

BIOGAS DIGESTERS:TECHNOLOGY EXTENSION

Installation of Biogas Reactor at Chitkara University, Baddi (H.P.) (18 February 2022)





Fabrication and Installation of a biogas reactor at Govt. Senior Secondary Girls School, Solan, HP : 20 September, 2019.



Biogas reactor and training program at Govt. senior secondary school, Burmana, Bilaspur, HP – sponsored by JUIT and Ministry of Rural Development, HP. (Training: 08-04-2019 and Installation: 30-10-2018)





मुकुंद कुमार - सोलन

जेपी विश्वविद्यालय के सूचना प्रौद्योगिकी के वैज्ञानिक डॉ. सुधीर कुमार और डॉ. आशीष कुमार कम लागत वाले रिप्लेन्ट को खाना पकाने वाले ईंधन में परिवर्तित कर रहे हैं। उनके रिप्लेन्ट सकार को खाना पकाने वाले ईंधन की आपूर्ति से जेपी यूनिवर्सिटी ने इस डिजाइन

हालात

जेपी यूनिवर्सिटी के वैज्ञानिकों ने ईजाद की तकनीक, डिजाइन को पेटेंट करवाने के लिए आवेदन

विशेष रिप्लेन्ट पर पक रहा खाना

बनी के प्राथमिक विद्यालय और धार आंचों में लगे हुए हैं। ये स्कूलों में एलजी के उपयोग को लागत को कम करते हैं और प्रतिदिन 30-40 मिन्ट की गैस आपूर्ति प्रदान करते हैं। हिमाचल प्रदेश विज्ञान प्रौद्योगिकी और पर्यावरण परिषद (हिपकोस्ट) ने इस परियोजना को प्रायोजित किया है। उन्होंने एक और रिप्लेन्ट भी विकसित किया है, जो अपशिष्ट भोजन का उपयोग करता है और इसका उपयोग स्कूल और कलेजों को रसायन विज्ञान और जीव विज्ञान प्रयोगशालाओं में गैस बर्नर के प्रतिस्थापन के रूप में किया जा सकता है। हिपकोस्ट के सहयोग से जेपी यूनिवर्सिटी ने इस डिजाइन

के पेटेंट के लिए आवेदन किया है। इसी तरह के तीन रिप्लेन्ट जेपी यूनिवर्सिटी कैंपस में भी लगाए गए हैं। जेपी विश्वविद्यालय के रजिस्ट्रार मेजर जनरल (सेवानिवृत्त) रमेश बस्सी ने एक अनूठी पहल के तहत अपने परिसर में एलजी के बिना रहने वाले सीमांत परिवारों को बायोगैस कनेक्शन आर्बोर्ड किए रिप्लेन्ट भी विकसित किया है, जो खाना पकाने के लिए ईंधन का उपयोग कर रहा है। बता दें कि प्रयोगों को रसायन विज्ञान और ग्रामीण विकास विभाग हिमाचल प्रदेश और झारखंड सरकार ने बायोगैस के क्षेत्र में तकनीकी विशेषज्ञ के रूप में जेपी विश्वविद्यालय को प्रतिष्ठित किया है।

दोनों वैज्ञानिक अपने तकनीकी कर्मचारी कर्मदास के साथ बायोगैस के निर्माण और कार्य के बारे में स्थानीय युवाओं और महिलाओं को प्रशिक्षण देते हैं। 2009 से एचपी में एक चरण बायोगैस रिप्लेन्ट स्थापित करने के अनुभव के साथ उन्होंने अधिकतम बायोगैस आउटपुट के लिए शर्तों को अनुकूलित किया है और प्रदेश के

ठंडे पहाड़ी इलाकों में बायोगैस उत्पादन के लिए एक ठंडा अनुकूलित माइक्रोबियल कंसेंट्रियम विकसित किया है। उनके अनुसार भारत के उत्तर-पूर्वी पहाड़ी राज्यों में भी अपशिष्ट भोजन के प्रबंधन के लिए समान दृष्टिकोण लागू किया जा सकता है। यह रिप्लेन्ट निम्न, कम्पैक्ट, लागत प्रभावी, पोर्टेबल और उपयोगकर्ता के अनुकूल है।

