# UGC Sponsored State Level Seminar on RECENT ADVANCES IN BASIC SCIENCE

### 3<sup>rd</sup> September, 2016

ORGANISED BY



# **ISLAMPUR COLLEGE**

ESTD. - 1973

### P. O.: ISLAMPUR \* DIST: UTTAR DINAJPUR, PIN-733202

## **ABOUT THE COLLEGE**

Islampur College, a NAAC accredited – 'B' Grade College, has been catering to the higher educational needs of a vast population comprising mostly of Scheduled castes, Scheduled tribes and Minority communities since 1973. The Arts, Science and Commerce streams of the college have been enrolling students coming from remote villages and distant areas of Uttar Dinajpur, Darjeeling and Bihar. The college offers honours courses in different subjects with affiliation of University of North Bengal. Active N.C.C. and N.S.S. units are operating under the leadership of teachers to

Inculcate social consciousness among the students through community development programmes. The IGNOU special study centre for SC/ST of Islampur College offers P.G., U.G. Diploma and Certificate courses. Islampur College is located at the outskirts of the Islampur town. It is about 3 kms away from Islampur town and is well served by both railways and roads. The National Highway 31 passes through the town and it is about 500kms from Kolkata and 75kms from Siliguri.

## **OBJECTIVES OF THE SEMINAR**

Our future is dependent on the fruits of research in science and engineering. New scientific knowledge is essential not only for fostering innovation and promoting economic development, but also for informing good policy development, and as a sound foundation for education and training. Science is part of almost every aspect of our lives. Although we rarely think about it,

science makes extraordinary things possible. It tells us about the past, helps us with the present, and creates ways to improve our future. Now more than ever, science must engage with us, and we must engage with science.

Many of the life-improving breakthroughs of the last century in areas such as health and medicine, food and agriculture, energy and the environment have been heavily dependent on advances in chemical knowledge. Not so obvious is the essential role of chemistry in many wider applications, such as aerospace or electronics. It was the application of molecular science to some of the biggest questions facing science as a whole that gave us the silicon chip and unlocked the secret of the genetic code. New developments in nanotechnology, liquid crystal, solution thermodynamics and polymer science have chemistry at their core. This multidisciplinary research holds the key to tackling many of the challenges we face as a society and is the breeding ground of the knowledge-based industries of the future.

Being the language of sciences, mathematics has a great potential to make tremendous contributions to the other sciences. Mathematics is used in our everyday lives; from figuring out the amount needed to buy your lunch to calculating the bank's interest. This section explores some of the real life applications of mathematics. For example, internet banking is getting more and more common these days, and we depend on cryptology – the study of protecting information using codes – to keep our transactions safe. Recently Bio-mathematics or Mathematical biology gain huge importance because of its wide range of applications in biology, biotechnology and medicine. It is basically depends on mathematical representation and modeling of biological processes, using a variety of applied mathematical techniques and tools. There are many areas such as, Financial Decision making, Environmental analysis, Prediction analysis, Material Design where research and developments are going by the help of knowledge of Mathematics.

In current days of experimental physics research, a lot of emphasis has been given on nanoscience. Nanoscience refers to the study/manipulation and engineering of matter, particles and structures on the nanometer scale. Important properties of materials, such as the electrical, optical, thermal and mechanical properties are surprisingly different than that of macroscale. Nanotechnology is the application of nanoscience leading to the use of new nanomaterials and nanosize components in useful products. Nanotechnology will eventually provide us with the ability to design custom-made materials and products with new enhanced properties.

Whereas in theoretical physics the astrophysics /cosmology attracts enormous attention to the physicists to solve the mystery of universe. Recent cosmological observations predict that present universe is accelerating. It is now understood that most of the matter in the universe are in the form of either dark matter and /or dark energy. Dark energy in the universe leads to the acceleration of present universe. These sectors of matters are not studied well. There are attempts to explain the present cosmic acceleration either by introducing exotic matter or modifying the gravitational sector with new physics.

Interdisciplinary or collaborative work has a synergic role in research and development activities. Bringing the scientists of different sphere in same platform and sharing their ideas may drive to reach another milestone. This is the motto of choosing such a seminar -topic.

The seminar committee invites papers from academicians, scholars and experts from all disciplines of science for presentation in the seminar.

### **Organising Committee**

#### President

Prof. Mastahaque Ali Sarkar

#### **Organising Secretary**

Dr. Anuradha Sinha, Dept. of Chemistry

#### **Jt. Organising Secretary**

Dr. Kajal Kumar Mandal, Dept. of Mathematics

#### Convener

Prof. Kalipada Sarkar, Dept. of Chemistry Mobile: 9002575610

#### **Jt. Conveners**

Dr. Atul Bandyopadhyay, Dept. of Physics Mobile: 9614244586

Dr. Rishi Raj Kairi, Dept. of Mathematics Mobile: 8759218831

#### Treasurer

Dr. Dilip Paul, Dept. of Physics Mob: 9474689237 **Submission of abstracts:** The last date of submission of abstracts within 250 words is on or before 20/08/2016

**Full paper submission:** Selected paper will be published in *"RESEARCH JOURNAL IN BASIC SCIENCE"* WITH ISSN 2348-5361

**Registration fee:** Spot registration with Rs. 300.00 but the interested participants must send the scanned copies of the filled-in registration form (downloaded from the college website) before **25/08/2016** to Email id: **islampurcollegerabs2016@gmail.com** 

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### **REGISTRATION FORM**

Name:
Designation:
Institution:
Full Address:
Email:
Phone:
Title of the paper:
Date and time of arrival:
Accommodation required: Yes/ No
Food preference: Veg./ Non-veg

Signature:	 	 
Date:	 	 

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Registration fee of Rs 300/ will be collected by cash at the venue on the date of seminar.