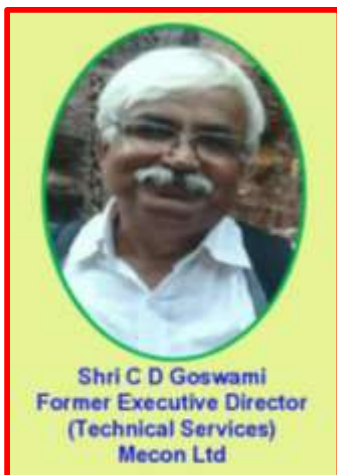


A BRIEF REPORT ON TECHNICAL TALK DELIVERED BY SHRI C D GOSWAMI, FORMER EXECUTIVE DIRECTOR (TECHNICAL SERVICES), MECON.



A Technical talk was organised by Delhi Chapter on 27.3.2021. The caption of the Talk was “**Road Map for Climate Control Technology & Policy Implementation for Indian Steel Plant**”. The Talk was delivered by Shri C D Goswami, former Executive Director (Technical Services), MECON.

At the outset, Shri K K Mehrotra, chairman, IIM Delhi Chapter, welcomed the participants in the Technical Talk.

Shri N K Kakkar, Hon. Secretary, IIM Delhi Chapter gave an introductory profile of Shri Goswami. After this he requested Shri Goswami to proceed with his Talk. Shri Goswami thanked Delhi Chapter to invite him for the Talk.

In his presentation Shri Goswami talked about the importance of Climate Change in terms of Steel Production. It was stated by him that in terms of Paris Climate Summit we are required to reduce CO₂ emission intensity by 33 to 335% by 2030 from 2005 level. He informed that India plans 40% power sourcing from non-fossil sources by 2030. He also talked about the pledges of other companies to reduce CO₂ emission level.

It was informed by him that CO₂ emissions originating from world steel making industry is about 7-9%. The concentration of CO₂ globally increased from 280 PPM to 410 PPM. He also mentioned about the National Steel Policy 2017 which envisage steelmaking capacity of 300 MT by 2030. This will have impact on greenhouse gases emission. Steps needs to be taken to address this problem. He touched upon the paths to reduce carbon footprint in steel industry. He also touched upon the tools for energy efficiency improvements measures to minimize the impact of CO₂ emissions. There are

- Improvement in prevention maintenance
- Increase in hydrogen share
- Improved capacity in the fuel utilization
- Improved use of scrap inputs
- Closing of obsolete equipment

He also shared the CO₂ emissions trends and sources of emission in steel plants. He also talked about the improvement in the techno-economic performance parameters to reduce environmental problems. There is a need to give thrust to usage of renewable energy in the steel sector.

We have to encourage R&D and innovation in steel and deploy break-through technologies. Increased use of scrap will help CO₂ emissions. He also talked about hydrogen based DRI, smelt reduction technologies and integration of low carbon electricity and carbon capture utilization system in the reduction of CO₂ emission levels. He also made a mention of Industry 4.0 measures to control CO₂ emission levels. He also mentioned about Steel Scrap Recycling Policy 2019 which talks about the following 6 Rs:

- Reduce
- Reuse
- Recycle
- Recovery
- Redesign
- Remanufacture

Scrap use in steel production reduces energy consumption by 75% and water consumption by 40%. Worldwide scrap use increased from 367 MT to 589 MT in seven years. Some country-wise figures of major countries for the last two years were also shared by him. A mention was also made by him about scrap recycling through ship-breaking. He also gave a SWOT (Strength, Weakness, Opportunities & Threats) analysis of hydrogen as fuel for steel making. He also mentioned about Hydrogen Breakthrough Iron Making Technology (HyBRIT) in steel making.

After the conclusion of Shri Goswami's presentation, there was lively question and answer session.

Shri K K Mehrotra, Chairman, Delhi Chapter thanked Shri Goswami in for his informative presentation.

The Talk was held on Google Meet platform and was attended by about 25 persons.