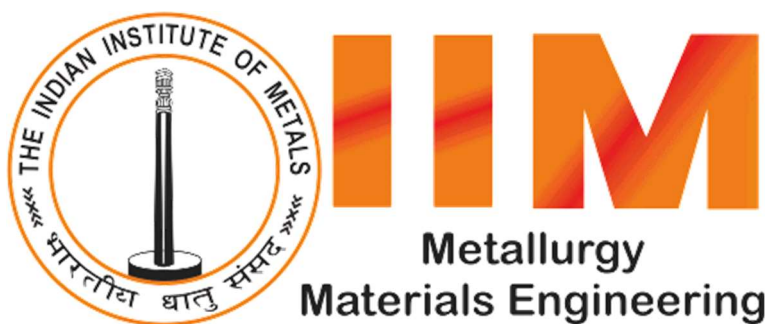


2022

IIM Honours & Awards

Organised by

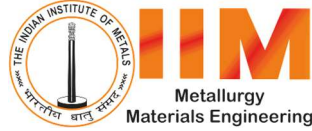


The Indian Institute of Metals

CITATION BOOKLET

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CONGRATULATIONS!

At the 76th year of the Institute's presence, we would like to congratulate all the IIM Awards 2022 Recipients for their exemplary contributions to the profession, industry, research & development, academics etc., and setting the highest standards for many aspirants and future members of the Institute.

Determining the recipient of such prestigious honours is always a difficult decision, and is based on various factors. We would like to appreciate the efforts of all applicants across categories. The candidates who couldn't be considered for this year's Award by a very narrow margin, & couldn't qualify for the respective Award Category may continue to apply for suitable Honours & Awards categories based on call for IIM Awards application published in IIM's website.

We truly believe that, 'Excellence deserves recognition', and we are here at The Indian Institute of Metals always do encourage exceptional and diverse talents who have made it big this year.

-----Instituted by The Indian Institute of Metals-----



IIM AWARDS 2022

IIM National Sustainability Awards

The Ferrous Division of the Indian Institute of Metals has been organizing the National Quality Competition since 1991 to encourage and recognize Quality Assurance aspects in the Steel Sector. The award has been re-named as National Sustainability Award from 2007. The Awards are in the categories of (a) Integrated Steel Plants, (b) Secondary Steel and Alloy Steel Plants and (c) DRI Plants / Pig Iron Plants / Major Re-rolling Units.

The Awards for the year 2022 are presented to:

Category I: Integrated Steel Plants

First Prize: JSW Steel Ltd., Vidyanagar

Second Prize: Tata Steel Ltd., Jamshedpur

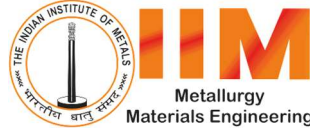
Category II: Secondary Steel and Alloy Steel Plants

First Prize: JSW Steel Ltd., Salem Works

Second Prize: Salem Steel Plant, SAIL

Category III: Pig-Iron Plants / DRI Plants/ Major Re-rolling units

Winner: L&T Special Steels Heavy Forging Ltd, Hazira



IIM AWARDS 2022

IIM Non-Ferrous Best Performance Awards

The Non-Ferrous Division of the Indian Institute of Metals has been organizing the National Quality Competition since 2002 to encourage and recognize Quality Control aspects in the Non – Ferrous sector. The Awards are in the categories of (a) Large integrated production organizations (b) Secondary processing / fabrication plants (c) Units engaged in Casting and Forging of Metals & its Alloys.

The awards for the year 2022 are presented to:

Category I: Large Integrated Production Organizations

First Prize: Hindalco, Birla Copper, Dahej

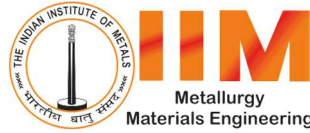
Second Prize: NALCO, Angul

Category II: Secondary Processing/Fabrication Plants

Winner: Hindalco, Alupurum Extrusion Unit, Kerala

Category III: Casting & Forging

Winner: Hindalco Almex Aerospace Ltd., Maharashtra



IIM AWARDS 2022

IIM Honorary Membership

The **Honorary Membership** of IIM is conferred on

Mr TV Narendran

Former President, IIM [2021-22]

&

CEO & Managing Director, Tata Steel Ltd.

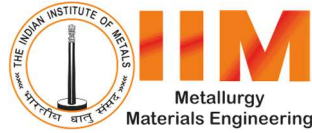
Mr. T V Narendran is the CEO & Managing Director of Tata Steel Limited. As the CEO & MD, he has overseen the organic and inorganic growth of Tata Steel over the last few years. This includes the Kalinganagar greenfield expansion and the acquisition of Bhushan steel and the steel business of Usha Martin. He has over 34 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 and Tata Steel Long Products Limited. He is also the Chairman of the Board of Governors of XLRI Jamshedpur. He is a member of the Executive Committee and the Board of the World Steel Association. He was the co-chair of the Mining & Metals Governors Council of the World Economic Forum from 2016 to 2018. He is a fellow of the Indian National Academy of Engineering. He served as the President of the Indian Institute of Metals from 2021 to 2022. He has also served as the President of the Confederation of Indian Industry (CII) from 2021 to 2022.

Mr. Narendran is a Mechanical Engineer from the National Institute of Technology (NIT) Trichy and did his 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 INSEAD, France.

He was the Vice-President of IIM since 2018 and had been appointed as the President from 1st August 2021 for a period of one year. During his tenure, Mr. Narendran has led by examples. His contributions & interventions in various facets helped the Institute sail through trying times.

