



# The Indian Institute of Metals (IIM) Foundation Day Lecture 2024

Organized by  
IIM Kalpakkam Chapter  
Indira Gandhi Centre for Atomic Research

## Historical Perspectives on the Role of Materials and Science on Technological Development



**Dr. John Philip**  
*Associate Director, MCG  
MMG, IGCAR, Kalpakkam*

**Monday**  
**April 15, 2024**  
**11:00 hrs**

**Venue:**  
**NDED Seminar Hall**  
**IGCAR, Kalpakkam**

## Curriculum Vitae



**IIM**

The Indian Institute of Metals  
Metallurgy Materials Engineering



### Dr. John Philip

*Associate Director, MCG*  
**Metallurgy and Materials Group**  
**IGCAR, Kalpakkam, India**

Dr. John Philip obtained a Ph.D. from the Indian Institute of Technology, Madras in 1992. He did postdoctoral research at CNRS, France, and at the University of Hull, UK. He joined IGCAR in the year 1996. Presently, he is the Associate Director of the Materials Characterization Group at the metallurgy and materials group. He is also an elected Fellow of the National Academy of Sciences.

He has over 330 publications in leading refereed international journals and six patents to his credit. His H-index is 66, with over 18250 citations (source Google scholar). He has delivered 200 invited lectures in India and abroad. His name is listed in the World's top 2% scientists data (both in career and in single-year) published by Elsevier and Stanford University, USA.

He is the recipient of the Science and Technology Excellence Award, INS medal, MRSI medal, HBNI Distinguished Faculty Award, Homi Bhabha Science and Technology award, NDT Man of the Year award, Ron Halmshaw Award of the British Institute of NDT. His research works have been highlighted in Nature, Nanotech Web, UK, The Hindu, Indian Express, and many other media.

He was the founding editor-in-chief of the Journal of Nanofluids of American Scientific Publishers. He is an editor of three international journals and an editorial board member of five journals. He was a research council member of ARCI Hyderabad, CGCRI, Kolkata, and AMPRI, Bhopal, and a member of the biomedical nano-technology sectional committee of the Bureau of Indian Standards. He is a member of the Scientific Advisory Committee of DST and an academic council member of Hindustan University.

24 Ph.D. students have completed their Ph.D. under his guidance.



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### **Abstract**

The rapidly evolving landscape of modern technologies presents a pressing need for new materials with exceptional properties. The synergy between science and technology is undeniable, with scientific advancements driving groundbreaking innovations. During my presentation, I will delve into the pivotal role of materials in shaping the future and showcase some of our team's research on magnetic nanomaterials spanning the past two decades. Additionally, I will touch upon the significance of science in driving forward new technological developments.