Record Nr. UNINA9910270872203321 Autore Leydens Jon A. Titolo Engineering justice: transforming engineering education and practice / / Jon A. Leydens, Juan C. Lucena Pubbl/distr/stampa Piscataway, New Jersey:,: Wiley-IEEE Press,, [2018] [Piscatagay, New Jersey]:,: IEEE Xplore,, [2017] **ISBN** 1-118-75731-9 1-118-75743-2 1-118-75736-X Descrizione fisica 1 PDF (304 pages) Collana IEEE PCS Professional Engineering Communication Series 620.001 Disciplina Soggetti **Engineering ethics** Engineering - Philosophy Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Includes bibliographical references at the end of each chapters and Nota di bibliografia index. Nota di contenuto Social Justice is Often Invisible in Engineering Education and Practice --Engineering Design for Social Justice -- Social Justice in the Engineering Sciences -- Humanities and Social Sciences in Engineering Education: From Irrelevance to Social Justice -- Transforming Engineering Education and Practice -- Conclusion: Making Social Justice Visible and Valued. Sommario/riassunto <b>Shows how the engineering curriculum can be a site for rendering social justice visible in engineering, for exploring complex socio-technical interplays inherent in engineering practice, and for enhancing teaching and learning</b> Using social justice as a catalyst for curricular transformation, <i>Engineering Justice</i>
Justice</i>
Anbsp; presents an examination of how politics, culture, and other social issues are inherent in the practice of engineering. It aims to align engineering curricula with socially just outcomes, increase enrollment among underrepresented groups, and lessen lingering gender, class, and ethnicity gaps by showing how the power of engineering knowledge can be explicitly harnessed to serve the

underserved and address social inequalities. This book is meant to

transform the way educators think about engineering curricula through creating or transforming existing courses to attract, retain, and motivate engineering students to become professionals who enact engineering for social justice. <i>Engineering Justice</i>&nbsp;offers thought-provoking chapters on: why social justice is inherent yet often invisible in engineering education and practice; engineering design for social justice; social justice in the engineering sciences; social justice in humanities and social science courses for engineers; and transforming engineering education and practice. In addition, this book: Provides a transformative framework for engineering educators in service learning. professional communication, humanitarian engineering, community service, social entrepreneurship, and social responsibility Includes strategies that engineers on the job can use to advocate for social justice issues and explain their importance to employers. clients, and supervisors educational contexts and how it affects the way students learn and develop <i>Engineering Justice&nbsp;</i>is an important book for today's professors, administrators, and curriculum specialists who seek to produce the best engineers of today and tomorrow..