

Evidence against indicator 17.2.2

17.2.2	Cross sectoral dialogue about SDGs Initiate and participate in cross-sectoral dialogue about the SDGs, e.g. conferences involving government or NGOs		Yes	Dept of CE conducts Webinars/Workshops regularly with/without Govt funding. The links will be pasted.	Yes
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Sr. No	Title	Date	Mode	Participation
1	Two Days Online Workshop on Advanced STAAD Modeling (https://www.juit.ac.in/departme nt/civil/4TwoDaysOnlineWorks hoponAdvancedSTAADModelli ngJune21222022.pdf)	21–22 June, 2022	Online	Civil Engineering Department, JUIT and HP Public Works Department
2	Webinar on Latest Trends in Green Building Design (https://www.juit.ac.in/departme nt/civil/6WebinaronLatestTrends inGreenBuildingDesignSeptemb er142022.pdf)	14 Sep, 2022	Online	Student Chapter of IGBC
3	Green Talks with Experts on “Efficient Rainwater Harvesting Technologies” (12. n 2022-11-24 Green talks with experts on Efficient Rainwater Harvesting Technologies.pdf)	24, November 2022	Online	Department of Civil Engineering at Jaypee University of Information Technology (JUIT), in collaboration with the Indian Green Building Council Chandigarh Chapter,
4	Webinar On “Green & Resilient Eco-sensitive Approach for Hill Ecosystem” (15. n 2023-9-12-13 Webinar on Green & Resilient Eco-sensitive Approach for Hill Ecosystem.pdf)	12–13 September, 2023	Online	Civil Engineering Department of Jaypee University of Information Technology, Wagnaghat, in collaboration with Indian Green Building Council
5	Green Talks with Experts on “Radiant Cooling Systems for High Performance Buildings” (13. n 2023-1-24 Green talks with experts on Radiant Cooling Systems for High Performance Buildings.pdf)	24 January, 2023	Online	Department of Civil Engineering at Jaypee University of Information Technology (JUIT), in collaboration with the Indian Green Building Council (IGBC) Chandigarh Chapter

SCIENTIFIC ADVANCEMENT OF MOVEABLE BIOGAS DIGESTER

On the route toward settings benchmark in sustainable technologies, Jaypee University of Information Technology is always standing in the first row. In the beginning of year 2023, JUIT received an Indian Patent dia for fabricating a novel movable biogas reactor with a capacity of 20L gas storage.

Later this reactor replaced one of the lab burners in the biotechnology lab of the university.

In the recent development a strong casing cover is fabricated with proper scientific approach for this biogas reactor which not only just protects it from any external damage but also helps in maintaining a warm temperature inside it; so that the biogas production within the reactor can speed up on an everyday basis. This casing cover is made of iron casing fitted with green fiber glass. Scientifically this green fiber glass is a best strategy to achieve thermal comfort for biogas production. This casing prominently helps in biogas production in hilly areas by trapping a significant heat inside it to fulfill heat requirement of digester. The height of this casing is designed as per the gas storage tank's extreme capacity so that it does not hurdle in biogas - storage and also support the gas tank to keep it upright.

Currently this moveable biogas digester is being installed in Rural technologies section in the Department of Biotechnology and Bioinformatics of JUIT, Wagnaghat, Solan. Prof. Sudhir Kumar of Biotechnology and Bioinformatics, Prof. Ashish Kumar of Civil Engineering Department and their team members are involved in this activity.



Awareness Programme for Skill Vigyan Training (06 July, 2022)

Place: Chauhsa Panchyat and Govt. Senior Secondary School, Delgi, Solan, H.P.

Date: 06.07.2022

The aim of the programme was to provide awareness for endeavouring training programme for laboratory skills development for science graduates and 12th passed science students. Prof. Sudhir Kumar visited Chauhsa Panchyat and informed the office bearer about the Quality Control Biologist and Lab Technician/Assistant courses, offered by National Skill Development Corporation Govt. of India conducted at JUIT and requested to disseminate this information. The press notification of HIMCOSTE was shared. He also shared the details of this programme with teachers of Delgi School. Teachers (Mr. Sunil, and Mr. Sushil) assured to share the information in their teachers' what's app group and informed that school did not have science subjects in 11th and 12th standard. The benefits of the Skill Vigyan training programme was explained to them which have vision to provide employment in the related industries/ organization after certification in the programme. They were informed about the fee (Nil) and stipend (5000 per month) provided by the National Skill Development Corporation Govt. of India for opting these training programme to selected candidates.

