Dear Colleagues,

Greetings of the day!

Waste from rural areas can prove to be a great resource if treated and managed well. In order to contribute to emerging need for novel and effective biomass conversion technologiesand also to make students aware of the most recent trends and future prospects, **Department of SAIF/CIL, under the aegis of CRIKC, cordially invites you to participate in International workshop on "Development of Rural Biorefineries in India: Ascoping exercise" to be held on 22nd February, 2017.**

The main aim of this workshop is to discuss the challenges and opportunities associated with biomass conversion. This workshop provides a platform for researchers/scientists to share and globalize their research work.

1. To initiate face to face discussions and collaborations with experts from Chandigarh(biosensors and green chemistry) in order to catalyse the development of bio-refineriesin rural India.

2. To scope the opportunities and challenges for the development of biorefineries in ruralIndia.

3. To inspire the next generation of college and university undergraduates, early careerresearchers and industrialists to scope the opportunities and challenges for thedevelopment of biorefineries in rural India.

4. To alleviate poverty and enhance economic wealth through scientific intervention.

For further information see the attached brochure:

Prof. S.K. Mehta
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Panjab University
Chandigarh – 160 014
Email: skmehta@pu.ac.in

Green Chemistry in Action

In December 2015, Delhi was named as the 'most polluted city in world' surpassing Beijing. Of the many causes of its pollution: 8 million cars; small-scale diesel electricity generators and; surrounding coal plants, the uncontrolled burning of agricultural residues post-harvest in the Punjab (North India) is often cited as a significant factor as the particulate matter (smog) is transported south due to prevailing winds. Pollution in Delhi is so extreme it may have damaged the lung function of half the city's 4.4 million children so severely that they will never fully recover. In a world of rapidly depleting resources, the challenge to work with renewable, sustainable material and energy sources is increasingly global. While the UK has strong research drives towards safe sustainable resource use, these efforts will have little global impact if these aspirations are not shared by DAC-listed countries such as India. Can the knowledge and asset base in Punjab be better utilised for improved regional, national and global sustainable development?"

In this regard, we are focusing on Green chemistry in action. Green chemistry is the design of (bio)chemical processes and products in a way that minimizes hazard to both humans and the environment. This chemistry aids in the task of environmental protection agency charged with safe guarding the human and environmental health by setting a rigorous protocol that includes real time analytical methodology for in-process monitoring and control, prior to the formation of hazardous substances scrutinizing the activity of such toxic analytes with an intension of ascertaining various transformations and consequent generation of not so environment friendly substances. It is accomplished by exploitation of chemical sensors with exceptional attributes of high accuracy, resolution, sensitivity, lower noise and power consumption, wide range of measurement, efficient use of reagent and other advantages in terms of miniaturization and reliability contribute towards designing of a lucrative sensor which in-turn empowers productive determination of the composition of waste and effluents. These procedures amalgamated with "greener" route offers a promising and consistent methodology for proficient elimination of toxic substrates.

Oral Presentation

This one day workshop will be accompanied by an oral presentation. The time limit for oral presentation will be 10 minutes. The best presentation will be selected by a three-member panel of judges, and the selected presenters will be awarded. Interested candidates may submit their abstracts through email to sk.greenchemistry@gmail.com

Poster Presentation

This one day workshop will also have a poster presentation. The standard poster dimensions are 48 x 36. The best posters will be selected by a three-member panel of judges, and the selected presenters will be awarded. Interested candidates may submit their abstracts through email to sk.greenchemistry@gmail.com.

Deadlines

Submission of abstract (oral and poster) may be made from 5th February 2017 onwards till 15th February 2017.

Registration

Interested candidates can participate without any registration fees.

For further assistance please contact Prof. S.K. Mehta at skmehta@pu.ac.in. We look forward to your participation in Indo-UK Scoping Workshop on "Development of Rural Bio-refineries in India: A scoping exercise", which will be an exciting and informative event.