As a part of strategic decisions, the President delineated the following roadmap and implemented the same successfully in the Council year 2021-22.

- A) Formation of *Thematic Groups* in Composite materials, medical materials, energy materials, additive manufacturing, hydrogen, carbon capture and utilisation, etc.
A thematic group on circular economy with three sub- groups covering all materials was formed.
- B) *Revival* of dormant chapters: Hazira, Keonjhar, Roorkee
- C) *Social outreach*: Strengthening engagement with college and school students. During his tenure, the younger demography was encouraged to put forth their thought in enhancements of footprints in social media.



- D) Maiden Materials Technology *Start-Up Awards*; a one crore surplus from IIM-ATM 2021 being earmarked for this maiden award.
- E) IIM *Platinum Jubilee Celebrations* were rolled out in different formats at IIM HO and various Chapters to commemorate the 75 years existence of the Institute
- F) IIM Short Term *Online Courses* on diverse subjects were conducted autonomously by the Institute
- G) KIIT UG Minor course: Collaboration with Institute of Eminence to conduct various courses
- H) *International Collaborations* with reputed international bodies and Institutes in the fraternity led to a breakthrough in enduring bonds between global bodies.
- I) *The IIM-ATM 2021 flagship event* under his leadership has achieved laudable response and achieved the highest surplus till date.



IIM AWARDS 2022

IIM Honorary Membership

The **Honorary Membership** of IIM is conferred on

Dr Debashish Bhattacharjee

Vice President Technology & New Materials Business, Tata Steel Ltd.

Dr Debashish Bhattacharjee completed B.E. in Metallurgical Engineering from Jadavpur University in 1986, M. Tech in Metallurgy from IIT Kanpur in 1989 and PhD in Materials Science & Metallurgy from University of Cambridge, UK in 1993.

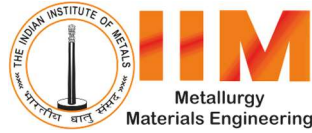
He joined Tata Steel in the R&D function in 1996 and headed the function as Chief Research & Development and Scientific Services between 2002 and 2009. In 2009, he was seconded to Tata Steel Europe as Group Director Research, Development & Technology for Tata Steel Group.

Dr Bhattacharjee is an expert in development of materials and associated technologies. He has more than 50 international peer reviewed journal publications and 20 patents. Dr Bhattacharjee is a Fellow of the Indian National Academy of Engineering and of the Indian Institute of Metals. He is Visiting Professor at the Imperial College London, at the University of Warwick, UK, and at the University of Science and Technology, Beijing, China.

Currently he is the Vice President Technology & New Materials Business, Tata Steel based in Kolkata. As an IIM Council Member, Dr Bhattacharjee has immensely contributed in various spheres, which led to Institute's growth & development in the recent past.

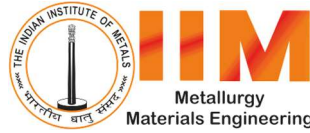
Glimpse through his Professional Journey @TSL:

- Jul 1986 to Jun 1987 Apr: Looking after quality assurance of fasteners
- 1993 to Mar 1996: Worked on thermo-mechanical fatigue of Ni-base superalloy single crystals
- Jan 2001 to June 2002 Apr: Working on evolution of microstructure and meso-texture in thermo-mechanically control rolled Nb micro alloyed steel plates.
- Jul 2002 to Jun 2003: Looking after research areas covering all aspects of iron and steelmaking starting from beneficiation of raw materials (iron ore, coal, chromite ore, etc) through sinter, iron and steelmaking to product development.
- 2003-Mar 2009: Leading Research & innovation and Quality Assurance
- Apr 2009 to March 2017: Restructuring set of six individual R&D centres spread across three countries (UK, Netherlands and India), with 1000 researchers, into a network of global R&D centres with a uniform set of policies and fully aligned to



local business needs and strategic corporate directions. Develop technology roadmap for Tata Steel Group and establish a global product development policy

- Apr 2017 to Dec 2018: Establishing new business vertical in non-steel – new materials with intention to moderate the cyclicity of steel and create entry into high profitability, high performance materials.
- Jan 2019 to till date: Spearheading Technology & Innovation Management and New Materials Business (other than steel)



IIM AWARDS 2022

IIM Platinum Medal

The IIM Platinum Medal was established in 1966 to honour outstanding contributions to the metallurgical profession and to create an incentive by the recognition of such contribution.

The **IIM Platinum Medal** for the year 2022 is awarded to

Dr Amol A Gokhale

Former President, IIM [2020-21]

&

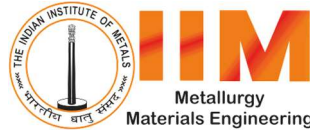
Professor, Dept. of Mechanical Engg., IIT Bombay

Dr Gokhale's contributions encompass research, education and professional development.

He is a B Tech from IIT Bombay and Ph D from University of Pittsburgh in Metallurgical Engineering. He served in the Defence Metallurgical Research Laboratory from 1985 till July 2015, and was a Distinguished Scientist and Director of the Laboratory. There he led research on aluminium alloy wrought products and castings for aerospace and naval applications, crashworthy aluminium foams, additive manufacturing, and high temperature materials for hypersonics.

In August 2015, he became a Professor in the Department of Mechanical Engineering in IIT Bombay, where he is teaching and conducting research on aerospace materials. He has two patents, has co-edited two books and published over 100 papers.

He has been the recipient of awards from University of Pittsburgh, NRDC, DRDO, Indian Institute of Metals and Ministry of Steel. He is a Fellow of Indian National Academy of Engineering. He was the President of The Indian Institute of Metals during 2020-2021. He is the Chairman of the Apex Program Review Committee of the Gas Turbine Materials and Processes program under ARDB and a Member of the Board of Directors of Tata Steel Ceramat.



