Doddanavar Brothers Iron ore mines receiving MEAI Service Excellence Award



**Shri. S Ravindra**, Mechanical Instructor, Mines Group Vocational Training Society, Hosapete receiving MEAI Service Excellence Award



**Shri. Sabyasachi Nayak**, Founder - Director, Mine Magma receiving MEAI Service Excellence Award



## MEAI ANNUAL AWARDS INSTITUTED BY ORGANISATIONS / INDIVIDUALS



MEAI - NMDC Award: Dr. Gottumukkala Venkateswara Rao, Deputy General Manager (Mineral processing) Research and Development Centre, NMDC Limited receiving the Award



MEAI - Abheraj Baldota Memorial Gold Medal Award (Mining Engineer of the year): Shri. Deepak Vidyarthi, Former Executive Director, Former Executive Director, NMDC Ltd and Council Member receiving the Award



MEAI - Abheraj Baldota Memorial Gold Medal Award (Young Mining Engineer of the year): Shri. Bharat Kumar A Y, National Institute of Rock mechanics (NIRM), Scientific project Execution, Research Development & Consultancy receiving the Award



MEAI - SRG Information Technology Award: Dr. Inumula Satyanarayana, Deputy Director of Mines Safety (DGMS) receiving the Award



MEAI - Master Tanay Chadha Memorial Geologist Award: Dr. Basavaraj Hatti, Asst. Professor in Department of applied Geology, Vijayanagara Sri Krishnadevaraya University, Ballary receiving the Award



MEAI - Dr M.L. Jhanwar Awardee for Best Article published in MEJ: Dr. Inumula Satyanarayana, Deputy Director of Mines Safety (DGMS) receiving the Award



MEAI - SCCL Coal (Mining Engineer) Award: Dr. Debi Prasad Tripathy, Professor – N.I.T, Rourkela receiving the Award



## MEAI BEST CHAPTER AWARD



MEAI - Best Chapter Awardee: Bellary-Hospet Chapter



MEAI -Active Chapter Awardee: Hyderabad Chapter

## MEAI- ACTIVE CHAPTER AWARDS



MEAI - Active Chapter Awardee: Belgaum Chapter



MEAI - Active Chapter Awardee: Visakhapatnam Chapter



MEAI - Active Chapter Awardee: Bangalore Chapter

## MEAI-SPECIAL AWARDS



Special Award for Celebration of Indian Mining Day: Hyderabad Chapter (Shri. Venkata Ramayya, Vice Chairman and Shri. B. Mahesh, Secretary receiving the Award)



MEAI Active Chapter Awardee: Bhubaneswar Chapter



Special Award for Plantation: Bellary-Hospet chapter members receiving the Award





Special Award for Membership Development: Shri. P Venkateswara Rao, Deputy General Manager- Mines, MSPL Ltd receiving the Award



Special Award for enrolling maximum student members: Shri. T.L.Yogananda, Head of the Department & Assistant placement officer, TMAES Polytechnic, Hospet, receiving the Award

(Continued from Page 14)

Association said in a July 6 report that it expects polysilicon prices to decline slightly next month owing to increasing domestic production. Polysilicon is made using metallurgical grade silicon, which is then refined through a chemical purification process called the Siemens process. China's Silicon Industry Association says the factories that use this process have ramped up production recently to help match rising domestic and Western demand.

The Biden administration also announced last month that it wouldn't impose any new tariffs on solar-related imports for two years in order to reduce U.S. energy prices. And President Biden authorized the use of the Defense Production Act to help encourage U.S. production of solar panels and counter China's market dominance. This reduction in industry costs and increase in solar panel supply should help polysilicon prices come back to earth in the coming years.

*FORTUNE, WILL DANIEL | July 14, 2022*



## Mining Engineers' Association of India MEAI TECH SERIES (MTS)-AUGUST 2022

As a continual improvement on **Training, Development & Programs**, under the auspices of the Training, Development & Program Committee, with the backing and encouragement of the **President, MEAI, Mr. K. Madhusudhana**, MEAI brings the Second presentation in the **Tech Series** for the mining professionals on **20<sup>th</sup> August 2022** (Sat) at 06:30 pm **Online** on **WebEx** platform.

All members of **MEAI** are requested to join in large numbers and take the maximum advantage of the technical deliberations.

Presentations will be followed by discussions / clarifications by the members/audience. The same will be published in **MEJ** (Mining Engineers' Journal) the following month. Even non-members of MEAI can join with prior registration.

**There is No Registration Fees !!!**

Click here for Registration/Login.

<https://meaionline.my.webex.com/meaionline.my/j.php?R GID=r7ee60bd66b56911bdcc8bafbbcd1d74e>

It is proposed to conduct the Technical Presentations by eminent speakers from the industry on various technical subjects on the 3<sup>rd</sup> (Third) Saturday Every Month at 06:30 pm Online.

