DEPARTMENT OF MECHANICAL ENGINEERING



CAREERS:

- Wind Turbine Technician
- Energy Analyst
- Energy EfficiencyConsultant
- Solar Energy Advisor
- Renewable Energy Designer
- Solar Project Developer
- Grid Integration Engineer
- Wind Operations Leader

Starting: April 19, 2021

Credit: 03

CIE: 40 Marks

SEE: 60 Marks

Eligibility: Students of CE,

ECE, CSE & ISE

NON CONVENTIONAL ENERGY RESOURCES (18ME651)

Why?

Energy generated by using wind, tides, solar, geothermal heat, and biomass including farm and animal waste as well as human excreta is known as non-conventional energy. All these sources are renewable or inexhaustible and do not cause environmental pollution. More over they do not require heavy expenditure.



Wind Energy

Wind power is harnessed by setting up a windmill which is used for pumping water, grinding grain and generating electricity. The gross wind power potential of India is estimated to be about 20,000 MW, wind power projects of 970 MW capacities were installed till March. 1998. Areas with constantly high speed preferably above 20 km per hour are well-suited for harnessing wind energy.



Solar Energy

Sun is the source of all energy on the earth. It is most abundant, inexhaustible and universal source of energy. AH other sources of energy draw their strength from the sun. India is blessed with plenty of solar energy because most parts of the country receive bright sunshine throughout the year except a brief monsoon period. India has developed technology to use solar energy for cooking, water heating, water dissimilation, space heating, crop drying etc.



Tidal Energy

Sea water keeps on rising and falling alternatively twice a day under the influence of gravitational pull of moon and sun. This phenomenon is known as tides. It is estimated that India possesses 8000-9000 MW of tidal energy potential. The Gulf of Kuchchh is best suited for tidal energy.

