

114TH ANNUAL REPORT

MGMI

Report of the Council and Audited Balance Sheet with Income & Expenditure Accounts 2019-20



THE MINING, GEOLOGICAL & METALLURGICAL INSTITUTE OF INDIA

GN-38/4, SECTOR-V, SALT LAKE, KOLKATA-700 091

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MGMI Council for 2019-20

President

Anil Kumar Jha, Former Chairman, Coal India Limited

Vice-Presidents

Binay Dayal, Director (Technical), CIL

Prabhat Kumar Sinha, CMD, NCL

Pravat Ranjan Mandal, Former Advisor (Projects), MoC

Jagdish Prasad Goenka, Managing Partner, NMC

Immediate Past President

Dr Narendra Kumar Nanda, Former Director (Technical), NMDC

Honorary Secretary

Rajiw Lochan, General Manager (CED/CBM), CMPDI

Immediate Past Secretary

Prasanta Roy, Sr Manager (Geol/CV), CIL

Honorary Jt Secretary

Ranajit Talapatra, Sr Manager (CP), CIL

Honorary Treasurer

Anil Kumar Karmakar, Former General Manager (Admin), CIL

Honorary Editor

Prof (Dr) Khanindra Pathak, IIT Kharagpur, Kharagpur

Members

Virendra Kumar Arora, Chief Mentor (Coal), KCT & Bros

Dr Jai Prakash Barnwal, Former Chief Scientist, RRL

Prof (Dr) Ashis Bhattacharjee, Professor, IIT, Kharagpur

Anup Biswas, Former Deputy Director Genl., Mines Safety

Lab Kumar Bose, Former Executive Director, CIL

Smarajit Chakrabarti, Former CMD, ECL

Akhilesh Choudhury, Former Deputy Director Genl., GSI

Prof (Dr) Sajal Dasgupta, VC, University of Engg & Mgmt

Dr Netai Chandra Dey, Professor, IIST, Shibpur

Prof (Dr) Ganga Prasad Karmakar, IIT, Kharagpur

Tapas Kumar Nag, Former CMD, NCL

Dr Abani Kanta Samantaray, General Manager (CV), CIL

Prof Bhabesh Chandra Sarkar, Professor, IIT-ISM, Dhanbad

Dr Kalyan Sen, Former Director, CIMFR

Anil Kumar Singh, TS/GM to Director (Technical), MCL

Dr Amalendu Sinha, Former Director, CSIR-CIMFR

THE MINING, GEOLOGICAL & METALLURGICAL INSTITUTE OF INDIA

REPORT OF THE COUNCIL

The Council has the honour to present 114th Annual Report on the activities of the Institute for the year 2019-20 (April 2019 to March 2020).

PROCEEDINGS OF THE 113TH ANNUAL GENERAL MEETING FOR THE YEAR 2018-19

The 113th Annual General Meeting of the Institute was held at the hotel, **The Westin Kolkata, Rajarhat, Plot No CB D/2, Action Area II, New Town, Rajarhat, Kolkata 700 156 on Friday, the 8th November, 2019 at 4.00 p.m.**

The meeting started with observance of 2 minutes silence for the departed souls of members who left us during last one year, Birendra Nath Mukherjee, Prof Ajoy Kumar Ghose, Srikumar Mitra, Vasant Rao Kotre, Amal Kumar Mitra, Sanat Kumar Basu, Jayant Datta, Dr Buddheswar Das, and B J Rao.

The meeting was attended by S/Shri U Kumar, Prof S P Banerjee, N C Jha, R K Saha, J P Goenka, P R Mandal, Rajiw Lochan, Prasanta Roy, A K Karmakar, R Talapatra, P Kumar, Dr J P Barnwal, Dipak C Pal, L K Bose, Mitrajit Chowdhury, Dr D S Rao, Nandini Chakravarty, Prof. N C Dey, Dr T K Mallik, Ajit Kumar Das, Dr Ashoke K Talapatra, Prof. G P Karmakar, Md. Aminul Islam, Nirmalya Das, A K Mukhopadhyay, G S Khuntia, Smarajit Chakrabarti, Amitava Das, Amitabha Chakrabarti, S A Sufiyan, A K Moitra, B C Sarkar, Ranjit Datta, Kanti Kumar Mishra, Rathindra Nath Datta, Bhaskar Chakraborti, Asit Baran Bhol, D V Pichamuthu, S Roy, Tuhin Kumar Mukherjee, Dr Binoy K Saikia, awardees Majib Hasan Tyeb, Arnab Manna, Rajyashree Nandy, Dr C Eswaraiah, Dr Swagat S Rath, Dr Alok Tripathy, R K Singh, Ch Rahul Patro, Prabir Kumar Mandal, Ashok K Chatterjee, Dr Arunansu Halder and Award Doner Representative, Mrs R Bhatnagar.

At the very outset the Hony. Secretary extended welcome to Shri U Kumar, Prof S P Banerjee, Shri R P Ritolia, Shri R K Saha, Shri N C Jha, Shri P K Sinha, Shri J P Goenka, Shri P R Mandal, all Members present, Awardees and Doner Representative.

- **To confirm the Minutes of the 112th Annual General Meeting held at the Biswa Bangla Convention Centre, DG Block, New Town, Kolkata-700 156 on Saturday the 29th September 2018 at 5p.m.**

The notice convening the 113th Annual General Meeting was read by Shri Rajiw Lochan, Hony Secretary. Minutes of the 112th Annual General Meeting was circulated to the

members. Actions taken on the minutes were presented. The minutes were confirmed by the house.

- **To receive and adopt the Council's Report, Audited Balance Sheet and Statement of Accounts for the year 2018-19 ended on 31st March, 2019.**

Audited Balance Sheet and Statement of Income and Expenditure Accounts for the year 2018-19 ended on 31st March 2019 (distributed at the House) were approved and adopted unanimously.

- **To appoint the Institute's Auditors for the year 2019-20:** The Council at its 883rd Meeting recommended the name of **M/s Jha & Jha, Chartered Accountants Company** for appointment as Auditors of MGMI at remuneration of Rs 12,000/- for assignments of Audit, ROC, Annual Filling, IT Returns, GST and TDS Returns etc. for the year 2019-20.
- **Announcement of Awards and Medals for the Year 2017-18 presented to the Students as recommended by the Colleges/ Institutes/ Universities.**

MGMI Awards and Certificates were presented to the awardees by Prof. S.P. Banerjee, S/Shri R.P. Ritolia, N.C. Jha and P.K. Sinha.

- Pickering Medal for the Best Student in B.Tech Final of Mining Engineering to **Ch Rahul Patro** of IIT (ISM), Dhanbad.
- Hayden Medal for the Best Student in M.Sc in Applied Geology to **Ms Pratibha Srivastava** of IIT (ISM) Dhanbad.
- Yule Medal for the Best Student in B.Tech. Mining Machinery to **Shri Vivek Kishor Singh** of IIT (ISM) Dhanbad.
- Mc Nally Bharat Medal for the Best Student in B.Tech. Mineral Engineering to **Shri Majid Hasan Tyeb** of IIT (ISM) Dhanbad.
- Dr. Hari Narain Medal for the Best Student in M.Sc (Tech.) Applied Geophysics to **Shri Avanie Jain** of IIT (ISM) Dhanbad.
- Oil India Medal for the Best Student in B.Tech. Petroleum Engineering to **Shri Pranay Krishna** IIT (ISM) Dhanbad.
- Chandrakala Medal for Mining Engineering to **Shri Arnab Manna** of IIT, Kharagpur.
- S Lal Award for Mining Engineering to **Shri Subhajit Dutta** of IEST, Shibpur.

- Indranil Award for B.Tech. in Metallurgy to **Shri Riddhit Gupta** of IEST, Shibpur.
- Indranil Award for Metallurgy to **Shri Siba Sundar Sahoo** of IIT, Kharagpur.
- Smt. Nirja Sahay Medal for M.Sc (Applied Geology) to **Shri Vaibhab Agarwal** of IIT, Kharagpur.
- Kalyan Mukherjee “61 Geology” Medal for the Best Student of M.Sc (Geology) to **Ms Rajyashree Nandy** of the University of Calcutta.
- La Touch Medal for the Best Student in Geology to **Km Pragya Singh** of IIT, BHU.
- Dr J Coggin Brown Memorial Cash Award for the Best Student of B.Sc (Hons) in Geology to **Ms. Shritama Das** of Presidency University.
- SCCL Gold Medal for the Best Student in Mining Engineering to **Shri Bavandlapally Sandeep** of Kakatiya University.

Awards and Medals for the year 2018-19 as recommended by the various Judging Committees for presentation.

- **MGMI R P Bhatnagar Award** to **Dr Chinthapudi Eswaraiah** and **Dr Swagat Satyagopal Rath**, for their outstanding contribution in Mineral Beneficiation.
- **MGMI Prof. (Dr) Mahendra Pratap Singh Memorial Coal Science Award** to **Dr Binoy K Saikia**, for his significant contribution in the field of high quality scientific work.
- **MGMI Dr. J. Coggin Brown Memorial (Gold) Medal** for Geological Sciences to **Dr Danda Srinivas Rao**, for his outstanding contribution in Geological Sciences.
- **MGMI Dr. J. Coggin Brown Memorial (Gold) Medal for Non-coal Mining** to **Shri Ghana Shyama Khuntia**, for his outstanding contribution in Non-coal Mining.
- **MGMI H.B. Ghose Memorial Award** for the Manager having best Safety performance during the preceding year to **Shri Prabir Kr Mandal**, Manager, **Jhanjra Project Colliery** for **Underground Mine**, of **ECL** and **Shri R K Singh**, Manager of **Jayant Opencast Mine** of **NCL**.
- **MGMI Engineering Gold Medal** to **Dr Karra Ram Chandar** for his outstanding contribution in Earth Sciences.

- **MGMI D.N. Thakur Award** to **Dr Dipak Chandra Pal**, for his outstanding contribution in Earth Sciences.
- **MGMI Indranil Award** to **Dr Arunansu Haldar**, for his outstanding contribution in Ferrous Metallurgy.
- **MGMI Lala Ramkishore Singhal Award** to **Dr Alok Tripathy**, for his outstanding contribution in the field of Conservation of Minerals.
- **MGMI Dewan Bahadur D. D. Thacker Coal Mining (Gold) Medal** awarded to **Shri Tuhin Kumar Mukherjee**, for his **outstanding** contribution in Coal Mining.

Declaration of Election of the President for the year 2019-20:

Shri Rajiw Lochan, Hony Secretary declared that MGMI Council, at its last meeting (CM: 884th), unanimously re-elected Shri Anil Kumar Jha as President of MGMI for the year 2019-20. The General Body noted it with big applause.

“Shri Anil Kumar Jha, President, MGMI delivered the Presidential Address extending a warm welcome to all present at the 113th Annual General Meeting of MGMI. He conveyed thanks to everyone for re-electing him as President of this prestigious and more than century old institute for the coming year also.

In his address he mentioned, “in fact, we are very much fortunate that India could get a man of high foresight like Sir Thomas Holland who started this institute more than a century ago and was the first President of this institute. He felt right at the dawn of the Institute that Geologists and Mining Engineers are like brothers and they must unite for the growth of Mineral Industry of the country. Later the Institute was expanded to include Metallurgists too. Following the first President, many eminent geologists and mining engineers glorified this position to bring the institute to the present stature”.

He said that he will feel glad if all members accompany him in looking into the past stories of the industry, with what difficulty the miners of earlier days did mining around century ago in the Bengal (Ranigunge) and other old coalfields of our country. Life of a colliery Manager in those days was not a bed of roses. In those days none of the conveniences that we have today in transport and appliances were existing. Collieries were distant from the rail head. Bullock carts were the only means of carriage for despatching coal from the mine head as well as inter colliery transporting of machineries. It is awesome reading the column "100 years ago" used to publish from archives in the MGMI News Journal that heavy machineries were shifted from colliery to colliery with the help of elephants. In present days, we have sidings right upto the pit heads and National Highways are passing by the mines. It was even difficult to imagine those

days what labour it used to take to transport a heavy boiler of the Lancashire type or large flywheels and other parts of mining machinery for miles over the country without roads and having canals and rivers to reach the interior mine sites.