IIM AWARDS 2022

IIM Tata Gold Medal

The IIM Tata Gold Medal, established in 1980 by the House of Tatas, is awarded to honour a distinguished personality actively connected with the Metallurgical Industries or shall have helped substantially to advance the art and science relating to the Metallurgical Industries/ Metallurgical Science.

The **IIM Tata Gold Medal** for the year 2022 is awarded to

Mr Vinay Vasant Mahashabde

Chief R&D and Product Technology, Tata Steel Ltd.

Mr Mahashabde has led Tata Steel to scale new heights under his leadership. Among several new product developments, notable include tapping market in API segment by successful commercialization of J55 for OCTG application, development of X42 and X60 with stringent sour performance guarantee. With government focus on self-reliance, he played a significant role in developing S700MC with guaranteed toughness at -40°C.

It was under his leadership that R&D demonstrated continuous injection of Coal Bed Methane in blast-furnace, operationalization of 5 tpd CO₂ capture plant, removal of cyanide from coke-oven wastewater by UV oxidation. He has led Tata Steel to make strides towards efficient utilization of raw materials - projects worth highlighting include increased use of non-coking coal, producing high value products from low-grade Mn-ore. Several research collaborations have been initiated with premiere institutes on strategically important themes and a few of these have reached pilot scale demonstrations. His focus on Innovation has resulted in Tata Steel filing 100 plus patent applications annually for last three years and positioning Tata Steel as IP leader in India.



IIM AWARDS 2022

IIM G D Birla Gold Medal

The IIM GD Birla Gold Medal, established in 1985 by Hindalco Industries Ltd., Renukoot, is awarded to honour a distinguished research worker for his/her continuing and outstanding research work in the field of Material Science and Technology.

The **IIM G D Birla Gold Medal** for the year 2022 is awarded to

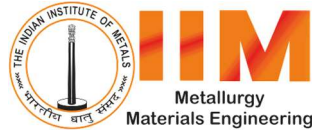
Dr SVS Narayana Murty

*General Manager,
Materials Development and Production Group,
Liquid Propulsion Systems Centre, VSSC, Trivandrum*

Dr Murty has received his BE[Metallurgy] from Andhra University, Vishakaptnam[1991], ME [Metallurgy] from IISC Bangalore [1993] and PhD. [Metallurgy] from IIT Bombay [2003]. He joined VSSC, Trivandrum in 1993 and has worked on materials processing, testing characterization of various grades of aerospace materials and failure analysis investigation of launch vehicle hardware.

Dr Murty has studied the microstructure and mechanical behaviour of aerospace materials comprising of precipitation hardenable steels, aluminium/aluminium-lithium alloys and titanium alloys used in cryogenic/semi-cryogenic engines. To improve the payload capabilities of the Indian launch vehicles, a detailed understanding on the physical metallurgy, thermomechanical behaviour, cryogenic mechanical properties and friction stir welding of propellant tanks of aluminium-lithium alloys AA2195 and AA2198 has been established. To induct high strength titanium alloys replacing the conventional Ti-6Al-4V for high pressure gas bottles and propellant tanks, martensitic titanium alloy Ti-55211 and boron modified titanium alloy Ti-55511 were developed by vacuum arc remelting and established thermomechanical processing with texture control. Technology for indigenous processing of Cu-Cr-Zr-Ti alloy for thrust chamber liners of cryogenic and semi-cryogenic engines has been established. Dr Murty's contributions are examples of fundamental work for applied problems. Details pertaining to the above-mentioned materials developments and characterization are given in Annexure-2.

The specific contributions of Dr Murty include (i) improving mechanical properties, reliability and productivity of Aluminium Alloy AA2219-T87 propellant tanks through friction stir welding; (ii) understanding the dynamic strain aging and embrittlement behaviour of IN718 during high-temperature deformation; (iii) studying effect of ternary additions of Cu and Fe on the hot deformation behaviour of NiTi shape memory alloy; (iv) metallurgical analysis of surface distress on balls during the operation of AISI 440C ball bearings used in satellites and (v) controlling grain size during hot deformation of Niobium-Hafnium-Titanium alloy C103 by analysing hot and plane strain compression behaviour. Further, Dr Murty has been working on the additive manufacturing of



aerospace materials through understanding the microstructures, defects, room/elevated temperature mechanical properties, post processing through hot isostatic pressing, with an intention to induct these products in the present and up-coming ISRO launch vehicles.

Dr Murty has more than 250 international peer reviewed publications which include review articles, contributions to encyclopaedias and handbooks. He is a recipient of many prestigious awards and accolades from different societies and Institutes in the fraternity.



IIM AWARDS 2022

IIM Hindustan Zinc Gold Medal

The medal established in 1991 by Hindustan Zinc Ltd., is awarded to a distinguished personality for significant contributions to Non-Ferrous Metallurgical Industries and to advance the art and science relating to Non-Ferrous Metallurgical Industries.

The **IIM Hindustan Zinc Gold Medal** for the year 2022 is awarded to

Mr Arbind Kumar

*Scientist G & Head, Refractory Metals Division and Project Manager,
Hafnium Project,
Centre for Materials for Electronics Technology (C-MET), Hyderabad*

With a B.E. in Metallurgy from BIT Sindri and M.Tech. in Mineral Engg. from IIT (ISM), Dhanbad, Mr. Arbind Kumar is working as Scientist G & Head, Refractory Metals Division & Hafnium Plant at Centre for Materials for Electronics Technology (C-MET), Hyderabad since 1991.

