ONE WEEK ONLINE

-AICTE Sponsored-

SHORT TERM TRAINING PROGRAMME

ENERGY (NON CONVENTIONAL SOURCES OF ENERGY)

(26th April - 1st May, 2021)

REGISTRATION FORM

Name: Mr./Ms./Dr.....

(in capital letters)

Date of Birth :.....

Designation:.....

Institution:.....

.....

Whether the Institution is AICTE/UGC recognized :

.....

Experience in years:.....

Teaching/Research/Industry:.....

Courses Taught over last three years : .....

.....

Accommodation: Required/ not required:

Address for Correspondence : .....

.....

.....

Email Id : .....

Mobile and Phone No. :.....

Declaration

The information provided above is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the course and shall attend the course for the entire duration. I also undertake to inform the Coordinators in case I am unable to attend the courses, If selected.

Signature of Applicant

IMPORTANT DATES

SUBMISSION OF REGISTRATION FORM :

ON OR BEFORE 23 APRIL, 2021

- ★ The duly filled registration form may be submitted on following email : sttp.bcet@gmail.com
- ★ The selected candidates are informed on respective email id mentioned on registration form.
- ★ Seats will be filled based on first cum first serve.
- ★ The programme scheduled will be informed to selected candidates on their email id.
- ★ The online lectures are scheduled from 09.30 am to 5.00 pm everyday.
- ★ The online content will be delivered to the Google Meet only.

ORGANIZING COMMITTEE

Dr. Rajesh Sharma
Dr. Jagdev Singh
Dr. Rakesh Dogra
Dr. Jaswinder Singh
Dr. Gurpadam Singh
Dr. Seema
Dr. S.K Gupta
Dr. R.C Gangwar
Mr. Baljeev Kumar
Mr. P K Yadav
Dr. Ajay Kumar
Dr. Nripjit
Dr. Anil Kumar
Dr. Naveen Beri
Dr. Sunil Kumar
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Short Term Training Programme

ENERGY (NON CONVENTIONAL SOURCES OF ENERGY)

(26th April - 1st May, 2021)

Sponsored by

All India Council for Technical Education

Patron

Dr. Dilbag Singh, Director, BCET

Co-ordinator

Dr. Vipan K Sohpal

Associate Professor, Deptt. of Chemical Engineering

Beant College of Engineering & Technology Gurdaspur

Email: sttp.bcet@gmail.com

www.vpk9.webnode.in

ABOUT THE INSTITUTE

Beant College of Engineering & Technology, Gurdaspur was established and promoted by the Govt. of Punjab in 1995 to boost the technical education in the border region of Punjab. It is premier institute in field of technical education affiliated to I.K Gujral Punjab Technical University. The institute has been recognized as institute of learning and granted Academic Autonomy & Accredited by UGC New Delhi. The institute offers B. Tech. programmes in seven engineering disciplines. In addition to B. Tech. programmes, the Institute offers graduate and post graduate course in sciences. The college campus is spread over 70 acres of land which includes the instructional buildings, amenities, residential and other facilities. The institute has a highly qualified faculty, which is committed to imparting the best knowledge to students. The quality of the faculty members of the institute is recognized at state level and the institute was awarded as best faculty institute in Punjab by CMAI and National Punjab Education Awards 2013.

ABOUT THE DEPARTMENT

The department of Chemical Engineering established in 1995 and has emerged as one of leading department in the college and first amongst chemical engineering in Punjab Technical University Jalandhar. The Department of Chemical Engineering is NBA accredited under the Tier – II category for the period of three years. The Department offers two U.G. Programmes leading to B. Tech. (Chemical Engineering), (Biotechnology). The Department of Chemical Engineering & Biotechnology has the core competency mainly in areas representing Environmental Engineering, Polymer Technology and Energy Engineering. The department aims to create an ambiance for smooth pursuit of activities in education and research towards creating national impact in the chemical & biotechnology related areas and endeavours to produce leaders of tomorrow in this field. The department now boasts of over 12 faculty members.

ABOUT THE COURSE

Energy is the primary and most universal measure of all kinds work by human beings and nature. Everything what happens the world is the expression of flow of energy in one of its forms. Energy is the major input to drive the life cycle and improve it. Energy consumption is closely related to the progress of the mankind. In future, improvement in the living standard of the mankind, industrialization of the developing countries and the global demand for energy will increase with the every growing population. The development of infrastructure plays a significant role to sustain economic growth. The power sector is one of the major significant constituents of infrastructure. In general, India is dependent on conventional sources of energy like thermal, hydro and nuclear.

The conventional sources of energy are generally non renewable sources of energy, which are being used since a long time. These sources of energy are being used extensively in such a way that their known reserves have been depleted to a great extent. The sources of energy which are being produced continuously in nature and are in exhaustible are called non-conventional energy (or) renewable sources of energy. Figure 1 provides the pictorial views of different forms of non-conventional energy sources and renewable energy sources options, respectively.

* Solar energy is the most readily available and free source of energy since prehistoric times. It is estimated that solar energy equivalent to over 15,000 times the world's annual commercial energy consumption reaches the earth every year. Solar energy can be utilized through two different routes, as solar thermal route and solar electric (solar photovoltaic) routes.
* Wind energy is basically harnessing of wind power to produce electricity. The kinetic energy of the wind is converted to electrical energy. Since air tends to flow from warmer to cooler regions, this causes what we call winds, and it is these air flows that are harnessed in windmills and wind turbines to produce power.
* Bio-energy, in the form of biogas, which is derived from biomass, is expected to become one of the key energy resources for global sustainable development. Biomass is a renewable energy resource derived from the carbonaceous waste of various human and natural activities. Bio energy is being used for cooking, mechanical applications, pumping, power generation etc.
* The potential energy of falling water, captured and converted to mechanical energy by waterwheels, powered the start of the industrial revolution using Hydro Energy. Wherever sufficient head, or change in elevation, could be found, rivers and streams were dammed and mills were built.
* Ocean contains two types of energy: thermal energy from the sun's heat, and mechanical energy from the tides and waves. Ocean thermal energy is used for many applications, including electricity generation. There are three types of electricity conversion systems: closed-cycle, open cycle, and hybrid.
* The sustainable economic development and growth of any country are closely related to the development and security of its energy sectors. Concerning the finite and limited reserves of conventional energy sources and their impact on environment, a great emphasis should be given to the development of non- conventional energy sectors and their proper utilization for the benefit and betterment of mankind. Such initiatives would also be helpful to create many employment opportunities at all levels, especially in rural areas. Thus, mainstreaming of non-conventional and renewable energy technologies is becoming very essential for the developing countries. In India, there is great scope for the development of non-conventional and renewable energy sectors. India is the only country that has an exclusive Ministry for New and Non-Conventional Energy Sources. India possesses the largest decentralized solar energy programme, the second largest biogas and improved stove pogrammes, and the fifth largest wind power programme in the world.

Eligibility and Selection Criteria

Faculty members from AICTE/UGC approved Degree/Diploma Engineering Colleges/Institute and from Post Graduate Department of Chemical Courses are eligible to participate.

The STTP is likely to accommodate around 60 participants. ***It is mandatory to submit the duly completed application through google link https://forms.gle/r5np6e8k9Yd5wXEb7.*** *The selected participants will be informed by email well in advance.*

ABOUT THE EXPERTS AND FACULTY

The speakers will be from Indian Institute of Technology, National Institute of Technology, National Institute of Bio Energy, Reliance Energy, Thapar University, MRS Punjab Technical University, IK Gujral Punjab Technical University, Panjab University Chandigarh.

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