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Engineering Education and Technological / Professional Learning Cambridge Handbook of Engineering Education Research **Journal of Engineering Education Engineering Education** The Journal of Engineering Education Engineering Education Trends in the Digital Era **Engineering Education Approach to Engineering Education at Nanyang Technological University The Journal of Engineering Education** *Manufacturing Engineering Education* The International Journal of Applied Engineering Education *International Journal of Electrical Engineering Education* The International Journal of Mechanical Engineering Education Transforming Engineering Education **Technology and Tools in Engineering Education** Holistic Engineering Education **The Assessment of Learning in Engineering Education** *Computer Science and Engineering Education for Pre-collegiate Students and Teachers Projects as Socio-Technical Systems in Engineering Education* **The Education of Engineers Rethinking Engineering Education Gender Inclusive Engineering Education What is Global Engineering Education For? The Making of International Educators, Part I & II** Goals of Engineering Education International Journal of Electrical Engineering Education *Technology and Tools in Engineering Education* **Design of Experiments for Chemical, Pharmaceutical, Food, and Industrial Applications** Engineering Education for Sustainable Development *Advances in Engineering Education in the Middle East and North Africa* Web-Based Engineering Education: Critical Design and Effective Tools *Technology-Assisted Problem Solving for Engineering Education: Interactive Multimedia Applications Blended Learning in Engineering Education Sustainability in Higher Education Bulletin of the Society for the Promotion of Engineering Education Designing Better Engineering Education Through Assessment Engineering Justice* Overcoming Challenges in Software Engineering Education: Delivering Non-Technical Knowledge and Skills *New Paradigm for Re-engineering Education Liberal Education and Engineering* Engineering Education

Design of Experiments for Chemical, Pharmaceutical, Food, and Industrial Applications Aug 10 2020 Statistics is a key characteristic that assists a wide variety of professions including business, government, and factual sciences. Companies need data calculation to make informed decisions that help maintain their relevance. Design of experiments (DOE) is a set of active techniques that provides a more efficient approach for industries to test their processes and form effective conclusions. Experimental design can be implemented into multiple professions, and it is a necessity to promote applicable research on this up-and-coming method. Design of Experiments for Chemical, Pharmaceutical, Food, and Industrial Applications is a pivotal reference source that seeks to increase the use of design of experiments to optimize and improve analytical methods and productive processes in order to use less resources and time. While highlighting topics such as multivariate methods, factorial experiments, and pharmaceutical research, this publication is ideally designed for industrial designers, research scientists, chemical engineers, managers, academicians, and students seeking current research on advanced and multivariate statistics.
Sustainability in Higher Education Feb 02 2020 Support in higher education is an emerging area of great interest to professors, researchers and students in academic institutions. Sustainability in Higher Education provides discussions on the exchange of information between different aspects of sustainability in higher education. This book includes chapter contributions from authors who have provided case studies on various areas of education for sustainability. focus on sustainability present studies in aspects related with higher education explores a variety of educational aspects from an sustainable perspective

Engineering Justice Oct 31 2019 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 Using social justice as a catalyst for curricular transformation, Engineering Justice 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. Engineering Justice 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 Discusses diversity in engineering educational contexts and how it affects the way students learn and develop Engineering Justice is an important book for today's professors, administrators, and curriculum specialists who seek to produce the best engineers of today and tomorrow.

The Journal of Engineering Education Feb 25 2022

The Education of Engineers Mar 17 2021

New Paradigm for Re-engineering Education Aug 29 2019 In response to the challenges of globalization and local development, educational reforms are inevitably becoming one of the major trends in the Asia-Pacific Region or other parts of the world. Based on the most recent research and international observations, this book aims to present a new paradigm including various new concepts, frameworks and theories for reengineering education. This book has 21 chapters in three sections. Section I "New Paradigm of Educational Reform" containing eight chapters, illustrates the new paradigm and frameworks of reengineering education, fostering human development and analysing reform policies and also discusses the trends and challenges of educational reforms in the Asia-Pacific Region. Section II "New Paradigm of Educational Leadership" with five chapters aims to elaborate how the nature, role and practice of school leadership can be transformed towards a new paradigm and respond to the three waves of education reforms. Section III "Reengineering School Management for Effectiveness" with eight chapters aims to provide various practical frameworks for reengineering school management processes and implementing changes in school practices.

