

## IMPORTANT DATES

Last Date for Registration : **November 15, 2014**

Spot Registration on workshop from 8:00 a.m. to 9:00 a.m. (Subject to Availability)

Workshop dates : **28<sup>th</sup> & 29<sup>th</sup> Nov 2014**

## ACCOMMODATION

Accommodation can be arranged in the University hostel at free of cost for students and scholars (Based on their request and subject to availability).

## MODE OF PAYMENT

The registration fee may be sent as a demand draft (DD) in favour of "Dean (Publication & conferences)", Sathyabama University, Payable at Chennai, India



## HOW TO REACH SATHYABAMA UNIVERSITY

Sathyabama University is located on the IT highway of Chennai City, which is 20 km from the International Airport, 15 km from Adyar and 30 km from Central Railway Station.



## CHIEF PATRON

**Col. Dr. Jeppiaar**, M.A., B.L., Ph.D  
Founder & Chancellor, Sathyabama University

## PATRONS

**Dr. Marie Johnson**, B.E.MBA., M.Phil., Ph.D  
**Dr. Maria Zeena Johnson**, B.E., MBA, M.Phil., Ph.D

## ADVISORY COMMITTEE

**Dr. B. Sheela Rani**, Vice Chancellor  
**Dr. S. S. Rau** Registrar  
**Dr. T. Sasipraba** Dean (Publications & Conferences)  
**Dr. K. V. Narayanan** Controller of Examinations



## CONTACT US

**Dr. T. Sasipraba**, Convener

## CO-ORDINATORS

**Dr. P. Kuppusami**  
**Mr. G. Pradhaban**  
**Mr. D. Ramachandran**  
Centre for Nanoscience and Nanotechnology,

**Sathyabama University,**

Rajiv Gandhi Road, Chennai-600119

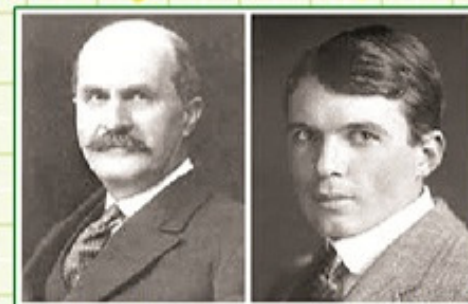
Phone: 044-2450 3065 / 2726

Fax: 044-24503814

Email : [rtxw2014@gmail.com](mailto:rtxw2014@gmail.com)

[www.centrefornanotechnology.com](http://www.centrefornanotechnology.com)

## Call for Participation



## National Workshop on RECENT TRENDS IN X-RAY DIFFRACTION TECHNIQUES (RTX-2014)

(Celebrating the International Year of Crystallography 2014)  
(28<sup>th</sup> & 29<sup>th</sup> November, 2014)



## Centre for Nanoscience and Nanotechnology SATHYABAMA UNIVERSITY

(Established under section 3 of the UGC Act, 1956)  
Declared as Category 'A' University by  
MHRD, Government of India

Jeppiaar Nagar, Rajiv Gandhi Road, Chennai – 600 119

[www.sathyabamauniversity.ac.in](http://www.sathyabamauniversity.ac.in)





## ABOUT SATHYABAMA UNIVERSITY

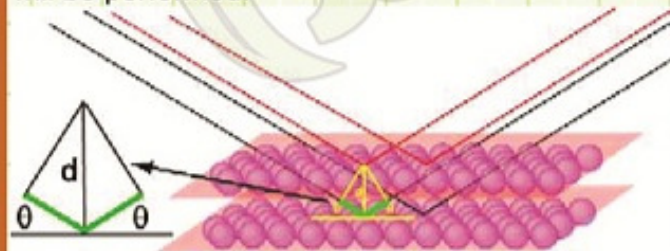
Sathyabama University is a pioneer institute imparting knowledge in the areas of engineering, science, technology and education. Sathyabama University continues to strengthen both its academic and research activities to bring fruits of science and engineering for the betterment of the society.

## ABOUT CENTRE FOR NANOSCIENCE & NANOTECHNOLOGY

The Centre for Nanoscience and Nanotechnology was established in January 2006 at the University campus to accomplish the goal of enhancing advanced research in the areas of Nanoscience and Nanotechnology. The Centre is a joint initiative of Indira Gandhi Centre for Atomic Research (IGCAR), Govt. of India and Sathyabama University. The Centre has a array of state of art facilities like Pulsed Laser Ablation, Magnetron Sputtering, Electron Beam Evaporation, AFM, FE-SEM, HT-XRD, HPLC etc.,. The Centre currently handles several R&D projects sanctioned by Government agencies and offers consultancy services to industries and research organizations in India as well as abroad.