JUIT has successfully completed training of outstation students in Quality Control Biologists and Lab. Technician trades in 2021-2022. Prof. Sudhir Kumar, Dr. Gopal Bisht and Dr. Rahul Shrivastava designated to coordinate this programme in JUIT.

Chir Coal – A Sustainable Lifestyle Goal

On the World Environment Day – 05 June, 2023, the team of JUIT researchers (Dr. Sudhir Syal, Dr. Ashish Kumar, Anup Kumar Sinha) presented the coal prepared by them to local Corn Vendor on road side of Shimla Chandigarh Highway near Wahnaghat. The team decided to test their technology of preparing coal from Pine needles (Chir in local language) involving actual users and needy vendors. Mahipal from Bareilly, U.P. – a corn vendor informed the team that he is purchasing coal worth Rs 50 per kg and it is a bottleneck in his livelihood. He used the coal prepared by JUIT team and rated its performance equivalent to hardwood coal purchased by him from the market. He was happy to know that this can be produced within a day using Pine needles and he can learn this technique from JUIT team. He also suggested possible ways for further improvement in its ignition and shape. The team decided to reach out more corn vendors in this season to contribute towards sustainable lifestyle. Pine needles are source of forest fire in HP and Uttarakhand, so using these as means of formation of coal can be boon for these small scale vendors. Dr. Sudhir was of the view that for any technology Simple System Works and the technological processes should be easy, cost-effective and doable by anyone. These activities are funded by Directorate of Research, Innovation and Development – of Jaypee Research Group under the leadership of Vice Chancellor Prof. R.K. Sharma and jointly taken by departments of Biotechnology and Bioinformatics, Civil Engineering and Centre of Excellence in Sustainable Technologies for Rural Development.



**Training on pine needles' charcoal briquettes technology – Preparation of briquettes,
working and its benefits
(Jaypee Innovation Project)**

Place: Govt. Senior Secondary School, Delgi, Solan, H.P.

Date: 06 July, 2022

In the month of July (06.07.2022), we (Prof. Sudhir Kumar, Prof. Ashish Kumar and Kamini Verma, Karam Dass,) visited Govt. Senior Secondary School Delgi Solan. The faculty of school - Mr. Sunil Mittal and Mr. Sushil Kumar (lecturers) helped the JUIT-Team to conduct this training in the school for 11th and 12th students. Prof. Sudhir Kumar and Prof. Ashish Kumar explained about the Pine briquetting technology and gave brief description about the procedure and benefits of Charcoal Pine Needle Briquettes. Prof. Sudhir Kumar described about the applications of charcoal briquettes for rural development such as cooking, electricity generation through this environment friendly process. Prof. Sudhir Kumar and Prof. Ashish Kumar resolved all the queries of the students related to the Charcoal Briquettes' Technology. Mr. Karam Dass and Ms. Kamini Verma gave the practical demonstration of the charcoal pine briquettes. All the teachers and students were happy to know about this new technology. In the end of the training section, Mr. Sunil Mittal and Mr. Sushil Kumar expressed their gratitude to JUIT team for their informative interaction section and desired for an exposure visit of school students to JUIT.



Interaction program with students and teachers of Govt.
Senior Secondary School, Delgi, Solan



Practical demonstration of use of Charcoal



JUIT Team - Govt. Senior Secondary School Delgi,
Solan, H.P. (Prof. Ashish, Prof. Sudhir, Karam Dass,
Kamini Verma

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

Report on G20 2nd Education Working Group Meeting (Research and Innovation EXPO)

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of G20 delegates, It's a proud moment for Himachal Pradesh and Jaypee University of Information Technology, Wanknaghat, 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.





VISIT OF GENERAL SHIVDEV SINGH DIWAN GURBACHAN SINGH KHALSA COLLEGE, PATIALA STUDENTS TO BIOGAS FACILITY OF JUIT

An academic visit was conducted by department of Biotechnology and Bioinformatics for B.Sc. Biotechnology students of Khalsa College Patiala, Punjab on 31st October, 2022 and 1st November 2022. 26 students (16 girls and 10 boys) along with two faculty members (Dr. Nipunjot Kaur Soni Bains and Dr. Arpit Sharma) reached at JUIT. On 1st November 2022, the students were then taken by Dr. Abhishek to JUIT Biogas facility (managed and run by CESTERD under the Dept. of Biotechnology and Bioinformatics), where they were explained about working and science involved in biogas production along with live demonstration of the facility and its usage. The students were apprised about need of a holistic and sustainable development based research. Dr. Rahul Shrivastava conducted the overall visit.



Biogas Plant Site of JUIT