Foreword

This is a comprehensive and well written book that practically covers all aspects relating to electrical power systems analysis and planning. It is also a badly needed book. With the proliferation of information systems and computers, the interests of students and researchers were, over the last few years, diverted from the study of electrical power systems into those new, novel, and rapidly developing technologies. It also led to almost neglecting to develop and add to the literature of electrical power systems either at the university or research institutions level.

The world is rapidly electrifying. Electricity is gradually replacing many other forms of energy and labor. Worldwide growth of electricity demand almost matches global economic growth and is one and a half times the growth of primary energy use. This is a trend that is continuing, and by the middle of this century, the majority of human energy needs will be served by electricity as the major energy carrier. Correspondingly, understanding the planning and investment process of electrical power systems is mandatory for the efficient and sustainable development of almost every economy. This book helps in achieving this purpose.

I must congratulate the authors for writing such a timely and thorough book, which is going to serve the needs of energy planners as well as graduate students. I am sure that it will be a well received and welcome addition to the literature on electrical power systems and hope that it will eventually be periodically updated by the authors.

Hisham Khatib
Global Energy Award Laureate

Hisham Khatib *is past-Chairman of the Jordan Electricity Regulatory Commission, Honorary Vice Chairman of the World Energy Council. He is an engineer and economist on energy technology, energy security, and local and global environmental issues related to energy and development. Over the last many years, Dr. Khatib was a Minister in the Government of Jordan in many positions—planning, water, and energy. In 1998, he was awarded the "Medal of Achievement" of the Institution of Electrical Engineers in the UK. In the World Energy Congress in Rome 2007, Dr. Khatib was awarded the highly prestigious "Global Energy Award" by the World Energy Council. He is a Life Fellow of the IEEE.*