

Presidential Address
by
Prof. Prem Vrat, Chairperson, BOG, IIT (ISM), Dhanbad
on 95th Foundation Day Dec 09, 2020

Esteemed Chief Guest on the Foundation Day celebration Mr. Binay Dayal, Director (Technical), Coal India Limited; Chief Mentor KCT Group Mr. V.K Arora; Mr. Jerry Anderson, MD, Epiroc Mining India Ltd; Director Prof. Rajiv Shekhar; Deputy Director, Prof. J.K. Pattanayak, Prof. Rajni Singh, Convenor, 95th Foundation Day; faculty, staff, students and alumni of IIT (ISM), distinguished invitees, ladies and gentlemen!

On the occasion of the 95th Foundation Day of IIT (ISM) Dhanbad; I greet you all and convey my felicitation and congratulations on this important day. I welcome our Chief Guest Mr. Binay Dayal Director (Technical), Coal India Limited and our alumnus, for having accepted the invitation to be the Chief Guest and deliver Foundation Day lecture. I also Thank Mr. V.K Arora, Chief Mentor KCT Group and Mr. Jerry Anderson, MD, Epiroc Mining India Ltd for their gracious presence. IIT (ISM) in its previous avatar was established as Indian School Mines and Applied Geology on this day in 1926 and has since then made outstanding contributions in nurturing excellent professional talent all these years. On Sep 06, 2016 with 18 departments and IIIF's at Delhi & Kolkata it joined the IIT system to become an Institution of National Importance and is a prominent member of the 23 IIT's in the country, though since 1997 it came under Ministry of Education and admitted UG students through IIT (JEE). This has provided an opportunity to leverage two brands; IIT and ISM to reach still greater heights of academic excellence. I complement the Director and his team of Deans, Associate Deans, HOD's and all

the administrative officers, staff and students for their contributions to make this institute reach the level of academic excellence. I also compliment the alumni for their support and emotional bond with their alma mater. We feel proud of their contributions to the institute, society and the nation.

- a.** The Institute's rich legacy and the way it has emerged and endured over the last nine and half decades makes it dream high - to be one of the top technological institutions of the country.
- b.** Over the past few years, the institute has been consistently growing in terms of its academic programmes, student strength, R&D activities, research publications, external funding for research and development activities, industry institute collaboration, international endeavours, infrastructure, and in technological development.
- c.** I strongly believe that Higher education institutions are vital for advancing inclusive national and regional development, for shaping more resilient and inclusive societies. They are intricately linked to shaping the economic, social and environmental fabric of our country.

I congratulate awardees for long service award and "Inder Mohan Thapar Research Award" winners in today's function.

While a Foundation Day is an occasion for great celebration, it also affords an opportunity to introspect and find new opportunities and directions to consolidate its present achievement and develop strategies to exploit the potential multiplier effect that the brand IIT and brand ISM have to leapfrog at a faster rate to attain top ranks within the IIT system. As an IIT it is an opportunity as well as a challenge because now we have to find a respectable place for IIT (ISM) in the ranking within the IIT system by leveraging its strengths and overcoming its weaknesses to exploit

future opportunities that are present in the higher technical education system in the context of the New Education Policy (NEP). We should set SMART (**S**pecific, **M**easurable, **A**chievable, **R**elevant and **T**ime Bound objective and goals) offer my wish list in this journey and would like to appeal to the Director, faculty, staff and students to initiate in a mission mode, efforts to make IIT (ISM) Dhanbad in the ranking of top five IIT's by the time it celebrates its centenary celebration in five years from now.

Given the bestowing of brand IIT to brand ISM; I am optimistic that due to multiplier effect of these two brands; IIT (ISM) and not IIT-ISM Dhanbad can achieve the 5th rank in the 23 member elite IIT system. It shares similar legacy with IIT at Roorkee and BHU, Varanasi. In my view; with mission mode and committed efforts of faculty, students, staff, alumni and the academic leadership of IIT (ISM) it should be possible to aim at ranking at the 5th place by the centenary celebrations. I am of the view that we can aspire to be after IIT's at Bombay, Chennai, Delhi and Kharagpur and benchmark ourselves with the best practices of other IIT's particularly of IIT Kharagpur which also has most branches that IIT at Dhanbad has and has similar locational connectivity. A committed task force can work on this mission and start by conducting SWOT analysis of IIT (ISM) Dhanbad and leverage its strengths and treat weaknesses as opportunity to improve. A time series comparison of key performance indicators with IIT's at Kanpur, Roorkee, Guwahati and BHU will help together with benchmarking with IIT Kharagpur. Some specific suggestions are:

- i. Double the PhD degrees awarded/year in next 5 years and set a goal of awarding 0.5 PhD/faculty/year and 3 papers/faculty/year on a sustainable basis.

- ii.** Intensify alumni involvement through; Alumni endowment fund; chair professorship, batch donations, fellowships on similar lines as IIT Kharagpur. Alumni of Dhanbad can be our USP and may be our untapped gold mine. But involve them through their advice so that they give you money. If we directly ask for money we may only get advice.
- iii.** Focus on innovation, incubation and creativity particularly by involving B.Tech students in research. Also take up socially relevant research project enabled by emerging technological trends.
- iv.** Incentivize outstanding faculty for academy fellowships using current practice of IIT Kharagpur of giving additional Rs. 15k/month if a faculty has fellowships of two national academies for example: FNAE and any one of the three national science academies.
- v.** Create centres of excellence through DST, DRDO, industry and alumni support in technology enabled mining; mineral, metallurgy; cyber – physical system and industry 4.0 and nature inspired engg. and management systems. Circular economy concept with holistic modeling of mining, exploration, recycling, waste management, resource conservation and climate change is another emerging area.
- vi.** Double the sponsored research, consultancy , MDP, EDP over next 5 years and re-energize IIIF at Delhi and Kolkata as major resource assets and employ on-line teaching learning system to the tune of 40% as per NEP. IIIF can be potential asset to enhance industry reach and makeup for the locational constraint.
- vii.** Increase substantially the % placements and packages across all the branches of engg. science and management.

In order to create right work culture, I propose 21 keywords which the leadership could consider to facilitate an enabling and inspiring environment for reaching our stretched goals:

5F^s : **F**aculty, **F**inances, **F**acilities, **F**ocus and **F**lexibility.

5I^s : **I**nspire, **I**nvolve, **I**ncentivize, **I**nnovate and **I**nternationalize.

5T^s : **T**rust, **T**ransparency, **T**echnology, **T**eamwork and **T**hinking (+ve)

5P^s : **P**eople, **P**rocess, **P**artnerships, **P**assion and **P**erformance.

1R^s : **R**elationship: with faculty, student, alumni, staff, government, employers and the society at large. Good relationship is key to achieve our goals.

- “If you have 1000 friends, you have none to spare; if you have one enemy, you find him everywhere”. **(Dale Carnegie)**

Before I conclude I once again convey my heartiest Congratulations to the IIT (ISM) fraternity for scripting the success of this Institute. The journey of IIT (ISM) is unstoppable as it is driven by a deep desire to aim higher, to do better, to take the lead in writing a brighter future for itself, and thereby bringing laurels to the nation.

Thank You!

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