Background Concept

Nanotechnology continues to have a broad impact on nearly all sectors of the global economy from electronics, energy, to medicine, health and agriculture. In recent years, sufficient growth has been achieved in the area of nanotechnology, although the development of economic and environmentally benign processes for the scale-up production of nanomaterials and nanoproducts is one of the biggest challenges. The use of low cost and alternative renewable precursors like lignocellulosic biomass, algae and their residues for the production of bio(nano)products is the way forward owing to their flexibility, the ease and the variety of procedures through which the biosynthesis of valuable nanoproducts is implemented. The unique nanoscale properties of renewable biomass present valuable opportunities in the field of nanoscience and technology. Despite various advances in the field of bio-derived nanoproducts, the innovative greener synthesis of bio(nano)products are needed towards development of an economical and sustainable society. Although still burgeoning, the nano based products from renewable natural resources may thrive and see dramatic developments in the near future.

Key Features

- Harnessing Agricultural & Algal System for Circular Bioeconomy
- Burgeoning potential of ‘agro-residues’ in sustainable development of advanced bio-based nanoproducts: Challenges & Opportunities
- Algal based sustainable bioeconomy model
- From lab to audience: Models that demonstrate the advancement of research and development in the area of lignocellulosics and algae based nanoproducts.
- E-certificates
- Networking

Webinar Series: Waste Derived Nanomaterials
Part-II
BIO2NANO: BioResources to Sustainable Nanoproducts-Interventions, Current Status & the Future Perspective

20th October, 2021
Time: 14.00-16:00 IST (GMT+05:30)

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This webinar series will highlight the various leads being taken to derive nano-materials from agricultural waste and algal resources via a ‘Circular Economy’ model, which is based upon the principle of ‘process’, ‘recycle’ and ‘reduce waste’.

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Speakers

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Dr. Sudesh Kumar Yadav
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Dr. Akhilesh Kumar Singh
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Dr. Vandana Vinayak
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Coordinator

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