Indo-UK Scoping Workshop

on

Development of Rural Biorefineries In India : A scoping exercise

Organized by

Panjab University , Chandigarh

&

Green Chemistry-Center of Excellence, University of York

Sponsored by

BBSRC Grand Challenges Research Fund

Venue:

Department of CIL/SAIF
Panjab University
Date: 22nd February, 2017

Introduction

India is one of the largest consumers of energy in the world. The energy demand is estimated to grow at a rate of ~4.8% per annum and will increase by a factor of eight by the year 2030. Every year India spends significant amount of money to import crude fossil fuel, which serves about 70% of the country's requirement. The escalating prices of crude oil in the international market and accompanying concern for exhausting fossil fuels, have led developing nations to explore alternative and cheap sources of energy to fulfill the growing energy demand. Green chemistry can provide a fruitful solution to this problem by enabling researchers to utilize waste (biomass) as a new resource for the development of useful chemicals and alternative fuel called "biofuel".

Biomass, being abundant and economic, is considered as a greener, sustainable and potential alternative source of energy which can be directly converted to liquid & gaseous fuels. Agricultural and forest residues, which are among the major bio-resources, have tremendous potential for biofuel production. This offers a solution to waste management by converting waste into usable form of energy.

Waste from rural areas can prove to be a great resource if treated and managed well. In order to contribute to emerging need for novel and effective biomass conversion technologies and also to make students aware of the most recent trends and future prospects, Department of Chemistry & Centre of Advanced Studies in Chemistry, cordially invites you to participate in International workshop on "Development of Rural Biorefineries in India: A scoping exercise" to be held on 22nd February, 2017.

Chairman

Dr. Avtar Matharu
Acting Director,
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Heslington, York, UK
Email: avtar.matharu@york.ac.uk

Convener

Prof. S.K. Mehta
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About the Chairman

Dr. Avtar Singh Matharu is Acting Director of the Green Chemistry Centre of Excellence (GCCE) at University of York, UK. The GCCE is an internationally-leading academic facility for the provision of excellence in green and sustainable chemical technologies, processes and products. He is External Examiner at Keele University for Environmental Science & Green Technologies and Editor for Current Opinion in Green and Sustainable Chemistry (Elsevier). Dr. Matharu specializes in gaining high additional chemical value from otherwise low-value resources or waste such as unavoidable food supply chain wastes, developing sustainable supply chains and circular economy within the context of biorefineries. He is technology platform leader for Renewable Materials working on range of biomass related materials and applications.

About Panjab University

Panjab University was established in 1882 as a university of Panjab at Lahore (now in Pakistan). Panjab University has been Accredited with CGPA of 3.35on a four point scale at A Grade valid for the period of 5 years from 25/06/2015.

It is 1st among Universities of India and in the bracket of 276-300 internationally in the Times Higher Education World University Rankings, 2014-2015 powered by Thomson Reuters.

Ranked 39th by the Times Higher Education among BRICKS & Emerging Economics.

The Department of Chemistry is one of the prestigious departments of Panjab University. It has on its faculty highly component and efficient members whose work is internationally recognized. Several faculty members are recipients of awards and honours, such as Shanti Swarup Bhatnagar, Jawaharlal Nehru, Raman and Palit awards.

The department has been selected by the UGC first for COSIST, and then for Special Assistant Programme(SAP) and now it is the Centre for Advanced Studies in Chemistry (CAS) for last 16 years. The Department of Science and Technology (DST), Government of India has accorded it the status of "DST-FIST Supported Department".

About the Event

Biorefineries can help in utilizing the optimum energy potential of organic wastes and may also resolve the problems of waste management and green house gas emissions. Wastes can be converted, through appropriate enzymatic/chemical treatment, into either gaseous or liquid fuels. But, the concept of biorefinery is still in early stages at most places in the world. Therefore, there is an urgent need to find out the solutions of complexities faced during the conversion.

Aims and Objectives

The main aim of this workshop is to discuss the challenges and opportunities associated with biomass conversion. This workshop provides a platform for researchers/scientists to share and globalize their research work.

- To initiate face to face discussions and collaborations with experts from Chandigarh (biosensors and green chemistry) in order to catalyse the development of biorefineries in rural India.
- To scope the opportunities and challenges for the development of biorefineries in rural India.
- To inspire the next generation of college and university undergraduates, early career researchers and industrialists to scope the opportunities and challenges for the development of biorefineries in rural India.
- To alleviate poverty and enhance economic wealth through scientific intervention.