MEAI is highly thankful to **Mr Cyriac Joseph** for his kind consent to deliver the talk on the following date & subject in the **Tech Series**:

**20<sup>th</sup> Aug 2022 (Saturday) @ 06:30 pm**

**“Drone Technology –  
Digital Transformation in Mining”**



**Sri K. Madhusudhana**  
President, MEAI



**SPEAKER**  
**Mr Cyriac Joseph**  
MD & CEO Squadrone  
Infra & mining Pvt Ltd



**Sri Deepak Vidyarthi**  
Chairman, TDPC, MEAI

**Deepak Vidyarthi**  
Independent Consultant Mining  
**Chairman, Training, Development & Program Committee, MEAI**  
E-mail: [vidyarthikud@hotmail.com](mailto:vidyarthikud@hotmail.com)



## WANTED

*One of the largest Road Metal producing companies of South India, with an annual turnover of almost 100Cr, producing stone aggregates and Manufactured sand to the tune of around 30 lakh tonnes per annum, from 5 crushers of 300tph, 3 stage, with 1500 tonnes per hour capacity, is looking for the following experienced candidates for its production facilities in the Tirupati region of Andhra Pradesh.*

1. **Mines Manager with valid First Class Certificate of Competency, BE or diploma in Mining** and experienced in managing road metal quarries with heavy equipment and heavy blasting techniques, managing the total production planning and operations of the quarries, acquiring/complying Environmental Clearances and other licenses etc;. Candidates above 40 yrs of age will be preferred.
2. **Valid Second Class Mine Managers, with Diploma in Mining, or field experience** and relevant experience in quarries with heavy drilling & blasting using Nonels.
3. **Blasting Foremen**, with diploma in mining & field experience in managing day to day heavy blasting with Nonels and managing quarry production shifts.
4. **Mates/Blasters, with valid certificate** with extensive field experience in Stone Quarries.
5. **Mechanical engineer** for preventive maintenance and repairs of stone crushers.
6. **Electrical Engineer** for preventive maintenance and repairs of stone crusher electricals.
7. **Liaison Officer** for acquiring various related permissions, leases and licenses from Govt Authorities.
8. **Stores Officer** with experience in taking care of inventory and spares.
9. **Accountants** with BCom and basic computer skills like MS Office & Tally.
10. **Magazine clerk** for managing stock and maintaining issue of explosives and filing returns.
11. **Weigh Bridge operators** with PUC and minimum 2yrs experience.

Salary and perks will be commensurate with qualification and experience for the right candidates. Candidates above age 25, with 5 yrs experience and above will be preferred for SI no 2 to 10.

**Interested candidates may send their resumes by email immediately to**

**[cbbmsvs@gmail.com](mailto:cbbmsvs@gmail.com) OR [7hills\\_stvd@live.in](mailto:7hills_stvd@live.in)**



# Mining Engineers' Association of India

## 2<sup>nd</sup> COURSE OF MPDP (MEAI PROFESSIONAL DEVELOPMENT PROGRAM)

Encouraged by the guidance & support of the President MEAI, Sri K. Madhusudhana ji and Enthused by the phenomenal success of the first Course of MPDP, MEAI launches the 2<sup>nd</sup> Course in the month of **September 2022**, Online.

The previous course was successfully held online on **WebEx** platform in the month of **March 2022** on three consecutive week-ends and was well attended by **35** participants from **10** reputed mining organizations including NMDC, Tata Steel, MSPL, HGML, JSW, OMC, NALCO, BAUMA, Sai Universal Mining Services besides a few independent consultants.

**26 technical sessions** were held by **15** eminent faculties and industry experts covering **20** relevant subjects. Participants were awarded Certificates of participation.

**Attendance and Assessment test are mandatory** for all participants to be eligible for the "**MPDP Certificate**".

An added attraction of the MPDP Course is that the **RCPs** who attend the course would get a credit of **40 points** !

### TOPICS & FACULTIES

TOPICS	FACULTIES
Elements of <b>Blast Design</b> Parameters	Dr More Ramulu, Chief Scientist, CIMFR
Implementation of IT in Mining Industry, NMP	Mr BRV Susheel Kumar, Director, Gov of Telangana
Forest Clearances	Mr K. Madhusudhana, VP (Mines & CC) MSPL
New Technological Trends in Opencast Mining Machinery	Mr Suresh Nair, VP, Tata Hitachi Sales & Marketing
Mineral Auction	Mr Sabyasachi Nayak, Director Mine Magma
Hypraspectral Technology, Mineral Exploration, EIA & Management	Prof. Anup Krishna Prasad, IIT (ISM)
Mine Costing; Innovative Technologies in Opencast Mining; Safety Management; EHS	Mr Deepak Vidyarthi, Consultant (Mining), Assessor on National Accreditation Board, Ex ED (Mining) NMDC
Digitalization in Mining	Mr Mahesh Kumar Thautam, Minematics, IT Consultant
Mineral Resources & Reserves - Classification & Reporting	Dr Abani R Samal, Principal GeoGlobal, LLC, USA
Geological Exploration	Mr Saradchandra Rao Peshwa, Consulting Geologist
Geostatistics in Exploration & Mining	Prof Bhabesh C. Sarkar, IIT(ISM)
Mineral Laws & Environmental Clearances; MCDR	Mr AR Vijay Singh, BE (Mining), FCC (R), FCA, Chartered Accountant
Open-pit Optimization, Mine Planning & Scheduling	Mr Suryanshu Choudhury, DGM (Planning) Adani Enterprises
General Management	Dr Debabrat Dash, VP - HR & Admin, MSPL
Evolution of Environmental Laws	Mr KAV Prasad, VP - Legal, MSPL
Mining Plan & FMCP	Mr TR Rajasekar, Consultant

### WHO SHOULD ATTEND

The MPDP Course will benefit Mining Professionals, Engineers, Geo-technical Engineers, Mineral Exploration Geologists working in the mineral industry (*mid level to senior level*)

Additional attraction for **RCPs: Those who attend the course will get a credit of 40 points !!!**

### SCHEDULE

The 2<sup>nd</sup> Course is scheduled as follows:

September 2022: 09<sup>th</sup> (Fri), 10<sup>th</sup> (Sat), 16<sup>th</sup> (Fri), 17<sup>th</sup> (Sat), 23<sup>rd</sup> (Fri), 24<sup>th</sup> (Sat) & 25<sup>th</sup> (Sun).