During this time, he has undertaken several key projects in the areas of refractory metals extraction, metals purification, E-waste recycling and powder metallurgy. As leader of a VSSC sponsored project, he has developed process technology and established the first Hafnium plant in India, which was awarded the Indian Chemical Council award for Excellent in Chemical Plant Design and Engineering. It is capable of producing 320 kg per annum of Hafnium sponge for space applications. He has also led key projects in process technology development for capacitor grade Tantalum powder and Niobium for space applications, and technology transfer of structural grade Tantalum powder and high purity Tantalum pent-oxide.

He is a Life member of IIM, IE (India), PMAI, IChE, IIME, TMS (USA) and contributed as an Executive committee member of IIM, Hyderabad. Over his career, he has contributed to research publishing 21 papers in scientific journals, delivered over 50 conference presentations and 13 invited talks.

IIM AWARDS 2022

IIM TSL New Millennium Award

The IIM TSL New Millennium Iron Award, established in 2014, is awarded to recognise original contributions in the area of blast furnace-based Iron making including process improvements, raw materials selection, preparation, agglomeration, improvements in operating practices, alternative iron making processes.

The **IIM TSL New Millennium Award** for the year 2022 is awarded to

Mr Atanu Bhowmick

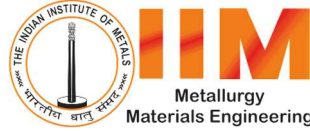
Director In-Charge Rourkela Steel Plant, SAIL Rourkela

Mr Atanu Bhowmick, a doyen of Blast Furnace Technology, spent over three decades in Steel Industry. He joined as Management Trainee (Technical) in Rourkela Steel Plant the year 1988 to Overall In-charge in Blast Furnaces Department in RSP, SAIL. Under his leadership, RSP commissioned the-then largest (4060 m³) Blast Furnace of India - BF#5 (Durga). Subsequently as CGM, Sri Bhowmick undertook Rebuilding project of BF#1 and successfully dismantled, rebuilt & blown-in BF#1, augmenting its capacity from 995 to 1750 m³. Sri Bhowmick guided his team in achieving the lowest Coke Rate(347 Kg/THM) and PCI Rate (147 kg/THM) from BF#5 which are industry benchmarks.

From 2019 -21 Shri Bhowmick led Bokaro Steel Plant as ED(Works) when his plant recorded the highest production from Blast Furnaces and consequently record profits among SAIL Units for two successive years.

Under his leadership as Director In-Charge of RSP, SAIL, the organisation achieved all-time highest production, productivity, profit and best-ever Techno-economic parameters during 2021-22. During this period, RSP registered Hot Metal production of 4.33 MT (growth 13.2% YoY), Crude Steel production of 3.99 MT (growth 14% YoY), and Saleable Steel production 3.665 MT (growth 14.3% YoY). Productivity of BF#5 and Blast Furnaces Shop of RSP registered all-time highest figures of 2.2 T/m³/day and 1.92 T/m³/day respectively. Towards fulfilling the mission of sustainability, RSP recorded the best-ever figures in Specific Energy Consumption of 5.985 G.Cal/TCS (Best in SAIL) and Specific Water Consumption (3.2 m³/TCS) which are benchmarks in the industry. All these performances culminated in Rourkela Steel Plant being declared as the Best Integrated Steel Plant of SAIL in FY 2021-22.

Based on such stellar performance, RSP-SAIL earned the highest-ever Profit-Before-Tax of Rs.5609Cr. in FY 2021-22 and eventually RSP, won the Best Integrated Steel Plant in SAIL for the FY 2021-22



IIM AWARDS 2022

IIM SMS-Demag Excellence Award

The IIM SMS-DEMAG EXCELLENCE AWARD, established in 2002 to honour an outstanding executive from the Industrial Sector under whose leadership, innovative solutions have been achieved in the Iron, Steel or Non-Ferrous Industry in India.

The **IIM SMS Demag Excellence Award** for the year 2022 is awarded to

Mr Manasa Prasad Mishra

Director (Project & Technical), NALCO

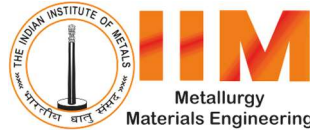
Mr Manasa Prasad Mishra graduated in Mechanical Engineering with Honours from the Vir Surendra Sai University of Technology (VSSUT) Odisha and joined NALCO in 1984. Prior to occupying the present position as Director (Project & Technical), he has successfully worked various functions at different capacities in O&M, Business Development, Head of Smelter as well as Head of Smelter & Power complex.

At present, he is a member of the Board of the Company and is steering execution of major projects like Alumina Refinery expansion project, Utkal-D&E coal mines project and Caustic Soda project in joint venture with GACL. He is also responsible for R&D and Business Development function of the Company.

He was instrumental in adaptation of latest technologies with lower environmental footprint in the projects under execution.

R&D in-house as well as collaborative projects have been taken up for process improvement & efficiency, reduction of production cost, development of new products, process and technology, waste utilization.

Under his leadership, various innovative projects were taken up in the Smelter and Power complex through wider participation of employees in Quality Circle, Small Group Activities, Kaizen etc. to improve process efficiency, reduce energy consumption and emission.



IIM AWARDS 2022

IIM NALCO Gold Medal

The IIM NALCO Gold Medal, established in 2009, is to honour an outstanding professional for his distinguished contributions to the Aluminium Industry, based on Research / Production in the fields of Bauxite, Alumina, Aluminium and its products in India.

