



International Virtual Event - NANOFORAGRI 2020

5-6 November, 2020 | Online Event, From TERI Deakin Nanobiotechnology Centre, Gurugram, Haryana, India

NANOFORAGRI 2020:

“Application of Nanotechnology for Sustainable, Productive and Safer Agriculture and Food System”

Virtual Event

5-6th November, 2020

Day 1 - 5th November 2020

Session-I: Applications of Nano-based Agrochemicals in Moving Towards Sustainable Plant Health, Agriculture and Food Systems

Moderator – Dr Mandira Kochar, TERI

Rapporteurs – Dr Rita Choudhary and Dr Ankita Bedi, TERI

08.30 AM – 08:55 AM IST (10:00 PM – 10:25PM local time on 4 th Nov)	Nano Agri-inputs towards Sustainable Agriculture and Food Systems <i>Dr Norman Scott, Cornell University, Ithaca, New York, USA.</i>
09:00 AM – 09:25 AM IST (10:30 PM – 10:55 PM local time on 4 th Nov)	Nano-enabled Strategies to Enhance Crop Nutrition and Protection. <i>Dr Jason C. White, Center for Sustainable Nanotechnology, New Haven, Connecticut, USA</i>
09:30 AM – 09:55 AM IST (11:00 PM – 11:25 PM local time on 4 th Nov)	Nanotechnology in Plant Pathology <i>Dr Wade Elmer, The Connecticut Agricultural Experiment Station, New Haven, Connecticut, USA</i>
10:00 AM – 10.25 AM IST (11:30PM – 11:55 PM local time on 4 th Nov)	Application of Molecular Recognition in Agriculture <i>Dr Maria C DeRosa, Department of Chemistry, Carleton University, Ottawa, Canada</i>
	Discussion with Speaker after each talk
10:30 AM – 10:45 AM	Break

Session-II: Food Security and Role of Artificial Intelligence in Plant Health Nanotechnology

Session Moderator - Dr. Sangram K Lenka, TERI

Rapporteurs – Dr Durga Mahapatra and Dr Neeraj Dwivedi, TERI

10:50 AM – 11:15 AM IST	Nanotechnology in diagnosis, detection and management of plant viral diseases <i>Dr R.K. Gaur, D.D.U. Gorakhpur University, India</i>
11:15 AM - 11:40 AM IST	Recent advances and future prospects of food nanotechnology <i>Dr C. Anandharamakrishnan, IIFPT, India</i>



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11:40 AM – 12:05 PM IST (5:10 PM – 5:30 PM DST)	Big Data Analytics in Agriculture: A Machine Learning Framework for Wheat Yield Prediction <i>Dr Mumtaz Ali, Deakin University, Australia</i>
12:05 PM – 12:30 PM IST (06:35 AM – 06:55 AM UTC on 5 th Nov)	Artificial Intelligence in Agriculture: Informing and Empowering Agricultural Decision Making <i>Dr Gregory O'Hare, School of Computer Science, University College Dublin, Ireland</i>
	Discussion with Speaker after each talk
12:30 PM – 1:30 PM	Scientists Oral Pitch
Each Presenter will get 5 mins to present in 3 slides each followed by a 2 min discussion	<ul style="list-style-type: none"> Validation of nanomaterials toxicity using <i>Drosophila</i> as a model organism – Dr Monalisa Mishra, NIT Rourkela Nanoemulsions coatings as an efficient tool to enhance shelf life of fresh temperate fruits – Dr Sajad Mohd. Wani, SKUAST, Kashmir Biogenic synthesis of copper nanoparticles and its <i>Phytophthora parasitica</i> inhibitory potential – Dr Mangesh Moharil, PDKV, Akola, Maharashtra A Simple Visual Based Ultrasensitive Detection Assay For Plant Pathogenic Virus Using Nanogold Probe –Silver Enhancement Method – Dr Raja M, IIT Ropar Development of an enzymatic intelligent sensor for detecting temperature abuse in frozen meat supply chain – Dr Kandeepan Gurunathan, NRC on Meat, Hyderabad Effect of Operational Parameters on the Green Synthesis of AgNPs using <i>Acalypha wilkesiana</i> and its Anti-microbial Studies – Dr Adewumi Oluwasogo, Landmark university, Nigeria Soil suitable diagnosis for sustainable intensive agriculture using GIS-based multi-criteria evaluation (MCE) in Sagar Island, West Bengal – Dr Rukhsana, Aliah University, West Bengal
1:30 PM	Group Photo

Day 2 - 6th NOVEMBER 2020

Session III - Cargos, Sensors, and Internet of Things for Safe and Smart Agriculture

