

National Conference
on
Nano Structured Materials and Device
Technologies
(NCNSMDT-2018)

Registration Form

Name Prof./Dr./ Mr./ Ms. _____

Designation _____

College/University/Organisation _____

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City _____ PIN _____

State _____

Phone (off.) _____ Mobile _____

Email _____

Proposed Title of the Talk/ paper _____

Registration Fee Details

Cheque/ DD/Online Transfer with No. _____ Dated _____

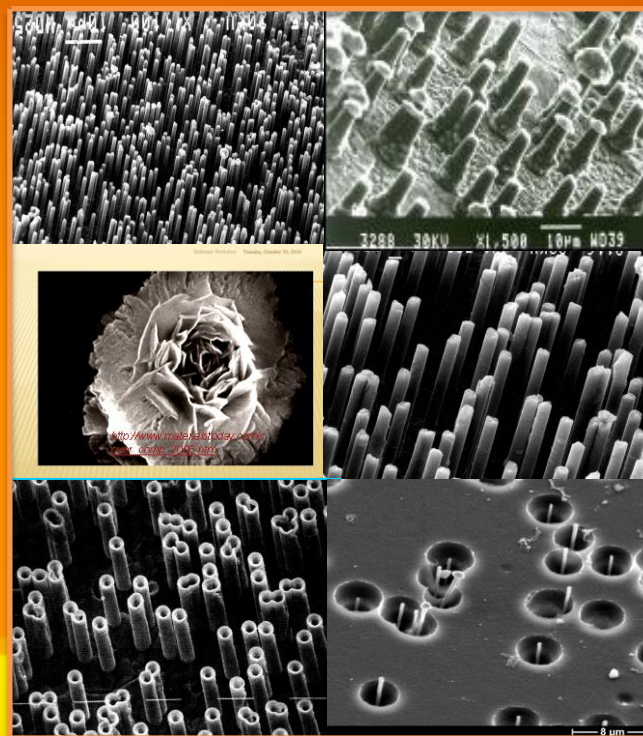
Drawn on Bank _____

Amount _____

Accommodation YES NO

(On Demand & Payment Basis)

Signature of the Participant



Aggarwal College Ballabgarh

A Post Graduate College Accredited 'A' Grade by NAAC with CGPA 3.40
College with Potential for Excellence (CPE) Status by UGC
Affiliated to M.D. University, Rohtak, Haryana

Tigaon Road, Near Ambedkar Chowk, Ballabgarh, Faridabad,
Haryana, PIN 121004

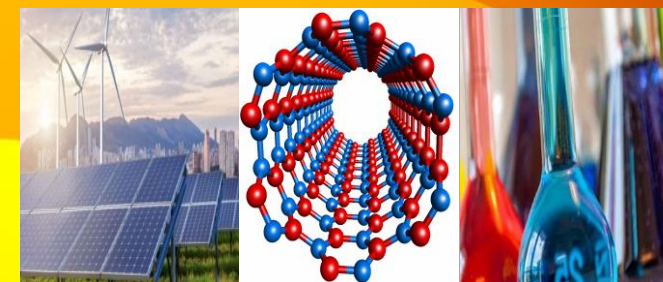


National Conference

on

**Nano Structured Materials
and Device Technologies
(NCNSMDT-2018)**

21-22 December 2018



Organized by
Faculty of Science

Aggarwal College Ballabgarh

Email: ncnsmdt2018@gmail.com, Phone: +91-8750 889 090

in association with

**Indian Society of Analytical Scientists
(ISAS)- Delhi Chapter**

Dr. Poonam Anand
Dy. Convener

Dr. Krishan Kant
Patron & Convener

About Ballabgarh

Ballabgarh is a historical town in Faridabad District of Haryana, India, and is part of the National Capital Region. Ballabgarh is only 32 km from Delhi and lies on the National Highway 2. The weather is cold in the month of December and average temperature is 23°C.

About the Institution

Aggarwal College, Ballabgarh, established in 1971 has been accredited A Grade (CGPA3.40) by NAAC and awarded College with Potential for Excellence (CPE) status by UGC. It is a co-educational post graduate institution running 8 under graduation, 5 Hons. and 08 post graduation courses. Besides, six add-on courses and two vocational courses sponsored by University Grants Commission are also run to equip students with market oriented innovative skills. (For more details visit www.aggarwalcollege.org)

Theme of the Conference

Everything is made of something, yet, during the past century, the scientific and technological importance of materials has not been widely appreciated. Indeed, even though historical materials breakthroughs such as the development of steel to replace wrought iron had enormous commercial impacts, the term 'advanced materials' was coined only comparatively recently. A material is defined as a substance (most often a solid, but other condensed phases can be included) that is intended to be used for certain applications. There are a myriad of materials around us—they can be found in anything from buildings to spacecraft. Materials can generally be divided into two classes: crystalline and noncrystalline. The traditional examples of materials are metals, semiconductors, ceramics and polymers. New and advanced materials that are being developed include nanomaterials and biomaterials, etc. The material of choice of a given era is often a defining point. Phrases such as Stone Age, Bronze Age, Iron Age, and Steel Age are great examples. Originally deriving from the manufacture of ceramics and its putative derivative metallurgy, materials science is one of the oldest forms of engineering and applied science. Modern materials science evolved directly from metallurgy, which itself evolved from mining and (likely) ceramics and the use of fire. A major breakthrough in the understanding of materials occurred in the late 19th century, when the American scientist Josiah Willard Gibbs demonstrated that the thermodynamic properties related to atomic structure in various phases are related to the physical properties of a material. Important elements of modern materials science are a product of the space race: the understanding and engineering of the metallic alloys, and silica and carbon materials, used in building space vehicles enabling the exploration of space. Materials science has driven, and been driven by, the development of revolutionary technologies such as rubbers, plastics, semiconductors, and biomaterials. Before the 1960s (and in some cases decades after), many materials science departments were named metallurgy departments, reflecting the 19th and early 20th century emphasis on metals.