The **IIM NALCO Gold Medal for the year 2022** is awarded to

Mr Ambika Prasad Panda

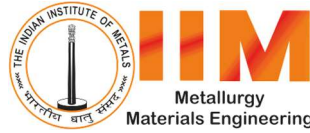
*Executive Director [Smelter & Power Complex]
NALCO*

Graduated in Mechanical Engineering from VSSUT (erstwhile UCE), Burla in 1984, Mr. Ambika Prasad Panda holds Advance Diploma in Business Management, Post Graduateship in Industrial Engineering. He is a certified Energy Auditor from Bureau of Energy Efficiency.

He has vast experience in different capacities of Operation & Maintenance in Smelter & Power plants of NALCO. He was instrumental in commissioning of all units of CPP at Angul. He has spear-headed implementation of computerized maintenance, Energy Management, Total Quality Management (TQM), Total Productive Maintenance (TPM) & Environment Management System (EMS) across NALCO. His decisive leadership was pivotal in enabling the company to achieve full capacity operation of Smelter plant i.e. operation of all 960 pots in FY 2021-22- a record in the company with record annual aluminium metal production of 4.6 lakh MT.

He has facilitated the Quality Circles, Kaizens, Cleanliness through 5S implementation & Business Excellence movements in NALCO for increasing employee involvement & enriching of work culture. Achievement of the production targets, Implementation of Energy efficiency & cost reduction measures, efficient functioning of schools at S&P complex etc are also a few highlights of his focus areas.

He has been an excellent technocrat and a business leader.



IIM AWARDS 2022

IIM OP Jindal Gold Medal

The IIM O.P. Jindal Gold Medal, established in 1996 to honour a distinguished metallurgist for outstanding contributions to Ferrous Metals in general.

The **IIM OP Jindal Award 2022** is awarded to

Mr Devasish Mishra

*Executive Vice President
JSW Steel Ltd.*

Mr Devasish Mishra is an outstanding metallurgist & strategic leader, with over 30 years of multi-disciplinary experience in Operation, Product & Technology. His major contribution is towards “Make in India & Green Steel Technology”, where multiple products were developed first time in India with lower carbon footprint.

Mr Devasish Mishra, piloted the Product Development of JSW Steel to meet strategic need of market, such as Debottleneck and developed international benchmark and import substitute AHSS grades 1180 MPa DP steel, 780 MPa coated steel, High end Electrical steel up-to 2.5 watt/kg, Sub-zero & Sour line API grades, Steel for EV (Electrical Vehicle). Mr Mishra has immense customer centric approach towards his work and working for achieving customer delight through customer solutions. Mr Mishra has published 35 patents for products & Process.

He is actively involved with BIS as a Panel Member in the formulation of BIS Standard of different steel product and Technical Support in “Quality Control Order” to Ministry of Steel. He is also the chairman for CII Green Pro for formulation of Automotive Green Pro Standard.

All these have led to successful adoption/development of new products & technology along with bench-mark practices at JSW steel.



IIM AWARDS 2022

IIM-Distinguished Educator Award

The IIM Distinguished Educator Award, established in 2009, is awarded to recognize distinguished services to Metallurgical Education.

The **IIM Distinguished Educator Award 2022** is awarded to

Prof Bikramjit Basu

Professor, Materials Research Centre, IISc Bangalore

Jointly with

Prof M Kamaraj

*E.G. Ramachandran Institute Chair Professor,
Dept. of MME, IIT Madras*

Professor Bikramjit Basu is widely regarded as a 'teacher in a true sense' in a much broader perspective. In terms of scientific talent mentoring in the field of Engineering Ceramics and Biomaterials, he has been a primary advisor of 31 PhD students (including ten female students and eight ongoing), 25 MTech/MS, 52 research interns, including 32 undergraduates, and 20 post-doctoral research fellows/Project Scientists; 2 PhD students are Prime Minister Research Fellows at IISc. Most importantly, 15 of his former students are currently serving as faculty members at IITs or NITs in India, or serving National laboratories related to Space/Atomic Energy research, or Multinational companies. He contributed largely to the Institute level core courses at IIT Kanpur. As an instructor-in-charge for Introduction to Manufacturing Processes, he taught 290 students from multiple engineering disciplines as well as close to 100 students in Nature & properties of Materials course. Apart from teaching several Institute core and departmental core courses in last one decade, Dr Basu designed and taught a number of new graduate level courses, e.g. Materials for Biomedical Applications, Design and selection of Materials, Tribology of Materials as well as Nanomaterials.

Since joining Indian Institute of Science (IISc), Bangalore in May, 2011, Dr Basu contributed largely to the course curriculum of undergraduate course for 'Materials' program and graduate (PhD) course curriculum for Bio-Engineering students. In particular, he is involved in designing the course content as well as course notes / slides for one course on 'Introduction to Materials Science' and another on 'Introduction to Properties of Materials and living system'. He also designed and taught a new course on 'Introduction to Biomaterials', which was attended by students from Chemical Engineering and Materials Research Centre.

The nominee has mentored dental surgeons to develop research programs at Ramaiah University of Applied Sciences and collaborated with prosthodontists, orthopaedic



surgeons, neurosurgeons and uro-oncologist in six different hospitals. Beyond his research group, Bikramjit has been committed to mentoring several early career researchers/ faculty colleagues at IITs, NITs, and less-endowed academic institutes, for them to develop independent research programs in Materials Science or Biomaterials/ Bioengineering. Beyond academia, he has been regularly mentoring many professionals from corporate, MSME, and start-ups. This has allowed the growth of biomaterials and implants-related business or applications in strategic sectors (space) in India. In addition, the nominee has delivered 148 invited lectures, 74 award lectures/keynote/plenary lectures, one convocation speech; organized 20 conferences/symposiums in India and 24 symposiums in major international conferences. He also taught several Masters Students in Belgium, Slovakia, France, Slovenia, Nepal and UK. All such contributions have left a deep impact on several thousands of young researchers in India and abroad.