If we look at the old publications of MGMI lying in the MGMI library, the British India was far flung those days. The members of the institute used to be from Burma (now Myanmar) in east to Baluchistan (now Pakistan) in west and from Mysore in south to northern India with nerve centre in Calcutta and Bengal coalfields. Handicapped by great distance with far less means of transportation and communication, various mining centres and communities used to have meetings for reading papers sharing their experiences and for discussions. Now the MGMI has 18 Chapters across the country with around 3000 members with ample scope of transportation and communication. But I feel bad when I see that except few branches many branches are dormant and exist only for the name's sake. I will be happy if some effective steps are taken by MGMI Members for bringing up the not so active branches to an active state.

The strength of MGMI is its available technical knowledge bank which needs to be more contributing factor for sustainability of the energy sector of the country as there is no substitute of fossil fuel in our country at least for the next few decades. Now, main consumer of coal is power sector in India. But earlier bulk user of Coal in India, in Bengal including Giridih, Orissa and Assam was the railways. In those days, expansion of railway lines was found to be utmost important for development. And to keep the rails moving, use of coal was necessary. Although first rail link was established in 1853 from Boribunder to Thane (33.6 Km), feeling the need for fast movement of cotton for the British textile mills in the interest of Lancashire mills, but in the eastern sector, the importance of Ranigunge coalfields was acknowledged by East India Company as early as 1830 and they were eager to open railways. The Howrah - Ranigunge railway line was opened in 1854. The tea factory at Dom Dooma in 1880 used to import 3000 Maunds of coal from Ranigunge by steamer upto Dibrugarh (1100miles). However, search for coal was intensified and the pioneers of GSI located several coalfields in the North Eastern Region.

The above facts are relevant to highlight that though 'mining' and 'minerals' did not have an official recognition in 'trade' and 'industry' during later part of 19th Century, it provided enough impetus for setting up railway lines between the 'mineral provinces' and 'industrial hubs'. Thus consequently demand of coal enhanced with the expansion of railways. However, railways, by and by, shifted to diesel power and electrification for more efficient utilisation of the fuel.

Now, the seat of major consumption of coal has been occupied by power sector for non-coking coal. The prime position of coal as a major raw material for electricity

generation will continue for decades since it is having comparatively comfortable proven reserve position and cheapest fuel available in the country. It being the most secure source of energy, Coal India is having a big plan to attain a target of more than one billion tonne of coal production within next few years with substantial investment in the sector.

The private players for production of coal are also encouraged by the Government by making the coal Block allotment policy more practicable and lucrative. The change in the auction policy will ensure fair deal for investors. The value of the mineral will be the basis of down payment to the Government for acquiring the lease. Conservation and fast rate of extraction will be taken care of by the miners for their own interest.

It is, however, a big challenge for Coal India and the private entrepreneurs to achieve the target within a relatively short span of time (2 to 3 years). Apart from inadequate infrastructure, there are various constraints due to rules and regulations which I am constrained to say are not very conducive to such rapid enhancement of production as projected. The concerned authorities should make sincere efforts in making the rules more congenial for rapid expansion in old mines and prompt commencement of operation in new mines.

Without a fundamental change of attitude and approach, I apprehend, we may not achieve our target within such a short time.

We are trying to minimise import coal, which we have already started doing to an appreciable extent. In spite of having more than sufficient power coal in our kitty, if we have to import it to maintain the rate of growth of our development, then we can blame none other than ourselves.

To avoid such paradoxical situations, all the Indian scientists and technologists including the field experts should unite and collectively apply their knowledge and expertise whole heartedly towards the sustainable all round development of our country.

Towards the development of the mineral & mining industry, I sincerely believe that MGMI has a big role to play. But we must honestly resolve to give our best, and mobilise our all-round expertise towards the goal of achieving the optimum utilisation of our mineral reserves to our best advantage. The good name and the glorious image of MGMI built through a century (and more) must remain as bright as ever through the pro-active participation of every member who are professional and expert in their respective field.

Wishing you all a very eventful year ahead for the betterment of our great nation India.”

Declaration of Election of the Hony Secretary for the years 2019-20 and 2020-21:

Shri Prasanta Roy announced that Shri Rajiw Lochan has been re-elected as Hony Secretary for the years 2019-21 as unanimously decided by the Council at its meeting no. (CM: 884th). The General Body noted it with applause.

Declaration of Election of the Council Members for the years 2019-20, 2020-21 and 2021-22.

Shri R.K. Saha, Chairman of the Board of Scrutineers, presented the results of Election of Council Members for the years 2019-20, 2020-21 and 2021-22. The following Council Members were elected/re-elected for the years 2019-20, 2020-21 and 2021-22.

1. Dr Amalendu Sinha 2. Shri Lab Kumar Bose 3. Shri J P Goenka 4. Dr Jai Prakash Barnwal 5. Prof Ashis Bhattacharjee 6. Shri Ranajit Talapatra 7. Dr Abani Kanta Samantaray 8. Shri Smarajit Chakrabarti 9. Dr G P Karmakar 10. Shri Anil Kumar Singh and 11. Shri Tapas Kumar Nag.

The recommendations of MGMI Awards Revision Committee were presented by Shri N.C. Jha, which was accepted by the Council at its 883rd meeting held on July 27, 2019 and recommended to the General Body for its adoption. It has been suggested that multiple MGMI (unsponsored) awards may be grouped into 4(four) categories and enhance the monetary value. In course of discussions, Shri L.K. Bose pointed out that this year no award committee meeting was held for S.K. Bose Memorial Award. Shri G. Ghatak informed that no nomination was received by MGMI Office for the said award. When more clarification was sought, Prof. S.P. Banerjee and Shri Bhaskar Chakraborti said that the issue was discussed and decided in the last Council meeting (CM: 884th).

The 113th Annual General Meeting ended at 5.30 p.m. with Vote of Thanks by Shri Rajiw Lochan, Honorary Secretary.

HEADQUARTERS ACTIVITIES

There were four Council Meetings held during the Sessions 113 and 114: the CM 882nd on 7th April 2019, CM 883rd on 27th July 2019, CM 884th on 19th October 2019, and CM 885th on 28th December 2019.

COUNCIL MEETING OF 113TH AND 114TH SESSIONS

HIGHLIGHTS OF 882ND COUNCIL MEETING

The 882nd Council Meeting of MGMI held at MGMI Bldg. GN-38/4, Sector - V, Salt Lake, Kolkata - 700 091 on 7th April, 2019 at 11.30 a.m. (Duly approved in the 883rd Council Meeting held on 27th July, 2019).

Shri Anil Kumar Jha, President, MGMI in the Chair. The meeting was attended by Prof S P Banerjee, Prof. B B Dhar, S/Shri N C Jha, R K Saha, J P Goenka, Ranajit Talapatra, Samir Kr Ghosh, Prof(Dr) Khanindra Pathak, Prasanta Roy, V K Arora, Prof. Ashis Bhattacharjee, Anup Biswas, L K Bose, Bhaskar Chakraborti, Akhilesh Choudhury, Prof (Dr) Sajal Dasgupta, Prof (Dr) N C Dey, Anil K Karmakar, Prof(Dr) Kalyan Sen, Anil Kumar Singh, Dr Amalendu Sinha, I P Wadhwa and Rajiw Lochan.

The Council confirmed the Minutes of the 881st meeting of the Council held at the MGMI Bldg. Kolkata - 700091 on 8th December, 2018.

The Minutes of the 881st (1st meeting of the 113th Session) meeting of the Council held on 8th December, 2018 at MGMI (H.Q). Kolkata be confirmed with correction of little typographical error.

The 8th Asian Mining Congress. (i.e. 6-9 November, 2019)

The Hony. Secretary requested to Shri R K Saha, Chairman, Organising Committee to brief on the progress. Shri Saha intimated to the Council that the announcement letter with brochure of the 8th AMC has been sent to

- i) CMDs and Directors of Mining, Mineral and Allied Industries
- ii) All Embassies in India
- iii) Different Ministries (Ministers and Secretaries)
- iv) Technical Universities, Technical Institutes and Colleges
- v) MDOs of CIL Subsidiaries

Shri Saha briefed about the Income and Expenditure details of the 7th AMC and placed the budget for the 8th AMC showing likely Income and Expenditure. He further added that the Afghanistan along with other countries are identified to approach for participation in the 8th AMC. It was confirmed that AMC venue booked in Hotel Westin and booking advance amount has also been deposited accordingly.

The Hony. Secretary requested Dr Amalendu Sinha, Chairman, Technical Committee to give a status report to the Council. Dr Sinha briefed the Council and informed that the First Call along with covering letter about the 8th AMC with request to participate in this mega event and contribute Technical Paper on any of the Lead Topics for Technical Sessions as proposed has been circulated. He also requested Council members to extend support in this regard for record number participation from all corner. He further added that next call to write for Country Status Paper, Keynote Address Paper from the respective eminent personalities from India and Abroad. He has also informed that Proceedings of the 8th AMC will be published in both hard and soft copy. The hard copy will be published by a renowned publisher, i.e. Oxford or Elsevier with ISBN number.

Thereafter, Shri Prasanta Roy, Convenor of the 8thAMC updated the Council that a comprehensive list of organizations have been prepared to whom request letter will be issued for different categories of sponsorship, thereafter follow-up for delegates, message and advertisement will be done vigorously to exceed previous records.

The Hony. Secretary requested Shri I P Wadhwa, Managing Worker of M/s. Tafcon to update Council regarding Exhibition IME 2019. Shri Wadhwa informed that the Eco Park at Rajarhat, Kolkata has been booked for Exhibition. He also intimated that as per MoU between MGMI and M/s. Tafcon, M/s. Tafcon will contribute minimum guaranteed amount of Rs. 45.00 lakhs to MGMI, however, excess over guarantee money will be calculated at a sum of Rs. 935/- per Sq.mt. of net booked areas of inside exhibition hall and Rs. 605/- per Sq.mt. of net exhibition open space booked outside the hall.

Shri J P Goenka and Shri V K Arora, Convenors of the Exhibition Committee suggested Sub Committees for continued follow-up to generate more surplus amount for MGMI. Shri Wadhwa assured that he will keep updating the Committee on regular basis.

- **MGMI Innovation Award**

Hony. Secretary explained to the Council that a draft paper on criteria and categories has been prepared by the committee consisting of (i) Prof. Bhabesh Chandra Sarkar, (ii) Prof. N C Dey, and (iii) Prof. Khanindra Pathak. It was circulated among the Past Presidents, Council Members and received valuable suggestions and it required to be revised for further deliberation. It has been agreed that this Committee will examine and finalize the document accordingly.

Further, the Council discussed this matter along with other existing awards and opined that MGMI is not receiving good number of nominations for these awards and in few occasions committee has not found suitable nomination to recognize even awards are open for all.

It was unanimously agreed that a Committee to constitute to review existing award categories and proposed awards. The Council constituted a Committee with the following members to recommend MGMI Awards for consideration to continue or Council may decide otherwise.

- Prof. S P Banerjee
- Prof B B Dhar
- Shri N C Jha
- Prof Khanindra Pathak
- Prof N C Dey

List of nomination received in last five years under various categories will be provided to the Committee by MGMI. The Committee will also examine and recommend awards money for identified awards for consideration of the Council, accordingly, MGMI will explore potential sponsorer for value addition of MGMI Awards.

- **Formation of an MGMI National Students Chapter in Technical Institutes / Colleges**

Hony. Secretary explained to the Council that a draft paper on criteria and categories has been prepared by the Committee consisting of (i) Prof. N C Dey, (ii) Prof. Khanindra Pathak., (iii) Prof Asish Bhattacharjee and (iv) Shri Anup Biswas. It was circulated among Past Presidents, Council Members and received valued suggestions. Past Presidents Prof B B Dhar, Shri N C Jha and Council members submitted their comments. The Committee members were requested to modify the draft document accordingly and it should be simple and comprehensive.

During the Council Meeting, Prof S P Banerjee and Shri N C Jha, Past Presidents commented that white paper on formation of Students' Chapters is very complex and it is likely to overlap with local MGMI Chapter while there is already MGMI Membership existed under the category of "Student Associate Membership" and we should promote it and for better coordination Council should recommend MGMI member as Coordinator/ Advisor from respective Chapter who will have close liaison with Institutes and MGMI.

