

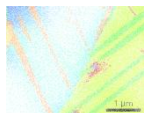


CGCRI, Kolkata and EMSI, EAST ZONE

ORGANISES

ONE DAY THEME MEETING ON

*PRECESSION ELECTRON DIFFRACTION - SOLUTION TO CRYSTAL  
STRUCTURE FROM NANOPARTICLES AND 3D TOMOGRAPHY*



**VENUE - CGCRI, Kolkata.**

**DATE - 19<sup>th</sup> FEBRUARY (Tuesday), 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 30 only. Scientists or research scholars engaged in materials research, in national R&D laboratories or universities or advanced colleges, may be nominated.

## Registration Fees:

The registration fee for EMSI Life members: **Waived**

Non-members: **Rs.500/-**.

You can become EMSI Life member by sending us the application form ([president.emsi@gmail.com](mailto:president.emsi@gmail.com)) along with the payment. More details at [www.emsi.org.in](http://www.emsi.org.in) (including form and Bank details for transfer the EMSI LM fee, Rs 1600 + GST 288/= total: Rs 1888/=

Accommodation and TA/DA would need to be taken care by individuals.

Lunch would be arranged at CGCRI.

For any local help, Please contact Dr. Sandip Bysakh, Principal Scientist, CGCRI, Kolkata ([sbysakh@gmail.com](mailto:sbysakh@gmail.com); Mobile: 94324-90196) or, Directors Office, CGCRI.

**Fee Waiver:** Please write to Prof. P. V. Satyam at [president.emsi@gmail.com](mailto:president.emsi@gmail.com)

## Contact Address:

**Dr. K. Muraleedharan**  
**Director, CGCRI – Kolkata**  
**(Attn: Dr. Sandip Bysakh: [sbysakh@gmail.com](mailto:sbysakh@gmail.com))**

Or

**Prof. P. V. Satyam, President, EMSI**  
**Institute of Physics**  
**Bhubaneswar ([president.emsi@gmail.com](mailto:president.emsi@gmail.com); 9437558903)**

**EMSI acknowledges M/s. Technos for sponsoring this meeting financially and CGCRI for all logistical and academic support.**

## TECHNICAL PROGRAM

### ONE DAY THEME MEETING ON

#### ***PRECESSION ELECTRON DIFFRACTION - SOLUTION TO CRYSTAL STRUCTURE FROM NANOPARTICLES AND 3D TOMOGRAPHY***

<b>TIME</b>	<b>TOPIC</b>	<b>SPEAKER</b>
<b>10:15</b>	REGISTRATION	
<b>10:45</b>	WELCOME ADDRESS BY DIRECTOR CGCRI	Dr. K. Muraleedharan
<b>11.00</b>	PRINCIPLES OF PRECESSION ELECTRON DIFFRACTION (PED 01)	Dr.M.Vijayalakshmi, IGCAR (Retd.), Kalpakkam
<b>12.00</b>	APPLICATIONS OF PED IN TEM	Mr. Vrettos Stelliou, Nano Megas, SPRL.
<b>13.00</b>	<b>LUNCH</b>	
<b>14.00</b>	Microscopic Analysis of Hetero-junctions in Coupled Nanostructures	Prof. Narayan Pradhan IACS, Kolkata
<b>14:30</b>	STEM – EELS study of Nanostructures	Prof. B. Satpati, SINP, Kolkata
<b>15.00</b>	HYBRID PIXEL DETECTORS	Mr. Hans Radheo, Amsterdam Scientific Instruments.
<b>16:00</b>	Demonstration of Software Program	Mr. Vrettos Stelliou, Nano Megas
<b>17.00</b>	<b>VOTE OF THANKS</b>	