**Sessions:** 09:00 AM / 05:15 PM

**Inauguration:** Sept 09<sup>th</sup> (Fri): 09:30 AM / 10:30 AM

**Participants feedback & Assessment:** Sept 25<sup>th</sup> (Sun): 10:45 AM (followed by Session-I)

**Valedictory Function:** Sept 25<sup>th</sup> (Sun): 11:15 AM / 12:15 PM

### COURSE FEE

For MEAI Members: **Rs. 15,000.00 + 18% GST**

For Non-Members of MEAI: **Rs. 20,000.00 + 18% GST**

Interested professionals may please contact the **Secretary General**, MEAI at [meai1957@gmail.com](mailto:meai1957@gmail.com) / Phone no: 040- 66339625/ 040-23200510 or Mr. Deepak Vidyarthi, Chairman, Training, Development & Program Committee of MEAI at [vidyarthikud@hotmail.com](mailto:vidyarthikud@hotmail.com) for more details.

Payment of **Course fee** may be made on line at A/c No. **037810100086016**; IFSC: UBIN0803782; Bank: UNION Bank of India Nampally Station Road, Hyderabad Telangana-500 001.

### REGISTRATION

Please click on to the following link for Registration:

<https://forms.gle/Sb7Cg66Sanbr8QP98>

**Hurry up ! We have limited Seats !! Allotment would be on First Come First Served Basis !!!**

**Deepak Vidyarthi,**  
Course Coordinator, MPDP /  
Chairman, Training, Development  
& Program Committee of MEAI



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## MEAI NEWS

### BELGAUM CHAPTER

#### REPORT ON ONE DAY NATIONAL SEMINAR ON SUSTAINABLE MINING AND WASTE MANAGEMENT

One of the major challenges of our country during its journey after independence is an attempt to transform from the existing tag of developing country to developed country. This could be achieved only if the nation can explore and exploit the natural resources optimally through environmentally friendly and sustainable mining. In spite of having many of the minerals and metals for exploitation, we are unable to do so due to various hazards created by the mining process. However, mining activity is quite essential due to notable population growth and worldwide demand for mineral resources. This increase coincides with a new awareness in which environmental issues have become the growing concern for all of the agents within the sector. The social demand has increased for the sustainable development of all of the activities related to mining, particularly the adequate management of waste products during each phase of the mining activity. As the mining process generates a large quantity of residues that must be strategically treated and managed to combine economic efficiency with demands for environmental sustainability. Meanwhile, the impact of waste management issues is a matter of great concern due to the toxicity of the waste (acute, chronic, or extrinsic), flammability, reactivity, corrosivity, etc. In this regard, a one-day National Seminar on "Sustainable Mining and Waste Management" was organised by Mining Engineers' Association of India, Belgaum Chapter in association with BVSC College, Begalkot on 8<sup>th</sup> May, 2022.

The seminar was inaugurated by Shri Madhusudan, National President of MEAI, Hyderabad. Speaking on the occasion, Shri Madhusudan, highlighted the various issues which severely affected the mining sector for the last few decades. He stressed the significance of Sustainable Mining for the development of the Nation. He also explained the various activities of MEAI at national and international levels to assist the Engineers, Technologists and Policy makers to guide the mining fraternity to rely on sustainable Mining and Waste Management.

Dr. Udayakumar Yaragatti, Director, NITK, Suratkal was the Chief Guest. In his inaugural talk, he expressed concern over the increasing cost of steel and other accessories which are required for the infrastructure development of the country. According to him, such steps were necessary because of the slow pace of mining activity all over the nation. Therefore, it is very important to take up environmentally friendly and sustainable mining for the development of the Nation and also to generate an adequate number of jobs. He also stressed the need for application of the latest technology for mining processes so that environmental degradation can be

brought to a bare minimum. He opined that the Mining wastes should be used for further extraction of minerals and also for other social benefits without harming the environment. He also lauded the attempt made by MEAI to build up a platform to discuss the mining challenges and the way forward.

Shri Rachappa, Chairman, Organising Committee presided over the function and briefed the audience about the various modernization processes taken up in some of the mines of Karnataka including mines of M/S Doddannavar Brothers for which he is the Vice President.

Dr. Purandara Bekal (Former Scientist of National Institute of Hydrology, Belgaum), Chairman of the MEAI Belgaum Chapter listed out various activities chalked by the Chapter to bring awareness among the public with regard to eco-friendly and sustainable mining. He also explained how the wastes can be converted into reasonably good quality materials for the benefit of mankind.

Shri Amit Ghooli, Secretary of MEAI Belgaum Chapter read out the activities conducted by the chapter during 2021-2022. Shri Sagar Waghmare, Treasurer expressed the vote of Thanks.

### BELLARY-HOSPET CHAPTER

Annual General meeting held on 17<sup>th</sup> June 2022  
The Meeting commenced at 6.00 pm at Hotel Malligi, Hosapete.

#### Executive Committee Members, Members and others present in the Meeting

President, MEAI:	Shri. K. Madhusudhana
Chairman:	Shri. K. Prabhakar Reddy
Secretary:	Shri. S. H. M. Mallikarjuna
Treasurer:	Shri. Jagadeeshwar S.M
Executive Member:	Shri. J. Srikanth
Executive Member:	Shri. A. Sreekantaha Reddy
Executive Member:	Shri. Nanda Kumar.H. M,
Executive Member:	Shri. Gopal Joshi
Executive Member:	Shri. Y.V.R. Krishna Reddy
National Council Member:	Shri. Sanjeev Sahi
National Council Member:	Shri. V. Jaya prakash
Past National Council Member:	Shri. P. Sreenivasa Rao
Life Members Present:	90
Student Members:	100+

### Agenda for the Annual General Meeting

- Welcome address by Shri. Chandrashekar Halli, DGM MGVTC-Sandur
- Secretary Report by Shri. S. H. M. Mallikarjuna
- Approval of Audited report for the FY 2021-22
- Appointment of Auditor for the year FY 2022-23
- Inauguration of Student Chapter under MEIA BH Chapter
- Any other point with permission of chair
- Workshop on beneficiation plant by CDE Asia Limited
- Vote of Thanks

### Welcome Address

Shri. Chandrashekar Halli, DGM MGVTC-Sandur welcomed all the Chapter members and Student members present for the meeting.