कम लागत में मिलती है बेहतर ऊर्जा

यह रिप्लेन्ट बहुत कम लागत में बेहतर ऊर्जा प्रदान करता है। रिप्लेन्ट के आकार और अपशिष्ट उपलब्धता के आधार पर इनकी लागत 15000 से 40000 रुपए तक होती है। जीवाश्म ईंधन की घटती आपूर्ति और उनसे जुड़े नकारात्मक पर्यावरणीय प्रभावों को रोकने के लिए रिप्लेन्टों के विकास की आवश्यकता होती है, जो ऊर्जा को ईंधन में परिवर्तित करते हैं।

दिव्य हिमाचल Thu, 04 July 2019
<https://epaper.divvyahimachal.com/c/41044199>



Awareness and Exposure Visit of Farmers To JUIT Wagnaghat for their Socio-economic Improvement

Organised at JUIT in collaboration with DST-SYST Funded Project On “Socio-Economic Upliftment of High Altitude Farmers of Himachal Pradesh Through Transfer of Micropropagation Technologies for High Value Medicinal Herbs” On 25th and 26th December, 2018 Coordinator: Dr. Hemant Sood [FOR MORE INFORMATION CLICK HERE]

Five farmers of The Phati Jana Cooperative Agriculture Service Society, Village Archandi, Kullu of Himachal Pradesh visited Department of Biotechnology and Bioinformatics for Awareness and Exposure visit for improving their socioeconomic status and exploring future avenues for themselves and for their society members. They have reached JUIT on 25th December and in the evening media preparation was carried out for demonstration of plant tissue culture techniques. On 26th they were informed about basics of plant tissue culture and different ways of carrying out micropropagation of medicinal plants. They were demonstrated with plant tissue culture techniques in Plant Tissue Culture Lab of the Department of BT &BI. Afterwards they have

carried out transplantation of tissue culture plants in the glass house of the department. They were taken to High end instrumentation lab where they were informed about quantification of medicinal compounds for the quality assurance of medicinal plants. They have visited other labs and finally taken to Biogas plant near mess area, where Mr Karam Das has provided the information about the digester and modes of producing Biogas with high efficiency protocols. Farmers were highly amazed and have quite satisfying feedback with this exposure visit and they requested for summer trainings. Dr Hemant Sood, Associate professor in the Department of BT&BI, Jaypee University Of Information Technology, Waknaghat has coordinated this visit along with Rolika Gupta(PhD Scholar). HOD & Professor (Dr) Sudhir Syal and JUIT administration and DST were deeply acknowledged for this visit.

Farmers at JUIT Campus and in the Glasshouse of Department of BT&BI



Biogas reactor for JUIT worker's families – sponsored by JUIT (10-10-2018)



Workshop with farmers at Kullu - 7th May 2018

Biogas reactor at Govt. middle School Gyankot village, Sirmour under Vigyan Gram Scheme HP – sponsored by HP Science Council (30-03-2018)



Biogas reactor and training program at Govt. primary school, Dhar Anji village, Solan sponsored by HP Science Council (29-05-2017)



Biogas reactor at Govt. primary school, Bani Pooghat village, Solan sponsored by HP Science Council (28-12-2016)



Converting waste into cooking fuel

TRIBUNE NEWS SERVICE

SOLAN, MAY 6

Dr Sudhir Syal and Dr Ashish Kumar from Jaypee University of Information Technology, Wahnaghat in the district, fabricated a unique biogas digester that uses waste food, vegetable refuse and agricultural residue. It can be used as a substitute for LPG.

Dr Syal said the design was originally developed at the Appropriate Rural Technology Institute in Maharashtra and first of its kind digester for schools had been designed by them. One such device had been installed at Government Primary School at Poohat-Bani in the district. It would provide them about 30 to 40 minutes of fuel on a daily basis to cook mid-day meal and it would sub-



Biogas digester developed by JP University of IT, Wahnaghat.

stantially bring down the LPG usage, he said.

The research was funded by the HP Council for Science Technology and Environment, Shimla. Dr Aparna

Sharma and Manoj Kaul from the council kick-started its operations at the Poohat-Bani school yesterday.

