

Alva's Institute of Engineering & Technology

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# **Report**

# SEMINAR

### ON

# "Advanced Research-Nanomaterials in Technology"



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Achievement in nano technology cannot be derived by simply scaling down the physical phenomena and mechanisms. Here surface phenomena plays important role compared to bulk phenomena. It is an essential challenge to understand the behavior of given materials on all length scales, from the nanostructure to the bulk materials. Compared to bulk scale the challenges for nanomaterials synthesis lie in the design and tailoring of complex nanoparticles and 'smart' nanomaterials with multiple functions for vast number of applications.

In this context Department of Chemistry, AIET organized a seminar on "Advanced Research-Nanomaterials in Technology" on Friday, 18/08/17 in Auditorium. Dr. Santosh M.S. was the resource person of the seminar enlightened the students and faculties by motivating them through inspirational talk. He explained how nanomaterials can be joined without destroying their nanostructure and their function, how nanomaterials fail through corrosion, creep and fatigue, and how nanotribological mechanisms affect friction, adhesion, wear and lubrication.

He also added in nanomaterials science, the development of new materials drives many fields of engineering, e.g. to increase stiffness and at the same time save weight in aerospace or automotive industries. Nanomaterials follow the same trend, by mimicking the structure of biological tissues like wood, bone, shell, spider silk and many more examples. Finally he concluded with essential of nanomaterials to address major future global demands such as reducing energy consumption or the ecological impact of almost any product we use.

The seminar was conducted for faculties and students.