Members attending the AGM

### Secretary Report

Secretary Shri. S. H. M. Mallikarjuna, has presented the Annual report of the Chapter on the events that took place during the last year.

- Conducted a cricket tournament on 02.10.2021 at Sandur Residential School, Sandur
- Organized 9<sup>th</sup> consecutive year celebrations of "INDIAN MINING DAY & KARNATAKA RAJYOSTAVA on 01.11.2021" at the GVTC, Sandur
- Organized BLOOD DONATION CAMP on Mining Day supported by Indian Red Cross Society, Koppal.
- Senior Chapter members were felicitated during the AGM
- First Aid Certificate for appearing Competency Examinations conducted by DGMS. The matter was discussed with DGMS and NMDC Officials for making the arrangement in getting a First Aid Training Center.
- Plantation & Nature Walk 29.09.2021 was organized at Jambunatha Temple, Jambunatha Halli, Hosapete
- A National Seminar on "The Mining – Present & Future Prospects" at Hotel Hampi International Pvt. Ltd, Station Road, Hosapete on 20<sup>th</sup> and 21<sup>st</sup> August, 2021 was successfully organised & conducted
- Total 63 new members were enrolled

- Contributed Rs 5 lakh from savings to MEAI Head Office
- Conducted 2 Online coaching classes for Mine Foreman aspirants



Secretary report presented by Shri Mallikarjuna SHM

### Approval of audited report FY 2022-23

Shri. A. Sreekantaha Reddy Treasurer of the Chapter has presented the report of audited accounts in the Meeting. The audited balance sheet, income & expenditure, payments & receipts and auditor's report were circulated well before the commencement of the meeting. General body approved the audited report unanimously.

### Appointment of Auditor for the year FY 2022-23:

The General Body approved the continuation of M/s Boraiah & Co. Chartered Accountants, for auditing the accounts for the financial year 2021-22.

### Inauguration of Student Chapter under BH Chapter

The Student Chapter under the BH Chapter was inaugurated in the presence of Shri. K. Madhusudhana, President MEAI. He congratulated the BH Chapter for becoming the maiden Chapter in India to start a Student Chapter. Around 100 students from TMAES Polytechnic and PG Centre Nandihalli and selected Executive body from the students for the Student Chapter.

### Workshop on beneficiation plant by CDE Asia Limited

Shri. Sanjay Kumara KG BDE- Mineral Processing from CDE Asia Limited presented the presentation on the beneficiation plant. The interaction went very well and clarified all the queries.



Speech by the President MEAI

Shri. K. Madhusudhana, the President of MEAI has expressed his gratitude for inviting him as Chief guest of the AGM. He wished the students for their growth and become future leaders. He inaugurated the Student Chapter under the BH Chapter.



*Speech by the Chairman of the BH Chapter*

Shri. K. Prabhakara Reddy, Chairman BH Chapter expressed his gratitude for the support extended by the members towards its development. He shared his outlook on the opportunities offered for the students in career development and providing the technical and computer knowledge for the competitive exam aspirants.

#### **Vote of Thanks**

Sri. J. Srikanth, from M/s. ZTC proposed a vote of thanks to all the members present.

#### **NEW DELHI CHAPTER**

##### **Annual General Meeting held on 24-Jun-2022**

Mr. Deepak Gupta set-up the context and pointed out that the last AGM was held online on 24 June 2021 due to Covid pandemic. He proposed that the AGM pays homage to those members who passed away during the last one year. A minute's silence was observed.

He further mentioned that in the interim, Mr. Pankaj Satija, Chairman and Mr. Devraj Tiwari, Joint Secretary cum Treasurer have since moved out of New Delhi and have expressed their inability to discharge their duties in the Executive Committee of New Delhi Chapter. As per the byelaws, the Vice-chairman automatically takes over the duties and responsibilities of the Chairman. Mr. Gupta thereafter, requested Vice chairman Mr. VK Jain to chair the AGM and conduct the business.

Mr. Jain called the meeting to order and addressed the AGM. He welcomed the members, special invitees and guests present and suggested that AGM may elect a new Chairman, a Joint Secretary and a Treasurer so that the activities of the Chapter can be carried out more effectively. He proposed the name of Mr. Deepak Gupta as Chapter

Chairman. It was seconded by Mr. PS Upadhyay. There was no other name proposed. Mr. Gupta was elected as Chairman unanimously.

Mr. Deepak Gupta, proposed the name of Mr. Himanshu Singh for the post of Joint Secretary. It was seconded by Mr. NN Gautam. There was no other name and therefore Mr. Himanshu Singh was unanimously elected as Joint Secretary. Prof. BB Dhar proposed the name of Mr. Ashis Dash for the post of Treasurer and same was seconded by Mr. Krishna. Mr. Ashis Dash was unanimously elected as Treasurer.