IIM AWARDS 2022

IIM-Distinguished Educator Award

The IIM Distinguished Educator Award, established in 2009, is awarded to recognize distinguished services to Metallurgical Education.

The **IIM Distinguished Educator Award 2022** is awarded to

Prof M Kamaraj

*E.G. Ramachandran Institute Chair Professor,
Dept. of MME, IIT Madras*

Jointly with

Prof Bikramjit Basu

Professor, Materials Research Centre, IISC Bangalore

Prof. Kamaraj is currently E.G. Ramachandran Institute Chair Professor (HAG Grade) in the Department of Metallurgical and Materials Engineering (MME) at the Indian Institute of Technology Madras (IIT Madras), Chennai, India. Prof. Kamaraj earned his doctorate in Metallurgical and Materials Engineering at IIT Madras in 1990 and his PhD thesis was awarded with Sudarshan Bhat Memorial Prize for the Best Ph.D thesis. Subsequently he worked as Research Engineer at EWAC Alloys Ltd (L&T Ltd.), Mumbai (1990-94) where he was involved in the development of new wear-resistant coating materials for various applications.

Subsequent to this, he continued as Research Fellow on high temperature fretting fatigue of advanced materials at Nagaoka University of Technology, Japan (1994-96), and as STA Fellow at National Institute of Industrial Safety, Tokyo, Japan (1996-97). During this stay he took keen interest in teaching and mentoring Japanese research scholars in the field of high temperature materials. Later he joined as Guest Scientist at Ruhr-Universität Bochum, Bochum, Germany (1997-99) where he has contributed to the identification of basics of high-temperature micro-deformation mechanisms of high temperature materials. On his return to India, he served as Industrial Consultant at Coimbatore, Visiting Scientist at VSSC, Trivandrum, (1999-2000), and then joined as a Faculty at IIT Madras in October 2000.

As a faculty Prof Kamaraj has inculcated many graduate students and research scholars with creative zeal and passion to address the industrial problems, with the knowledge they gained through their curriculum, to offer practical and sustainable solutions. He has been an active faculty advisor for Master's and Ph.D. students. Prof. Kamaraj is a kind and attentive mentor, loved by all students, and is always generous and encouraging to the betterment of students for their placements and higher studies. He has been very helpful in guiding the students for developing leadership qualities by



encouraging them to organise events like the summer school, materials camp, training courses, and workshops. *Prof. Kamaraj has been cited in the World's Top 2% of Scientists from India in the field of Materials.*

Prof Kamaraj has rich academic experience gained in the last three decades, and currently he is providing innovative ideas to start new academic programmes in tandem with the new national education policy 2020 to keep pace with the demands of Indian industries alongside revamping the existing curriculum to inculcate practice/skill-oriented learning for the engineering education. He is a Fellow of the Indian National Academy of Engineering (FNAE) (2021), ASM International, USA (FASM, 2018), Indian Institute of Metals (FIIM, 2019), The Institution of Engineers (India) (FIE, 2017) and Indian Welding Society (FIWS, 2012).

IIM AWARDS 2022

IIM Distinguished Contributor AWARD

Instituted in 2017, the IIM Distinguished Contributor Award has been designed to honor individuals who has made outstanding contributions or given exemplary support to The Indian Institute of Metals in all possible endeavours

The **IIM Distinguished Contributor Award 2022** is awarded to

Dr Tanmay Bhattacharyya

*Chief- Khopoli Project Composites,
Tata Steel Ltd.*

Dr Tanmay Bhattacharyya played the pivotal role for setting up of the composite business of Tata Steel leading the Partnerships, Supply Chain & Railway Business and contributed for growth to INR 120 Cr revenue from its ideation stage.

Currently, he is responsible for setting up a project for the state-of-the-art components of alternative materials for global railways having resemblance with the AtmaNirbhar Bharat. Towards the growth of alternative materials in the country and having the favourable ecosystem, he has been contributing significantly in collaboration with industry, academia and professional bodies such as CII, BIS and The Indian Institute of Metals [IIM].

Dr Tanmay Bhattacharyya being a council member of The Indian Institute of Metals [IIM] and Convener- IIM ATM 2021 and International Conference successfully organised the flagship event that passed all past records with benchmarking quality, overwhelming response which generated a humongous fund of INR 2.6 cr. From here, a substantial fund was earmarked for the maiden Start-up Award in Manufacturing Technology. He assisted the President, IIM, regarding institution of awards for materials related start-ups, creating materials, and manufacturing thematic groups, website, digital library. As vice- chairman of Kolkata Chapter he took the ownership for its growth.

Dr Bhattacharyya, a PhD in metallurgy from IIT, Kharagapur, and Graduate and Post Graduate from Bengal Engineering College, Shibpur (currently known as IEST) has been associated with the activities of the Indian Institute of Metals from his student days. His engagement with the Institute in various capacities has got stronger and extensive over the years.

He is known amongst his peers and superiors as an affable and pragmatic individual with excellent team building skills.



IIM AWARDS 2022

IIM DISTINGUISHED SERVICE AWARD

Instituted in 2017, the IIM Distinguished Service Award has been designed to honour individuals who have given continuous and dedicated services to The Indian Institute of Metals in various functionalities and areas of operations.

