

**Lecture by**

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**Status of Renewable Energy Systems in the World and Prospects**

This presentation examines the current status of renewables in the world. The presentation starts with some facts about climate change, global warming, and the effects of human activities, such as the burning of fossil fuels on the climate problem. It then outlines of the status of renewables in the world, which includes their shares with respect to conventional fuel use for power and for electricity production alone, and their social dimension in terms of jobs created. Then the basic forms of renewables are examined in some detail, which include solar thermal, both for low and high temperature applications, photovoltaics, hydro power, onshore and offshore wind energy systems and biomass/biofuels. In all these the basic technology is presented followed by the current status, the installed capacity in the last decade, which reveals their upward trend, as well as the prospects of the technology and some new research findings.



**About the author**

**Professor Soteris Kalogirou, D.Sc.** is at the Department of Mechanical Engineering and Materials Sciences and Engineering of the Cyprus University of Technology, Limassol, Cyprus. He is currently the Dean of the School of Engineering and Technology. He is a Fellow of the European Academy of Sciences and Founding Member of the Cyprus Academy of Sciences, Letters and Arts. For more than 35 years, he is actively involved in research in the area of solar energy and particularly in flat plate and concentrating collectors, solar water heating, solar steam generating systems, desalination, photovoltaics, geothermal energy and absorption cooling. He has a large number of publications in books, book chapters, international scientific journals and refereed conference proceedings. He is Editor-in-Chief of *Renewable Energy* and Deputy Editor-in-Chief of *Energy*, and Editorial Board Member of another twenty journals. He is the editor of the book *McEvoy's Handbook of Photovoltaics*, published by Academic Press of Elsevier and author of the books *Solar Energy Engineering: Processes and Systems*, and *Thermal Solar Desalination: Methods and Systems*, published by Academic Press of Elsevier.