Mr. Deep Krishna, Secretary, New Delhi chapter thereafter presented a report on activities conducted over the last one year, including on-line meetings and a physical meeting when Mr. Lohia, Additional Secretary, Ministry of Mines was the Chief Guest. He also mentioned that activities were on low key because of the Pandemic and hoped that coming year will be safe to conduct conferences physically. The AGM then discussed and decided that a Resources/Event Committee to be formed for the purpose of collaboration with Policy makers, Industry bodies, Seminars-topics and other related activities to make the Chapter more vibrant and effective.

Source of funding was also discussed and associated activities were planned for the New Delhi Chapter.

A resolution was then passed by voice vote for MEAI New Delhi Chapter Bank Account in SBI, Lodhi Road Branch to be operated by the newly elected office bearers of the Executive Committee.

Many industry leaders represented and participated in different industry initiatives. Suggestions were given in collaboration with various industry bodies to increase the representation and penetration of the New Delhi Chapter.

Other recommendations were given on Seminars and Topics to be planned for the next 6 to 9 months considering Government policies and Industry updates. Social media and Digital marketing issues related to the mining industry were also discussed.

New prospective member, Mr. NK Singh, a Mining Engineer from ISM Dhanbad and former Officer of Indian Forest Service as well as former Joint Secretary, Ministry of Mines was then introduced to the house. Mr. Singh expressed his desire to be a member of MEAI and the House welcomed him.

Mr. Shuvam Das from IG Drones expressed his desire to take Institutional Membership of MEAI for his company. The AGM welcomed it.



Mr. Pronota Mitra, Head of SMI of FIMI, has joined as member of the New Delhi Chapter

In the end, Mr. Deepak Gupta informed that Mr. Ashis Dash was conferred Abheraj Baldota Memorial Gold Medal for the year 2020 as Mining Engineer of the Year by the MEAI but it could not be formally presented to him due to Covid protocol in force at that time. Prof. BB Dhar presented the award to Mr. Dash.

### DHANBAD CHAPTER

On 17<sup>th</sup> June 2022, the Dhanbad Chapter elected the following Office bearers and Executive Committee for the term 2022-2024

#### Officer Bearers for the term 2022-2024

- Chairman: Prof. B.C. Sarkar, Dept. of Applied Geology, IIT-ISM, Dhanbad
- Vice Chairman: Dr. Santosh K. Ray, Sr. Prin Scientist, CSIR-CIMFR, Dhanbad
- Secretary : Prof. B.S. Choudhary, Dept. of Mining Engg, IIT-ISM, Dhanbad
- Jt. Secretary – cum- Treasurer: Mr. Kartik Varwade, Scientist, CSIR-CIMFR, Dhanbad

#### Executive Committee Members for the term 2022-2024

1. Dr. Sanjay Kumar Roy, Chief Scientist, CSIR-CIMFR, Dhanbad
2. Shri. Niraj Kumar, Senior Principal Scientist, CSIR-CIMFR, Dhanbad
3. Dr. Arun Kumar Singh, Sr. Prin Scientist, CSIR-CIMFR, Dhanbad
4. Prof. D.P. Mishra, Dept. of Mining Engineering, IIT-ISM, Dhanbad
5. Prof. Sahendra Singh, Dept. of Applied Geology, IIT-ISM, Dhanbad
6. Prof. R.K. Sinha, Dept. of Mining Engineering, IIT-ISM, Dhanbad



The Outgoing Chapter's Chairman Dr Pradeep K Singh handing over charge to incoming Chairman Prof. Bhabesh C Sarkar & his new Executive Committee at Rock Excavation Engineering Bldg, CIMFR Dhanbad

Executive Committee Meeting was held on 21<sup>st</sup> June 2022.



Prof. Bhabesh C Sarkar, Chairman Dhanbad Chapter with members

### GOA CHAPTER

The Chapter conducted its Annual General Meeting on 31<sup>st</sup> May 2022 at Hotel Menino Executive, Ponda at 7:00 pm. The Chapter Chairman Shri. Cletus Dsouza welcomed the gathering and highlighted the issues taken up by the Chapter with the Government of Goa and other stakeholders. The financial statement for the year 2021-22 was presented by the Treasurer Mr. E. Hymakar Reddy and the same was accepted by the members with Mr. A. N. Joshi proposed and Mr. Raju Salgaonkar seconded it.

The following New Office bearers and Executive Committee members were unanimously elected.

- Shri. Joseph Coelho – Chairman
- Shri. E Hymakar Reddy – Vice Chairman
- Shri. Ramesh Kumar Singh – Secretary
- Shri. Rakesh Bahadur Singh – Treasurer
- Shri. Rupesh Pangam – Jt Secretary
- Shri. Cletus Dsouza – Ex Chairman
- Shri. A N Joshi - Member
- Shri. Hemant Karmali - Member
- Shri. Clarence D' Souza - Member
- Shri. Mahesh Bongale - Member
- Shri. T Victor – Past President - Permanent Invitee
- Shri. G Shirish – National Council member - Permanent Invitee
- Shri C S Dhaveji - Permanent Invitee

The members discussed the prevailing situation of mining in Goa and have expressed the pros and cons with regard to latest decisions taken by the government. In either case, there would be delay in restarting the mining operations in the state of Goa. The meeting ended with a vote of thanks proposed by Shri R K Singh, followed by dinner.



## HUTTI-KALABURGI CHAPTER



Shri Arunava Ghosh, Deputy General Manager (Mining), Hutti Gold Mines Co. Ltd. addressed the gathering and expressed his views to create awareness on Occupational Safety and Health in Mines among the employees. Everyone in the workplace is responsible for preventing injury/illness, notified disease and maintaining a safe and Healthy working environment.