The Committee members were also requested to review the proposal considering the existing provision of membership for Student membership to make it more effective without any overlap.

- **Events of the Institute**

- a) **113th Annual General Meeting**

The Council discussed the matter at length and felt that in view of the 8th Asian Mining Congress 2019, it will be difficult to hold the 113th Annual General Meeting in September 2019 as many major activities will be underway and heavy work load is envisaged. So, considering circumstances, Council agreed and resolved that the 113th Annual General Meeting would be held at the afternoon of 8th November 2019. Accordingly, it should be requested to the Office of the ROC for their consent and information.

- b) **61st Holland Memorial Lecture**

The Council decided that the 61st Holland Memorial Lecture will be held in Delhi. The date of the Lecture and the Speaker will be decided in consultation with MGMI Officials and MGMI Delhi Chapter, as Delhi Chapter is organizing Round Table Conference (RTC) on 24th September, 2019 at Le Meridian, Delhi.

Hony. Secretary in consultation with senior Members revised the previous list of the Judging Committee Members and placed for consideration of the Council. Council after detailed deliberation approved the List of Judging Committee Members.

- **Board of Scrutineers to conduct the Election of Council Members for the year 2019-2022.**

The Hony. Secretary submitted to the Council that for the years 2019-22, there will be 11 (eleven) vacancies in the Council. The retiring members are Shri Amrita Acharya, Prof. Ashis Bhattacharjee, Shri B C Bhattacharya, Shri L K Bose, Shri Bhaskar Chakraborti, Shri J P Goenka, Prof. (Dr) G P Karmakar, Prof.(Dr) SK Mukhopadhyay, Shri Anil Kr. Singh, Dr. Amalendu Sinha and Shri Ranajit Talapatra.

The Council constituted a Board of Scrutineers to conduct the Election of Council Members for the years 2019-22. The members of the Committee were (i) Shri R K Saha as Chairman, (ii) Shri V K Arora, Member, (iii) Shri Anup Biswas, Member, (iv) Shri Anil Kr Karmakar, Member, (v) Shri Prasanta Roy, Member and Shri Rajiw Lochan, Hony Secretary as Ex-officio Member.

The Council approved 15 Life Membership and 01 Life Donor Membership applications.

HIGHLIGHTS OF 883rd COUNCIL MEETING

The 883rd Council Meeting of MGMI held at MGMI Bldg. GN-38/4, Sector - V, Salt Lake, Kolkata - 700 091 on 27th July, 2019 at 11.30 a.m. (Duly approved in the 884th Council Meeting held on 19th October, 2019).

Shri Anil Kumar Jha, President, MGMI in the Chair. The meeting was attended by Dr N K Nanda, S/Shri R P Ritolia, N C Jha, R K Saha, P R Mandal, J P Goenka, Ranajit Talapatra, Prasanta Roy, Amrita Acharya, V K Arora, Biswas V K V K, L K Bose, Bhaskar Chakraborti, Akhilesh Choudhury, Prof (Dr) Sajal Dasgupta, Binay Dayal, Anil K Karmakar, Prof G P Karmakar, Prof (Dr) Subir Kumar Mukhopadhyay, Prof Bhabesh C Sarkar, Dr Amalendu Sinha, Rajiw Lochan and I P Wadhwa, as invitee.

Shri J P Goenka, Shri L K Bose, Shri Ranjit Talapara spoke about late Samir Kumar Ghosh to pay respect to departed soul. Shri Rajiw Lochan, Hony. Secretary submitted to the house his sincerity prove that even in illness he completed accounts of MGMI for the year 2018-19 for Audit purpose before time.

Late Ghosh had a very amiable personality. He was very much approachable by one and all. He is remembered for his smiling personality. He will be deeply missed by MGMI, his family, friends. He has left behind his wife, a son and a daughter.

IME 2019

Before taking up the agenda items, Hony Secretary, requested Shri IPWadhwa, Managing Worker, Tafcon Projects India Pvt. Ltd. to brief the Council about the present status of the IME 2019 (Exhibition in connection with 8th AMC).

Shri Wadhwa informed that 101 companies have already confirmed their participation in the Exhibition. However, target is of 350. He requested the members present to talk to various organisations in their contact to request for showcasing their equipment in the Exhibition in a bigger way. He also suggested holding a Press Conference at Kolkata. It was proposed to hold a Committee Meeting and Press Conference preferably on Saturday, the 17th August, 2019 at Kolkata. President agreed for the date and desired that all members of Exhibition Committee should participate on scheduled date. He also advised to make a list of all invitees and ensure that all of them should be informed well in advance.

The Council resolved that the Minutes of the 882nd (2nd meeting of the 113th Session) Meeting of the Council, held on April 7, 2019 at MGMI (H.Q). Kolkata be confirmed.

Progress of the 8th AMC & IME – 2019 (Conference & Exhibition).

Dr Amalendu Sinha was requested to brief about the status of Technical Sessions of the 8th AMC. Dr Sinha informed that so far 13 eminent persons have agreed to deliver Keynote Addresses. In this connection, Dr Sinha requested the house to speak to the people of their contact for their conformation who have been approached by MGMI to deliver Keynote Address but have not given their consent as yet. The President then immediately spoke from the chair to the Chairman, ONGC and MOIL and both of them have instantly gave their consent. President expressed that the quality of technical papers should be of good standard and he asked for the list of dignitaries who agreed to deliver Keynote Address. In this connection, Shri R P Ritolia mentioned that so far, we have received the consent from Research Organisations and Academic Institutes only. More dignitaries from Industry sector should be invited to deliver the Keynote Addresses.

Recommendations of the Committee for MGMI Awards and Medals

The report of the Award Review Committee was circulated to all Council Members. However, Shri N C Jha summarized the report and highlighted the main recommendations of the Committee that all the existing Awards may be consolidated to **four** MGMI Awards namely as follows:

1. MGMI Award for Coal Mining - for outstanding contribution in Coal Mining industry.
2. MGMI Award for Non-Coal Mining - for outstanding contribution in Non-Coal Mining Industry

3. MGMI Earth Sciences Award - for outstanding contribution in any Branch of Earth Science and Mineral Engineering and
4. Best Technical paper published in MGMI Transactions for every Calendar Year.

It was proposed that all the four mentioned awards will carry a monetary reward of Rs. 50,000/- or more with a Citation and the expenses will have to be met by MGMI. It was also proposed that the existing sponsors for the various awards should be requested to sponsor their respective sponsored amount in favour of MGMI Consolidated Awards Fund. All the sponsors will be duly acknowledged during award ceremony.

The procedure for selecting the awardees for the three prestigious MGMI Awards will have to be drawn and can adopt the model followed by Indian Institute of Metals for the Metallurgist Award or by the Ministry of the Mines for the National Geoscience for similar distinguished awards.

Students Award Scheme will maintain the status quo except for one change. The names of Student Awardees will be notified in the AGM of MGMI and in MGMI News Journal. **The Student Awards will be given at the Foundation Day celebration function of MGMI.**

The Council discussed on the recommendations of the Award Review Committee at length and finally accepted the recommendations.

Shri L K Bose, donor of Prof. S K Bose Memorial Award was present in the meeting and he was requested for his opinion about Prof. S K Bose Memorial Award. Shri Bose mentioned that one award should be kept for the Professors. President desired that MGMI should improve the standard of the Awards and Dr Amalendu Sinha added that the Awards must carry some weight. To increase the value of the Award it was unanimously decided that name of MGMI will be pre-fixed with all the Awards to be given for 2018-19.

The Council was authorised to approve the recommendations of the Judging Committees for various MGMI Awards & Medals for the year 2018 -19.

The Recommendations made by different Judging Committees for various Awards and Medals have been accepted by the Council. Since there were no nominations received for Prof. S K Bose Memorial Award, the Committee decided that the said award will not be awarded with the consent of the Donor representative, Shri L K Bose.

The draft budget was circulated to the Council Members and also placed in the meeting. The Council discussed on the proposed budget and approved the budget for the year 2019-20 after some clarification.

Due to sudden demise of the Hony. Treasurer, Samir Kr Ghosh on 17th July 2019, the Council of MGMI nominated Shri Anil Kumar Karmakar, Council Member as the Hony. Treasurer till the election of new office bearers.

The Council approved 04 (four) Life Membership applications.

HIGHLIGHTS OF 884th COUNCIL MEETING

The 884th Council Meeting of MGMI held at MGMI Bldg. GN-38/4, Sector - V, Salt Lake, Kolkata - 700 091 on 19th October, 2019.

Shri Anil Kumar Jha, President, MGMI in the Chair. The meeting was attended by Prof S P Banerjee, S/Shri R K Saha, J P Goenka, Ranajit Talapaptra, Prasanta Roy, L K Bose, Prof. Ashis Bhattacharjee, Bhaskar Chakraborti, Anil K Karmakar, Prof (Dr) Subir Kumar Mukhopadhyay, Prof Bhabash C Sarkar, Dr Amalendu Sinha, Dr A K Moitra, Rajiw Lochan and I P Wadhwa, as invitee.

- Shri Rajiw Lochan, Hony. Secretary briefed to the Council that good response have been received from overseas and informed that delegates from US, Russia, Poland, Czech and other foreign countries have shown their interest to participate in 8th AMC.

Dr Amalendu Sinha, Chairman, Technical Committee, 8th AMC was requested to brief about the status of Technical Papers for the Conference. Dr Sinha gave a briefed status of the Technical Papers. He mentioned that till date around 55 Technical papers have been received. CMDs and CEOs of different Companies and some specialists on Mining Industry have been approached for Keynote Address and 15 eminent dignitaries agreed to deliver Keynote Addresses.

Shri IP Wadhwa, from Tafcon was requested to brief the Council about the status of booking of the Exhibition Stall as on date. Shri Wadhwa gave a briefed report on Exhibition.

Shri Prasanta Roy, Convenor, 8th AMC briefed about the dignitaries who would be present in the Inaugural Session. He also briefed about the fund position/income status and budget.

Honorary Secretary of the Institute for the years 2019-21.

Shri L K Bose proposed that Shri Rajiw Lochan the existing Hony. Secretary, should continue as Hony. Secretary for the next term i.e.; year 2019-21. The members unanimously re-elected Shri Rajiw Lochan as Hony. Secretary of the Institute for the years 2019-21.

The Council approved 03 Life Membership Applications.

HIGHLIGHTS OF 885th COUNCIL MEETING

The 885th Council Meeting of MGMI held at MGMI Bldg. GN-38/4, Sector - V, Salt Lake, Kolkata - 700 091 on 28th December, 2019 at 12.00 Noon.

Shri Anil Kumar Jha, President, MGMI in the Chair. The meeting was attended by Prof S P Banerjee, S/Shri N C Jha, R P Ritolia, J P Goenka, Ranajit Talapatra, Prasanta Roy, L K Bose, Anil Kr Karmakar, Smarajit Chakrabarti, Prof. Sajal Dasgupta, Dr A K Moitra, T K Nag, Dr A K Samantaray, Dr Kalyan Sen and Rajiw Lochan.

Report about the 8th Asian Mining Congress and Exhibition held during 06-09, November 2019.

The report of the 8th Asian Mining Congress and IME 2019 together with Recommendations of the Congress (8th AMC 2019) were circulated to all the Council members along with the Notice of the present 885th Council meeting and also additionally placed on the table. The Council advised that the Report and Recommendations be printed in MGMI News Journal for information to the members. It will also be placed on the MGMI Website.

Income and Expenditure details of the 8th AMC and IME 2019 was briefed to the Council and approved with note of appreciation to the Organizing Committee Members to set new milestone of success and surplus fund generation for MGMI.

Office Bearers viz Vice-Presidents, Hony Jt Secretary, Hony Treasurer and Hony Editor for the year 2019-20 amongst Council Members of the Institute.

