Invited Lecture

In the 20th June 2019, at 3:00pm in Z1 room

Engineered Biochar – A Smart and Sustainable Solution to Biomass Burning, Soil Management, Food Security, Water Purification and Climate Change Mitigation

Professor Dinesh Mohan, FRSC

Clarivate Analytics/Thomson Reuters Highly Cited Researcher
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For the last more than 22 years, Dr. Dinesh Mohan is involved in the development of sustainable treatment technologies for contaminants removal and recovery. He has developed/synthesized variety of activated carbons/magnetic carbons/ nano-engineered porous solids/biochars adsorbents, metal oxide adsorbents, mixed hybrid metal oxide adsorbents with different surface chemistries and adsorption mechanisms for inorganic and organic contaminants. He is heavily involved in biochar development, characterization and utilization in water filtration, soil immobilization and fertility, carbon sequestration and climate change mitigation. He has successfully converted lignocellulosic biomass into biofuels. These biooils can be used to generate heat and electricity. These can further be upgraded into transportation fuels. Agricultural residues converted into bio-oil also give a bio-char byproduct. He has applied this biochar to soil for CO_2 mitigation. Biochar application increases C-residence time in soil relative to the application of same biomass directly to soil therefore can be considered over particular timescales to result in a net atmospheric CO_2 withdrawal. In addition, biochar without further modification applied to soil may directly reduce emissions of other greenhouse gases including nitrous oxide and/or methane from soil.

Prof. Dinesh Mohan has published 125 research papers **(total citations: >26,250 and h factor: 60)** in the high impact factor Journals including one in **Chemical Reviews (IF: 52.14)** and has received global recognition as the **Highly Cited Researcher** in 2014, 2015, 2016, 2017, and 2018.