Further, he said reporting OHS incidents, recording injuries and storing the data in a safe central database is very much essential. Conducting regular risk assessments and working out how you would deal with the most serious OHS risks and formulating a plan with an aim to achieve Zero harm and Zero accident. He suggested educating employees about Notified Disease and how to avoid injuries at work.

Let's get started with some information shared by Dr. N.C. Dey HOD (Mining) from Indian Institute of Engineering & Technology, Shibpur on "Ergonomics-Occupational Safety & Health in Mines to help familiarize our employees with key information shared by Dr. N. C. Dey.

Ergonomics is the very important applied science for Engineering as a whole and for Mining in particular. Though it has extremely wide application for the betterment of men and machine efficiency including restoring comfort level of the work persons but still it has substantial pertinent points with potential benefits. Basic study, which needs to be undertaken for all man-machine interface-based industries is:

- Determination of Job heaviness or workload of every unit operation both from UG and OC mining sector (coal and metal)
- Ergonomic based study on the stress reduction of miners/operators to satisfy provisions of 126 and 215 specifically from current CMR 2017
- Work-rest scheduling of miners satisfying WHO prescribed provisions on ET, WBGT and other Environmental provisions
- Delay in on-set of Fatigue of work persons/Operators (Drillers, SDL/LHD Operators, HEMM and all other Operators etc.)
- Ergonomic Design of Seat Arrangement of Operators Cabin as mentioned in regulation to avert MSD (Musculo-skeletal related Disorders) related troubles
- Environmental based study from Ergonomic view synchronizing with statutory provisions
- Determination of BSA, BSI and Total expenditure with LCW (limit of continuous work) for each category of workers

The ergo-based study will certainly help in building good relationships amongst employees and employers through providing a rational workload under an acceptable work environment which would have a direct effect on production and productivity by increasing human comfort with zero-harm to the industry.



Dr NC Dey making a presentation on Ergonomics

## JABALPUR CHAPTER

Technical Session Organized on 26-05-2022 at Jabalpur Sports Club, Jabalpur

### Technical sessions

- Application of Drone Technology in Mine Planning & Operations with Insight in to the latest amendment's in



MCDR 2017(Amended 2021) & Indian Bureau of Mines (IBM) SOP for DRONE SURVEY (dated 17.02.2022) by Shri Cyriac Joseph, MD & CEO, Squadrone Infra & Mining Private Limited, Bangalore, India.

- Technical Paper presentation of 5.0 KLD (250 LPH) utility vehicle wash Effluent treatment plant with CMFU for Mine Workshop by Shri Rohit Somani from M/s Prism Johnson Ltd; Satna (MP).

### Proceedings

At the outset, Session was addressed by Shri Rajesh Battacharya, Treasurer of the Chapter. Esteemed participants from different corners of the mining industry of Madhya Pradesh & Uttar Pradesh States were present in the forum. Dias was shared by Chairman of the Chapter Shri S K Jain, Shri Pukhraj Nenival, RCOM, IBM –Jabalpur, Jt Secretary Shri Rajesh S. Chaubey and Treasurer Shri Rajesh Bhattacharya .

Shri Rajesh Battacharya gave the welcome speech. Special welcome was given to the Chief Guest of session, Chairman, Secretary and Jt. Secretary of the chapter by offering Flower Bouquets. He expressed his gratitude on behalf of the Jabalpur Chapter to all the members for their presence and extending support to organize this technical session. He appreciated the attendance and admired that all members were present.

### Address by Shri Pukhraj Nenival, RCOM, IBM – Jabalpur

He welcomed the Steering Committee members along with all the participants from various Mining Industries and Autonomous Qualified Persons. Special emphasis was put on improving the membership of the Chapter. Executives from Mining Industries should promote the young Engineers and Geologists to be part of the Jabalpur Chapter. He elaborated the benefits of membership. Special focus was given on the day-to-day changes in various laws and their successful compliance by Industry and awareness to all professionals to get the benefit and have hassle free mining. He requested Chapters' Chairman and Secretary to plan for amplified professional activities to serve the mining fraternity. He appreciated the efforts of organizing the Technical knowledge sharing sessions.

**Felicitation to Mr. S K Jain:** Shri SK Jain-CGM (NMDC) & Chairman Jabalpur Chapter has been transferred from Jabalpur region to NMDC headquarters at Hyderabad. He was felicitated by presenting Flower Bouquet, Coconut, Shawl with Memento as a token of remembrance by Shri Pukhraj Nenival, Rajesh Chaubey, and Shri Rajesh Battacharya.

Shri SK Jain said he felt delighted to share that the event was well organized and evoked very good response from the participants of Jabalpur region. As this Technical session was intended for the mining fraternity on all fronts, it attracted the Lessees/Owners, Agents, Managers, Engineers, Geologist, QPs from several

mining companies in large numbers and made it very successful. He threw light on the benefits of MEAI Membership and with thrust he urged the mining fraternity to come forward and get enrolled as many members as they can. It will surely help the Association to get stronger and move ahead with additional strength.

### Nomination of New MEAI Chairmen

With voice vote and forum view, everybody agreed and nominated Shri Pukhraj Nenival, as the New Chairman of the Jabalpur Chapter as Shri SK Jain has stepped down from Chairman's post due to his transfer to other location. Nomination of New Chairman will definitely set the path towards successful operation of the Chapter so that maximum stakeholders get benefitted, as the ultimate aim is growth of the mining sector and contribution towards growth of the Nation.

Shri Pukhraj Nenival has accepted the position with assurance given by various professionals from the Industry. He conveyed that with everybody's pro- active participation, Jabalpur chapter has to create new benchmarks on various parameters of mining sector in context with knowledge sharing, skill development, assuring safety in mines, mines operation, production, productivity, legal compliance etc.