Vice Presidents: The following members have been elected unanimously as Vice Presidents for the year 2019-20

Shri Binay Dayal, Director (Technical), CIL - newly elected

Shri P K Sinha, CMD, NCL - re-elected

Shri P R Mandal, Former Advisor, MOC – re-elected

Shri J P Goenka, Mg. Partner, Nanda Millar Co. – re-elected

The following Members have been re-elected unanimously for the year 2019-20 as:

Hony. Jt. Secretary: Shri Ranajit Talapatra

Hony. Treasurer: Shri Anil Kumar Karmakar

Hony Editor: Prof (Dr) Khanindra Pathak

The Council approved 05 Life Membership Applications.

The Hony. Secretary happily informed to the Members that Coal India Ltd has become Life Corporate Members of MGMI, the Council noted and conveyed thanks to the President and Hony. Secretary for this achievement.

Membership Drive: While discussing on Membership, it has been felt that there are very little growth in Membership. To strengthen the Membership a Committee has been formed with the following Council Members for special drive of membership growth:

Prof. (Dr) Sajal Dasgupta, Dr A K Moitra, Dr A K Samantaray, and Shri Anil Kumar Karmakar.

Programmes (i) Foundation Day Lecture, (ii) President's Cup Golf Tournament, (iii) Short Term Course etc.

Foundation Day Lecture :It was discussed and proposed that 17th Foundation Day Lecture would be held in Asansol (ECL, Dishergarh Auditorium, the place where 1st Foundation Day Lecture was held), sometimes in 4th week of January 2020.It was also proposed that Prof S P Banerjee, Past President, MGMI and Former Director, IIT, (ISM, Dhanbad) to be formally requested to deliver the lecture.

President's Cup Golf Tournament: A Committee has been constituted with the following Members to organise President's Cup Golf Tournament (2020):

Shri J P Goenka – Convenor

Shri V K Arora – Co-convenor

Shri Anil Kr Karmakar – Co-convenor

The Venue has been proposed at Sambalpur, MCL Golf Ground with Budget of Rs. 3.5 lakhs which will be arranged through Sponsorship. The tournament date will be decided by the Committee.

Short Term Course: Hony. Secretary happily informed that the **2nd Short Term Course cum Workshop on Global Environment and Greenhouse Gases from Energy Systems: Estimation and Mitigation (GEM 2020)** will be again jointly organised by MGMI and CSIR-CIMFR during January 20-25, 2020.Hony. Secretary requested Shri Prasanta Roy, Coordinator to further elaborate on Short Term Course in details. Shri Roy informed about Programme, Course fee, Sponsorship fee, Accommodation, Industrial Visit etc. Council appreciated the efforts and wished all success.

Arising out of the discussion on Short Term Course, it was proposed that in future a Short Term Course should be organised on **Exploration Techniques** which is one of the most important topics of the day.

It was also proposed and discussed that each subsidiary of Coal India Ltd. may be approached for organising a Short Term Course inclusive of field visit on “**Sustainability Development in Mining considering Environmental Issues**” and “**New Legislation – CMR2017**”. In this connection, a Committee has been constituted with the following Members to draw course plan: Prof S P Banerjee, Shri Nirmal Chandra Jha, Dr Amalendu Sinha, Dr Ajay Kumar Singh.

President requested Prof S P Banerjee and other members of the Committee to prepare a **white paper** on the subject and on receipt of the same, he would appropriately propose to all CMDs of the subsidiaries of CIL for consideration.

Report on Short Term Course cum Workshop on “Global Environment and Greenhouse Gases from Energy Systems: Estimation and Mitigation (GEM 2020)” Jointly Organized by MGMI and CSIR-CIMFR, Dhanbad Kolkata 20-25 January 2020.

The short term course was organized by The Mining, Geological & Metallurgical Institute of India, Kolkata, in collaboration with CSIR-CIMFR, Dhanbad with the objective to discuss and deliberate various intricacies in deep decarbonisation in the energy sector of the country and to share the R&D knowledge gained by CSIR-CIMFR in the journey through preparation of various national communication to UNFCCC.

In the Inaugural Function Dr. Pradeep Kumar Singh, Director, CSIR-CIMFR, was the Chief Guest and Prof. S. P. Banerjee was the Guest of Honour. Dr Amalendu Sinha, Former Director, CSIR-CIMFR, Dr. Debadutta Mohanty, Principal Scientist, CSIR-CIMFR, Course Coordinators, and Shri Prasanta Roy, Immediate Past Honorary Secretary were present on the dais. Shri Ajay Raghava, Joint Director, MoEFCC, Shri Dilip Kumbhakar, Senior Principal Scientist and Head/HRD, CSIR-CIMFR, Prof. Runa Sarkar, IIM Calcutta, Shri R P Ritolia and Shri R K Saha, Past Presidents of MGMI and other guests were also present during the Inaugural Session. About 30 Executives from a proper mix of coal, oil & gas, power generating companies including NTPC, NCL, MCL, SECL, TATA, MECON, RIL, ONGC etc. had attended the programme.

Shri Prasanta Roy conducted the programme and welcomed Dr. Pradeep Kumar Singh, Director, CSIR-CIMFR and Chief Guest of the function by presenting the flower bouquet. While welcoming all the distinguished guests, speakers and participants, Shri Roy expressed his gratitude to the distinguished invitees for attending the session and said that many such training programmes are being planned to be organized for the benefit of the industries.

Dr Amalendu Sinha said that the short course has been specially structured to share with the participants about the latest developments in the methodologies, measurement procedures and best practices for preparing GHG inventory for energy sector and various mitigation options.

Prof. S. P. Banerjee emphasized the role of coal in Indian energy mix and told that the course will provide impetus to the industry to measure and monitor the greenhouse gases for mitigation purpose. Shri R. P. Ritolia and Shri R. K. Saha have also appreciated this joint effort of MGMI and CSIR-CIMFR to organize this course as global warming is now a real menace. Participants also introduced themselves and expressed about their expectations from the programme.

Dr. Pradeep Kumar Singh, the Chief Guest of the function in his inaugural address congratulated MGMI and CSIR-CIMFR for this timely effort for organizing the short course to address this important global issue. He highlighted that CSIR-CIMFR has remained in the forefront for providing scientific and design solutions to the industries along the entire coal-energy chain with its rich knowledge base and is recognized for its contribution in coal mine methane resource evaluation, exploring scope of in situ coal gasification and CO₂ sequestration to address the issue of GHG emissions associated with coal winning and utilization. However, he stressed upon the fact that the emission reduction goals should be achieved without affecting the developmental goals of the country and this programme will provide a platform for intensive interaction between the participants and the experts to address the issue.

Dr. Debadutta Mohanty, Course Coordinator concluded the session with vote of thanks. He expressed his hearty thanks to NTPC for being the Platinum Sponsor and MoEFCC for support. He also expressed his thanks to different organisations for sparing their executives for this important programme.

Shri Ajay Raghava, Joint Director, MoEFCC delivered a special lecture following the inaugural session about various aspects of climate change and, role and initiatives by MoEFCC, Govt. of India to combat climate change consequences.

Glimpses of the Inaugural session were presented with few photographs of the occasion in the PHOTOGALLERY Section of MGMI News Journal.

First two-days, 20-21 January 2020, the programme was conducted at MGMI Kolkata. The participants visited Budge Budge Plant of the Calcutta Electric Supply Corporation (CESC) on the second day, 21st January 2020. Budge Budge Generating Station is the World's first power plant to earn CER from UNFCCC and to achieve 100% recycling of effluent. The participants were explained about different units of the power station. On 22nd January 2020, the participant visited SAIL Durgapur Steel Plant. Durgapur Steel

Plant set up in late fifties is a leading producer of long products and only producer of Forged Railway Wheels and Axles in the country with present saleable steel capacity of 2.12 MTPA. The participants were explained about different units of the plant through model room visit and power point presentations by the experts. The rest of the programme was organized at CSIR-CIMFR, Dhanbad during 23-25 January 2020.

Altogether fifteen lectures were delivered by domain experts from Ministry of Environment, Forests and Climate Change, IIMs, Jadavpur University, CSIR-CIMFR, Dhanbad, IORA Ecological Solutions Pvt. Ltd., ONGC and MGMI members covering climate change issues, greenhouse gas emission scenario, regulatory framework, unconventional gases resources, energy efficient combustion technologies, carbon finance etc. along with interactive sessions and, plant and laboratory visits. Topics discussed in the short course are:

- MoEFCC and Climate Change Issues
- Towards the Mitigation of GHG Emissions through the Integration of Circular Economy Concepts into the Operations of the Coal Mining Industry
- Coal in the energy mix of India: Current Scenario and Future Projections
- Environment, Society and Ecological Footprint
- Energy system transformation to meet NDC, 2 °C, and well below 2 °C targets for India
- Mitigation Policies and Trends of GHG Emissions from Transport Sector
- Measurement of CO₂, CO, SO₂, and NO emissions from coal-based thermal power plants in India
- Fugitive methane emissions from Indian coal mining and handling activities: estimates, mitigation and opportunities for its utilization to generate clean energy
- GHG emission from fossil Fuel combustion from Energy and Manufacturing industries
- Energy efficient combustion technologies
- Co-combustion technology for reduction of GHG emission
- MMV: Ensuring safe storage of CO₂ underground
- Recent Trends of Fugitive Methane Emission from Oil and Natural Gas Systems in India and Mitigation Options
- Mercury emissions from coal combustion: its contemporary relevance
- Carbon Finance

Shri S. K. Paul, Group General Manager, CBM Asset, ONGC Bokaro had graced the valedictory session as Chief Guest. Feedbacks about the programme were collected from the participants. Shri Paul briefly outlined the ONGC's climate response plan in his address.

REPORT ON THE 8TH ASIAN MINING CONGRESS

The Asian Mining Congress (AMC) and International Mining Exhibition (IME), held concurrently, are flagship international events organized by MGMI biennially, that commenced in 2006 to commemorate the Centenary of the Institute. The theme of the conference was 'Ensuring sustainable and equitable use of resources without degrading the environment' is the demand of the day. **The 8th Asian Mining Congress on 'Green Mining: The Way Forward'** was held at The Hotel Westin Rajarhat, Kolkata, India, during 6th to 8th November, 2019. Simultaneously with the Congress, **the 8th International Mining Exhibition (IME 2019)** was also organized in collaboration with M/s Tafcon Projects India Pvt Ltd at nearby Eco Park, Rajarhat, Kolkata, during 6th to 9th November, 2019. The Congress was attended by more than 300 delegates, guests and participants from India including some from countries like Australia, Czech Republic, Canada, Malaysia, France, Germany, Poland, South Africa, Sweden and others. A total of 53 papers on varied topics covering exploration, policies, mine planning, safety and surveillance, processing of minerals, sustainable green mining and oil and gas sectors were presented and discussed in Business Leaders' Forum, **two Plenary, and nine Technical sessions**. There were presentations from companies on their products, activities and proficiencies.

The Congress was inaugurated by Shri Pralhad Joshi, Hon'ble Minister of Coal, Mines & Parliamentary Affairs, Govt. of India and Chief Guest of the event. The Guests of Honour on the dais were: Mr Andrew Ford, Australian Consul General, H.E. Mr Milan Hovorka, Ambassador, Embassy of Czech Republic, Special Guest. Along with Shri Anil Kumar Jha, President, MGMI & Chairman, Coal India Limited, Shri R K Saha, Chairman, Conference (8th AMC), Past President, MGMI & Former CMD, CCL, Dr Amalendu Sinha, Chairman, Technical Committee (8AMC) & Former Director, CIMFR, and Shri Rajiw Lochan, Hony Secretary, MGMI & GM, CMPDI.

There were **nine** technical sessions and one panel discussion with eminent persons. The Exhibition was held with **225 exhibitors** from different allied sector and the **buyers-sellers meet** conducted parallel was well participated by different stakeholders.

RECOMMENDATIONS FROM THE CONGRESS (8TH AMC 2019)

The **8th Asian Mining Congress**, organized by the Mining Geological and Metallurgical Institute of India (MGMI) with the theme “**Green Mining – The Way Forward**”, was held from **6th- 8th November, 2019 in Kolkata**. Based on the comments of Chairmen, Co-Chairmen, presentations by the authors and deliberations during different sessions, the Technical Committee constituted for the Congress framed the following recommendations:

Green Mining and Sustainability

With the increasing concern for environmental degradation, it is felt that the mining industry must accelerate its progress towards “Green Mining”. Sustainability principles are applicable in all stages of mine life cycle – exploration, mine planning, construction, mineral extraction, mine closure and post-closure reclamation and rehabilitation. Regulations and Guidelines framed by the government as well as self-regulation and ethical conduct on the part of mining enterprises are most crucial for the achievement of sustainable mineral development.

