Preface

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Biographical notes: Mohamed G. Hassan joined the Department of Energy and Petroleum Engineering, American University in Cairo (AUC) as an Assistant Professor of Energy and Resource Management before he was based at the Centre for Environmental Strategy, University of Surrey in the UK working on modelling energy demand and the transitional pathways to low carbon technology. He also served as a Lecturer of Oil and Gas/Chemical Engineering at the Australian College in Kuwait, University of Tasmania. Before working in Kuwait, he was a Research Fellow at Loughborough University for a period of five years working on several projects. He was an Engineer by training and holds a Bachelor of combined honours in Mechanical Engineering and Environmental Science from Aston University, an MSc in Environmental Management from Coventry University and a PhD from Loughborough University Chemical Engineering in 'Renewable energy – bio fuel processing'.

Ihab M.T.A. Shigidi is Specialist Engineer and member of various international professional engineering bodies. He also held academic posts and collaborated with a number of universities in Sudan. While his research is in the area of membrane technology and computational fluid dynamics, he has also been active in the areas of renewable energy and environmental impacts where he participated in various related consultancy projects. He is currently holding a post at King Khalid University, Kingdom of Saudi Arabia.

Biomass is any organic material, which can be used as fuel, such as energy crops, wood, agricultural waste, and vegetable oils. Biomass can be burned directly to generate power, or processed to create gas or liquids to be used as fuel for production of power, transport fuels and chemicals. Biomass is seen as one route to meeting targets for reduction of CO_2 emissions and increased use of renewable energy.

This special edition of the *IJRET* present up-to-date research in this field; with some academic papers provide useful theoretical insight. Others contain information concerning performance and utilisations. Some cover experimental data highlighting environmental emissions and impact. One paper contains an impact analysis of biomass on the future of emerging economies such as India.

Biomass is preserved to have adverse affects on food provisions and the environment, it is subjected to criticism that it does not sufficiently incorporate the exigencies of the world we live in. It is reassuring to see that so much of the work in this volume strives to recognise the importance of biomass, its applications and practical realties of such resource that surrounds us.