QuanTalks

IISc Quantum Technologies Initiative (IQTI) Seminar Series

ABSTRACT

This presentation focuses on structure property/relationships in advanced materials, emphasizing multifunctional systems that exhibit multiple functionalities. Such systems are then used as building blocks for the fabrication of various emerging technologies. In particular, nanostructured materials synthesized via the bottom–up approach presents an opportunity for future generation low-cost manufacturing of devices [1]. We focus in particular on recent developments in solar technologies that aim to address the energy challenge, including third generation photovoltaics, solar hydrogen production, luminescent solar concentrators and other optoelectronic devices. [2-40].

Title: **Multifunctional materials for emerging technologies**

Speaker: **Prof. Federico Rosei**, *Centre for Energy, Materials & Telecommunications, Institut National de la Recherche Scientifique, Varennes (QC), Canada, federico.rosei@inrs.ca*

Date & Time

Wednesday, 25th August 2021 at 8:30 AM IST

Meeting Link

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QuanTalks for breakfast!

About the Speaker

Federico Rosei (MSc (1996) and PhD (2001) from the University of Rome "La Sapienza") is a Professor at the Centre Énergie, Matériaux et Télécommunications, Institut National de la Recherche Scientifique, Varennes (QC) Canada, where he served as Director from 07/2011 to 03/2019. He held the Canada Research Chair (Junior) in Nanostructured Organic and Inorganic Materials (2003–2013) and since May 2016 he holds the Canada Research Chair (Senior) in Nanostructured Materials. Since January 2014 he holds the UNESCO Chair in Materials and Technologies for Energy Conversion, Saving and Storage. Dr. Rosei's research interests focus on the properties of nanostructured materials, and on how to control their size, shape, composition, stability and positioning when grown on suitable substrates. He has extensive experience in fabricating, processing and characterizing inorganic, organic and biocompatible nanomaterials.

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