Sustainable development framework and Star Rating Scheme, as developed by the Indian Bureau of Mines, are novel steps toward sustainability of mineral industry. Detailed awareness and implementation programmes in this direction are very much required for transformation of the image of mining industry. Efforts need to be made to integrate Climate Change issues as part of the business model of mineral industries. For better alignment of Corporate Social Responsibility (CSR) projects towards United Nations’ (UN) Sustainable Development Goals (SDGs) of 2030, it is essential to enhance awareness about these goals amongst CSR managers and top management.

Geospatial tools such as Remote Sensing, GIS, GPS, Digital Photogrammetry, etc., have proved very useful for spatial data integration, analysis, modeling and map production for monitoring and impact assessment of any mining operation.

Investments and Policies

Zero waste Mining (conservation and mineral development) and sustainable development in mining sector, as envisioned in the National Mineral Policy 2019, must be adhered to. Moreover, formation of District Mineral Foundation (DMF) has to be geared up as it will facilitate inclusive and equitable development of project affected persons and areas as per the provisions of the Pradhan Mantri Khanij Kshetra Kalyan Yojana (PMKKKY).

There needs to be instantaneous visibility of Smart Mining on production, quality, cycle times, machine status, and other variables in order to achieve optimum operations by

adopting intelligent enterprise with Industry 4.0 concept. A uniform procedure for Minor Mineral Concession Rules should be formulated by the Central Government to be followed by all the State Governments to help the entrepreneurs carry out business in different States without hassles and confusion.

Seamless transition from Reconnaissance Permit to Prospecting License to Mining Lease should be ensured to attract investors. Delay in processing mineral concession applications both at the State and Central levels should be minimized.

Separate policies should be evolved urgently for exploration and mining of minerals of economic and strategic importance like Gold, Platinum group of minerals, Nickel, Lithium, Cobalt, rare earth elements etc. The outsourcing processes need to be reviewed to attract large established Mine Developer and Operators (MDOs) in the mining sector so that the mining industry can adopt the best practices available worldwide.

Exploration Technology

Joint use of 3D geophysical inversion and 3D geological models should be employed for locating potential mineral deposits, with special reference to concealed and buried deposits at greater depths.

Use of Geostatistics, Big Data, Artificial Intelligence and Machine Learning with special emphasis on Deep Learning is the need of hour for Smart Exploration. These need to be emphasized for thorough understanding of various 'Minerals Systems'.

Recent discoveries in hydrocarbons sector in diverse geological settings, tough and inaccessible terrains together with advancements in exploration technology have added new dimensions in hydrocarbons exploration. Concepts of Geostatistics, Big Data, Artificial Intelligence and Machine Learning need to be emphasized for understanding of various 'Petroleum Systems'.

Shale horizons of Barren Measures and Barakar Formation occurring below the upper Permian in Raniganj coalfield at depths greater than 700m are recommended for further investigation for possible CO₂ sequestration owing to sufficient hydrostatic pressure and high Total Organic Carbon (TOC). Pilot scale project(s) on CCS in this regard is recommended with special reference to Raniganj and Jharia coalfields.

Planning and Design of Mines

Unmanned aerial vehicle (UAV) sensors, which are now in pilot scale, can prove useful in future for mine surveying and mapping. Systematic pit and dump slope stability studies,

using state-of-the-art instruments and techniques, should be made mandatory for medium to large opencast mines to enhance safety.

Underground coal mining needs large-scale mechanization to increase production and productivity. Continuous miner (CM) based mechanization can revive underground coal mining to certain extent.

For extraction of coal reserves from greater depth, more R&D is required to address various issues related to design, operation and safety. Longwall technology should be customized with innovative layout to address pillar stability at greater depths and in greenfield areas.

Safety and Surveillance

All machines in opencast mines must be tested for whole-body vibration exposure of operators so that prescribed limits as per the ISO standards are not exceeded. Further, machine parameters and occupation factors should be explored through ergonomic process of assessment to reduce the vibration exposure within safe limits. Trial of Web based real-time environmental monitoring for UG coal mines using wireless sensors (Wi-Fi system) can prove to be useful in future

Underground mining at deeper horizons require suitable R&D studies in the areas of air cooling systems, installation of booster fans and also changing of exhaust system to forcing system of ventilation to control excessive methane emission from goaf area. Mass production from underground mines would necessarily require greater thrust on effective ventilation.

Blasting and Rock Fragmentation

Green blasting technologies like (a) Non detonating explosives, (b) Rock breakage using liquid CO₂ (c) Rock breakage using penetrating cone fracture and (d) Plasma blasting should be increasingly used in mines wherever applicable. It is required to develop model for prediction of peak particle velocity of ground vibration based on static and dynamic properties of rock mass for safe blasting at critical and sensitive structures.

Keeping in view the superiority of Electronic Detonators over Pyrotechnic Detonators, Indian mines should switch over to the former as far as possible for not only to address safety issues but also to improve productivity.

Coal and Mineral Processing and Value Addition Judicious end-use of low volatile coking coal across the coalfields should be promoted and put into rigorous practice by

three-product cleaning. End-products would be clean coal for iron & steel industry, middling as power plant coal and finally rejects as feedstock to fluidized bed combustors in stand-alone mode or in co-firing mode with bio-mass. The Government should formulate a policy in this direction and direct coking coal producers to implement this policy in a defined timeframe.

The option of utilizing coal ash in opencast mines can produce a quantum jump for enhancing its bulk utilization from meagre 5.85% by the mining sector. Also, the scope of use of bottom ash-plastic mixture as stowing material in underground coal mines should be further explored.

Backfilling with mass production technology in non-coal mines using mill tailing pastes with fly ash should undergo extensive trials in mines.

R&D and field trials should be undertaken to extract various value-added products from fly ash such as alumina (for metallurgical application and of chemical grade), impure quartz (for glass applications), calcium silicate (for insulating boards, fire retardants and chemicals) and iron hydroxide (for red oxide and pigment) and rare earth elements.

Oil and Gas

Field trials of Underground Coal Gasification (UCG) should be undertaken as one of the top priority areas to tap energy from un-mineable or difficult to mine coal seams. As it is not an economically established technology and has not been tried in India it is recommended to take up this technology in a virgin mining area and establish both its technical and economic viability.

Extraction and utilization of Coalbed Methane (CBM), Coal Mine Methane (CMM), Abandoned Mine Methane (AMM) and Ventilation Air Methane (VAM) should be taken up in suitable economically viable areas in order to harness energy from this relatively clean energy resource and also to mitigate methane emission into the atmosphere.

In the areas of oil and natural gas most profound technical developments have been in the field of reservoir imaging (3D seismic) drilling and completions, including horizontal drilling, multi laterals and hydraulic fracturing and enhanced oil recovery techniques. These technologies need to be increasingly adopted by the coal mining industry specially in the areas of UCG, CBM, CMM etc.

In oil sector, for arresting production decline in mature fields induction of new technologies with bold investment decisions are required.

CHAPTER ACTIVITIES

Assam Chapter

- MGMI Assam Chapter organized a General Body Meeting on 10 June 2019. The Meeting was chaired by the Chairman, MGMI Assam Chapter, NEC, Margherita.
- It was also discussed and decided that to increase the activities of the Chapter a calendar of activity to be prepared mentioning different type of events to be taken up to March 2020. The responsibility entrusted to Shri S P Dutta, Chairman of the Committee, Shri S Bora, Member, Shri Manish Das, Member, Shri Rakesh Kalita, Member and Shri S Bhattacharjee, Member and Honorary Secretary. The General Body unanimously agreed to nominate Shri Binay Dayal, Director (Technical), CIL as the Chairman of MGMI, NEC, Assam Chapter

Bhubaneswar Chapter

- Council Meeting of MGMI Bhubaneswar Chapter was held on 27 June 2019. The Council Meeting was attended by S/Shri GS Khuntia, A B Panigrahi, Abhiram Sahoo, JK Hota, PK Mishra, JN Praharaj, JP Panda and Gokulananda Sahoo. The Minutes of the last Council Meeting held on 25 March 2019 were confirmed. It was decided that the plan of action for 2019 to be pursued continuously. Financial help has been received by way of advertisement from RENTAR, Pune/USA & OMC for paper reading promotional activities. It was proposed that further efforts are necessary for enhancement of membership and in this connection, Chairman has written letters, sent messages and spoke on the telephone to the prospective persons to become member of MGMI. It was also desired that all Council members must attempt to put effort continuously and try for one member each. There was a proposal for organizing one International Seminar on Steel and Power Industries of India by 2030, Raw Materials Resource Development, Constraints on 12/2020. MDC ON SHE has decided to organize this seminar in collaboration with MGMIBBSR, supports from Odisha Govt. Steel & Mines the Departments and Steel and Mines Ministry, GOI and DGMS organization also will be obtained. In this connection, Shri GS Khuntia, Chairman, MGMI, BBSR has already discussed in MDC on SHE and they agreed to help. It has been proposed to invite President of MGMI who is also Chairman of CIL. A special paper presentation was organized where S/Shri SK Bhuyan, SK Patnaik and NP Pramanik were present. Shri GS Khuntia presented a paper on Impact of Taxation in Mining Industries on Steel Makers Security for uninterrupted supply of Iron Ore at economical price during April 2020 and 2030 and future health of Steel Industry. Shri J P Panda presented a paper on Project management of Coal India Ltd. Some of the Council Members

suggested that the paper presented in the paper presentation session to be circulated to the Council Members immediately which Chairman agreed upon. All members present in the meeting felt that the “Impact of Taxation in Mining Industry on Steel Makers Security for uninterrupted supply of Iron Ore at economical price during April 2020 and 2030 and future help for Steel Industry” is a very important subject and needs further deliberation.

- Council meeting of MGMI Bhubaneswar Chapter was also held at 4.30 PM on 15/2/2020 (3rd sat day) at MDC on SHE at PATIA, Opposite CEPET ENGG on INFO CITY ROAD, Bhubaneswar in presence of: Sri GS Khuntia-Chairman presided over the meeting, Sri JP Panda , Vice Chairman, Dr BM Faraque , Council Member, Sri NP Pramanik, Council Member, Sri JK Hota, Council Member, Sri Shuvan Dash, Member of INVEST GRID, Sri PK Mishra, Council Member, Sri J N Praharaj, Council Member, Sri GN Sahoo, Council Member.