## ABOUT THE WORKSHOP

The Workshop is scheduled for 2 days with lectures from eminent scientists drawn from IITM and IGCAR and demonstration on both conventional as well as High temperature XRD will be performed.



## INTRODUCTION

UNESCO has declared 2014 as the International Year of Crystallography and celebrates the centennial of the Nobel Prize of Max Von Laue, the first scientist to diffract X-rays with a crystal. In 1913, father and son, William and Lawrence Bragg used X-rays to penetrate through the crystals of table salt and diamonds to study about how the atoms inside were arranged. For the first time it allowed scientists to see the atomic structure of elements, compounds and alloys based on the way the X-rays were reflected by the crystal. This marked the birth of x-ray crystallography – an achievement that won the Braggs the Nobel Prize in Physics in 1915.

Even Today, the field of X ray crystallography is very vibrant and active and it remains the foremost technique for working out the atomic structures of elements, compounds, alloys and almost anything. The X-ray techniques are very useful for finding out why things behave the way they do. Crystallography is even reaching beyond our planet. The Curiosity Rover is now performing X-ray diffraction analysis of the soil on Mars. As a part of this commemoration, the Centre for Nanoscience and Nanotechnology (CNSNT), Sathyabama University would like to take part in this event by hosting a Workshop.

## TOPICS TO BE COVERED IN THIS WORKSHOP

- Crystallography & Powder Diffraction
- Characterization of Nanomaterials using XRD
- Thin Films (Polycrystalline & Epitaxial) & their Characterization using XRD
- High temperature and High pressure XRD in Materials Science & Metallurgy
- Applications of X-ray synchrotron radiation
- Grazing incidence X-ray reflectivity (XRR)
- Small Molecule Crystal Structures
- Recent Advancements in XRD
- XRD Software for data analysis

## TENTATIVE SPEAKERS

### 1. Prof. Sangam Banerjee

Surface Physics Division  
Saha Institute of Nuclear Physics  
1/AF Salt Lake, Bidhannagar  
Kolkata 700 064.

2. Dr. N. V .Ravi Kumar, Associate Professor  
Department of Metallurgical & Materials Engg.,  
Indian Institute of Technology-Madras.

3. Dr. N. Subramanian, Head  
X-Ray Scattering & Crystal Growth Section  
Materials Science Group  
Indira Gandhi Centre for Atomic Research  
Kalpakkam-603102.

4. Dr.S.Kalavathi, Scientific Officer-G  
X-Ray Scattering & Crystal Growth Section  
Materials Science Group,  
Indira Gandhi Centre for Atomic Research  
Kalpakkam-603102.

5. Dr. P. Kuppusami, Senior Scientist  
Centre for Nanoscience and Nanotechnology  
Sathyabama University.  
Chennai-600119, Tamil Nadu.

6. Dr. R. Jagan  
Department of Chemistry,  
Indian Institute of Technology Madras.

## TARGETING AUDIENCE

- UG&PG students
- Academic faculty
- Research Scholars
- Industry people

## REGISTRATION FEE

Category	Fee
UG/PG , Research Scholars	Rs.1000
Faculty, Scientists	Rs.1500
Industrial Delegates	Rs.2000





# Centre for Nanoscience & Nanotechnology

(A Joint Initiative of IGCAR, Kalpakkam & Sathyabama University, Chennai)



## National Workshop

On

RECENT TRENDS IN X-RAY DIFFRACTION TECHNIQUES (RTX-2014)

Nov 28 & 29, 2014

Name:

Designation:

Organization:

Address for Correspondence:

PIN Code:

Phone:

E-mail:

Mode of registration: Demand draft/Wire (online) transfer\*/Spot registration (please tick)

### Payment Details

Category:  UG/PG, Research Scholars  Faculty, scientists  Industrial Delegates

Amount:

DD No:

Date:

*(In favor of Dean (Publication & conferences), Sathyabama University, Payable at Chennai, India*

Name of Bank & Branch:

Date:

Signature:

*(\*Scanned copy of registration form & Acknowledgement of transaction details should be sent to rtxw@gmail.com)*

**Wire transfer (Online) can be made favoring**

<b>Account Name:</b>	<b>"Dean (Publications &amp; Conferences), Sathyabama University"</b>
<b>Account Number:</b>	<b>891734627</b>
<b>IFSC CODE:</b>	<b>IDIB000T020</b>
<b>SWIFT Code:</b>	<b>IDIBINBBTLT</b>
<b>BRANCH CODE</b>	<b>098</b>
<b>Bank, Branch &amp;Address</b>	<b>Indian Bank, Thousand Lights Branch, Chennai - 600 006, India.</b>