The equipment is slated to bring down the LPG usage of the school. Priced at Rs 15,000, it can be easily transported as per the needs.

"This is the most appropriate system for people living without livestock and in build-up area. As on now, system produces 30-40 minutes of cooking gas per day," they said.

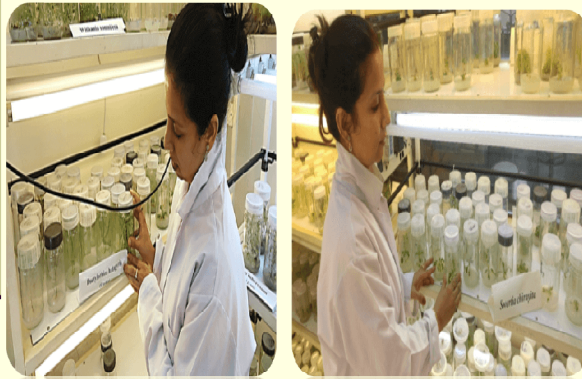
The scientists are now trying to improve its efficiency using crushed pine needles. This system is an ideal way to manage household waste and to produce decentralised power generation. The usage of this technology will also save women from smoky kitchen and time lost in searching for firewood.

On request of Eternal University, Baru Sahib of Distt.Sirmour (HP) Dr. Sudhir Kumar and Dr. Ashish Kumar fabricated a biogas plant and transferred the technology at their university campus, on 17th January 2015. On request of Eternal University, Baru Sahib of Distt.Sirmour (HP) Dr. Sudhir Kumar and Dr. Ashish Kumar fabricated a biogas plant and transferred the technology at their university campus, on 17th January 2015.



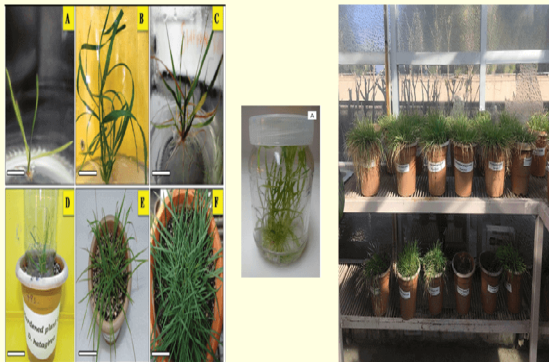
Dr Hemant Sood, Associate Professor in the Department of BT/BI has transferred micropropagated medicinal plants to the farmers of Kullu district, under DST –SYST project (2015-2018) from SEED (Science for Equity Empowerment and Development) Division of Department Of Science and Technology.

Mass *In Vitro* Multiplication of *Swertia chirayita* and *Dactylorhiza hatagirea*



5

In Vitro Mass Multiplication, Hardening, and Transfer of *Dactylorhiza hatagirea* plants to pots



1

Micropropagation Technology For *Swertia chirayita*



7

Training and Interaction with Farmers in Fields at Kullu District of HP

Hardening in the nethouse



8

Acclimatization And Establishment of Micropropagated plants in Farmer's Fields



9

Training Farmers on Planting and Growing Hardened Plants of *Swertia chirayata* and *Dactylorhiza hatagirea*



11



Officers of Ministry of Rural Development, Government of Himachal Pradesh, 10-12 Pradhans (heads) of Gram Panchyats of villages of various districts including Burmana, Bilaspur, Civil engineers and Technicians visited JUIT on 23 Sep. 2014 to see the live demonstration of biogas digester.



Biogas reactor for JUIT worker's Mess- sponsored by JUIT(2009)





Government of Himachal Pradesh
Rural Development Department

No. SMG-1/2015 – RDD- (SBM-G) – Budget – Dated Shimla – 171009

30th May, 2018.

