STAI/ SEMINARS ON TECHNOLOGICAL ADVANCES AND Linnovation



Jayam Sonani

Diamond Elements Pvt Ltd Sonani Industries Pvt Ltd Surat, Gujarat



TIFR H Auditorium 11.30 Hrs



INNOVATION

Introduction to Industrial and Scientific Applications of Lab-Grown Diamonds

Jayam Sonani Diamond Elements Pvt Ltd Sonani Industries Pvt Ltd

Diamond is characterised by its exceptional hardness, robustness and its optical and thermal properties making it a pre-eminent gemstone and a highly valued material for industrial applications. Natural diamond has an inherent variability and scarcity that limits its use in engineering applications. Developments in growing processes have enabled the production of consistently engineered Lab-grown diamonds; firstly in the 1950s using high pressure and high temperature(HPHT) and later in the 1980s using chemical vapour deposition (CVD) to produce exceptional covalent crystal diamonds.

In this talk, I will be exploring new applications based on different properties of the diamond and its utilisation in various futuristic applications in cutting, tooling, optics, thermal management, electronics devices, semiconductor and quantum applications.

