

# Preface

EESD series provides a forum for accessing to the most up-to-date and authoritative knowledge from both industrial and academic worlds, sharing best practice in the field of energy and environment. The First International Conference on Energy, Environment and Sustainable Development (EESD2011) was held in Shanghai, China, between October 21 and 23, 2011 with the participation of scientists from the Asia-Pacific region, Europe and the United States. The first conference was organized by Shanghai University of Electric Power, Xinjiang University and Hebei United University. Following the success of the inaugural conference, the 2012 International Conference on Energy, Environment and Sustainable Development (EESD 2012) took place in Jilin, China, October 12-14, 2012. This event was organized by Northeast Dianli University and Shanghai University of Electric Power. The conference program covered invited, oral, and poster presentations from scientists working in similar areas to establish platforms for collaborative research projects in this field. This conference brought together academicians, researchers, engineers, policy makers, governmental officials, end users, and people involved in the energy and environmental industries and provided a platform to the participants to present their papers, share their expertise, establish new contacts, and discuss a range of energy and environmental technologies for sustainable development.

This book contains the selected accepted manuscripts from the subject areas of mineral prospecting and geological exploration, mining engineering and coal mining, mining machinery engineering, mineral process engineering, oil and gas well development projects, metallurgical engineering, energy saving and low carbon ideas, urban and regional planning, development and management of the energy industry, environmental protection and circular economy, global climate change and international cooperation on reducing carbon emissions, national energy strategy and decision-making, ecological economy, circular economy and low-carbon economy, engineering materials and processing technologies, equipment design, manufacturing, automation and control, computer applications in industry and engineering, and other related topics. This book provides new information/ methods on possibilities of managing the energy crisis and protecting the environment sustainably in the growing economies to the broader public, especially students and researchers who are interested to involve in the research in this area.

We express our gratitude to the members of the International Scientific Committee for their significant support in organizing the Conference and for reviewing the papers of the participants. We are also grateful to the all invited reviewers as well as to the participants.

***The editors***

The 2nd International Conference on  
Energy, Environment and Sustainable Development  
(EESD 2012)

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**Co-organized by:**

Shanghai University of Electric Power, China

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