Programme

1100h: Welcome address by Dr. K. Muraleedharan, Director, CSIR-

CGCRI

1105h: Introduction of Speaker by Dr. Dipayan Sanyal, Advisor

(Projects)

1115h: 17th Atma Ram Memorial Lecture on "Innovation in Materials

Industry – A National Prerogative" by Mr. TV Narendran, CEO

& Managing Director, Tata Steel Limited

1200h: Vote of thanks by Shri Sitendu Mandal, Head, Business

Development

कार्यक्रम

11:00 बजे निदेशक, सीएसआईआर-सीजीसीआरआई, डॉ. के.मुरलीधरन, द्वारा स्वागत

सम्बोधन

11:05 बजे डॉ दीपायन सान्याल परामर्शदाता (परियोजना) द्वारा अतिथि वक्ता का परिचय

11:15 बजे श्री टी. वी. नरेन्द्रन, सीईओ एवं प्रबंधनिदेशक, टाटा स्टील लिमिटेड द्वारा

"इनोवेशन इन मटीरियल्स इण्डस्ट्री -अ नेशनल प्रेरोगेटिव" विषय पर सत्रहवीं

आत्माराम स्मृति व्याख्यान

12:00 बजे श्री सीतेन्द्र मंडल, प्रमुख, वाणिज्य विकास द्वारा धन्यवाद ज्ञापन



The 17th

Atma Ram Memorial Lecture

17वें

आत्माराम स्मृति व्याख्यान

Title: "Innovation in Materials Industry

- A National Prerogative"

by

Mr T V Narendran CEO & Managing Director Tata Steel Limited

12 अक्टूबर/October, 2020



सीएसआईआर - सीजीसीआरआई

CSIR-CGCRI



About the Speaker - Mr. T V Narendran is the CEO & Managing Director of Tata Steel Limited. As the CEO & MD, he has overseen the acquisitions of Bhushan Steel Limited (now known as Tata Steel BSL Limited) and the steel business of Usha Martin Limited (now part of Tata Steel Long Products Limited). Earlier, as the Managing Director, he successfully executed Tata Steel's Greenfield expansion at Kalinganagar. He has over 32 years of experience in the Mining and Metals industry.

Mr. Narendran is currently on the Board of Tata Steel Limited. He is the Chairman of Tata Steel Europe, Tata Steel BSL Limited, and Tata Steel Long Products Limited. He is also the Chairman of the Board of Governors of XLRI Jamshedpur. He was a member on the Board of the World Steel Association and is a member of its Executive Committee. He was the co-chair of the Mining & Metals Governors Council of the World Economic Forum from 2016 to 2018. He is the President Designate of the Confederation of Indian Industry (CII), and is the Vice President of the Indian Institute of Metals.

Mr. Narendran is a Mechanical Engineer from the National Institute of Technology (NIT) Trichy, and completed MBA from the Indian Institute of Management (IIM) Calcutta. He is a recipient of Distinguished Alumnus Awards from both NIT Trichy and IIM Calcutta. He is a Chevening Scholar and has also attended the Advanced Management Programme in CEDEP-INSEAD, Fontainebleau, France.

Synopsis - The lecture will be three sections. The first section will cover one of the major challenges faced by a growing iron and steel industry in India - decarbonization of the manufacturing process. The lecture will cover capture and use of the CO2 that is emitted as a result of the use of carbon to reduce iron ore. Generation of green and cheap hydrogen that can replace carbon as a reductant will also be covered. Currently, no technologies exist at the scale of hundreds of millions of tonnes per annum to address all the CO2 emitted by the iron and steel making process. This is a major opportunity for innovation in manufacturing and for India to take global leadership. The second section will be on non-steel materials covering composites and graphene. Examples will be given about how new materials can be incubated and grown to be commercialized in multiple sectors. The third section of the lecture will cover nationally strategic materials such as electric-vehicle battery materials and rare earth materials. Both these materials are currently imported. The lecture will show that opportunity to innovate exists in beneficiation of certain mine overburdens to enrich and extract battery materials. It is also imperative to institute urban mining capability for recycling of rare earths and battery materials. The lecture will indicate how through focused funding and collaboration between Government, Industry and Academia, a robust eco-system can be set up in India for developing new-to-the-world technologies and for India to take global leadership in these strategic areas.





Dr. K. Muraleedharan, Director, CSIR-CGCRI cordially invites you to attend the Webinar

The 17th Atma Ram Memorial Lecture

Title: "Innovation in Materials Industry

- A National Prerogative"

to be delivered by

Mr T V Narendran CEO & Managing Director

Tata Steel Limited

on Monday,12th October, 2020 at 11:00 am

Kolkata 8th October, 2020 Director CSIR-CGCRI



सीएसआईआर-केंद्रीय काँच एवं सिरामिक अनुसंधान संस्थान CSIR-Central Glass & Ceramic Research Institute



17वें आत्माराम स्मृति व्याख्यान / 17th Atma Ram Memorial Lecture



Monday, 12th October, 2020 | 11:00 am | Join Meeting

17th Atma Ram Memorial Lecture on Innovation in Materials Industry- A National Prerogative

Shri TV Narendran

CEO & Managing Director, Tata Steel Limited

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1200h: Vote of thanks by Shri Sitendu Mandal, Head, Business Development

Dr K Muraleedharan, Director, CSIR-CGCRI cordially invites you to attend the webinar...

Phone: +91-33-24735829; Email: director@cgcri.res.in, URL: www.cgcri.res.in



Brief CV



Mr. T V Narendran is the CEO & Managing Director of Tata Steel Limited. As the CEO & MD, he has overseen the acquisitions of Bhushan Steel Limited (now known as Tata Steel BSL Limited) and the steel business of Usha Martin Limited (now part of Tata Steel Long Products Limited). Earlier, as the Managing Director, he successfully executed Tata Steel's Greenfield expansion at Kalinganagar. He has over 32 years of experience in the Mining and Metals industry.



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Innovation in Materials Industry – A National Prerogative

Synopsis:

The lecture will be three sections. The first section will cover one of the major challenges faced by a growing iron and steel industry in India – decarbonization of the manufacturing process. The lecture will cover capture and use of the CO2 that is emitted as a result of the use of carbon to reduce iron ore. Generation of green and cheap hydrogen that can replace carbon as a reductant will also be covered. Currently, no technologies exist at the scale of hundreds of millions of tonnes per annum to address all the CO2 emitted by the iron and steel making process. This is a major opportunity for innovation in manufacturing and for India to take global leadership. The second section will be on non-steel materials covering composites and graphene. Examples will be given about how new materials can be incubated and grown to be commercialized in multiple sectors. The third section of the lecture will cover nationally strategic materials such as electric-vehicle battery materials and rare earth materials. Both these materials are currently imported. The lecture will show that opportunity to innovate exists in beneficiation of certain mine overburdens to enrich and extract battery materials. It is also imperative to institute urban mining capability for recycling of rare earths and battery materials. The lecture will indicate how through focused funding and collaboration between Government, Industry and Academia, a robust ecosystem can be set up in India for developing new-to-the-world technologies and for India to take global leadership in these strategic areas.

Monday, 12th October, 2020 | 11:00 am *Join Meeting*