

Indian Institute of Technology Mandi



Institute Colloquium

Prof. E. D. Jemmis

Department of Inorganic and Physical Chemistry

IISc Bangalore



Early Questions

Monday, 29 April 2024

5:00 PM

Auditorium, North Campus

A1-NKN, South Campus



Early Questions

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During the early stages of civilization, enquiry and pursuit of knowledge were very general; inquisitive minds followed whatever that arose their curiosity. As knowledge enterprise grew, different disciplines evolved; hierarchies and subdivisions followed. Truly remarkable breakthroughs often originate from questions of a general nature; this is to be encouraged. The success of a nation depends on the ability of its citizens to ask innovative questions. In many ways a young mind is at the stage of a civilizational beginning and must be able to ask original and general questions. An example from my own work will be presented to exemplify these ideas.¹ The certainty with which the allotropes of the familiar element carbon, viz diamond, graphite, graphene, fullerene, and carbon nanotubes, can be ascertained experimentally and theoretically, makes us feel that this should be true for the neighboring element boron as well. A casual question about this as a student in the UG class led eventually to the development of inter-relationships amongst polyhedral boranes, beta-rhombohedral boron, borospherenes, borophenes, and borophites. (Curr Sci, 95, 1277, 2008; 122, 161, 2022, Chem. Comm. 58, 9882, 2022, Inorg. Chem. submitted).

About the speaker:

Eluvathingal Devassy Jemmis is an Year of Science Chair Professor of SERB at Indian Institute of Science (IISc), Bangalore, working in the area of applied theoretical chemistry. His emphasis is on general questions of structure, bonding and reactivity across the periodic table of elements, searching for relationships between problems in different areas to uncover underlying framework of chemistry. Jemmis studied chemistry at IIT Kanpur, Princeton and Cornell, before joining the faculty of University of Hyderabad in 1980 and IISc, Bangalore in 2005. He was the founding director of IISER Thiruvananthapuram between 2008-2013. Professor Jemmis's research has been acknowledged through various awards and recognitions including the Shanti Swarup Bhatnagar Prize (1994), TWAS Prize (2003), and Padma Shri (2014).