Record Nr. UNINA9910337750803321 Industry Integrated Engineering and Computing Education: Advances, Titolo Cases, Frameworks, and Toolkits for Implementation / / edited by Mahmoud Abdulwahed, Abdelaziz Bouras, Laurent Veillard Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2019 **ISBN** 3-030-19139-7 Edizione [1st ed. 2019.] 1 online resource (XIII, 227 p. 57 illus., 43 illus. in color.) Descrizione fisica Disciplina 607.11 Soggetti Technical education Engineering—Vocational guidance Technology—History Engineering/Technology Education Job Careers in Science and Engineering History of Technology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Editorial Perspectives on Industry Integrated Engineering and Computing Education -- Models, Frameworks, and Tools for Translational Utilization in Constructing Industry and Social Needs in Engineering and Computing Education -- Lesson Study among

Computing Education -- Models, Frameworks, and Tools for Translational Utilization in Constructing Industry and Social Needs in Engineering and Computing Education -- Lesson Study among engineering lecturers as a way to plan, implement, and improve new innovations in teaching and learning -- Part-time engineering masters programs: implementing real-life engineering problems as a mean of learning -- Secure BIM learning based on new information technology patterns -- Exploring the rotational onboarding programs for early-career engineers in practice -- Reverse engineering and straightforward design as tools to improve the teaching of mechanical engineering -- Teaching safety, health, and environment in engineering programs for millennials – Ethics is the basis -- Factors affecting the success of IT workforce development, a perspective from Thailand's IT supervisors and internship students -- A collaborative and interdisciplinary approach to bring closer a curriculum to local employer needs --

Sommario/riassunto

Towards a holistic approach of cybersecurity capacity building through an innovative transversal sandwich training -- Industry Integrated Education Toolkits for Academicians, Deduction from the Literature and the Book Global Cases -- Editorial Conclusions.

This book introduces recent global advances and innovations in industry integrated engineering and computing education to academics, program managers, department heads, and deans, and shares with readers a critical perspective on future potentials in industry integrated engineering education. It covers topics and issues such as integrated engineering and computing education, part-time engineering masters programs, secure BIM learning, ethics, and IT workforce development. The book concludes with detail information on summarizing and extracting different frameworks, cases, and models into a practitioner toolkit, along with pragmatic recommendations for engineering education academics to quickly utilize, adopt, and adapt the toolkits for their own curricular development activities.