

TITLE - "Applications of Micro and Nanotechnology"

**Date**: November 21, 2023 **Venue**: I Block Seminar Hall

**Resource Persons**: **Prof. V.K. Jain:** Distinguished Scientist & Professor Amity University, Noida (*Formerly Director Grade Scientist, Solid State Physics Lab SSPL, DRDO*).

School of Sciences (Physics Program), Manav Rachna University organized an expert talk on "*Applications of Micro and Nanotechnology*" on 21<sup>st</sup> November, 2023, from 11 am onwards for the UG and PG students and the faculty members.

The program was initiated with a warm welcome of the expert from the organizers, highlighting the importance of nanotechnology to the society. The distinguished expert Prof. V.K. Jain delivered the talk on Applications of Micro and Nanotechnology. The speaker emphasized the significance of Micro Electromechanical System and its applications in nanotechnology. He also discussed about the technologies of silicon solar cells and among these technologies, a few have been transferred to industries. Very recently they have developed room temperature based LPG sensor, flyash battery and cleaning of industrial waste water technology using nano-materials. All these technologies were demonstrated in his talk and few results were very encouraging that were discussed with students and the faculty members.

He also discussed about new areas of research such as solar energy, sensors, bio sensors, water purification, MEMS, nanomaterials and some others. Among his recent contributions, his research work on Agri-voltaic has been outstanding, which can double the income of the farmers if properly implemented. He also discussed about the generation of electric power from the waste water and simultaneously cleaning that water. The event received positive feedback from both students and faculty members, indicating a strong demand for such educational initiatives in the future.

At the end of event, students raised several queries and the same were resolved by resource person. The central idea of the session was to update the knowledge about nanotechnology and its applications among the students and faculty members.

The event was well-coordinated by Dr. Shiv Kumar Dixit, Dr. Deepti, Dr. Sandeep kumar, Dr. Jai Prakash and all faculty members from Department of Sciences. The session was concluded with a vote of Thanks by Dr. Shiv Kumar Dixit.

After the expert talk, Prof. V.K. Jain along with Prof. P.K. Bhatnagar (Emeritus Professor Delhi University) visited the UIC, MRU and gave their valuable feedback to improve and strengthen the research activities and research infrastructure at the centre. It was a very informative interaction. Prof V. K. Jain invited and encouraged science faculties as well as Medical college faculties to visit Amity Institute of Advanced Research and Studies (Materials & Devices) lab at Amity Noida for a futuristic collaborative research work. Being an advisory committee member of ICEMRB-2023, they also reviewed the preparation and progress of the forthcoming international ICEMRB-2023 conference to be held in December; 19-22, 2023 at MRU campus.