Project: International Thermonuclear Experimental Reactor (ITER)

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Panel Discussion: Leveraging collaboration for Indian science and industry

Abstract:

- Fusion reactor systems are characterized by extreme service conditions of P, T and high electro-magnetic fields, high energy densities and thermal fluxes. In order to render such a system, advanced materials, engineering design and manufacturing processes play a quintessential role. In this lecture, advances in materials and innovations in manufacturing processes are elucidated with case studies on Beam Line Components and Divertor element Developments.

About the Panel Member:

- Dr Balasubramanian, graduated from Indian Institute of Technology, Kanpur, India with B. Tech in Metallurgical Engineering (1982) and PhD from McMaster University, Canada. Dr Bala set up unique, self-financing and multidisciplinary Technology Centre called NFTDC, (Nonferrous Materials Technology Development Centre) at Hyderabad, India. Serving as its Director over two decades, he created centres of excellence, namely, CoE for advanced materials & processes, CoE for Engineering Design and Manufacturing, CoE for Electric Vehicle Technologies, CoE for Biomedical Devices and CoE for Materials and Energy Devices. He has won many awards, published over 100 papers in international journals, holds 7 patents and guided many PhDs.