NATIONAL SEMINAR

on

"Physics and Chemistry for Novel Material-PCNM-2020"

Date: 28th & 29th February, 2020

Resource Person:

Prof.P. Nayak, Emeritus Scientist-CSIR, School of Physics, Sambalpur University
Prof. C.K Das, Ret. Professor, Material science centre, IIT Kharagpur
Prof. R.K. Thapa, Dept.of Physics,Mizoram University, Mizoram
No. of Participants: 21

Brief Profile of Resource Person:

Professor Pratibindhya Nayak is a Rtd. Professor and former Emeritus Scientist-CSIR of the **School of Physic**, **Sambalpur University, Jyoti Vihar, Odisha** India. He has more than 35 years of teaching and 40 years of research experience. He served 30 years in school of Physics, Sambalpur University as lecturer, Reader, Professor and Head of different academic capacities. With his head ship, he has established the research facilities on material science research at School of Physics, Sambalpur university through funding agencies like **DRS-1 under SAP of UGC, BSR-UGC, DST-FIST, CSIR etc**. He is very commonly known to a Theoretical Physicist in Condensed Matter Physics which**Lattice Dynamics, Molecular Dynamics, Computer Simulation, Heavy Fermion (HF) Systems, Many body systems, High Tc Superconductivity, Magnetic materials.**Also he engaged himself with **experimental work on Ferroelectrics and Dielectrics, Multiferroic materials, Nanoparticles**. He gives emphasis on the theoretical aspects, models on the experimental results. His many theoretical prediction results have been confirmed by various experimental groups all over the world and also his results used to compare the experiment facts. He has visited various countries as a Post–Doctoral Fellow and resource person to deliver a talk in Moscow State University, Moscow, USSR, and South Korea. He was awarded the **Indian National Science Academy (INSA)** visiting Fellow and carried out higher research in experimental physics at **Indian Institute of Technology (IIT), Kharagpur.** He has published more than 125 papers in international and national journals and supervised 17 Ph.D Scholar.

Professor Chapal Kumar Das is a Retd. Professor at the Materials Science Centre, IIT Kharagpur, India. He has received his Ph.D. from the same institute. He has both industrial and academic experience. His research interest lies in the fields of polymer blends and alloys, high-performance composites based on LCP, self-reinforcing elastomers, nano-polymer

composites, devulcanization of scrap tires, direct fluorination of plastics, flexible engineering composites for defense applications, short Kevlar fiber composites based on thermoplastics, carbon nanotube–polymer composites, modification of nanofillers, welding of thermoplastic nanocomposites, and elastomeric thin films. His present research interest is in the development of supercapacitors, high-power microwave-absorbing materials, and fuel and solar cells. He has contributed 15 scientific chapters in books and encyclopedias. He has completed 17 high-value projects. He has supervised 32 Ph.D. students and 36 M.Tech./M.S. students. He has published about 370 papers in international journals and about 40 papers in national journals. He has travelled widely throughout various countries for different collaborative projects and international conferences. He served as the Head of the Materials Science Centre, IIT Kharagpur. He is the recipient of the Lady Davis fellowship, Israel. He is a fellow of IRI and a life member of MRSI and the Polymer Society.

Prof. R.K. Thapa retired as Head and Dean of School of Physical Sciences, Mizoram University, Aizawl 796009, Mizoram on 30th November 2018 after serving 40 years in Mizoram. Awarded Best Science Teacher in 1985 by Mizoram Govt and also Eminent Physicist by Physics Academy of the North-East in 2016. Established research facilities on Computational Physics in Mizoram through funding agencies like UGC, DAE, DST, CSIR, SERB. Visited UK, Germany, Poland, Czech Republic, Iran, China, Thailand and Nepal and established collaborating research. Published more than 150 research papers in international peer reviewed journals like, Phys. Rev, Surface Science, Acta Chimica, Phys. Status Solidi, Physics Letters B, Physica B etc. Presently reviewer of more than 20 journals (IOP, Elsevier, APS, World Scientific etc.) and published 4 books. He has completed more than 10 projects from UGC, DAE, DST, CSIR, SERB and has to his credit 22 Ph. D. and has collaboration with many in India. INSA nominated Visiting Fellow in 1988 (UK), 2011 (Germany) and 2016 (Poland), ICTP Fellow in 2005 to Iran.

