



A brief report on
One Day Symposium
on
RECENT TRENDS IN PHYSICAL SCIENCES
March 16, 2018

An outreach program
organized by
S.N.Bose National Centre for Basic Sciences, Kolkata
in collaboration with
Department of Physics, Tripura University, Tripura

To mark the celebration of 125th Birth Anniversary of Prof. Satyendra Nath Bose



ONE DAY SYMPOSIUM
on
"RECENT TRENDS IN PHYSICAL SCIENCES"

March 16, 2018

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*Venue : Seminar Hall, Department of Physics  
Tripura University, Suryamaninagar*

**SPEAKERS:**

*Prof. Biswajit Chakraborty (SNBNCBS, Kolkata)*

*Prof. Kalyan Mandal (SNBNCBS, Kolkata)*

*Dr. Ratan Das (TU, Tripura)*

Interested participants are requested  
to reach the venue on 16<sup>th</sup> March, 2018  
by 10:00 AM for registration.

The program is aimed at Undergraduate and Masters' students. There will be three lectures on general aspects on the state of the art advancement of Science. A documentary film on the life and works of Prof. S. N. Bose will be screened.

A] Total number of participating institutions : 04

MBB college, Agartalar  
Ramthakur College, Agartala  
Women's College, Agartala  
Tripura University, Tripura

B] Total number of participants : 117

MBB college, Agartalar: 24  
Ramthakur College, Agartala: 13  
Women's College, Agartala: 6  
Tripura University, Tripura: 74 ( Including a few Research Scholars)

C] Total number of Speakers : 03

Prof Biswajit Chakraborty

Title of the talk: Bosons, Fermions and  
Geomery Prof Kalyan Mandal

Title of the talk: Magnetism: Bulk to Nanostructured Materials

Dr. RATAN Das

Title of the talk: Nanoscience and Nanotechnology

## PROGRAM

10:00-10.45 : Registration

10:45-11:00 : Inauguration

11:00- 11:30 : Tea break ( Sweet Packets Distributed)

11:30 - 13.00 : Lecture I ( Speaker: Prof Biswajit Chakraborty)

13:00-14:00: Lunch Break

14:00- 15:00 : Lecture II ( Speaker : Prof Kalyan Mandal)

15:00 – 15:30: Lecture III ( Speaker : Dr Ratan Das)

15:30-16:00 : Documentary film show on Prof S N Bose

16:00- 16:30: Student Interaction

16:30- 16:45 : Concluding Remarks

# SUMMARY of THE TALKS

## **Bosons, Fermions and Geomery** **Biswajit Chakraborty**

S.N. Bose National Centre for Basic Sciences, Salt Lake, Kolkata

Prof. Chakraborty discussed about the brief history of the struggle with Euclid's fifth postulate to the eventual formulation of Non-Euclidean geometry and the vital role played by it in the formulation of General Theory of Relativity by Albert Einstein. Later, He touched upon the formulation of relativistic quantum mechanics and quantum field theory. Finally, He mentioned about the difficulties in merging General Relativity and quantum mechanics, which remains an unsolved problem till now.

## **Magnetism: Bulk to Nanostructured Materials**

**Kalyan Mandal**

S.N. Bose National Centre for Basic Sciences, Salt Lake, Kolkata

Prof. Mandal discussed about the different aspects and properties of different types of magnetic nanomaterials and their important applications in branches of science.

## **Nanoscience and Nanotechnology**

**Ratan Das**

Dr. Das presented a brief chronological development of Nanotechnology and present day status as well as different applications of nanomaterials.

## Few Moments from the day



# CERTIFICATE ISSUED TO THE STUDENTS

## ONE DAY SYMPOSIUM ON "RECENT TRENDS IN PHYSICAL SCIENCES" (AS A CELEBRATION OF 125<sup>TH</sup> BIRTH ANNIVERSARY OF PROF. S. N. BOSE)



### *Certificate of Participation*

This is to certify that Mr./Mrs./Dr. .... *Soumyadeepa* ..... *Debnath* ..... of  
..... *Tripura* ..... College/ University has participated in the one day  
Symposium on "Recent Trends in Physical Sciences", as an outreach program of S. N. Bose National  
Center for Basic Sciences, on the occasion of 125<sup>th</sup> Birth Anniversary of Prof. S. N. Bose held on  
16<sup>th</sup> March, 2018 at the Department of Physics, Tripura University.

*Biswajit Chakraborty*  
(Prof. Biswajit Chakraborty)  
Convener

*Kalyan Mandal*  
(Prof. Kalyan Mandal)  
Joint Convener

*Ratan Das*  
(Dr. Ratan Das)  
Co-ordinator