Moderator – Dr Mukul Kumar Dubey, TERI

Rapporteurs – Dr Kalyan Yakkala and Dr Shovon Mandal, TERI



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09:30 AM - 09:50 AM IST (07:55 PM – 08:15 PM Local time on 5 th Nov)	Nanomaterial Enable Delivery of Genetic Material without Transgene Integration in Mature Plants <i>Dr. Markita P. Landry, Department of Chemical and Biomolecular Engineering, UCLA, USA</i>
09:50 AM - 10:15 AM IST (08:15 PM – 08:35 PM Local time on 5 th Nov)	Plant health monitoring and targeted delivery of agrochemicals using nanotechnology <i>Dr. Juan Pablo Giraldo, Department of Botany and Plant Sciences, University of California, Riverside, USA</i>
10:15 AM - 10:40 AM IST	Prospects of Nanocarriers for CRISPR Delivery in Plants <i>Dr. Sangram K Lenka, TERI Deakin Nanobiotechnology Centre, TERI, Gurugram, India</i>
10:40 AM - 11:05 AM IST	Internet of nano things for smart agriculture: Basics and Applications <i>Dr B. INDIRA REDDY, Sreenidhi Institute of Science and Technology, Hyderabad, India</i>
	Discussion with each Speaker after each talk
11:05AM - 11:15 AM IST	Break

Session IV - Agri-Nanotechnology

Moderator – Dr Pushplata Singh, TERI

Rapporteurs – Dr Ruchi Agrawal and Dr Suneeti Singh

11:15 AM - 11:35 AM IST	Novel Micro-Nano Materials Indicated as the Emerging Plant Growth Regulator <i>Dr Nishith Verma, IIT Kanpur, Kanpur, India</i>
11:35 AM – 11:55 AM IST	Nanotechnology a tool for Advances in agricultural pest management <i>Dr. Deepa Bhagat, NBAIR, Bengaluru, India</i>
11:55 AM – 12:50 PM	Students Oral Pitch Presentations
Each Presenter will get 5 mins to present in 3 slides each followed by a 2 min discussion (Best presentation to be awarded Certificate)	<ul style="list-style-type: none">▪ <i>Applications of AI/Data Science for Plant Disease Monitoring: A Deep Learning-based approach - Janarthan Sivasubramaniam, Australia</i>▪ <i>A Brief Insight into the Role of Nanoporous Silica in Germination, Growth and Tolerance to Heavy Metal Stress – Sutanuka Mitra, India</i>▪ <i>Chaotic-to-Fine Clustering for Unlabeled Plant Disease Images - Uno Fang, Australia</i>▪ <i>Effect of processing parameters on tapioca starch films - Elham Tavassoli-Kafrani, Australia</i>▪ <i>Self-Assembly Of Modified Core Satellite Gold Nanoparticles For Detection Of Arsenic In Water – Shalini Thakkar, India</i>▪ <i>Detection of tolerance level of potato crop due to application of Nanoformulations synthesized from Conventional chemicals and Plant</i>



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	<i>based products under green house condition – Tushnima Choudhuri, India</i> <ul style="list-style-type: none">▪ <i>Stacking the Remotely Sensed Images to Monitor Urban Expansion and Food Production: From Past to Now and the Future - Jinzhu Wang, Australia</i>
12:50 PM - 01:10 PM IST (07:20 AM to 07:40 AM WET on 6 th Nov)	Lab-on-a-chip and paper-based sensors for contaminants in water and aquaculture products <i>Dr Begoña Espiña, INL, Braga, Portugal</i>
	Discussion with each Speaker after each talk
01:10 PM – 01:30 PM IST	Break

Session-V: Science-Society-Policy Interface for Agriculture and Food Nanotechnology

Session Chair – Dr Alok Adholeya, TERI

Rapporteurs – Dr Pushplata Singh and Dr Shivani Srivastava, TERI

01:30 PM – 01:45 PM IST	Actions Post Issue of Regulatory guidelines for Agri-Nanotechnology <i>Dr Suchita Ninawe, Adviser, Department of Biotechnology, Govt. of India</i>
01:45 PM - 02:00 PM IST	Regulations for Nano-based products : Global vs. Indian Perspective (*) <i>Dr Amit Dinda, AIIMS, New Delhi, India</i>
02:00 PM – 02:15 PM IST	Guidelines for Evaluation of Nano-based Agri-input And food Products In India and their global relevance <i>Dr Alok Adholeya, TERI, New Delhi, India</i>
02:15 PM – 02.30 PM	Panel Discussion
02:30 PM	Vote of Thanks - Dr Alok Adholeya, Senior Director, Sustainable Agriculture, TERI Group Photo