

**TITLE OF ACTIVITY: WORKSHOP ON NANO-ELECTRONICS, NANO-BIOELECTRONICS AND NANOMATERIALS**

**Date:** 17<sup>th</sup> and 18<sup>th</sup> September 2019

**Venue:** EIMS Lab

**Workshop conducted by:** Dr. Milind Kulkarni, C-MET, Pune Dr. Sachin Chavan, Dr. Kirtan Tarwadi, Dr. I. A. Shaikh, BV(DU) COE, Pune

**Objective:**

- To introduce basics of Nanoelectronics, Nano-bioelectronics and Nanomaterial from the future point of view.
- To conduct hands on sessions on synthesis of nanoparticles.

**Summary of the Workshop:**

- Nanotechnology is helping to considerably improve, even revolutionize, many technology and industry sectors: information technology, homeland security, medicine, transportation, energy, food safety, and environmental science, among many others.
- The workshop provided the basic knowledge of nanoelectronics and

**Photographs:**



Felicitating of Chief Guest: Dr. Milind Kulkarni, Senior Scientist and Group Head, Nanocomposite Lab, C-MET, Pune by the hands of Dr. A.A. Shinde, Head, Department of Electronics Engineering, BV(DU) COE, Pune



Felicitating of expert: Dr. Sachin Chavan by Mrs. Sharada Tondare, Counselor, IEEE Student Branch, BV(DU)

nanomaterials.

- Nanotechnology has greatly contributed to major advances in computing and electronics, leading to faster, smaller, and more portable systems, greatly enhancing alternative energy approaches to help meet the world's increasing energy demands, broadening the medical tools, knowledge, and therapies currently available to clinicians via Nanomedicine and yet the applications are continuously evolving in various fields beneficial to society.
- The workshop comprised of expert talk sessions on “Nano-materials and Nano-composites for Advanced Multifunctional Applications.” By Dr. Milind Kulkarni, Senior Scientist and Group Head, Nanocomposite Laboratory, CMET, Pune, “Introduction to Nano-materials: Nanotechnology And Nanoscience.” By Dr. Sachin Chavan, Department of Mechanical Engineering, BV(DU) COEP, “Recent Trends in Nano-

COE, Pune.



Felicitation of expert: Dr. Kirtan Tarwadi by Mrs. Sharada Tondare, Counselor, IEEE Student Branch, BV(DU) COE, Pune.



Felicitation of expert: Dr. I. A. Shaikh by Mrs. Sharada Tondare, Counselor, IEEE Student Branch, BV(DU) COE, Pune.

bioelectronics” By Dr. Kirtan Tarwadi, Department of Nanotechnology, BV(DU) COEP, “Structural, Optical and Magnetic Property of Transition Metal Doped Wide Band Semiconductor” by Prof. I. A. Shaikh, Department of Basic Science and Humanities, BV(DU) COEP. On the second day the workshop continued with hands on practical sessions at laboratory of ‘Nano and Composite Material’, BV(DU) COEP by Dr. Sachin Chavan to execute synthesis of Nanofibres-Electrospinning and Synthesis of Silver Nanoparticles and By Dr. Kirtan Tarwadi on Atomic Force Microscope, Fourier Transform IR Spectroscopy and nanoparticle size analyzer.

**Outcome:**



Interactive session on Nano cell and Nano batteries with Dr. Milind Kulkarni.



Hands on session on Nanoparticle synthesis from plant leaves.

- Nanotechnology is gaining the attraction of all researchers, scientists and academicians as well as industry all over the world. Nanostructures, Nanomaterials and Nanoscience allows manipulating the matter to atomic scale and hence they find application in fields of medicine, energy, electronics, computers, transportation etc.
- The students were able to acquire basic knowledge and various applications of nanotechnology in the field of electronics and medicine.
- This workshop gave an opportunity to upgrade student's technical skills and also provided the platform to learn and explore the concepts of nanotechnology for various applications like sensor design and nanoparticle synthesis.
- As the workshop contained hands on sessions, students were able to think on practical applications of nanoelectronics and nanomateri-



Hands on session at Nano and Composite Material Laboratory, M. Tech. (Nanotechnology) Program on Atomic Force Microscope, Fourier Transform IR Spectroscopy and electrospinning machines.



Expert: Dr. Milind Kulkarni sharing practical aspects of future nanotechnology with participants.

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- Experts have shared the importance and scope of research in Nanotechnology as India is looking forward in future to furnish science and advancement in Nanotechnology.



Vote of thanks by Mrs. Sharda Tondare, Counselor, IEEE Student Branch, BV(DD) COE, Pune.



**BHARATI VIDYAPEETH (DEEMED TO BE UNIVERSITY)**

**COLLEGE OF ENGINEERING, PUNE**

**Department of Electronics Engineering**

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