International Conference on Advances in Nanomaterials and Devices for Energy and Environment

ICAN-2019 : Concept

ICAN--2019 is aimed at bringing together the scientific and technology community, to share their experience on advancements in the materials synthesis and characterization techniques, its applications in different modern industries, specifically for renewable Energy and clean Environment. Eminent scientists in the respective fields will share their experience and knowledge with the young participants, which in turn are expected to promote research activities on the advanced materials. Owing to the advancements in software and hardware technologies, sophisticated tools have been developed to synthesize, characterize and model smart materials at the length scale with controlled behavior. This ability is transformational for the discovery process and as a result confers a significant competitive advantage. The most spectacular increase in the capability has been demonstrated in high performance computing. This rate of improvement has shown no signs of abating, which has enabled the development of computer simulations and models of unprecedented fidelity.

The overwhelming response of participants in the series of workshops and conferences organized by our group from 2009 to 2016, has motivated us to organize this conference on Nanomaterials and Technologies for Energy and Environment. The conference will be of great importance in the sense that it will be attended by young chemists, physicists, biologists and engineers making it truly interdisciplinary in nature so as to not only know about the new methods but also to share their research findings on preparation, analysis of materials and devices at nano scale and their possible application in the medicine, automotive, chemical, electronics, electrical engineering and other industries. It is also aimed to sensitize the young participants in the current areas of materials science so as to make them instrumental in pursuing quality research.

Since 2008, the Advanced Materials and Nano-electronics Research Group of CNT Lab, in ABV-IIITM, actively contributing towards basic as well as application specific material and device modeling research. This conference is a celebration of completing the ten years of Advanced Materials Research group at CNT Lab of ABV-IIITM, Gwalior.

SCOPE

The participants will get an opportunity to interact with the scientists from India and abroad on recent trends in material synthesis and characterization tools and techniques for Energy and Environment sectors specifically. The research areas are kept open for the scientific community to promote the interdisciplinary research and development in materials science and technology.ICAN has planned a Poster session specifically for the young scholars/students with a cash award worth Rs. 25000. The original work in the following areas but not restricted to, will be recommended for this session, divided in four tracks.

Nanomaterial for Electronic / Magnetic / Optic Applications

Low-dimensional carbon nanostructures and their applications; Fullerenes; Carbon-Nanotubes; Nanodiamonds; Graphene its derivates and analogues; Magnetic, Metal and Oxidicnanomaterials; Multiferroic and Spintronic Materials; Quantum dots and their applications; Alloys; Nanophotonics; Fluorescent nanomaterials; Memory media; Optical Technologies; LED Technologies.

Energy / Environmental / Waste

Applications in catalysis; Photocatalysis; Nanocoatings and paints; Thin films; Chemical, Textile and Consumer Industries; Nanofiltration, Water treatment and Environmental Applications; Nanotribology; Energy Harvesting Materials: Solar cells. Lithium batteries, ThermoelectricMaterials; Waste Management

Bio-Nano: Nanomaterials in Medicine/Health

Antibacterial Materials and Products; Biosensors and Biocatalysers; Biochemical Applications; Biogenic Nanomaterials; Targeted drug Transport; Tissue Engineering; Molecular Analysis, Intelligent Biomaterials, Nanoimplants; Nanomachines; Nanorobotics.

Preparation and Characterization of Nanomaterials

Managed functionalization of Nanomaterials Self-assembly; Hybrid multidimensional systems; Cluster Assembled Materials; New methods and approaches to characterization of Nanomaterials; Progress in applications of Electron Microscopy, in Scanning Tunnelling Microscopy and in Microscopy of Atomic powers, Study of Chemicalreactions; Imaging of Molecules; Nanomechanics; Methods of Nano-manipulation; Advanced spectroscopic and synchrotron methods of study of nanomaterials

Nano-electronics :Nanodevices and Applications

Memory Devices: NEMS, MEMS; CNTFET; GrapheneFET; NanowireFET; Thin Films and Nanocomposites; Sensors; Actuators; Resonators; Electron and Nuclear spin devices; Smart and Intelligent Materials.

Other related Emerging Areas

Participation and Submission of papers:

Those intending to participate and present the work in **ICAN-2019** should submit the extended abstract as per the prescribed format through conference online submission process at http://tiiciiitm.com/ican/ latest by 30thOct. 2018. The presented papers, only after a blind peer review, will be recommended for publication in scientific proceeding.

Important Deadline:

Submission of Extended Abstract: 20thOct 2018

Acceptance notification: 05thNov 2018

Registration and Accommodation

Category	Upto 10th Nov, 2018)		After 10th Nov, 2018	
	Indian/ SouthAsia	Other Countries	Indian/ SouthAsia	Other Countries
Industry	INR 10000	USD 350	INR 15000	USD 450
Faculty/Scientist	INR 3500	USD 225	INR 4000	USD 275
Research Scholar	INR 2500	USD 175	INR 3500	USD 225
UG/PG students	INR 2000	USD 125	INR 2500	USD 150

Registration fee will facilitate you with scientific session participation, conference kit, Breakfast, lunch, Tea/drinks, Dinner and one classical musical evening. Prescribed fee is to be paid online at http://tiiciiitm.com/ican/

Accommodation

Sharing accommodation may be provided on request to the participants on a nominal fee of Rs. 300 per day for Indian students. Guest house and Hotel accommodation can also be arranged on request on discounted price (only for early bird registration) to foreign nationals. For details visit http://tiiciiitm.com/ican/

ABV-IIITM

Atal Bihari Vajpayee - Indian Institute of Information Technology & Management (ABV-IIITM), a Deemed University, is an apex IT and Management Institute, established by the ministry of HRD, Government of India in 1998 situated at Gwalior - Agra Road. ABV-IIITM Gwalior is the foremost institution providing Technical and Managerial Education in the areas of Information Technology and Management, in India. Besides the IT and Management, the institute has given full freedom to other disciplines like Applied sciences and humanities and progressing on the concept of interdisciplinary R & D and developing the internationally competent and skilled manpower for the society.

GWALIOR

Gwalior City is a District in Madhya Pradesh State near Âgra. Gwalior City was the Capital of the princely State of Gwalior until 1948 and the summer Capital of Madhya Bharat State from 1948 to 1956. When Madhya Bharat became part of Madhya Pradesh, it became separate District. Gwalior's history is traced back to a legend in 8th century AD when a chief captain known as Suraj Sen was struck by a deadly disease and cured by a hermit-saint Gwalipa. As a gratitude for that incidence, he founded this city by his name. The new city of Gwalior became existence over the centuries. The cradle of great dynasties ruled the city Gwalior. With different Dynasty, the city gained a new dimension from the warrior kings, poets, musicians, and saints who contributed to making it renowned throughout the country. The city is also the setting for the memorials of freedom fighters such as Tatya Tope and the indomitable Rani of Jhansi. Today the old settings stand side by side with the trappings of modernity.

Climate

Generally weather found pleasant in this time, where temperature ranges from 20^{0}C to 24^{0}C.

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