



Sustainable development in green energies and the environment

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Abstract:

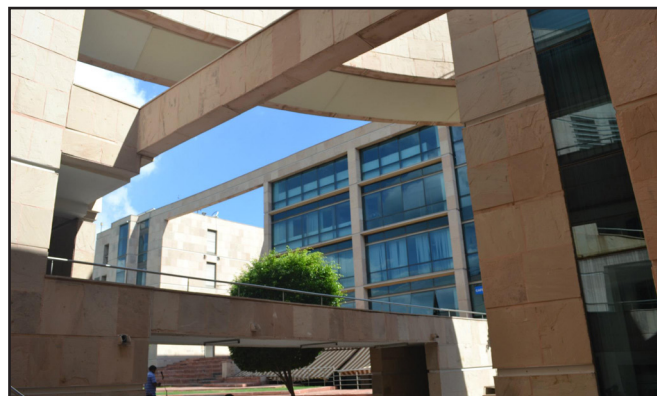
The move towards a de-carbonised world, driven partly by climate science and partly by the business opportunities it offers, will need the promotion of environmentally friendly alternatives, if an acceptable stabilisation level of atmospheric carbon dioxide is to be achieved. This requires the harnessing and use of natural resources that produce no air pollution or greenhouse gases and provides comfortable coexistence of human, livestock, and plants. This article presents a comprehensive review of energy sources, and the development of sustainable technologies to explore these energy sources. It also includes potential renewable energy technologies, efficient energy systems, energy savings techniques and other mitigation measures necessary to reduce climate changes. The article concludes with the technical status of the ground source heat pumps (GSHP) technologies.

Biography:

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 qualified Mechanical Engineer with a proven track record within the water industry and renewable energy technologies. He has been graduated from University of El Menoufia, Egypt, BSc in Mechanical Engineering.

Recent Publications:

1. Cantrell, J., and Wepfer, W. (1984) 'Shallow Ponds



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2. ASHRAE. (1995) 'Commercial/Institutional Ground Source Heat Pump Engineering Manual', American Society of heating, Refrigeration and Air-conditioning Engineers, Inc. Atlanta, GA: USA.
3. Kavanaugh, S., Rafferty, K. (1997) 'Ground source heat pumps. Design of Geothermal Systems for Commercial and Institutional Buildings', American Society of heating, Refrigeration and Air-conditioning Engineers, Inc. Atlanta, GA: USA.
4. United Nations. (2003) 'World urbanisation project: the 2002 revision', New York: The United Nations Population Division.
5. The United Nations Framework Convention on Climate Change (UNFCCC). (2009) 'The draft of the Copenhagen Climate Change Treaty', p. 3-181.

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