Introduction to 4D STEM and analytical STEM done by Tescan Tensor™

Date: 18th May 2026
Time: 3:00 PM to 04:30 PM
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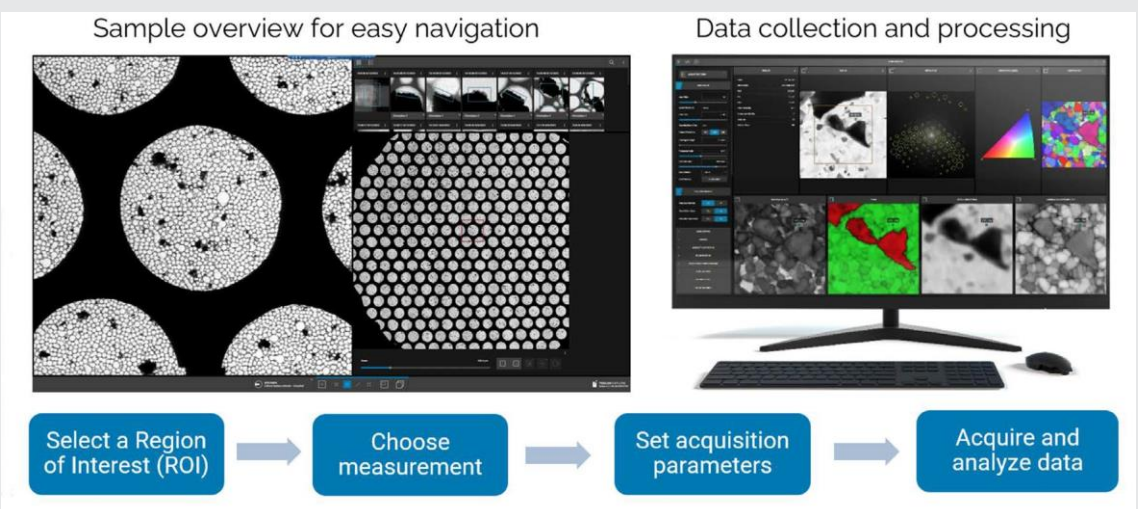
Venue: UQ-CMM
Room: AIBN Level 1, Seminar room
Campus: St Lucia

TESCAN TENSOR STEM is a next-generation (S)TEM platform designed for advanced materials characterization, combining high beam stability, fast and flexible scanning, and seamless integration with techniques such as 4D-STEM, diffraction, and spectroscopy. Its open and modular architecture enables efficient data acquisition and analysis across a wide range of applications, from crystallography and strain mapping to nanostructured and functional materials research.

In this workshop, we will introduce the key techniques enabled by TENSOR and walk through how they are practically implemented, from experimental setup to data acquisition and interpretation.



Host

Dr Kamran Khajehpour

Microscopy & Microanalysis | Product Manager, AXT

Kamran is an expert electron microscopist with a PhD in related areas from Monash University. He has been involved with various installations and user trainings of the TESCAN SEMs around Australia and understands the intricacies of the system as well as many application-based complexities.

Presenter

Dr Daniel Nemecek

TESCAN TENSOR | Sr. Product Marketing Manager, TESCAN

Daniel obtained his PhD in Biophysics from the University of Paris VI and Charles University in Prague, following his work as a research scientist and EM facility head at multiple research centers in both Academia and Industry. He has over 20-years of hands-on experience with different spectroscopy and microscopy techniques. He later moved to product management and product marketing roles of (scanning) transmission electron microscopes. His research interests include applications of analytical and structural methods using state-of-the-art technology to advance our understanding and development of new materials, semiconductors, nanoparticles, and vaccines.