## Pine needles' conversion to biofuel for rural empowerment

Prof. (Dr.) Rajendra Kumar Sharma (Vice Chancellor-JUIT) (Invited as Guest)

Prof. Dr. Ashish Kumar (HoD- Civil Engineering - JUIT)

Anup Kumar Sinha (Project Associate)

Jaypee University of Information Technology, Waknaghat

Solan, 173234

March 15 - March 17, 2023



The G20 Summit takes place annually, under the leadership of different/rotating Presidency among 20 members of the group, including 19 countries (Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Republic of Korea, Mexico, Russia, Saudi Arabia, South Africa, Türkiye, UK and US) and the European Union. Initially, G20 Summit was focused mainly on macroeconomic issues, later it expanded its agenda to inter-alia including trade, sustainable development, health, agriculture, energy, environment, climate change, and anti-corruption. As we all know, in 2023 (Millets years) India got the presidency of G20, which led to many international-level events in India at different venues. On March 15 - March 17, 2023, IIT Ropar organized G20's 2nd Working Education Group Meeting under this banner a Research and Innovation expo at Khalsa College, Amritsar. Among all the entries from the Pan India for the G20 expo, only few got selected to present their work in front

of G20 delegates, It's a proud moment for Himachal Pradesh and Jaypee University of Information Technology, Waknaghat, that our sustainable research work on "Pine needles' conversion to biofuel for rural empowerment" got selected their to present our work on sustainable rural development in the area of renewable energy. Directorate of Research Innovation and Development (DRID) innovation team at JUIT is working on biobriquetting from Pine needles in Himachal Pradesh linked to. We are committed to provide pine needle based briquettes to curb the menace of Pine-forest fire, and to generate rural employment. At this event, our JUIT's Vice Chancellor Prof. (Dr.) Rajendra Kumar Sharma was invited with the team members working on the project Prof. Dr. Ashish Kumar (HoD - Civil Engineering) and Anup Kumar Sinha (Project Associate). The project is funded through DRID to Prof. Sudhir Kumar (HOD - BT&BI) and Prof. Ashish Kumar. The team had an interaction with students and delegates from various organizations including industry.





