Preface

This book is associated with the Global Conference on Global Warming: Focus on Energy-Transport-Greenhouse Effects, held in Athens on May 24–27, 2015. Objectives are in accordance with the conference’s presentations and mainly concern the exchange of technical information, dissemination of high-quality research results and presentation of new policy and scientific developments, while promoting future priorities for a more sustainable development and energy security.

In particular, energy-related issues in all engineering disciplines for a wide area of applications in the renewables and fossil fuels sectors are described, incorporating cross-cutting effects. It includes main aspects of transportation discipline with emphasis on the elimination of the impact on greenhouse effects.

High-quality technical knowledge and research results from specific test cases around the world are being analysed, providing a holistic view in the main aspects of the Global Warming issue. The latter also concern current policies and emissions from air and maritime transport, in addition to the fossil fuel applications. Novel technologies such as Carbon Capture and Storage are investigated along with process/systems analysis and optimization for mitigating CO₂ emissions. Water resources management and waste water treatment as well as waste management issues are also tackled. Biomass, hydrogen and solar energy technologies are presented along with an insight on green buildings.

The utmost scope of this book is to contribute to the scientific community, since it includes scientific approaches from many organisations around the globe, presenting key issues, challenges and research results in a variety of scientific areas that relate to the Global Warming effects.

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