Information and communication technology (ICT) is one of the fastest growing areas in terms of research and development and is increasingly adopted in a wide variety of applications. As such, educators and researchers in this area need to spend extra effort to keep up with its rapid growth and to be current with its trends. Teaching methods in academia has also to adopt new ways of learning knowledge and communicating current and future trends and advances with students’ expectations. Employers are expected to find university graduates well equipped with most recent ICT technologies with enough capabilities for handling and adopting the most current technologies. Textbooks play a major role in preparing graduates that meet employers’ expectations. Well written text books with clear objectives of tracing most recent advances in the area supported by case studies is a scarce commodity for educators and researchers.

This book puts together the knowledge of researchers and the experience of practitioners for the benefit of researchers and developers and educators in the area of ICT. The book covers wide range of topics within the ICT area including the application of information technology in different areas such as e-business, e-commerce, e-banking and health care and bioinformatics. It also includes information security, strategic information technology and risk management in ICT. Communication technologies and networking is also covered in terms of its applications and technology development.

The effort put by the editors, Mubarak Al-Mutairi and Mohammed Lawan, into attracting authors that are quite knowledgeable and experienced in different ICT technologies and then putting them together in a manner that makes the topic coverage smooth and consistent. As a result we have a book that is comprehensive in its topic coverage and also integrated in its approach. It covers aspects of technology development as well as its adaptation strategies and practical implications in a case base approach. The book, in my opinion, can be easily adopted in ICT academic institutions in senior and graduate levels. It can also be used as a good reference for practitioners and developers in the ICT business.

Umar Al-Turki
King Fahd University of Petroleum and Minerals
College of Computer Science and Engineering, Dean

Umar Al-Turki is an associate professor in the Department of Systems Engineering at King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia. He obtained his Ph.D. in Decision Sciences and Engineering Systems from Rensselaer Polytechnic Institute in 1994. He obtained an M.Sc. in Industrial Engineering and Management from Oklahoma State University in 1989. He is currently involved in conducting research in the areas of production scheduling, supply chain management and quality improvement. He authored and co-authored a large number of publications in international journal in these areas. He is also involved in consultation with local companies in quality improvement and strategic planning.