The **IIM Distinguished Service Award 2022** is awarded to

Ms Atashi Saha

*Deputy General Manager
The Indian Institute of Metals*

Ms. Atashi Saha has shouldered up varied responsibilities at IIM HO in her stint of 9 years with the Institute. She has managed facilitation for all NMD-IIM Awards Ceremony during her tenure in an impeccable manner, supporting the Organisers in all possible endeavour. She has been effective in undertaking crucial responsibilities time and again.

As an employee, Ms. Saha contributed towards the digitization process as implemented at IIM HO and also towards effective administration & employee relations at workplace.



IIM AWARDS 2022

IIM CERTIFICATE OF HONOR

Introduced in 2008, the IIM 'Certificate of Honor' is presented to a Chapter representative for his/her commendable work in membership development, interaction with students/colleges, coordination with IIM Head Quarters and the office bearers.

The **IIM Certificate of Honor Award 2022** is awarded to

Ms Arthita Dey

*Sr Manager Technical Services
LD#3TSCR, Tata Steel Ltd*

Ms. Arthita Dey is a metallurgist with fourteen years of experiences in the field of material characterization, component and product failure investigation, product and process design. She is currently working as Sr Manager Technical Services LD#3 TSCR Tata Steel. She is an alumnus of Jadavpur University and Indian Institute of Technology Kanpur. She has a wide association with Jamshedpur Chapter of Indian Institute of Metals and represented the chapter in various forums. *During her tenure as treasurer of IIM Jamshedpur chapter, she actively organised many talks, quiz, workshops.* She was one of the active core committee members of NMD ATM 2018 and 2021. She has got keen interest in problem solving and take innovative approaches to solve them. Parallel thinking, self-motivation, exploring and implementing new initiatives always excites her to achieve the result within stringent time frame. She has always been identified as a person with growth mindset and team player and believes in agile way of working. During her professional career she has mentored more than 20 students of different institutes like IITS, NITS, JU, BESU and other state government colleges as project guide for their vocational training in B.E/B.Tech course. Beside technical acumen she also actively participates in various employee engagement initiatives, corporate ethics related activities in her organization.



IIM AWARDS 2022

IIM Dr. A K Bose Gold Medal

The IIM Dr. A. K. Bose Gold Medal, established in 1972 to perpetuate the memory of Late Dr. A. K. Bose, is awarded to honour a student whose ME Thesis is adjudged as the best.

The **Dr A K Bose Gold Medal for the 2022** is awarded to

Mr Hari Narayanan Vasavan

*Dept. of Metallurgy Engineering & Materials. Sc.
IIT Indore*

In recognition of his ME Thesis on, 'STRUCTURALLY ENGINEERED HIGH PERFORMANCE LAYERED OXIDE CATHODES FOR Na-ION BATTERIES', submitted and defended during the year 2021-22.

As part of his MTech project at IIT Indore, Mr. Hari Narayanan had conducted a study on identifying cathode materials with high-rate performance specific capacity and cyclability for Na-ion batteries. His thesis focuses on maximising electrical and electrochemical performance of a novel layered oxide-based cathode by engineering its structural and morphological characteristics through Ti substitution.

The study was successful in identifying an optimal composition which showed significantly enhanced structural and morphological characteristics that supported faster Na-ion conduction through the material. The optimised cathode was able to provide a specific capacity of 127mAh/g with a capacity retention of 98% after 300 cycles at a discharge rate of 1C.



IIM AWARDS 2022

IIM Vidya Bharathi Prize

The Vidya Bharathi Prize established in 1978, is presented to a student for securing highest grade in order of merit in the final B.Tech./B.E./B.Sc. (Met. Engineering) Examinations held in the last academic session among all Indian Institutes of Technologies and Institutes of Technology.

The Vidya Bharathi Prize for the year 2022 is awarded jointly to

Ms Aayushi Chauhan

*Dept. of Materials Sc. & Engineering
IIT Kanpur*

&

Ms Sonakshi Gupta

*Dept. of Metallurgy Engineering & Materials. Sc.
IIT Indore*

For securing the highest grade in order of merit in the final B Tech examination during 2021-22 academic session, among Indian Institutes of Technologies in India.



IIM AWARDS 2022

IIM Students' Prize

IIM Students' Prize, established in 2001, is presented to three students for securing highest marks in order of merit in the final B.Tech./B.E./B.Sc. (Met. Engineering) Examination during 2021-2022 academic session among all National Institutes of Technologies / Indian Universities / Engineering Colleges.

The **IIM Students' Prize** for the year 2022 is awarded to

Mr Syed Abdur Rahman

*Dept. of Metallurgy Engineering & Materials Sc.
NIT Durgapur*

For securing the highest marks in order of merit in the final B Tech examination during 2021-22 academic session among all National Institutes of Technology / Indian Universities/ Engineering colleges

Mr Shivansh

*Dept. of Metallurgical & Materials Engineering,
VNIT, Nagpur*

For securing the second highest marks in order of merit in the final B Tech examination during 2021-22 academic session among all National Institutes of Technology / Indian Universities/ Engineering colleges

Mr Sarathi Dey

*Dept. of Metallurgy Engineering & Materials Sc.
NIT Durgapur*

For securing the third highest marks in order of merit in the final B Tech examination during 2021-22 academic session among all National Institutes of Technology / Indian Universities/ Engineering colleges

IIM AWARDS 2022

IIM Best Chapter Award 2022

The IIM Best Chapter Award Plaques are awarded to encourage Chapters for overall performance.

The **following Chapters** in various categories are felicitated with the IIM Best Chapter Award[s]:

Large Category

*First Prize: **IIM Kalpakkam Chapter***

*Second Prize: **IIM Jamshedpur Chapter***

Medium Category

*Winner: **IIM Coimbatore Chapter***



IIM AWARDS 2022

Prof Brahm Prakash Memorial Quiz Award

The Prof Brahm Prakash Memorial Quiz is aimed to create awareness among school students and to motivate them to choose their career in Materials Science and Engineering.

