

Preface

This book aims to introduce systemic modelling of engineering and technology talent management for innovation and knowledge-based economies (iKBE). This includes models for engineering leadership and competencies skills, as well as frameworks for industry, academia collaboration and engineering education organizational structures incorporating innovation and knowledge-based economies development. The book also provides methodological framework as well as ready-to-use toolkits and instruments for investigation of needs of engineering and technology skills in national contexts. In addition, the book provides an empirical study, in which the innovation and iKBE (iKBEs) and leadership competencies for future engineers were investigated. A systemic framework and road map for implementation are provided methodically and are illustrated empirically. This book concludes with conceptual modelling and proposals of specific organizational structures for implementation in science-based engineering schools in order to enable developing necessary skills for future iKBE engineering graduates.

Doha, Qatar

Mahmoud Abdulwahed
Mazen O. Hasna

Engineering and Technology Talent for Innovation and
Knowledge-Based Economies
Competencies, Leadership, and a Roadmap for
Implementation

Abdulwahed, M.; Hasna, M.O.O.A.

2017, XVIII, 225 p. 37 illus. in color., Hardcover

ISBN: 978-3-319-46438-1