NOTIFICATION

In pursuance to the instructions issued by the Ministry of Drinking Water and Sanitation, Govt. of India, vide DO No. S-15014/1/2018 -SBM-III dated 2nd May, 2018, the State Technical Advisory Committee (STAC) for implementation of GOBAR –DHAN scheme under the Swachh Bharat Mission- Gramin is hereby constituted as under :

1. Mission Director – Swachh Bharat Mission- Gramin - Chairperson
2. Member Secretary, The State Council for Science, Technology & Environment - Member
3. Head, Department of Agriculture – Bio Technology, CSKHP, Agriculture University, Palampur - Member
4. HoD, Department of Bio-Technology, JPUIT, Wagnaghat, Solan - Member
5. Joint Director, Rural Development Department - Member Secretary

By order

(Rakesh Kanwar)
Director cum Special Secretary (RD)
to the Govt. of Himachal Pradesh

Endst. No SMG-1/2015 – RDD- (SBM-G) – Budget – Dated Shimla – 171009 30th May, 2018.
Copy forwarded for information and necessary action to :

1. Joint Secretary, Ministry of Drinking Water and Sanitation, 4th Floor, Pt. Deendayal Autodaya, Bhawan, CGO Complex, New Delhi – 110003
2. The Member Secretary, State Council for Science, Technology & Environment for information
3. The Mission Director – Swachh Bharat Mission- Gramin, Rural Development Department, Shimla-171009
4. Head, Department of Agriculture – Bio Technology, CSK H.P. Agriculture University, Palampur for information
5. HoD, Department of Bio-Technology, Jay Pee University of Information Technology, Wagnaghat Solan for information
6. The Joint Director (RD), Shimla-171009

(Gian Sagar Negi)
Joint Secretary (RD)
to the Govt. of Himachal Pradesh
sbmhimachal@gmail.com

स्वच्छ भारत मिशन (ग्रामीण)

पेयजल एवं स्वच्छता विभाग, झारखण्ड, राँची

झारखा बाजार घाटी टकी परिसर, प्रथम तल, झारखा बाजार, राँची-834002 फोन नं.-0651-2482676 Email-sbmg.jhar@gmail.com

संख्या: SBM(G)/Gobardhan Scheme - 221/18-1418 दिनांक: 22.10.18.

क:

दिनेश कुमार सिंह
संयुक्त सचिव-सह-संयुक्त निदेशक,
SBM(G), पेयजल एवं स्वच्छता विभाग
झारखण्ड, राँची।

मा में,

1. Jaypee University of Information Technology
Email - sudhir.syal@juit.ac.in, syalsudhir@gmail.com
2. Excellent Renewale Pvt. Ltd.
Email - info@bioenergyindia.co, hemant.patel@bioenergyindia.co
viral.patel@bioenergyindia.co
3. Sakh Foundation
Email - sakh332@gmail.com, mssengar03@gmail.com
manu_manosingh@yahoo.co.in
4. Synod Bio Science Pvt. Ltd.
Email - gardencity@synod.in, zeeshan@synod.in
5. Gram Vikas Training Centre
Email - gvtranchi@gmail.com
6. Price Water House Coppers Pvt. Ltd.
Email - shivanshu.chauhan@pwc.com, shyamal.mukherjee@in.pwc.com
7. Savitry Mega Venture Pvt. Ltd.
Email - savitrymegaventure@gmail.com
8. ECO Save Systems Private Ltd.
Email - ccspl@choiceindia.com
9. Dustara Solutions Pvt. Ltd.
Email - vinod@dustara.com

विषय: गोबरघन योजना से संबंधित Technical Agencies का MIS में Registration कराने के संबंध में।

वहाशय,

उपरोक्त विषय के संबंध में कहना है कि गोबरघन योजना से संबंधित कार्य को प्रारंभ करने हेतु भारत सरकार की ओर से सभी Technical Agencies का SBM के MIS में Registration कराने हेतु आदेश प्राप्त हुआ है। विशेष जानकारी हेतु इस पत्र के साथ MIS का Print Screen उपलब्ध करायी जा रही है।

अतः आग्रह है कि आप निम्न लिंक <http://sbm.gov.in/gobardhan/Registration.aspx> पर जाकर अपने Agency का Registration करा कर निदेशालय, स्वच्छ भारत मिशन(ग्रामीण) के ईमेल sbmg.jhar@gmail.com पर अवगत कराना सुनिश्चित किया जाय।

विश्वासभाजन,


(दिनेश कुमार सिंह)

संयुक्त सचिव -सह-संयुक्त निदेशक,