The worldwide growth of materials science is taking place at a faster pace and lot of attention and the financial support is being extended to expand the research and application programs and training in the materials sciences. The field has broadened to include every class of materials, including ceramics, polymers, semiconductors, magnetic materials, medical implant materials, biological materials, and nanomaterials. The basis of materials science involves studying the structure of materials, and relating them to their properties. Once materials scientists know about this structure-property correlation, they can then go on to study the relative performance of a material in a given application. The major determinants of the structure of a material and thus of its properties are its constituent chemical elements and the way in which it has been processed into its final form. These characteristics, taken together and related through the laws of thermodynamics and kinetics, govern a material's microstructure, and thus its properties. Structure is one of the most important components of the field of materials science. Materials science examines the structure of materials from the atomic scale, all the way up to the macro scale. Characterization is the way materials scientists examine the structure of a material. This involves methods such as diffraction with X-rays, electrons, or neutrons, and various forms of spectroscopy and chemical analysis such as Raman spectroscopy, energy-dispersive spectroscopy (EDS), chromatography, thermal analysis, electron microscope analysis, etc. Structure is studied at various levels. This deals with the atoms of the materials, and how they are arranged to give molecules, crystals, etc. Much of the electrical, magnetic and chemical properties of materials arise from this level of structure. The length scales involved are in angstroms. The way in which the atoms and molecules are bonded and arranged is fundamental to studying the properties and behavior of any material.

Sub-themes of the Conference

- Nanotechnology & Applications
- Nano-/Micro electro-mechanical devices and systems
- Nanostructure synthesis and modification by ion beams
- Fullerenes and Carbon Nanotubes
- Synthesis and Fabrication of Nanomaterials
- Applications of Nanocomposites
- Characterization of Nanomaterials
- Nano Tribology
- Nanobiotechnology
- Nanodevices and Sensors
- Nanotoxicology and Green Nanotechnology
- Generation of nanostructures/ nano wires by swift heavy ions
- Advanced Materials and Devices
- Synthesis, Characterization and Testing of Materials
- Radiation Shielding Materials
- Radiation Induced Modification of Materials
- Ion Beam Interaction mechanisms, theory and fundamentals
- Polymer micro/nanostructures, membranes & nanocomposites

- Micro-devices and systems for wireless communication
- Micro-devices for power supply and energy harvesting
- Bio-materials and Health Care
- Materials in Chemistry
- Materials Science and Engineering
- Functional Materials
- Materials modifications in nanoparticles, thin films, and multilayers
- Theoretical/Computational Aspects
- Eco Friendly Materials
- Advanced Ceramics
- Polymer Electrolytes
- Memory Materials
- Electrochemical Devices
- Batteries

Registration

Academics	Rs. 1000
Industry/ Corporate Houses	Rs. 2000
Students/ Research Scholars	Rs. 500

Mode of payment can be cash/cheque/DD (in favour of Principal, Aggarwal College Ballabgarh. Registration fee should be sent along with registration form to college address.

For online registration:

Account Name: **Aggarwal College Ballabgarh,**

Account No. : **00882010056670**

IFSC Code: **ORBC0100088**

Branch: **Oriental Bank of Commerce, Ballabgarh**

On the Spot registration can also be made.

Accommodation can be arranged on request well in advance and on chargeable basis.

Important Dates

Submission of abstract	10.12.2018
Notification of acceptance of abstract	15.12.2018
Submission of full length manuscript	21.12.2018

Abstract should be of minimum 200 words in Times New Roman with 12 Font size having details of all the authors. The abstract can be communicated on ncnsmdt2018@gmail.com. For any query or enquiry, you may contact the members of the Steering Committee. After the conference, peer reviewed papers presented in the Conference will be published in ISST Journal of Applied Physics with ISSN No. 0976-903X. Please send your abstract & paper as per Journal's Format available at <http://www.isst.org.in>. Contributors may please indicate the theme at the right top corner of the paper/abstract to be communicated for consideration

About ISAS-DC

ISAS-DC: Indian Society of Analytical Scientists-Delhi Chapter (ISAS-DC) with its head office at IOCL R&D Centre, Faridabad, is a multi-disciplinary body whose major functions are to organize symposiums/ workshops on various topics on analytical sciences relevant to academics and industry. The prime objective of this fledgling scientific body is to provide a platform to a large cross section of scientific community in this part of country, who are engaged in rendering analytical services, so as to exchange their views and findings and to collaborate among themselves for mutual benefits. The Society provides a common forum for Analytical Scientists to exchange ideas, keep themselves abreast of the latest developments in this field, thus promoting the growth of analytical sciences in the country.

For more details and Life Membership information, please visit www.isasdelhi.org

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