DISCUSSIONS

1. Confirmation of last Council Meeting
2. Bank balance & some Fund-Raising Matter
3. **AVIDEO** presentation by **TEAM INVENT GRID** - Sri Shuvum Dash & others “for surveying in mines/Dams Projects/for “Contouring, Volume measurements of very Irregular bodies, Dumps, Rocky areas, Opencast mine benches” for their systematic strip mining from higher altitude imaging by use of DRONES was made. They had presented a cheque of Rs 10000/ towards promotional activity of MGMI-Bhubaneswar
4. **Plan of action for 2020** - was discussed and to be pursued continuously
 - a) Some Efforts are necessary for getting some Advertisements for MGMI activities, Chairman had also explained the position, we are also due to receive 25% of Membership fees from MGMI-HO. Reminder to go for this
 - b) Financial help received by Advertisements from “RENTAR, Pune/USA-25000/(INR) & recently from OMC-25000/(INR) & now from M/s INVEST GRID- Rs 10000. with thanks for Paper reading & promotional activity
 - (c) MEMBERSHIP DRIVE –Further efforts are necessary for this & Chairman has written letters /WA messages to new recruited Mining Engineers/ Geologists; 5 Life Member applications were forwarded in January & February-2020 from OMC Officers. We expect another 6-8 Applications

5. Chairman had also talked & persued with Sri RK DASH, GM(MM) & Sri LK Prusti, GM(Projects) with 3-4 Mech Engrs Officers under each, they have assured membership very soon
6. **Renewal of Membership** - As Some of MEMBERS are for ONE YEAR DURATION, EFFORTS must be made for extension of duration/Life membership by issuing letters/Mails immediately, Hony Secretary has to make a vigorous DRIVE for this. Sri Khuntia had sent many E Mails/WA messages /spoke on phone to them all /besides WhatsApp messages, . Some 5-6 ANNUAL MEMBERS have however renewed their membership subscription. I suggest that Let us submit by collecting Cheques from some Members whose renewal of fees to be done immediately.
7. There is a proposal for organizing “One International Seminar entitled INTERNATIONAL SEMINAR ON STEEL & POWER INDUSTRIES OF INDIA BY 2030, RAW MATERIALS RESOURCE DEVELOPMENT CONSTRAINTS on 12/ 2020” with MDC in collaboration by MGMI-BBSR, supports from Odisha Govt-Steel & Mines Dept. & steel & Mines ministry of GOI & DGMS organization also will be obtained .Sri GS Khuntia, Chairman, MGMI-BBSR (who is VP of MDC ON SHE)has already discussed in MDC on SHE & MDC has agreed. For this help in obtaining assistance from MGMI-HO /DGMS /other related GOI organizations/Mining Industry shall be taken . This was informed to MGMI, HO. We will Invite MGMI-President for Inaugural function.
8. SPECIAL Technical Paper PRESENTATION
 - a) By Sri JP PANDA, Vice Chairman presented a paper on How to improve Face Operational Efficiency in a large Opencast Project.
 - b) Presentation by TEAM INVENT GRID - Sri Suvum Dash & others “for surveying in mines/Dams Projects/for “Contouring, Volume measurements of very Irregular bodies, Dumps, Rocky areas, Opencast mine benches” for their systematic strip mining from higher altitude imaging by use of DRONES -LCD & LAPTOP were provided.

Delhi Chapter

- MGMI Delhi Chapter organized 7th Round Table Conference, jointly with IEF & ISMAA DC on 24th September 2019. The Conference was inaugurated by **Shri Pralhad Joshi, Honourable Minister for Coal, Mines and Parliamentary Affairs** who was the Chief Guest of the conference. Shri S C Garg, Secretary Power, Secretary Coal (represented by Advisor, Projects, MOC) were Guests of Honour. Shri Anil Kumar Jha, President, MGMI and Chairman, Coal India Ltd was

to attend the events but could not due to some unforeseen situation on the day. Shri Rakesh Kumar, CMD, Neyveli Lignite Corporation Ltd also attended the event. Shri Kirith Parikh, former Member Planning Commission was the Chief Guest at the Valedictory Session of the Conference.

- Shri Amitabh Kant, CEO, NITI Aayog delivered a very informative and illuminating, **61st Sir Holland Memorial Lecture**. The Conference was attended by well over **150 distinguished** guests, delegates, members and the members of the Media.

Calcutta Chapter

- MGMI Calcutta Chapter, a branch of the 114 year old The Mining, Geological and Metallurgical Institute of India (MGMI), is known for its unique activities. Apart from time to time organizing workshops / seminars, lecture sessions on topical techno-scientific issues, it makes conscious efforts to promote interaction amongst its members and families. The Chapter (earlier Branch) was established in 1991 and since then organizing a family get-together annually has become a flagship event of the Chapter. If we go back to the history, first Executive body meeting of this Chapter (branch) was held during a river cruise on Hooghly River on 15/08/1992 where the decision of organizing such get-together meetings was taken. From 1993 this event is being arranged every year uninterruptedly at different venues. The 28th Annual Get-together was held on 19th January 2020.
- During the last 27 years the venue of the event was being arranged in and around Kolkata. This year it was decided by the Executive Committee to venture out of Kolkata. It was arranged at Nirala Resort, a well-known place for such event at Deulti, east of Kolaghat. The place is about 65 kilometers from the heart of Kolkata, located off the Kolkata – Kharagpur National Highway No 6 (old). The resort is spacious, refreshing with peaceful atmosphere set in lush green surroundings and is a much needed weekend getaway which one needs in the time-defying rush of life. An added attraction is Sarat Chandra Kuthi, also known as Sarat Smriti Mandir, a house museum located in the village of Samta on the banks of the Rupnarayan river, which is 2 kilometers from this place.
- The daylong event was attended by about **120 persons** comprising members and their families. Four luxury coaches picked up the participants in the morning from different parts of Kolkata and outskirts, and dropped them back in the evening. The journey being bit long, dry snacks was served in the bus. The entire proceedings of the get-together was guided by Dr A.K. Moitra, Chairman, MGMI Calcutta Chapter, ably supported by S/Shri Ranjit Datta, S R Panja, Muktipada Das, Shiba Prasad Roy and Dr B B Sen.
- Before landing at the resort, members visited the Sarat Smriti Mandir. It is noted for being the house of the famous Bengali novelist, Sarat Chandra Chattopadhyay

for twelve years. Sarat Chandra Kuthi is a heritage-historical site protected under the West Bengal Heritage Commission Act (IX) of 2001. Sarat Chandra Chattopadhyay's works such as Devdas, Baikunther Will, Dena Paona, Datta, and Nishkriti among others were serialised during his stay there. He also wrote Ramer Sumati and Mahesh among others during his stay in the house.

- Activities at Nirala Resort commenced with breakfast with luchi, aloordom, misti, tea. Friends, colleagues, alma maters, professional acquaintances and their families remained engrossed the whole day in 'adda' (chatting).
- The sports activities interspaced with many other fun and frolic, conducted by Aminul Islam and Kamal Ghose with help from other members. There were sports items for all age groups. For children, the items were short Races, Roll the ball and Hit the target. For ladies, it was Basket the ball, Passing the ball and, for men, Hit the wicket. A common item was Bomb Blast. Most participants took part in the items joyfully, the elders watching their junior family members enjoying heartily.
- The sports activities were interspersed with fried snacks (pakauras) and beverages.
- Maximum enthusiasm was noticed in the game of Housie in which almost all participants took part.

PUBLICATIONS

Transactions

MGMI Transactions, Vol 116 (April 2019-March 2020) has been under preparation.

News Journal

Four issues viz. Vol. 45 No 1 (April – June 2019), Vol. 45 No 2 (July – September 2019), Vol. 45 No 3 (October – December 2019) and Vol. 45 No 4 (January – March 2020) distributed.

LIBRARY

During the year about 72, Journals, periodicals, Bulletins, CD etc. have been added in the library. Selected publications both of the Institute and of other organizations have been re-arranged in the library shelves. Exchange relations during the year were reviewed.

FINANCIAL POSITION

The audited statement of account for the year 2019-20 is appended. Some members are in arrears of subscriptions. As the membership subscription is the main source of income of the Institute, attention of all members is drawn for timely payment of

subscription. The **Annual subscription shall be payable in advance of the first day then commencing year.**

MEMBERSHIP

During the year under report 30 new members have been enrolled in different categories, which is not at all encouraging.

ACKNOWLEDGEMENT

Our efforts are on for various developments in line with the objective of MGMI. Your support and valuable suggestions would be most welcome.

The Council gratefully acknowledges the assistance received from members serving on various Committees and record its sincere thanks to all who have helped the Institute by extending co-operation and assistance in various activities.

Rajiw Lochan
Honorary Secretary
For and on behalf of the Council, MGMI

In Memoriam

MGMI deeply mourns the sad demise of the following members :

- **PHOOL CHAND JINDAL** -2567- LM; 1975-76
- **SAMIR KR GHOSH** -5293 - LM; 1988-89

MAY THEIR SOUL REST IN PEACE

**AUDITED BALANCE SHEET
WITH
INCOME & EXPENDITURE ACCOUNTS
2019 – 2020**

Blank

JHA & JHA
(Earlier known as R. S. Dwary & Co.)
CHARTERED ACCOUNTANTS

Head Office :
177, Jodhpur Garden
Opposite South City Mall, Kolkata-700 045
Tel : 033-4067-8325, 9874647256
Email : cajhaandjha@gmail.com

INDEPENDENT AUDITOR'S REPORT

To
The Members of
The Mining, Geological & Metallurgical Institute of India

Report on the Standalone Financial Statements

Opinion

I have audited the accompanying Standalone financial statements of **The Mining, Geological & Metallurgical Institute of India ("the Company")** which comprises the Balance Sheet as at March 31, 2020, the Statement of Income & expenditure.

In our opinion and to the best of our information and according to the explanations given to us, the aforesaid standalone financial statements give the information required by the Act in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India, of the state of affairs of the Company as at March 31, 2020, and Surplus for the year ended on that date.

Basis for Opinion

We conducted our audit in accordance with the Standards on Auditing (SAs) specified under section 143(10) of the Companies Act, 2013. Our responsibilities under those Standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of my Report. We are independent of the Company in accordance with the Code of Ethics issued by the Institute of Chartered Accountants of India together with the ethical requirements that are relevant to my audit of the financial statements under the provisions of the Companies Act, 2013 and the Rules thereunder, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the Code of Ethics. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.



Branch-1
Flat No. 402,
Sri Ram Kunj Apartment IAS Colony,
Billy Road, Danapur, Bihar-801503

Branch-2
House No. 54, Dumjan No. 2,
Kajiranga, House No. 54,
Dumjan No. 2, Kajiranga,
Golaghat, Assam-785609

Branch-3
Dwary Marketing Complex,
Jhousagarhi, Deoghar-814112
Jharkhand.

Responsibility of Management for the Standalone Financial Statements

The Company's Board of Directors is responsible for the matters stated in section 134(5) of the Companies Act, 2013 ("the Act") with respect to the preparation of these standalone financial statements that give a true and fair view of the financial position, financial performance, (changes in equity) and cash flows of the Company in accordance with the accounting principles generally accepted in India, including the accounting Standards specified under section 133 of the Act. This responsibility also includes maintenance of adequate accounting records in accordance with the provisions of the Act for safeguarding of the assets of the Company and for preventing and detecting frauds and other irregularities; selection and application of appropriate implementation and maintenance of accounting policies; making judgments and estimates that are reasonable and prudent; and design, implementation and maintenance of adequate internal financial controls, that were operating effectively for ensuring the accuracy and completeness of the accounting records, relevant to the preparation and presentation of the financial statement that give a true and fair view and are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

The Board of Directors are also responsible for overseeing the company's financial reporting process

Auditor's Responsibility for the Audit of the Financial Statements

Our objective is to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an Auditor's Report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with SAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

Report on Other Legal and Regulatory Requirements

The Companies (Auditor's Report) Order, 2016 ("the Order"), issued by the Central Government of India in terms of sub-section (11) of section 143 of the Companies Act, 2013, is not applicable.

As required by Section 143(3) of the Act, we report that:

We have sought and obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purposes of our audit.

In our opinion, proper books of account as required by law have been kept by the Company so far as it appears from our examination of those books.

- a. The Balance Sheet, the Statement of Income & expenditure dealt with by this Report are in agreement with the books of account. aforesaid standalone financial statements comply with the Accounting Standards specified under Section 133 of the Act, read with Rule 7 of the Companies (Accounts) Rules, 2014.
- b. On the basis of the written representations received from the directors as on 31st March, 2020 taken on record by the Board of Directors, none of the directors is disqualified as on 31st March, 2020 from being appointed as a director in terms of Section 164 (2) of the Act.
- c. With respect to the adequacy of the internal financial controls over financial reporting of the Company and the operating effectiveness of such controls, refer to my separate Report in "Annexure A".
- d. With respect to the other matters to be included in the Auditor's Report in accordance with Rule 11 of the Companies (Audit and Auditors) Rules, 2014, in our opinion and to the best of our information and according to the explanations given to us:
 - i) There is no pending litigation
 - ii) The Company has no long term contracts.
 - iii) There has been no delay in transferring amounts, required to be transferred, to the Investor Education and Protection Fund by the Company.

For **Jha & Jha**
Chartered Accountant
FRN: 328888E



Sudhip Kumar Sen, FCA, DISA
Partner
M. No. 052858



Date : 16.12.2020

Place : Kolkata

UDIN : 20052858AAAAES6590

Report on the Internal Financial Controls under Clause (i) of Sub-section 3 of section 143 of the Companies Act, 2013 (“the Act”)

I have audited the internal financial controls over financial reporting of The Mining, Geological & Metallurgical Institute of India as on 31-03-2019 in conjunction with my audit of the standalone financial statements of the Company for the year ended on that date.

