# Five Days Faculty Development Programme (WEBINAR) under AICTE

on

# "Research Methodology"

(27-31 January, 2021)



Organized by

National Institute of Technology, Manipur Langol, Pin-795004, Manipur, India

# **Organizing Committee**

#### Patron:

Prof. Goutam Sutradhar Director, NIT Manipur, Imphal

#### **Coordinator:**

Dr. Mithun Roy Assistant Professor (Department of Chemistry)

<u>Convener:</u> Dr. Chandi Charan Malakar Assistant Professor (Department of Chemistry)

# Contact Us

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#### About NIT Manipur

National Institute of Technology Manipur, a centrally funded institution is set up to impart quality technical education at various levels of higher learning. It is one of the ten new NITs established and developed as Institute of National Importance by an act of Parliament. NIT Manipur started its first session with the three branches of Engineering-Electrical & Electronics Engineering, Electronics & Communication Engineering and Computer Science Engineering. The functioning of the institute was started at its temporary Campus at Takyelpat, Imphal under the mentorship of NIT, Agartala. The Institute has acquired 138.2 hectares of land in the lush green areas of Langol, Imphal and started its functioning at its permanent campus since 2014. This Institute now has all five branches of Engineering viz CSE, EEE, ECE, Civil, Mechanical and Basic Sciences and Humanities Department and open courses on B. Tech., M. Tech., M. Sc. and Ph. D.

#### **Objective of the FDP**

The programme aims at bringing the information regarding necessity of the up-to-date information on:

(i) Enhancing the quality of institution for the benefit of its students, teaching and technical staff.

(ii) Improving the knowledge through Skill Development & Improved Communication Tactics for the development of students, faculties, academicians and entrepreneurs.

(iii) Leveraging the quality of pedagogy and taking up concepts like Research & Development, Innovation & Startup, and Research Guidance etc.

Theme of the Workshop

The workshop focuses on following topics:

Researh Methodology, Formulating research problems, statistical hypothesis testing, Writing research proposal for funding, Basic Laboratory protocols, Ethics in publishing, intellectual property rights.

**Targeted Audience** 

Faculties, Scientists, Engineers and Researchers from Academia, R&D Laboratories from AICTE approved North Eastern Institutions

Registration

Deadline for registration 25<sup>th</sup> Jan 2021

Registration Link:

https://docs.google.com/forms/d/12BQ87\_tILntjUy21YMQMGW1XI55crax55C3CieFRzfU/edit

**Teaching Faculties** 

(1) Prof. Sivaji Chakravorty (Department of Electrical Engineering, Jadavpur University and Former Director, NIT Calicut)

(2) Dr. Abhirup Dutta (Center of Astronomy, IIT Indore)

(3) Dr. Amit Kunwar (BARC, Mumbai)

(4) Dr. Mithun Roy (Department of Chemistry, NIT Manipur)

(5) Dr. Chandi C. Malakar (Department of Chemistry, NIT Manipur)

(6) Dr. Subhajit Dutta (Department of Mathmatics, IIT Kanpur)

(7) Dr. Bibhu Prasad Swain (Department of Physics, NIT Manipur)

### **Brief Biography of teaching faculty**



Dr. Sivaji Chakravorty is a full-time faculty member of Electrical Engineering Department of Jadavpur University from 1985. He was Former Director, National Institute of Technology (NIT) Calicut, the Chairman of IEEE Kolkata Section during 2011-2012, the Chairman of IEEE India Council for 2017-2018 and Associate Editor of IEEE Transactions on Dielectrics and Electrical Insulation during 2014-2018. He worked at the Indian Institute of Science, Bangalore, India, as Indian National Science Academy Visiting Fellow. In 2001, he was the Vice-Chairman of IEEE India Council and also, he was a member of The Court of

Jadavpur University during 2006-2010. He did postdoctoral research at the Technical University Munich, Germany, as Humboldt Research Fellow in 1995-96 and 1999, respectively. In 1998 he served as Development Engineer in the Power Transmission and Distribution Department of Siemens AG in Berlin, Germany. He further worked as Humboldt Research Fellow in ABB Corporate Research at Ladenburg, Germany, in 2002. He was US-NSF guest scientist at the Advanced Research Institute of Virginia Tech, USA, in 2003, AvH Guest Scientist at the Technical University Hamburg-Harburg, Germany, in 2005 and again at the Technical University Munich, Germany in 2007. He has published more than 105 research papers in peer-reviewed international journals including 66 papers in IEEE Transactions and 26 papers in refereed Indian journals. His current fields of interest are high voltage field computation, condition monitoring of transformers, optimization of high voltage systems and lifelong learning techniques.



Dr. Bibhu Prasad Swain is currently working as an Associate Professor & HOD in Department of Physics, NIT Manipur. He was Ex. IIC President and Ex. Dean (Academic Affair) at the National Institute of Technology, Manipur. He did his M.Sc(Physics) and M.Tech.(Materials Science) from NIT Rourkela and Barkatullah University. He perused his Ph.D in the field of Semiconductor Thin Films from Department of Metallurgical Engineering and Materials Science, IIT Bombay. He was awarded JSPS Fellow (Govt. of Japan), Brain Korea 21 Fellow (Materials Research, Seoul National University) and NRF Fellow (University of Cape Town,

South Africa) in his postdoctoral career. Before he joined at NIT Manipur, He was worked as Associate Professor in Centre for Materials Science and Nanotechnology (CMSNT), Sikkim Manipal University for 6 Years. He has published 100 SCI/SCIE/Scopus indexed international journals, 15 book chapters and 2 Book in his credit.



