Record Nr. UNINA9910255125203321 PBL in Engineering Education: International Perspectives on Curriculum **Titolo** Change / / edited by Aida Guerra, Ronald Ulseth, Anette Kolmos Pubbl/distr/stampa Rotterdam:,: SensePublishers:,: Imprint: SensePublishers,, 2017 **ISBN** 94-6300-905-1 Edizione [1st ed. 2017.] 1 online resource (CXLII, 10 p.) Descrizione fisica 370 Disciplina Soggetti Education Education, general Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Preliminary Material / Aida Guerra , Ronald Ulseth and Anette Kolmos -- PBL Curriculum Strategies / Anette Kolmos -- Sustaining Change for PBL at the Course Level / Khairiyah Mohd-Yusof -- Ten Years of Project-Based Learning (PBL) in Industrial Engineering and Management at the University of Minho / Rui M. Lima, José Dinis-Carvalho, Rui M. Sousa, Anabela C. Alves, Francisco Moreira, Sandra Fernandes and Diana Mesquita -- Iron Range Engineering Model / Bart Johnson and Ron Ulseth -- PBL in Engineering Education / J. Wang, C. S. Yap and K. Goh -- PBL Experience in Engineering School of Mondragon University / Nestor Arana-Arexolaleiba and Miren I. Zubizarreta -- Esprit PBL Case Study / Lamjed Bettaieb -- Perspectives on Engineering Curriculum Change / Aida Guerra and Ron Ulseth -- About the Contributors / Aida Guerra, Ronald Ulseth and Anette Kolmos. PBL in Engineering Education: International Perspectives on Curriculum Sommario/riassunto Change presents diverse views on the implementation of PBL from across the globe. The purpose is to exemplify curriculum changes in engineering education. Drivers for change, implementation descriptions, challenges and future perspectives are addressed. Cases of PBL models are presented from Singapore, Malaysia, Tunisia,

Portugal. Spain and the USA. These cases are stories of thriving success

that can be an inspiration for those who aim to implement PBL and change their engineering education practices. In the examples

presented, the change processes imply a transformation of vision and

values of what learning should be, triggering a transition from traditional learning to PBL. In this sense, PBL is also a learning philosophy and different drivers, facing diverse challenges and involving different actors, trigger its implementation. This book gathers experiences, practices and models, through which is given a grasp of the complexity, multidimensional, systemic and dynamic nature of change processes. Anette Kolmos, director of Aalborg PBL Centre, leads off the book by presenting different strategies to curriculum change, addressing three main strategies of curriculum change, allowing the identification of three types of institutions depending on the type of strategy used. Following chapters describe each of the PBL cases based upon how they implement the seven components of PBL: (i) objectives and knowledge; (ii) types of problems, projects and lectures; (iii) progression, size and duration; (iv) students' learning; (v) academic staff and facilitation; (vi) space and organization; and (vii) assessment and evolution. The book concludes with a chapter summarizing all chapters and providing an holistic perspective of change processes.