Management’s Responsibility for Internal financial Controls

The Company’s Management is responsible for establishing and maintaining internal financial controls. These responsibilities include the design, implementation and maintenance of adequate internal financial controls that were operating effectively for ensuring the orderly and efficient conduct of its business, including adherence to company’s policies, the safeguarding of its assets the prevention and detection of frauds and errors the accuracy and completeness of the accounting records, and the timely preparation of reliable financial information as required under the Companies Act, 2013.

Auditor’s Responsibility

My responsibility is to express an opinion on the Company’s internal financial controls over financial reporting based on my audit. I conducted our audit in accordance with the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting (the “Guidance Note”) and the standards on Auditing issued by ICAI and deemed to be prescribed under section 143(10) of the Companies Act, 2013, to the extent applicable to an audit of internal financial controls, both applicable to an audit of Internal Financial Controls and, both issued by the Institute of Chartered Accountants of India. Those Standards and the Guidance 168 Note require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether adequate internal financial controls over financial reporting was established and maintained and if such controls operated effectively in all material respects. My audit involves performing procedures to obtain audit evidence about the adequacy of the internal financial controls system over financial reporting and their operating effectiveness. Our audit of internal financial controls over financial reporting included obtaining an understanding of internal financial controls over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. The procedures selected depend on the auditor’s judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. I believe that the audit evidence I have obtained

is sufficient and appropriate to provide a basis for our audit opinion on the Company's internal financial controls system over financial reporting.

A company's internal financial control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purpose in accordance with generally accepted accounting principles. A company's internal financial control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transaction are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorisations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorised acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Inherent Limitations of Internal Financial Controls Over Financial Reporting

Because of the inherent limitations of internal financial controls over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may occur and not be detected. Also, projections of any evaluation of the internal financial controls over financial reporting to future periods are subjects to the risk that the internal financial control over financial reporting may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Opinion

In my opinion, the Company has, in all material respects, and adequate internal financial controls system over financial reporting and such internal financial controls over financial reporting were operating effectively as at 31-03-2019.



Date : 16.12.2020

Place : Kolkata

UDIN : 20052858AAAAES6590

For **Jha & Jha**
Chartered Accountant
FRN: 328888E

Sudhip Kumar Sen, FCA, DISA
Partner
M. No. 052858

THE MINING, GEOLOGICAL & METALLURGICAL

(Incorporated as a Company under

(Section 25 of the Indian

BALANCE SHEET AS ON

Previous Year	LIABILITIES	AMOUNT (Rs.)	AMOUNT (Rs.)
	CAPITAL ACCOUNT		
24,34,970.00	Balance as per last A/c	24,47,370.00	
	Add: Admission Fees from Members		
	@300		
	@200		
12,400.00	@400 x 31	13,600.00	24,60,970.00
	RESERVE FUND		
61,08,537.65	Balance as per last A/c	63,06,497.65	
1,97,960.00	Added During the year		
	(LM Subscription)	1,88,190.00	64,94,687.65
	MGMI AWARD FUND		
14,24,228.97	Balance as per Schedule Annexed		14,70,852.97
	STAFF RETIREMENT BENEFIT FUND		
4,98,983.79	Balance as per last A/c	7,09,914.79	
25,000.00	Added Contribution from MGMI	25,000.00	
3,555.00	Add. Interest on FD	5,658.00	
1,82,376.00	FD Matured (less retirement of T Dutta)	2,00,000.00	5,40,572.79
	PROVIDENT FUND		
7,66,903.69	Balance as per last A/c	8,67,700.69	
86,136.00	Add Contribution Subscription	82,824.00	
7,440.00	Add Interest on FD	1,268.00	
7,221.00	TDS of Provident Fund		
	(less retirement of T Dutta)	3,60,000.00	5,91,792.69
	BUILDING FUND		
96,32,332.18	Balance as per last A/c		96,32,332.18
2,13,88,044.28			2,11,91,208.28

INSTITUTE OF INDIA

Section 25 of the Indian Companies Act, 1883)

Companies Act, 1956)

31ST MARCH, 2020

Previous Year	A S S E T S	AMOUNT (Rs.)	AMOUNT (Rs.)
	FURNITURE & FIXTURE		
20,076.36	Balance as per last A/c	18,068.66	
	Add : During the year		
2,007.70	Less: Depreciation	1,806.87	16,261.79
	FURNITURE		
39,266.18	Balance as per last A/c	35,339.48	
	Add : During the year	20,500.00	
3,926.70	Less: Depreciation	5,583.95	50,255.53
	FURNITURE FITTINGS & ELECTRICAL EQUIPMENT		
184,901.08	Balance as per last A/c	1,66,410.98	
18,490.10	Less : Depreciation	16,641.10	1,49,769.88
	XEROX MACHINE		
44,649.05	Balance as per last A/c	40,184.15	
4,464.90	Less : Depreciation	4,018.42	36,165.73
	AIR-CONDITIONING EQUIPMENT		
1,48,819.10	Balance as per last A/c	1,33,937.10	
	Add : During the year		
14,882.00	Less : Depreciation	13,393.71	1,20,543.39
	BI-CYCLE		
77.75	Balance as per last A/c	69.95	
7.80	Less : Depreciation	7.00	62.95
	COMPUTER (RCP FUND)		
7,285.46	Balance as per last A/c	2,914.16	
	Add : During the year	35,500.00	
4,371.30	Less : Depreciation	23,048.50	15,365.66
	LEASE HOLD LAND FOR BUILDING		
1,25,149.20	Balance as per last A/c		1,25,149.20
	MGMI LIFT		
2,56,000.00	During the Year		2,56,000.00
7,78,073.68			7,69,574.13

C/O

(Contd.)

THE MINING, GEOLOGICAL & METALLURGICAL

(Incorporated as a Company under

(Section 25 of the Indian

BALANCE SHEET AS ON

Previous Year	LIABILITIES	AMOUNT (Rs.)	AMOUNT (Rs.)
2,13,88,044.28	BF		21,191,208.28
	SCIENTIFIC RESEARCH ACTIVITIES PROJECT FUND:		
54,44,380.40	Balance as per last A/c	52,07,690.25	
	IMICA SEMINAR 2015		
4,82,151.00	Interest on FD	4,71,970.00	
11,00,000.00	7th AMC 2017		
13,98,000.00	MES Seminar 2018	5,63,000.00	
64,800.00	Short Term Course		
	Fixed Deposit Matured		
72,000.00	Goods Service Tax		
85,61,331.40		62,42,660.25	
	Less: Expenditure during the year		
	Honorarium To Staff(IMICA)	77,000.00	
1,97,779.00	Library Expenses	1,86,446.00	
12,94,727.00	MES Seminar 2018		
1,37,560.00	Printing of Publication		
4,00,856.00	RCP Staff Salary	4,61,505.00	
1,152.85	Bank charges		
	Printing & Stationary	3,000.00	
1,25,267.30	Postage & Telegram	712.00	55,13,997.25
	Communication Expenses		
1,341.00	Telephone Charges		
1,28,577.00	Meeting Expenses		
2,88,256.00	Short Term Course		
7,00,000.00	MGMI LIFT		
78,125.00	Servicing and Repairing		
33,53,641.15			
	SUBSCRIPTION ADVANCE:		
2,100.00	Balance as per last A/c		300.00
	CENTENARY CELEBRATION ACCOUNT		
12,82,347.00	Balance as per last A/c		12,82,347.00
	LOAN FROM RCP ACCOUNT		
5,36,220.00	Balance as per last A/c		5,36,220.00
2,84,16,401.53			2,85,24,072.53

INSTITUTE OF INDIA

Section 25 of the Indian Companies Act, 1883)

Companies Act, 1956)

31ST MARCH, 2020

Previous Year	A S S E T S	AMOUNT (Rs.)	AMOUNT (Rs.)
7,78,073.68	BF		7,69,574.13
	BUILDING AT SALT LAKE		
30,91,117.00	Balance as per last A/c	29,36,561.00	
1,54,556.00	Less : Depreciation	<u>1,46,828.00</u>	27,89,733.00
	Add : During the year		
	SECURITY DEPOSIT FOR BUILDING		
25,165.00	Balance as per last A/c		25,165.00
	STAFF RETIREMENT BENEFIT FUND INVESTMENT		
5,40,493.00	On FD A/c.	5,19,532.00	
1,87,612.79	On SB A/c.	<u>39,231.79</u>	5,58,763.79
	BUILDING FUND INVESTMENT		
1,89,205.83	On SB A/c.		1,89,205.83
	FIXED DEPOSIT		
1,25,29,794.00	Balance as per last A/c	1,50,29,794.00	
25,00,000.00	Add : During the year	1,05,00,000.00	
	Less withdrawal	<u>75,60,815.00</u>	1,79,68,979.00
	PROVIDENT FUND INVESTMENT		
6,31,402.00	On FD A/c.	5,36,045.00	
2,29,078.19	On SB A/c.	<u>48,527.19</u>	5,84,572.19
	SECURITY DEPOSIT FOR ELECTRICITY		
14,400.00	Balance as per last A/c		14,400.00
	CURRENT ASSETS LOANS & ADVANCE		
90,830.00	(On secured considered goods)	90,830.00	
	Advance Receivable in cash or in kind or value to be received.) (Less recovered)	<u>26,000.00</u>	64,830.00
	TUBEWELL		
1,13,995.00	Balance as per last A/c		1,13,995.00
	TAX DEDUCTED AT SOURCE		
3,63,141.75	Income Tax	4,81,386.75	
3,54,156.00	TDS ON OTHERS	2,44,000.00	
1,18,520.00	TDS ON FD	2,15,895.00	
1,880.59	Sales Tax	1,880.59	
4,29,840.00	Less TDS Refund	<u>6,11,850.00</u>	3,31,312.34
	MGMI AWARD FUND INVESTMENT		
	Fixed Deposit with		
14,09,390.00	(SBI, Salt Lake)	14,52,383.00	
32,542.11	SB A/c. with SBI	<u>56,173.11</u>	15,08,556.11
2,26,16,400.94			2,49,19,086.39

C/O

(Contd.)

THE MINING, GEOLOGICAL & METALLURGICAL

(Incorporated as a Company under

(Section 25 of the Indian

BALANCE SHEET AS ON

Previous Year	LIABILITIES	AMOUNT (Rs.)	AMOUNT (Rs.)
2,84,16,401.53 BF			2,85,24,072.53
	LIABILITIES FOR EXPENSES		
36,000.00	Loan from RCP Petty Cash		
29,840.00	Add during the year		
8,000.00	Less Recover by MGMI		
			57,840.00
3,00,000.00	Security Deposit as per last A/c.		6,00,000.00
3,00,000.00	Add during the year		
	Received from RCP A/C.		
5,97,579.00	As per last A/c.		5,97,579.00
	Payable for TDS Deposit		
5,000.00	As per last A/c.		5,000.00
	Amount Receivable from 3rd & 7th AMC	7,60,600.00	
35,10,600.00	on A/c of reimbursement of expenses	<u>27,50,000.00</u>	35,10,600.00
1,71,480.00	Goods Service Tax		
	Liabilities for Expenses		2,45,294.00
	Excess of Income over Expenses		34,79,552.63

3,33,58,900.53**3,70,19,938.16**

Date : 16.12.2020

Place : Kolkata

UDIN : 20052858AAAAES6590

Hony. Secretary
MGMIHony. Jt. Secretary
MGMI

INSTITUTE OF INDIA

Section 25 of the Indian Companies Act, 1883)

Companies Act, 1956)


