Highlights

Plenary Talks

Hands-on training :

-> Powder X-ray Diffraction
-> Thin Film X-ray Diffraction
-> High Temperature X-ray Diffraction
-> Small Angle X-ray Scattering

-> Photoluminescence Spectroscopy
(Powder, thin film and liquid)

-> Impedance Spectroscopy

-> Physical Vapour Deposition
(RF sputtering and thermal deposition)

Our Industry Partners :

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Prof. Asim Roy
Head, Dept. of Physics

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Student Members :
Sowmya Bhowmick (Technical)
Roopam Pandey (Publicity)
Rahul Kumar Agrawal (Hospitality)
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Ananya Chakraborty (Publicity)
Sandeep Bolla (Designer)

AMFCT 2019

INDUSTRY ACADEMIA WORKSHOP

on

AMFCT 2019

Advanced Materials Fabrication & Characterization Techniques

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Under TEQIP - III

04-08 February 2019

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Department of Physics
National Institute of Technology Silchar
Silchar - 788010
Assam, India
www.nits.ac.in/amfct2019

About the Institute :

National Institute of Technology, Silchar is one of the 31 National Institutes of Technology of India and was established in 1967 as a Regional Engineering College in Assam. In 2002, it was upgraded to the status of National Institute of Technology and was declared as Institute of National Importance under the National Institutes of Technology Act, 2007.

About the Department :

The Department of Physics is actively involved in the research in the emerging areas of science and technology since its inception. The thrust area of the department is experimental condensed matter physics including but not limited to multiferroics, nanoionics, RRAM, solar photocatalysis and photovoltaics. The department of physics has been supported by the prestigious DST - FIST in 2018 for 5 years. The major characterization facilities of the the department are semiconductor parameter analyzer, probe station, impedance analyzer, P-E loop, photoluminiscence spectroscopy, UV - Vis spectroscopy, Radiometer, e.t.c. Department is also equipped with synthesis facilities such as RF sputtering unit, thermal, chemical vapour deposition, etc. The research motto of the department is to develop efficient & sustainable nanomaterials for memory devices, energy and storage devices and gas sensors.

CIF at a Glance :

The Central Instrumentation Facility (CIF) is an independent unit established in 2018 within the institute with sophisticated instruments required for advanced research in materials science and technology. This facility is established with an aim to cater the needs of the materials science researchers of the institute in particular and external researchers with minimal charges. The facility is currently having a sophisticated X-ray diffraction instrument with following characterizations such as Powder, Thin Film, High Temperature and Small Angle X-ray Scattering (SAXS). The facility will be conducting training programs on technical and usage aspects of the available instruments.

Workshop Theme :

Advanced Materials Fabrication and Characterization Techniques are the key component for materials science and engineering research. Synergy of academia-industry linkage can play major role for innovations in materials science and engineering. Development of advanced materials can bring solutions to technological, societal and environmental challenges through material tuning. There is a rich interplay between the science and engineering aspects of materials. Hence, material characterization is the diagnosis tool to understand the properties of the materials.

National Institute of Technology, Silchar is one of the premier institute of science & technology and an institute of national importance. Hence, it is expected to lead in bridging the gap between industry and academia in the field of materials engineering. This idea has motivated the members of the organizing committee to plan one week industry-academia workshop on Advanced Materials Fabrication and Characterization Techniques (AMFCT 2019). The schedule of the program is from **04/02/2019** to **08/02/2019**. This initiative tries for industry-academia collaboration in the field of materials engineering as the prime focus.

The program is expected to give the following outcomes.

1. Trained researchers in the field of materials science and engineering
2. Industry-academia research network
3. An opportunity for researchers to collaborate with industry
4. Improved perception in material science research at NIT Silchar
5. Upliftment of northeast region and the country as a whole in material research.

Facilities Available :

X-ray Diffractometer (Panalytical, Xpert3 MRD XL)
Photoluminescence Spectroscopy (Horiba, Flouramax 4)
RF Sputtering (Indian High Vacuum)
Thermal Deposition (Hind High Vacuum)

Call for Partcipation :

Participants should provide their address, e-mail id, telephone, mobile and fax numbers in the google form provided in weblink below. Registration form should be filled on or before the last date of registration. Registration fee shall be paid by online transaction.

Website Link: **www.nits.ac.in/amfct2019**

For online transfer use the following details :

Name of the Account : Central Instrumentaion Facility

A/C no. : 37741881527

Name of Bank : SBI NIT Silchar

Branch : Silchar IFSC Code : SBIN0007061

Important Dates :

Last date for the Registration : **01 Feb 2019**

Workshop Date : **4 - 8 Feb 2019**

Registration Fee :

Category	Amount(Rs.)	
	Internal	External
Faculty/Scientist	1000.00	2000.00
Industry Personnel	NA	5000.00
Research Scholars	500.00	1500.00
PG Students	500.00	1000.00
UG Students	500.00	500.00

Contact :
Dr. Ranjith G. Nair
Convener
Assistant Professor, Department of Physics
National Institute of Technology, Silchar
Silchar - 788010
Phone : 9401519326
E-mail : amfct.nits2019@gmail.com