प्रमोद अग्रवाल अध्यक्ष-सह-प्रबंध निदेशक Pramod Agrawal Chairman-Cum-Managing Director



कोल इण्डिया लिमिटेड COAL INDIA LIMITED

(A MAHARATNA COMPANY) A Govt. of Indlia Enterprise "COAL BHAWAN" Premises No. 04 MAR, Plot No. AF-III Action Area-1A, New Town, Rajarhat Kolkata-700 156

23 September, 2021

DO No. CIL/CH/ 2353

Dear. Prof. Jain,

Coal India Limited, a Maharatna Company, is the single largest coal producing company in the World producing more than 600 Million Tonne of coal and aiming to reach the 1 BT target in a manner that is technology intensive, environmentally compatible and sustainable.

The CIL has endeavored into R&D programme in coal sector after the constitution of its own R&D Board which was later strengthened by assistance of an Apex Committee. We have recently revamped the R&D setup for improvement & broaden our horizon through expertise of leading organizations and institutions. It now includes the experts as members from the reputed Institutions and Research Institutes like IITs, IISERs, NITs, TERI, NIRM etc. The R&D Board of CIL can sanction individual R&D project upto Rs 50 crore with a limit of Rs 500 crore per annum considering all the projects together.

Our R&D activities are now being supported by reputed institute like IIT-ISM, CIMFR-Dhanbad, Gujrat Energy Research & Management Institute (GERMI)-Gandhinagar and also by International Institute/Organization like Lulea Technological University(LTU) of Sweden, SIMTARS of Australia in the area of Improvement of Productivity, Safety, Coal Beneficiation, Coal utilization, Protection of Environment & Ecology, Clean Coal Technology etc.

Recently, CIL has also broadened its thrust area which now includes, but is not limited to, the environmental sustainability, energy management, Technological advances in renewable energy, use of AI & IOT, clean coal technologies, waste to wealth etc. With your participation in the R&D activities of CIL, in the areas as indicated in Annexure, we intend to increase our outreach and involve in R&D projects that are world class so that the CIL and its partner expert organizations/institutions is benefitted and we can fulfill the aspirations of the country by being Atma Nirbhar.

Your organization/institute is already involved in cutting edge technical innovation which we wish to harness for the benefit of the nation. On the other hand, we are endowed with adequate funds for quality R&D projects and need your consideration for coming together for a well-founded goal. This industry institute integration shall carry the research activities to a level which is generally lacking.

Hence, to be abreast with time and involve in R&D activities that shall benefit the coal sector as a whole, we wish to invite your esteemed Institute/organization to join hands with us and request that some high utility high value R&D projects may kindly be proposed for being taken up in view of the existing wide gap. It will indeed be our privilege to fund some of the such R&D projects from your esteemed institution/organization, especially on the identified thrust areas.

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Yours Sincerely

Prof. Neelesh Kumar Jain Director, IIT Indore, Indore, MP 453552

(Pramod Agrawal)

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## Thrust areas of CIL.

- Advanced technology/methodology for improvement of production & productivity from underground and open cast Mining,
- Improvement of safety, health and environment,
- Waste to wealth,
- Alternative use of coal and clean coal technologies,
- Coal beneficiation and utilization,
- Exploration
- Innovation and indigenization (Under Make-in-India Concept).

## The above may include:

- ✓ Applications of AI & IoT for various mining process
- ✓ Innovative / Intelligent Mining Methods,
- ✓ Noninvasive Resource assessment,
- ✓ Improvement of production, productivity & Safety,
- ✓ Coal beneficiation and clean coal technologies
- ✓ innovations in protection of Environment & Ecology,
- ✓ Innovative Tools and Machinery for Mining & Allied operations,
- ✓ Strategic Technology Management and System Development,
- ✓ Decision Support System for Mining Techno-Economics,
- ✓ Innovations in Alternate Source of Energy,
- ✓ Energy efficient process/equipment

The above mentioned fields are indicative and the list has further scope for enrichment.