



Identifying, developing, and moving sustainable communities through application of bio-energy for energy or materials: Future perspective through energy efficiency

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Abstract:

The present review article makes an attempt to comprehensively review various aspects of biomass energy sources, environment and sustainable development. This includes all the biomass energy technologies, energy efficiency systems, energy conservation scenarios, energy savings and other mitigation measures necessary to reduce emissions globally. An attempt has been made to review the current literature regarding the ecological, social, cultural and economic impacts of biomass technology. The environmental problems are increasing. Nevertheless, some residues have negative effects and should be treated to preserve a durable environment. Hence, sensibility and legislative text to organise the treatments of industry activities waste should be more reinforced. This study highlights the energy problem and the possible saving that can be achieved through the use of biomass sources energy. Also, this study clarifies the background of the study, highlights the potential energy saving that could be achieved through use of biomass energy source and describes the objectives, approach and scope of the theme. The purpose of this study, however, is to contribute to the reduction of energy consumption in buildings, industry, and agriculture and identify biomass as an environmental friendly technology able to provide efficient utilisation of energy in the buildings sector, promote using biomass technology applications as an optimum means of heating and cooling. Recent attempts to stimulate alternative energy sources for heating and cooling of buildings has emphasised the utilisation of the bio-energy from agricultural residues, industry wastes, forestry and other renewable energy sources.

Biography:

Dr. Abdeen Mustafa Omer (BSc, MSc, PhD) is an Associate Researcher at Energy Research Institute (ERI). He obtained both his PhD degree in the Built Environment and Master of Philosophy degree in Renewable Energy Technologies from the University of Nottingham. He is a qualified mechanical engineer with a proven track record within the water industry and



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Publication of speakers:

- Abdeen Omer et al : THE EFFICIENCY OF INEFFICIENCY: MEDICINE DISTRIBUTION IN SUDAN, Feb 2018
- Abdeen Omer et al : Geoexchanger System for Buildings Heating and Cooling, Feb 2018
- Abdeen Omer et al : Soil Thermal Properties: Effects of Density, Moisture, Salt Concentration and Organic Matter, Jan 2018
- Abdeen Omer et al : Experiences with the Borehole Heat Exchanger, Jan 2018
- Abdeen Omer et al : Sustainable Technologies for Greener Environment, Dec 2017

[2nd Edition of Challenges in Global Climate Change and Oceanography, Nov 17, 2021; Paris, France.](#)

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