

International Conference on Innovations in Science, Engineering, Management & Humanities (ICISEMH – 2022)

24TH April, 2022, Hyderabad, Telangana, India

CERTIFICATE NO: ICISEMH /2022/ C0422456

A STUDY OF WIND CHARACTERISTICS AND POWER FOR ELECTRIFICATION POWER

SATISH KONATHAM

Research Scholar, Department of Mechanical Engineering, Sri Satya Sai University of Technology & Medical Sciences, Sehore, M.P., India.

ABSTRACT

Wind is a naturally occurring form of fluid-kinetic energy that is in constant motion across the earth's surface and can be attributed to pressure differences caused by relative temperature variation. Another example of naturally occurring fluid-kinetic energy is the tidal movement in our oceans which is caused by the relative position of the moon in its orbit around the earth. Turbines are an effective method of converting linear fluid-kinetic energy into rotational motion and have been employed in various electricity producing power plants including, coal fuelled steam plants, hydroelectric plants and wind farms. Steam plants are an effective method of producing high volume energy at a controlled rate and are currently the most common form of electricity producing plant in Australia. The process of burning fossil fuels to boil water and create steam is an unnecessary process because there is already an abundant amount of naturally occurring fluid-kinetic energy in motion waiting to be harnessed. Converting the energy contained in wind to mechanical and then electrical energy is a sustainable method of supplying our energy requirements.