

Renewable energy: IIT Ropar ties up with UK varsity

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RUPNAGAR: European Bioenergy Research Institute (EBRI) at Aston University, Birmingham, UK, has tied up with Indian Institute of Technology (IIT), Ropar, for making available new renewable energy technology for biomass conversion from agriculture waste in India.

BAHADURJEET SINGH/HT



The new renewable energy technology mobile unit stationed on the IIT Ropar campus.

“Funding from Aston University and Oglesby Charitable Trust had enabled the EBRI to work closely with IIT Ropar to make the innovative technology available in India,” said executive dean, engineering and applied science, Aston University, Prof Robert Berry during an interaction with mediapersons on the IIT Ropar campus on Thursday.

“In India, particularly Punjab, farmers regularly burn excess straw left over from their wheat and rice harvests. The burning process has a negative impact on environment and economy as this straw is wasted and has serious implications on health and society due to smoke and fumes produced. The new technology takes waste products and converts the residues such as husk and wheat, rice straw in controlled conditions to generate bio oil, biochar and gas,” Prof Berry said.

He said as pilot phase the new technology would be introduced in three villages of Rupnagar district - Khawaspura, Hussainpur and Ladal in the coming months.

“The technology is housed in a container unit which can be transported to these villages and will be operated by villagers themselves,” said Prof Berry, adding that this technology had the potential to stimulate growth and provide a cost effective, reliable form of decentralised power generation to address the local needs of heat and energy.

“The new technology has many benefits. Firstly, it helps in eliminating the open field burning resulting into improved air quality. Secondly, farming villages will receive the benefits of decentralised electricity for their rural community. Thirdly, the oils produced can be used to power the engines that are used in farming equipment, and fourthly, a bio-product, biochar, is produced which can be used as fertiliser which improves crop yield,” Prof Berry added.

Atson University associate professor Sudhakar Sagi, who is supervising the process of introduction of the new technology and further modifications of it on the IIT Ropar campus, said the bio oil generated through the new technology could be used in running the engines by blending it with diesel in 30:70 ratio.

IIT Ropar associate professor, School of Mechanical Materials and Energy Engineering, Harpreet Singh expressed hope that the new technology would prove to be successful in the villages.