Winners

Mr Arjoe Basak

&

Mr Prateek Kumar Behera

Delhi Public School, Ruby Park, Kolkata

Runners-Up

Mr Suketu Patni

&

Mr Jairam Suresh Ayyar

Delhi Public School, Navi Mumbai



IIM AWARDS 2022

FELLOWS

The IIM Fellowship is conferred on members in recognition of their services to the Institute and to the Metallurgy Profession.

The **2022 Fellowship** is conferred on

Dr Arup Dasgupta

*Scientific Officer G and Head, Physical Metallurgy Division,
Metallurgy Materials Group, Indira Gandhi Centre for Atomic Research*

Prof Rahul Mitra

Professor, Dept. of Met & Mat Engg, IIT Kharagpur

Mr RV Ramna

Former Chief Technology Officer (Process), Tata Steel Ltd.

Dr Ramen Datta

EX.-GM, RDCIS, SAIL

Dr Partha Ghosal

*Scientist G & Head- Electron Microscopy Group &
Advanced Materials Characterization Centre, DMRL*



IIM AWARDS 2022

IIM ASM Lectureship 2021

The program, established in 1979 between ASM and The Indian Institute of Metals [IIM], is intended to promote international co-operation and provide useful service to ASM and IIM Members.

*The **IIM-ASM Lectureship** for 2021 is conferred on*

Year **2021** CATEGORY: Age > 40 years

Prof Pinaki Prasad Bhattacharjee,

*Professor, Dept. of Materials Sc. & Metallurgy Engineering,
IIT Hyderabad*

The award is given in recognition of the recipient's outstanding contribution toward understanding the microstructure, texture, and mechanical behaviour of advanced alloys, particularly high entropy alloys (HEAs). The recipient pioneered the study on the texture analysis of HEAs after heavy deformation and annealing. The demonstration of the fact that HEAs can be successfully processed by heavy deformation has been remarkably impactful, attracting considerable attention. The recipient also has pioneering contributions in developing a special subgroup of HEAs known as eutectic HEAs (EHEAs). His work established that novel thermo-mechanical treatments could successfully process the EHEAs to achieve a range of heterogeneous nanostructures with outstanding strength-ductility synergy. These outcomes have contributed significantly to catapulting EHEAs as one of the most promising classes of advanced alloys and an area of intense scientific research.

Year **2021** CATEGORY: Age < 40 years

Prof Sudhanshu Sekhar Singh,

*Assistant Professor,
Dept. of Materials Sc. & Engineering
IIT Kanpur*

Dr Sudhanshu Shekhar Singh is an associate professor in the Department of Materials Science and Engineering at Indian Institute of Technology (IIT) Kanpur. Dr Singh received his Ph.D. in Materials Science and Engineering from Arizona State University, USA in 2015. Prior to joining IIT Kanpur in Dec 2015, he was a postdoctoral researcher at Arizona State University. Dr Singh received his B. Tech degree in Metallurgical and Materials Engineering from Indian Institute of Technology (IIT) Kharagpur in 2008. After his undergraduate studies, Dr Singh joined Tata Steel



(Jamshedpur) and worked there for three years. The broad area of his research includes mechanical behaviour of materials at different length scales, 3D/4D materials science and laser assisted processing of materials. Dr Singh has made significant contributions towards the understanding of structure-property correlation in a variety of materials. Dr Singh has been awarded sponsored projects from various agencies (such as DST, SERB, ISRO). He has co-authored over 85 papers in international peer-reviewed journals. Dr Singh is a recipient of several awards, including Excellence in Teaching Award (IIT Kanpur), P. K. Kelkar Young Fellowship (IIT Kanpur), INYAS Member, NASI Young Scientist platinum jubilee award, Young Metallurgist of the Year by the Ministry of Steel, and IEI Young Engineer award.



IIM AWARDS 2022

IIM ASM Lectureship 2022

The program, established in 1979 between ASM and The Indian Institute of Metals [IIM], is intended to promote international co-operation and provide useful service to ASM and IIM Members.

*The **IIM-ASM Lectureship** for 2022 is conferred on*

Year **2022** CATEGORY: Age < 40 years

Prof Subhasis Sinha

*Assistant Professor,
Dept. of Metallurgical Engineering,
IIT BHU*

Dr Subhasis Sinha completed his BE in 2007 and was the recipient of Sankar Das Memorial Silver Medal in his undergraduate studies at the Department of Metallurgical and Material Engineering, Jadavpur University, Kolkata. Subsequently, he obtained ME in Materials Engineering at IISc Bangalore in 2009 and MS in Materials Science at Carnegie Mellon University, Pittsburgh, USA in 2013 and also worked as a researcher at Tata Steel R&D, Jamshedpur during 2009-2011. He completed his PhD at the Department of Materials Science and Engineering, IIT Kanpur in 2017 and his doctoral thesis was on “Effect of twinning on tensile and cyclic deformation behaviour of hexagonal close packed titanium”. Then, he worked as a postdoc for 2 years at the Department of Materials Science and Engineering, University of North Texas, Denton, USA, in the field of friction stir processing of transformative high entropy alloys and copper based immiscible alloys. He joined the Department of Metallurgical Engineering, IIT (BHU) Varanasi as an Assistant Professor in September 2019. He has co-authored 39 journal publications, 1 patent and delivered 11 oral presentations at various international conferences.



The Indian Institute of Metals