Dr. Chandi C. Malakar completed his Master's Degree in Chemistry at Indian Institute of Technology Kanpur (2006). Then, obtained the Ph.D degree in 2011 from University of Hohenheim Stuttgart, Germany under the guidance of Professor Uwe Beifuss. After successive postdoctoral studies with Prof. K. A. Tehrani at University of Antwerp (2011-2012), Prof. Günter Helmchen at Ruprecht-Karls-Universität Heidelberg (2012-2014), Prof. P. S. Mukherjee at Indian Institute of Science, Bangalore (2015) and industrial experience (2014-2015) as Senior

Principal Scientist at SignalChem LifeSciences Pvt. Ltd., he started his career at National Institute of

Technology Jalandhar as an Assistant Professor in July 2015. Then, Dr. Malakar moved to National Institute of Technology Manipur in October 2015 and currently working as Assistant Professor. Dr. Malakar received several awards such as BOF Post doctoral fellowship from Belgium, SERB Early career research fellowship & core research grant fellowship, fellowship from GIAN MHRD as course coordinator, etc. He has published more than 55 research articles in peer-reviewed international journals. His current research interests are C-H activation, Enantioselective synthesis, transition-metal catalysis, organocatalysis, domino reactions, and multi-component reaction



Dr. Subhajit Duttaobtained his Ph.D from ISI Kolkata. Then he completed the postdoctoral research at KAUST) with Prof. Marc G. Genton. Currntly he is working at IIT Kanpur. His research work relies on Discriminant Analysis Inference based on Data Depth Characterization of Multivariate Distributions Classification of Sequence Data.



Dr. Abhirup Datta obtained his Ph.D from New Mexico Tech/NRAO, USA. Then he has completed the postdoctoral tenure at NASA & University of Colorado, USA. Currently, he is working at IIT Indore. His research interests are, study of early universe through HI 21cm emission (Epoch Of Reionization), Studying Cosmic Dawn and Dark Ages through the global HI 21cm signal, HI 21cm absorption at high redshifts, Radio and X-ray Observations of Galaxy Clusters, Aperture synthesis

calibration and imaging techniques, lonospheric effects on low frequency radio interferometric calibration and imaging, lonospheric effect on ground-based total power experiments & radio interferometers at low radio-frequencies, Space Weather, Sustainable Research and Big Data.



Dr. Amit Kunwar is a scientist of Bhabha Atomic Research Centre, Mumbai, India. He received his Bachelor of Science in Agriculture from Banaras Hindu University and Master of Science in Biotechnology from Centre for Plant Molecular Biology, Tamil Nadu Agriculture University, India. Later he joined National Center for Cell Science, Pune, India as junior research fellow (CSIR) under the guidance of Dr (Mrs). S. Bapat. After working for a year in field of cancer biology, Dr. Amit Kunwar joined B.A.R.C. training school and after successful completion of one-year orientation

course, he was absorbed as Scientific Officer in Radiation & Photochemistry Division. In 2009, he earned his Ph. D degree from Homi Bhabha National Institute, Mumbai under the guidance of Dr. K.I. Priyadarsini. During the last five years, he has carried out excellent research work on mechanistic aspects of antioxidants, oxidative stress, radioprotection using in vitro and in vivo models, in vitro cellular uptake and imaging studies. During this short period of his research carrier, he has more than 25 research publications in reputed international journals. His work has been well appreciated and cited by peers of the above field. Dr. Kunwar has presented his work in several national and international conferences and has won awards. In recognition to his work , He was conferred "Young Investigator Award" from the society of Free Radical Research, India in 2007 and "Lester Pecker Young Investigator Award" in 2010 from the Oxygen Club of California, USA and "Young Scientist Award" from Department of Atomic Energy, India in 2011. He is also serving the "Journal of Medical and Allied Sciences" as an associate editor.



Dr. Mithun Roy received Master's degree in Chemistry from the University of North Bengal, September 2003. Then, he completed (2009) the Ph.D degree from the department of Inorganic and Physical Chemistry, Indian Institute of Science, Bangalore in the area of Bioinorganic Chemistry. He worked as Postdoctoral Research Associate (2010-2014) at Indian Institute of Science, Bangalore, Ruprecht-Karls-Universität Heidelberg, Heidelberg, Germany, University of Colorado, Boulder (USA) in metal-based photo-chemotherapy, DNA-templated chemical reactions

and the chemical synthesis of long DNA. Then, Dr. Roy moved to National Institute of Technology Manipur in October 2014 and currently working as Assistant Professor. His area of research involves photo-chemotherapeutic application of transition metal complexes, medicinal and clectro-chemical application of nanoparticles, theoretical inorganic photochemistry and DNA based asymmetric catalysis.