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Titolo	Advances in Engineering Education in the Middle East and North Africa : Current Status, and Future Insights // edited by Mahmoud Abdulwahed, Mazen O. Hasna, Jeffrey E. Froyd
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ISBN	3-319-15323-4
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Descrizione fisica	1 online resource (466 p.)
Disciplina	370
Soggetti	Science education Engineering—Vocational guidance Learning Instruction Science Education Job Careers in Science and Engineering Learning & Instruction
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Part I: Background, Editorship, and Global Perspectives -- Purpose of the Book and Editorial Perspectives -- Developments in Engineering Education and Engineering Education Research in Europe -- Engineering Education in Southeast Asia: Practice and Research -- Part II: Innovations in Learning, Teaching, and Engineering Education -- Leveraging Pedagogical Innovations for STEM Education in the Middle East Context -- Model for Transforming Engineering Education using Technology-Enhanced Learning -- Using Forums and Simulation Exercises to Enhance Active Learning in Lean Construction Education -- A Framework for Developing Innovative Problem Solving and Creativity Skills for Engineering Undergraduates -- Active Blended Learning to Improve Students Motivation in Computer Programming Courses: A Case Study -- Part III: Curriculum Development -- Women's Spicific Needs And Urban Planning Practices In The Middle East The Case Of

Palestine -- Improving and Expanding Engineering Education in the Middle East And Africa Using Mobile Learning Technology and Innovative Pedagogy -- Inclusion of Construction Health and Safety in Engineering Programs in the MENA Region: Assessment and Potential Enhancement.-Environmental Engineering Education in the UAE -- Part IV: Assessment and Accreditation -- Potential and Challenges of Project Based Learning in Engineering Education at the United Arab Emirates University -- Effective Alignment of Disciplinary and Institutional Accreditation and Assessment: A UAE Computing Case Study -- Part V: Challenges and Sustainability Perspectives -- Engineering Education in Northwest Africa MENA Countries: Challenges and Opportunities for the 21st Century -- : Perspectives on Engineering Education Quality in Tunisia after Fifty Years of Statehood -- : Social Justice and the Engineering Profession: Challenging Engineering Education to Move beyond the Technical -- Part VI: Industry Perspectives, Future Insights, and Conclusions -- Engineering Education in the Middle East and North Africa: An Industry Perspective -- An Insight on the Future of Engineering Education, Recommendations for Implementations, and Conclusions.

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### Sommario/riassunto

This book provides a collection of the latest advances in engineering education in the Middle East and North Africa (MENA) region and sheds insights for future development. It is one of the first books to address the lack of comprehensive literature on undergraduate engineering curricula, and stimulates intellectual and critical discourse on the next wave of engineering innovation and education in the MENA region. The authors look at recent innovations through the lens of four topics: learning and teaching, curriculum development, assessment and accreditation, and challenges and sustainability. They also include analyses of pedagogical innovations, models for transforming engineering education, and methods for using technological innovations to enhance active learning. Engineering education topics on issues such as construction, health and safety, urban design, and environmental engineering in the context of the MENA region are covered in further detail. The book concludes with practical recommendations for implementations in engineering education. This is an ideal book for engineering education academics, engineering curriculum developers and accreditation specialists, and deans and leaders in engineering education.

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