31ST MARCH, 2020

Previous Year	A S S E T S	AMOUNT (Rs.)	AMOUNT (Rs.)
2,26,16,400.94	BF		2,49,19,086.39
	EXCESS OF EXPENDITURE OVER INCOME		
8,58,465.90	Balance as per last Account		
10,55,213.78	Less profit during the year		
19,425.00	Fax Machine (RCP Fund) during the year		19,425.00
	SCIENTIFIC RESEARCH ACTIVITIES INVESTMENT		
45,63,284.00	FD with SBI Salt Lake	46,12,928.00	
7,91,448.74	C.D.A/c. with SBI"	10,48,823.74	
28,780.77	Petty Cash	28,068.77	56,89,820.51
	ADMINISTRATIVE OVERHEAD CHARGES		
5,83,831.00	Receivable from RCP & CC	5,83,831.00	
1,13,293.00	Amount Receivable from TAFCON	1,13,293.00	6,97,124.00
	RECEIVABLE FROM RCP A/C.		
8,67,240.00	Balance as per last A/c.		8,67,240.00
	MOBILE PHONE (MGMI)		
4,090.00	During the year		4,090.00
	TRANSIT HOUSE OF MGMI		
1,14,350.00	Freeze & T.V.	1,14,350.00	
77,845.00	Generator	77,845.00	
1,10,286.00	Misc. Assests	1,10,286.00	
50,840.00	Kitchen Materials	50,840.00	
72,340.00	Bedding Materials	72,340.00	
11,580.00	Washing Machine	11,580.00	4,37,241.00
	Purchase of Projector		
36,640.00	During the year		36,640.00
	MGMI Sound System		
2,04,010.00	During the year		2,04,010.00
	CASH & BANK BALANCE		
4,02,457.19	SBI, Salt Lake C.D A/c.	33,38,658.05	
30,510.00	SBI, Park St. C.D. A/c.	30,510.00	
13,509.21	Cash with Hony. Secy.	38,033.21	
1,85,110.00	SBI Consultancy A/c.	1,85,110.00	35,92,311.26
	President's Golf A/c.		
5,47,950.00	"Receivable from PF & Staff		5,47,950.00
	Retirement Fund during the year "		5,000.00
	Foreign Contribution Regulation Act 2010 SB A/C		
3,33,58,900.53			3,70,19,938.16

Signed in terms of our report attached


President
MGMI

Hony. Treasurer
MGMI


Sudhip Kr. Sen
 Chartered Accountant
Jha & Jha
 Chartered Accountant

THE MINING, GEOLOGICAL & METALLURGICAL

(Incorporated as a Company under

(Section 25 of the Indian

INCOME AND EXPENDITURE ACCOUNT

Previous Year	EXPENDITURE	AMOUNT (Rs.)	AMOUNT (Rs.)
7,86,648.00	To Establishment		8,23,066.00
1,56,373.00	" Printing & Stationery		3,49,029.00
58,830.80	" General Charges		81,638.04
70,442.50	" Postage & Telegram		2,00,560.00
78,370.00	" Bonus to Staff		72,573.00
4,47,186.00	" Meeting Expenses		4,07,778.00
3,77,489.00	" Servicing & Repairing		1,87,222.00
43,068.00	" Contribution to P. F A/c		41,412.00
25,000.00	" Contribution to Staff Retirement Fund		25,000.00
56,614.00	" Staff Welfare		57,388.00
18,750.00	" A u d i t F e e s		12,000.00
3,92,333.00	" Electricity Charges		2,70,417.00
5,08,509.00	" Travelling & Conveyance		3,65,488.00
2,55,684.00	" Security Service Charges		3,16,116.00
22,644.00	" Telephone Charges		26,802.00
1,93,080.00	" Municipal Tax		95,320.00
42,394.00	" Filling Fees		1,000.00
61,917.00	" Professional Fees		65,161.00
3,02,878.00	" Golf Tournament		2,32,830.00
50,976.00	" Communication Expenses		62,787.00
72,938.63	" Water Tax (Nabadiganta)		41,035.00
1,88,584.00	" Printing of Publication		9,75,414.00
52,222.00	Council Election Expenses		71,757.00
4,95,270.00	Transit House Expenses		4,72,240.00
6,275.00	Gardening Expenses		5,535.00
	MGMI Anthem		
14,000.00	Puja Boksish		14,000.00
1,96,973.00	Goods Service Tax (GST)		13,29,251.00
	8th Asian Mining Congress'17		
66,000.00	Honorarium to Staff		
67,200.00	MES'18 Seminar		1,37,455.00
3,00,289.00	Short Term Course		3,64,257.00
6,89,896.00	8th AMC		61,24,263.00
23,600.00	Medals Cost		21,961.00
974.00	Library Expenses		1,239.00
90,000.00	Medical Spl. Grant to Staffs		
	Photographs Expenses (8th AMC & STC)		12,040.00
	Leave Encashment (T Dutta)		2,25,540.00
62,13,407.93			1,34,89,574.04

INSTITUTE OF INDIA

Section 25 of the Indian Companies Act, 1883)

Companies Act, 1956)

FOR THE YEAR ENDED 31ST MARCH, 2020

Previous Year	INCOME	AMOUNT (Rs.)	AMOUNT (Rs.)
	By Subscription from Members		
	@300 X 5	1,500.00	
800.00	@200		
17,500.00	@500 x 8	4,000.00	
	@1500 x 4		
4,100.00	@5000		
20,000.00	@20000		
2,50,000.00	@50000 x1	50,000.00	
6,82,000.00	@100000 x 4	4,00,000.00	
	@400		
50.00	@ 50		
1,87,038.00	Donner Subscriber	<u>10,00,000.00</u>	14,55,500.00
500.00	" Advance Subscription		2,100.00
1,920.00	" Membership Certificate Fees		1,860.00
7,157.80	" Sale of publication		6,278.00
1,22,894.10	" Advertisement		2,07,500.00
9,07,473.00	" Interest on F.D.		11,05,868.00
61,359.65	" Dividend on Units		59,087.07
1,51,890.00	" Transit House Income		1,71,480.00
6,66,000.00	" Licence Fee		11,00,000.00
	Re-imbursement of Electricity charges		
	6th Asian Mining Congress		
2,62,702.10	TDS		
	Accrued Interest on FD		
10,00,000.00	7th Asian Mining Congress'18 (closed)		1,16,386.00
1,00,000.00	Golf Tournament		3,94,500.00
5,000.00	MES'18 Seminar		11,800.00
7,53,000.00	Short Term Course		4,40,000.00
1,59,516.00	Goods Service Tax		10,01,705.00
	8th Asian Mining Congress'19		1,29,75,900.00
	Misc Receipts		44,219.83
	Excess of Expenditure over Income		
<u>53,60,900.65</u>			<u>1,90,94,183.90</u>

C/O

(Contd.)

THE MINING, GEOLOGICAL & METALLURGICAL

(Incorporated as a Company under

(Section 25 of the Indian

INCOME AND EXPENDITURE ACCOUNT

Previous Year	EXPENDITURE	AMOUNT (Rs.)	AMOUNT (Rs.)
62,13,407.93	BF		1,34,89,574.04
	"Depreciation		
2,007.70	"Furniture & Fixture	1,806.87	
3,926.70	"Furniture	5,583.95	
18,490.10	"Furniture fittings & Elec. Equipment	16,641.10	
4,464.90	"Xerox Machine	4,018.42	
14,882.00	"Air Conditioning Equipment	13,393.71	
7.80	"Bicycle	7.00	
4,371.30	"Computer	23,048.50	
1,54,556.00	"Building	1,46,828.00	2,11,327.55
	Excess of Income Over Expenditure		53,93,282.31
64,16,114.43			1,90,94,183.90
	Excess of Income Over Expenditure		
	During the Year	53,93,282.31	
	Less Access of Expenditure over Income		
19,13,729.68	as per last Account	19,13,729.68	
			34,79,552.63

Date : 16.12.2020

Place : Kolkata

UDIN : 20052858AAAAES6590

Hony. Secretary
MGMIHony. Jt. Secretary
MGMI

INSTITUTE OF INDIA

Section 25 of the Indian Companies Act, 1883)

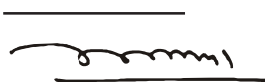
(Section 25 of the Indian

FOR THE YEAR ENDED 31ST MARCH, 2020

Previous Year	INCOME	AMOUNT (Rs.)	AMOUNT (Rs.)
53,60,900.65	BF		1,90,94,183.90
10,55,213.78	Excess of Expenditure Over Income		
<u>64,16,114.43</u>			<u>1,90,94,183.90</u>
19,13,729.69	Excess of Income over Expenditure transfer to Balance sheet		34,79,552.63

64,16,114.431,90,94,183.90

Signed in terms of our report of such date


President
MGMI

Hony. Treasurer
MGMI

Sudhip Kr. Sen
Chartered Accountant
Jha & Jha
Chartered Accountant

(Section 25 of the Indian

RECEIPTS	AMOUNT (Rs.)
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1,29,75,900.00

UDIN : 20052858AAAAES6590

INSTITUTE OF INDIA

Section 25 of the Indian Companies Act, 1883)

(Section 25 of the Indian

MINING CONGRESS AS ON 31ST MARCH 2020

PAYMENTS	AMOUNT (Rs.)
By Venue, Lunch, High Tea, Dinner in the hotel WESTIN RAJARHAT, KOLKATA	26,03,006.00
" Event Management	16,28,037.00
" Cultural Programme	1,82,600.00
" Printing of Brochure	1,40,040.00
" Printing of Proceeding Volume and Pen Drive	4,93,355.00
" Printing of Souvenir and Programme	1,32,930.00
" Kit for 8th AMC	14,50,000.00
" Mementos (Chief Guest, Guests of Honour, Session Chairmen & Speakers & Others)	1,54,220.00
" Purchase of Pen for Delegate Kit	1,06,400.00
" Travelling and Conveyence	2,21,732.00
" Meeting Expenses	16,066.00
" Printing of Stationary	14,567.00
" Accomodation for Minister & Others	54,575.00
" Charges General	3,500.00
" Photograph	12,040.00
" Postage & Telegram	23,469.00
" Fixed Deposit	20,00,000.00
" Total Payments	92,36,537.00
" Cash at Bank	37,39,363.00

1,29,75,900.00



Sudhip Kr. Sen
Sudhip Kr. Sen
Chartered Accountant
Jha & Jha
Chartered Accountant

MGMI AWARD FUND INVESTMENT

Sl. No.	Name of the Fund	Amount
1	Chretien Mica Gold Medal	3,090.82
2	Dewan Bahadur DD Thacker Coal Mining (Gold) Medal Fund	30,850.94
3	John Dunn Fund	7,595.00
4	Coggin Brown Memorial	18,504.78
5	Shivlal Award Fund	1,05,865.78
6	Nava Bharat Ferro Alloys Medal Fund	22,617.10
7	Indranil Award for Metallurgy	39,986.99
8	S. K. Nargundkar Award Fund	11,552.88
9	Oil India Medal Fund	8,441.51
10	McNally Bharat Medal Fund	14,408.36
11	Yule Award Fund	6,972.40
12	Dr. Hari Narain Medal Fund	11,119.82
13	M.L. Rungta Award Fund	25,948.95
14	S. C. C.L. Medal Fund	16,441.31
15	Neyveli Lignite Medal Fund	17,191.08
16	Smt. Bala Tandon Award Fund	18,092.66
17	Coal India Project Implementation Trophy Fund	5,641.16
18	G. S. Jabbi Memorial Fund	355.08
19	Subrata Ghosh Award Fund	21,594.20
20	D. N. Thakur Award Fund	20,000.00
21	R. P. Bhatnagar Award Fund	1,32,416.42
22	Contribution by MGMI	50,000.00
23	Nirja Sahay Award	30,000.00
24	Sukumar Rakshit Award Fund	26,989.73
25	Lala Ram Krishore Singhal Award	40,000.00
26	Kalyan Mukherjee'61 Geology' Award Fund	70,000.00
27	H. B. Ghose Award	1,00,000.00
28	Prof. S. K. Bose Memorial Award Fund	50,000.00
29	Prof.Dr. Mahendra Pratap Singh Memorial Coal Science Award	5,00,000.00
		<u>14,05,676.97</u>
	Less : Expenses incurred	
	As per last A/c.	5,77,693.37
	Add : During the year	<u>25,000.00</u>
	Including administrative Overhead Rs.	8,02,983.60
	Add : Interest on F.D. & SB Account	
	As per last A/c.	5,96,245.37
	Add : During the year	<u>71,624.00</u>
		<u>14,70,852.97</u>

Date : 16.12.2020

Place : Kolkata

UDIN : 20052858AAAAES6590

MGMI CHAPTERS

