

**Proceedings of 3rd International
Conference on New and Renewable
Energy Resources for Sustainable Future**

ICONRER-2021

February 11-13, 2021

**Editor
Prof. Ashish Nayyar**



**Swami Keshvanand Institute of Technology,
Management & Gramothan, Jaipur**

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NEW PROSPECT AND HORIZON FOR RENEWABLE ENERGY IN INDIA

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Abstract

Renewable energy sources provide clean, endless and increasingly competitive energy. There are several distinct advantages of renewable energy sources over fossil fuels, primarily in their flexibility, abundance, and possible uses anywhere on the planet, but also in the fact that they do not produce greenhouse gases that cause climate change or harmful emissions. Solar energy, wind energy, tide energy, biomass, and energy derived from waste materials are some forms of renewable energy. The vast majority of renewable energies rely on sunlight in some form or another. The convention of renewable energy resources is vital for sustainable energy growth for the future as a substitute to conventional energy. Hence, this paper attempts to provide information about the status and potential uses of renewable energy in Indian context, as well as to review the available renewable energy possibilities in India.

INTRODUCTION

Technology has changes almost everything around us and impacted countries and people across the globe in positive and negative ways. Industrial revolution and innovations modernised our society from decades and today we have reached to a stage, which calls for a pause and analysed. The entire modernisation is catalysed and leveraged by energies derived from fossil fuels such as coal, oil, and natural gases. Starting from industrial plants and machinates to entire transportation system depend on these conventional energy sources which are non-renewable and have been used for a long time and will get depleted on consumption. The world's 79% energy consumption is estimated to be derived from fossil fuels therefore these conventional sources of energy are depleting to a rate that they are expected to be finished in next ten decades. They are not sustainable and raised a serious concern of climate change. The depletion in amount of fossil fuel and its serious impact on societies, climates, animals, land and entire eco-system, introduced us to renewable sources of energies such as solar energy, wind energy, tide energy, biomass, and energy from waste materials, which are clean, green and sustainable [1]. The world has come together on this transition to adopt sustainable renewable sources of energy to support climate change in favour of humanity.

With the help of this research study new prospect for growth and development of renewable energy in India is explored and analysed the key drivers, government policies and initiatives, challenges and future potential in India.

ICONRER-2021

Renewable energy and sustainable development are the key technologies to offer solutions to the ever-increasing environmental pollutions and depleting conventional fuel reserves. With an aim to discuss the state of art technologies pertaining to the renewable energy domain, RTU (ATU) TEQIP III Sponsored 3rd International Conference on New and Renewable Energy Resources for Sustainable Future (ICONRER-2021) was organized by the Department of Mechanical Engineering, Swami Keshvanand Institute of Technology, Management and Gramothan, Jaipur in collaboration with Rajasthan Technical University and Department of Mechanical Engineering, Assiut University, Assiut (Egypt) from February 11 to 13, 2021. ICONRER is a series of the conference started in 2017 and it was 3rd event of that series.



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ISBN:978-81-954233-3-0