On appointment of new Chairman of the Chapter, the Executive Committee assures of dedication with fresh zeal and enthusiasm, high energy and new strategy to reach greater heights and set a new aspiration to serve the mining fraternity in a better way. Following are the details of the Chapter's Bank account:

New Bank account of MEAI Jabalpur-Chapter

Account No – 50200068639860

Account - Current

IFSC Code – HDFC0002029.

Address – Satna, Branch (MP)

### Vote of Thanks

The Meeting was concluded with Vote of thanks proposed by Shri Rajesh Battacharya. Special thanks to Mr. Rohit Somani for Technical paper presentation and Mr Cyriac Joseph for knowledge sharing on Drone Survey. Looking forward to increased professional activities by the Jabalpur Chapter viz conduct many more Technical workshops/ Paper Presentation/ Technical Trainings / Technical Talks etc.



Members of Jabalpur Chapter attending the meeting



Shri. Pukhraj Nenival, Chairman Jabalpur Chapter addressing members of the chapter

### RAJASTHAN CHAPTER-JAIPUR

The Annual General Meeting of the Rajasthan Chapter-Jaipur was held on 11<sup>th</sup> June 2022 and elected the following office bearers and Executive body.



Shri K. Madhusudhana with Shri Srinivas Rao, Director, Directorate of Training, Govt. of India and Shri Sanjay Sharma SCMS



Executive Committee for the Term: 2022-2024

Chairman: Shri Anil Mathur  
 Vice Chairman: Dr. Laxman Singh Shekhawat  
 Secretary: Shri Kedar Singh Yadav  
 Jt. Secretary: Shri A. K. Yadav  
 Treasurer: Shri Janki Vallabh Natani  
 Executive Member (1) Dr Vivek Lau  
 Executive Member (2) Dr. Govind Singh Naruka  
 Executive Member (3) Shri Lalit Mohan Soni  
 Executive Member (4) Shri Rakesh Kumar Khandelwal  
 Executive Member (5) Shri Somnath Bhattacharyya

## MEAI PRESIDENT'S VISIT TO NEW DELHI ON 13-7-2022



Shri K. Madhusudhana with Shri Rajesh Aggrawal, Secretary, Skill Development & Entrepreneurship, Govt of India, Shri Sanjay Sharma (L) and Shri Sudarshan SCMS (R)



Shri K. Madhusudhana with Shri Sanjay Sharma (R) and Shri Sudarshan SCMS (L)



Shri K. Madhusudhana with the members of New Delhi Chapter attending the Executive Committee Meeting



Shri K. Madhusudhana, President with the members of New Delhi Chapter attending the Executive Committee Meeting





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## MEJ RIDDLES

Dear Readers of MEJ,

In order to increase the readership of MEJ, which has been felt essential in the interest of our ardent members, the mineral industry professionals as well as the mining sector, the Editorial Board of MEJ has decided to hold a monthly QUIZ. The monthly QUIZ will be designed and printed in MEJ based on the content published in the previous month's MEJ. The MEJ readers will be given five objective questions with multiple choices to choose; and expect them to respond with their correct answer by email to the Editor at [editormeimeai@gmail.com](mailto:editormeimeai@gmail.com) by 20<sup>th</sup> of the current month. If more than three members responded with the correct answers, then the three winners will be decided by draw. Each winner will be issued a certificate of merit and a nominal cash prize of Rs 500.

Encourage the EMJ readers to participate in the QUIZ in large numbers and benefit from the enhanced knowledge by reading the Journal from the first to last page.

### Questions based on MEJ July 2022 issue

1. **In which Australian seaport the first automated ship loader was tested?**  
(a) Port of Newcastle (b) Port Hedland  
(c) Seaport of Brisbane (d) Port of Fremantle
2. **Which organisation controls the deep ocean mining ?**  
(a) International Energy Agency (b) United Nations Organisation  
(c) International Seabed Authority (d) North Atlantic Treaty Organisation
3. **Which MEAI Chapter arranged B.K. Antia Memorial Lecture on 24 June 2022?**  
(a) Rajasthan Chapter-Jodhpur (b) New Delhi  
(c) Bhubaneswar (d) Ahmedabad
4. **Which area is not the focus area of JSW Foundation?**  
(a) Space Technology (b) Skill development  
(c) Education (d) Sports promotion
5. **How much area in India faces High to Extremely High water stress?**  
(a) 60% (b) 54%  
(c) 50% (d) 44%

## WINNERS OF RIDDLES PUBLISHED IN THE MEJ JULY 2022 ISSUE

*Congratulations to proud winners*

**Dr SK Vashisth**

Dy Director (Business Development & Regulatory), Hindustan Zinc Limited, Udaipur,  
E-mail: [Sunil.Vashist@vedanta.co.in](mailto:Sunil.Vashist@vedanta.co.in)

**Mr Satish Verma**

Group Operations Manager, RioZim, Zimbabwe  
E-mail: [satishverma29@gmail.com](mailto:satishverma29@gmail.com)

**Mr Sanjeev Soni**

ACC Limited, Lakheri Cement Works, Lakheri  
E-mail: [sanjeevkumar.soni@acclimited.com](mailto:sanjeevkumar.soni@acclimited.com)

To receive the cash prize of Rs 500, the winners may please contact the Secretary General, MEAI on email at [meai1957@gmail.com](mailto:meai1957@gmail.com) or Mob. 9177045204.



