



NISER Bhubaneswar and TechnoS Instruments

ORGANISES

ONE DAY THEME MEETING ON

**PRECESSION ELECTRON DIFFRACTION - SOLUTION FROM ORIENTATION AND
PHASE MAPPING TO CRYSTAL STRUCTURE FROM NANOPARTICLES**

VENUE - NISER.

DATE - 26th July, 2019

ABOUT :

Electron Diffraction has played a pivotal role in establishing crystal structure of nano-particles, even if its amount is less than required for X-ray diffraction. However, the interaction of electrons with atoms being stronger than X-rays, leads to dynamic diffraction conditions. Hence, complete solution to crystal structure has not been possible for many decades. The Precession Electron Diffraction opened up new vistas for both solution to crystal structure and three dimensional electron diffraction tomography, in the last two decades. The main focus of the one day theme meeting is the presentation of the fundamentals of these advances in transmission electron microscopy, in addition to demonstration of the associated software packages.

FOR WHOM :

All those who are familiar with X-ray diffraction, can in principle be benefitted by the lectures and demonstrations. The scientists, research scholars and those establishing frontier laboratories for materials analysis will find the meeting useful, especially since India has not yet established 3D electron diffraction tomography.

PARTICIPATION :

The total number of participants is expected to be around 20-25 only. Scientists or research scholars engaged in materials research, in national R&D laboratories or universities or advanced colleges, may be nominated.

Registration Fees : There is no registration fee for a limited members interested for the “PRECESSION ELECTRON DIFFRACTION” (maximum 25 no)

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Solutions through Technology

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Technical Program - overleaf

TECHNICAL PROGRAM
ONE DAY THEME MEETING ON
PRECESSION ELECTRON DIFFRACTION - SOLUTION FROM ORIENTATION AND
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TIME	TOPIC	SPEAKER
9:30	REGISTRATION	
9:45	WELCOME	Co-ordinator CIS, NISER
10.00	Orientation and Phase Mapping in TEM - ASTAR	Mr. Vrettos Stelliou, NanoMegas, SPRL.
10.45	Structure Solution from nano size crystal using precession electron diffraction tomography	Dr. Partha Prathim Das, NanoMegas SPRL, via skype
11:30	Advanced Characterization of Materials using Precession Electron Diffraction/ACOM	Dr. Partha Ghosal, DMRL
12:30	HYBRID PIXEL DETECTORS	Dr. Yemliha Bilal Kalyoncu, Amsterdam Scientific Instruments.
13.00	LUNCH	
14:00	LIVE DEMO OF SOFTWARE PACKAGE for ASTAR(Orientation and Phase Mapping in TEM)	Mr. Vrettos Stelliou, NanoMegas, SPRL.
15:30	TEA	
15:45	Panel Discussion	
16:00	VOTE OF THANKS	