About the session:

In the current era, the development of newer materials with specific properties for technological application has become the trust area of research. Materials processing techniques for the growth of ceramic materials and device fabrication technologies along with their parameter optimization are currently the most exciting fields. It is becoming almost impossible to ever come up with all aspects of different materials technologies due to the rapid changing scenario and multidimensional expansion in the field. In the background of the above perspective, we have organized a National **Seminar on "Physics and Chemistry of Novel Materials" (PCNM-2020) during 28-29 February, 2020**. We received **125 numbers of papers**. The scope of the seminar was very wide to cover various aspects of

Materials and polymer science. Papers have been presented in different area like Smart Materials, Synthesis and Characterization of Novel Materials, Dielectric and Ferroelectrics, Multifunctional Materials, Thin Films, Polymers, Composites, Nano Materials, Carbon NanoStructure/ Graphene, Organic materials, High T_C Superconductor and Heavy Fermion Materials, Wide Band Gap Semiconductor Materials, Device Application of Novel Materials, Bio-Materials etc.

Objective

- To understand the different synthesis and characterization of the materials.
- To help the participants to become familiar with different types of experimental techniques.
- To perform computational work for material properties analysis.
- To connect with the scientific people from different parts of the country for collaboration work

Outcome: This seminar has been proved to be a suitable platform for participants, students and researchers of this Department as well as other participants to enlarge their ideas on various aspects of Material Science and applications.

- Through this seminar, the faculty members have been contacted by resource persons from various institutions like IIT, NITs, and Universities for research collaboration.
- Some of the resource persons have been interested in taking our students to visit their institutions (summer internship/study tour etc.) and carry out their research work specifically for the M.Sc Students at their laboratory.
- Through this seminar, we have widely circulated our institution throughout the country.

Figure: Some glimps of the national seminar

Centurion University

Date: 28th & 29th January, 2020

NATIONAL SEMINAR

Title: **Physics and Chemistry for Novel Material-PCNM-2020**

Organized by :

Department of School of Applied Sciences, Bolangir

Resource Person:

Prof.P. Nayak, Emeritus Scientist-CSIR, School of Physics, Sambalpur University
Prof. C.K Das, Ret. Professor, Centre of Material sciences, IIT Kharagpur
Prof. R.K. Thapa, Dept.of Physics,Mijoram University, Mijoram

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PARTICIPANT LIST:

Centurion University

SEMINAR

ON

PHYSICS AND CHEMISTRY FOR NOVEL MATERIALS- PCNM

Date:28-02-2020 to 29-02-2020

ATTENDANCE SHEET

Sl. No.	Name	Full Signature(28/02/2020)	Full Signature(29/02/2020)
1	Mr.SatyabrataSadangi	Satyabrata Sadangi	Satyabrata Sadangi
2	Mrs.Namita Panda	Namita Panda	Namita Panda
3	Dr.Jyotiprakash Rath	Jyotiprakash Rath	Jyotiprakash Rath
4	Mrs.Tikina Mishra		Tikina Mishra
5	Mr.Somanth Sadangi	Somanth Sadangi	Somanth Sadangi
6	Dr.Bhairaba Kumar Majhi		
7	Dr.JayakishanMeher	Jayakishan Meher	Jayakishan Meher
8	Ms.Asha Rani Dalai	Asha rani	
9	Mrs.Monalisha Joshi	Monalisa	Monalisa
10	Mr.Sanjib Kumar Naik	Sanjib Naik	Sanjib Naik
11	Dr.Nilaya Kumar Mohanty		Nilaya Mohanty
12	Mrs.Meena Kumari Sahu	Meena Sahu	Meena Sahu
13	Mrs.Sasmita Pradhan	Sasmita	
14	Mr.Gyanendra Kumar Mishra		
15	Mrs.Prativa Satpathy		prativa
16	Dr.Shantanu Bhattacharya	Shantanu Bhattacharya	Shantanu Bhattacharya
17	Dr.Srikanta Moharana		
18	Dr.Pratibha Rani Deep	pratibha Deep	pratibha Deep
19	Dr.Ashish Kumar Sarangi		
20	Mr.P.Utkal.Bharat Kumar		
21	Dr.Prafulla Kumar Sahu		

Prof. KVD Prakash
Dean - IIE & HRD

Dr. Prasanta Ku. Mohanty
Dean Academic