Thermochemical Conversion Processes

SAHYOG Twinning

Through facilitating and coordinating project twinning, SAHYOG **brings together project coordinators and other lead partners from past and on-going projects as well as international networks** in order to consolidate R&D results, exploit synergies and thus build up a critical mass for future EU-India research collaboration in the area of biomass and bio-waste.

Background

Today, thermochemical conversion processes such as pyrolysis and gasification are viable technologies for the conversion of biomass or bio-waste to a variety of valuable products. In pyrolysis, solid biomass is heated to several hundred degrees in the absence of oxygen leading to a mixture of liquid (bio-oil), gaseous and solid (bio-char) products. Thereby, bio-oil can be up-graded to biofuels and bio-char may be used for soil improvement. Gasification is the conversion of biomass by partial oxidation of biomass at high temperatures into combustible gas mixtures which can be burnt or used as fuel for gas engines and gas turbines.

Research Themes

The following research themes in the field of thermo-chemical conversion for renewable energy production will be addressed under SAHYOG twinning:

- Development of cost and environmentally efficient pre-treatment processes
- Improvement of purification systems for biomass based syngas
- Improvement of catalysts for production of valuable products from synthesis gas
- Process integration
- Optimization of bio-oil production chains
- Development of (catalytic) up-grading processes of bio-oil to transportation fuels
- Optimization of end product (e.g. bio-char) applications

SAHYOG Twinning – How to get involved?

With respect to EU-India twinning, the following activities and procedures are foreseen within SAHYOG:

- Get in contact with SAHYOG partners responsible for twinning (Robert Bakker, Rainer Janssen, Dominik Rutz)
- Sign Letter of Interest on India-EU SAHYOG twinning
- Define your areas of interest for research cooperation
- Cooperation contacts from India/Europe are identified by SAHYOG
- Assistance for twinning activities is provided by SAHYOG
- Participation in SAHYOG twinning workshop is facilitated

India-EU SAHYOG Twinning Activities

Strengthening Networking on Biomass Research and Bio-waste Conversion - Biotechnology for Europe India Integration

Contact for SAHYOG Twinning:

Wageningen UR, The Netherlands
Dr. Robert Bakker
robert.bakker@wur.nl

WIP – Renewable Energies, Germany
Dr. Rainer Janssen
Dominik Rutz
rainer.janssen@wip-munich.de
dominik.rutz@wip-munich.de

Project Coordination:

ENEA, Italy
Dr. Neeta Sharma
neeta.@enea.it

TERI, India
Dr. Priyangshu Manab Sarma
priyanms@teri.res.in

Website: www.sahyog-europa-india.eu

Department of Biotechnology
Ministry of Science & Technology,
Government of India

SEVENTH FRAMEWORK PROGRAMME

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