# CONFERENCES, SEMINARS, WORKSHOPS ETC.

## ABROAD

**9-10 Aug 2022: International Conference on Green Coal Mining Technologies and Techniques ICGCMTT.** New York, United States. Website URL: <https://waset.org/green-coal-mining-technologies-and-techniques-conference-in-august-2022-in-new-york>; Contact URL: <https://waset.org>

**12-13 Aug 2022: International Conference on Mining and Mineral Technologies ICMMT.** Venice, Italy. Contact URL: <https://waset.org>. Website URL: <https://waset.org/mining-and-mineral-technologies-conference-in-august-2022-in-venice>

**21-23 Aug 2022: IMPC Asia-Pacific 2022.** Melbourne, Australia and Online. Contact AusIMM. T: 1800 657 985 or +61 3 9658 6100 (if overseas)

**14-15 Sep 2022: Lithium Battery and Energy Metals Conference 2022.** Perth, Australia and Online. Contact AusIMM. T: 1800 657 985 or +61 3 9658 6100 (if overseas)

**19-20 Sep 2022: Global Conference on Geology and Earth Science.** Paris, France. Presentation: Hybrid. Contact: Website L: <https://geology.magnusconferences.com/>; Contact E-mail: [geology@magnusconference.com](mailto:geology@magnusconference.com)

**10-12 Oct 2022: Australian Mine Ventilation Conference 2022.** Gold Coast, Australia and online. Contact AusIMM. T: 1800 657 985 or +61 3 9658 6100 (if overseas)

**17-19 Oct 2022: International Mining and Resources Conference. IMARC 2022.** Melbourne, Victoria, Australia and online. Contact: [connect@imarcglobal.com](mailto:connect@imarcglobal.com); Australia: +61 (0) 3 9008 5946

**21-22 Oct 2022: International Conference on Mineral Processing and Mining ICMMPM.** London, United Kingdom. Website URL: <https://waset.org/mineral-processing-and-mining-conference-in-october-2022-in-london>; Contact URL: <https://waset.org>

**08-09 Nov 2022: International Conference on Underground Mining Methods and Technologies ICUMMT.** Istanbul, Turkey. Website URL: <https://waset.org/underground-mining-methods-and-technologies-conference-in-november-2022-in-istanbul>

**18-19 Nov 2022: International Conference on Underground Mining Methods and Applications (ICUMMA).** Singapore. Website URL: <https://waset.org/underground-mining-methods-and-applications-conference-in-november-2022-in-singapore>. Program URL: <https://waset.org/conferences-in-november-2022-in-singapore/program>.

**29 Nov - 1 Dec 2022: AusRock Conference 2022.** Melbourne, Australia and Online. Contact AusIMM. T: 1800 657 985 or +61 3 9658 6100 (if overseas)

**20-21 Dec 2022: International Conference on Design Methods in Underground Mining (ICDMUM 2022).** Istanbul, Turkey. Website URL: <https://waset.org/design-methods-in-underground-mining-conference-in-december-2022-in-istanbul>; Contact URL: <https://waset.org>

**27-28 Dec 2022: International Conference on Coal Resources and Coal Mining ICCRCM.** Vienna, Austria. Website URL: <https://waset.org/coal-resources-and-coal-mining-conference-in-december-2022-in-vienna>

**11-12 Jan 2023: International Conference on Land Reclamation in Mining Areas ICLRMA.** Singapore. Website URL: <https://waset.org/land-reclamation-in-mining-areas-conference-in-january-2023-in-singapore>

**21-22 Jan 2023: International Conference on Mineral Deposits and Mining Methods (ICMDMM 2023).** Amsterdam, Netherlands. Website URL: <https://waset.org/mineral-deposits-and-mining-methods-conference-in-january-2023-in-amsterdam>; Contact URL: <https://waset.org>

**18-19 Feb 2023: International Conference on Bauxite Mining and Alumina Refining ICBMAR.** Jeddah, Saudi Arabia. Website URL: <https://waset.org/bauxite-mining-and-alumina-refining-conference-in-february-2023-in-jeddah>

**4-5 Mar 2023: International Conference on Mining and Refining of Metals ICMRM.** Rome, Italy. Website URL: <https://waset.org/mining-and-refining-of-metals-conference-in-march-2023-in-rome>

**4-5 Mar 2023: International Conference on Mining Intelligence (ICMI 2023).** Rio de Janeiro, Brazil. Website URL: <https://waset.org/mining-intelligence-conference-in-march-2023-in-rio-de-janeiro>; Contact URL: <https://waset.org>

**22-23 Apr 2023: International Conference on Recent Developments in Mining Technologies ICRDMT.** London, United Kingdom. Website URL: <https://waset.org/recent-developments-in-mining-technologies-conference-in-april-2023-in-london>

**22-23 Apr 2023: International Conference on Mining and Mineral Technologies (ICMMT 2023),** Tokyo, Japan. Website URL: <https://waset.org/mining-and-mineral-technologies-conference-in-april-2023-in-tokyo>; Contact URL: <https://waset.org>

**3-4 May 2023: International Conference on Mining Technologies and Sustainable Systems ICMTSS.** Rome, Italy. Website URL: <https://waset.org/mining-technologies-and-sustainable-systems-conference-in-may-2023-in-rome>

**29-31 May 2023: MetPlant Conference 2023.** Perth, Australia and online. Contact AusIMM. T: 1800 657 985 or +61 3 9658 6100 (if overseas)

**15-16 Jun 2023: International Conference on Mining and Metallurgical Technologies (ICMMT 2023).** Toronto, Canada. Website URL: <https://waset.org/mining-and-metallurgical-technologies-conference-in-june-2023-in-toronto>; Contact URL: <https://waset.org>

**17-19 Jun 2024: Molten 2024.** Brisbane, Australia and Online. Contact AusIMM. T: 1800 657 985 or +61 3 9658 6100 (if overseas)

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