

**REPORT ON ONE DAY SEMINAR**  
**“NANOTECHNOLOGY: A SUSTAINABLE SOLUTION IN WASTE WATER**  
**MANAGEMENT”**  
**on**  
**20<sup>th</sup> DECEMBER 2017**

Amity Institute of Nanotechnology (AINT) organized a one day seminar on “**Nanotechnology: A sustainable solution in waste water management**” on December 20, 2017 in F1 seminar hall. The seminar focused on treatment and management of waste water using nanomaterials and their sustainability. The programme started at 10:30 am with the welcome address by Ms. Nandita. The dignitaries on the dias were Prof. Neeraj Khare, IIT Delhi, Shri R. N. Singh, Retd. IPS and Advisor Ganga Project, Prof. V. K. Jain, Advisor, AIARS and Prof. D. K. Avasthi, Director, AINT.



**Prof. D. K. Avasthi giving the opening remarks for the seminar**

Opening remarks and introduction of the programme was given by **Prof. D.K. Avasthi**. He highlighted the applications of nanomaterials in the management of waste water and the requirement of large scale production of nanomaterials. He mentioned that a large scale production of nanomaterial is possible at AINT. He emphasized the need of taking the laboratory level experiments to the real problems. Subject Experts, **Prof. Neeraj Khare, IIT Delhi**, industry expert **Mr. Sanjay Gupta, CII Triveni** and **Shri R.N. Singh, Retd. D.G. (U.P. Police) and Advisor, Ganga Project**, knowledgeable of real ground level problems, were the dignitaries invited for the seminar. He also welcomed all research experts and expressed his gratitude for the Founder President, **Dr. Ashok K. Chauhan** and the Vice Chancellor, AUUP, **Dr. (Mrs.) Balvinder Shukla** for giving an opportunity to organize a seminar on a theme, relevant to

societal need. Interested faculty and students from AINT, AIAS, AIARS, AIES and AIB were invited in seminar.



#### **Keynote address by Prof. Neeraj Khare**

The key note address was given by **Prof. Neeraj Khare, Professor, Department of Physics, IIT Delhi**. He shared his research work and talked about degradation of dyes using magnetic nanoparticles. He gave several examples of magnetic nanoparticles of various morphologies which have been developed in their lab and work efficiently for dye degradation in waste water well as removal of photocatalyst thereafter.



#### **Brainstorming session after the keynote address**

**Sri R.N. Singh, Advisor Ganga Project**, talked about the major challenges of Ganga project and the areas where academia should help in the conservation of rivers in India.

**Prof V. K. Jain**, Advisor AIARS, talked about the techniques related to waste water purification developed in his laboratory. He mentioned about the portable water purifier based on Ag nanoparticles.

**Mr. Sanjay Gupta, CII Triveni Water Institute** gave lecture on the pollution levels of river Ganga. He highlighted that pollution in Ganga is not only due to industrial waste but also due to municipal corporations. The lack of sewer lines properly around Ganga region has worsened the situation. He agreed that he will provide a link/ connect to Industries of interest to the faculty of AINT.

All the experts were felicitated by Prof. D. K. Avasthi.



**Mr. Sanjay Gupta being felicitated by Prof. D. K. Avasthi and Prof. Sunita Rattan**

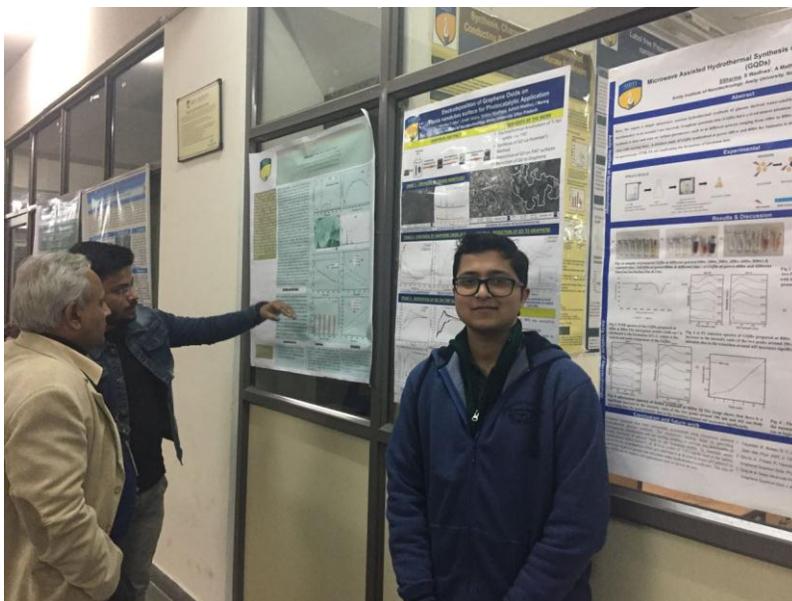
**Prof. Sunita Rattan, Director, AIAS** presented her work on synthesis of biosorbent using pine needles for removal of heavy metals particularly Cadmium. She also explained the effect of pH and contact time on removal of cadmium ion which was studied by using these pine needles.

**Dr. Monika Joshi, AINT** described the synthesis of different nanomaterials for removal of crystal violet dye where these nanomaterials were synthesized using green route. This was done on actual textile industrial water.



**Dr. Monika Joshi giving her presentation**

Finally, the **Poster session** was held in J2 Block third floor 02.30 onwards. In this the posters were presented by the students of AINT and AIAS. Prof. Avasthi interacted with the students and appreciated their work.



**Prof. D. K. Avasthi interacting with the participants of the poster session**

Prof. Tanu Jindal could not participate as she was unwell. The programme wrapped up around 4:30 pm. The vote of thanks which was given by Dr. Richa Krishna.