Engineering Education Aug 02 2022 This book details the key concepts, objectives and processes relating to the professional accreditation of engineering bachelor (honours) degrees. The contemporary context of accreditation is examined in terms of the globalised nature of both the engineering profession and higher education. Examples of the processes relating to single and dual accreditation are provided, with examination of the Washington Accord and the requirements of the European Network for Accreditation of Engineering Education. Details are also provided as to how learning outcomes can be structured to demonstrate compliance with accreditation criteria. The final chapters deal briefly with quality assurance processes used in education and the current international quality ranking systems which exist. This book will provide the reader with a detailed examination of outcome based education within the context of Bachelor of Engineering (honours) degrees. A key feature of this book is the side-by-side comparison of different accreditation criteria and a thorough discussion of the relatively new phenomenon of dual accreditation. The book seeks to provide a very clear explanation and exploration of accreditation within the context of engineering education and will benefit those practitioners involved in the accreditation process.

Liberal Education and Engineering Jul 29 2019

Rethinking Engineering Education Feb 13 2021 This book describes an approach to engineering education that integrates a comprehensive set of personal, interpersonal, and professional engineering skills with engineering disciplinary knowledge in order to prepare innovative and entrepreneurial engineers. The education of engineers is set in the context of engineering practice, that is, Conceiving, Designing, Implementing, and Operating (CDIO) through the entire lifecycle of engineering processes, products, and systems. The book is both a description of the development and implementation of the CDIO model and a guide to engineering programs worldwide that seek to improve the education of young engineers.

Gender Inclusive Engineering Education Jan 15 2021 Women continue to comprise a small minority of students in engineering education and subsequent employment, despite the numerous initiatives over the past 25 years to attract and retain more women in engineering. This book demonstrates the ways in which traditional engineering education has not attracted, supported or retained female students and identifies the issues needing to be addressed in changing engineering education to become more gender inclusive. This innovative and much-needed work also addresses how faculty can incorporate inclusive curriculum within their courses and programs, and provides a range of exemplars of good practice in gender inclusive engineering education that will be immediately useful to faculty who teach engineering students.

Technology and Tools in Engineering Education Aug 22 2021 This book explores the innovative and research methods of the teaching-learning process in Engineering field. It focuses on the use of technology in the field of education. It also provides a platform to academicians and educationalists to share their ideas and best practices. The book includes specific pedagogy used in engineering education. It offers case studies and classroom practices which also include those used in distance mode and during the COVID-19 pandemic. It provides comparisons of national and international accreditation bodies, directions on cost-effective technology, and it discusses advanced technologies such as VR and augmented reality used in education. This book is intended for research scholars who are pursuing their masters and doctoral studies in the engineering education field as well as teachers who teach undergraduate and postgraduate courses to engineering students.

Engineering Education Jun 27 2019

Computer Science and Engineering Education for Pre-collegiate Students and Teachers May 19 2021 Now more than ever, as a worldwide STEM community, we need to know what pre-collegiate teachers and students explore, learn, and implement in relation to computer science and engineering education. As computer science and engineering education are not always “stand-alone” courses in pre-collegiate schools, how are pre-collegiate teachers and students learning about these topics? How can these subjects be integrated? Explore six articles in this book that directly relate to the currently hot topics of computer science and engineering education as they tie into pre-collegiate science, technology, and mathematics realms. There is a systematic review article to set the stage of the problem. Following this overview are two teacher-focused articles on professional development in computer science and entrepreneurship venture training. The final three articles focus on varying levels of student work including pre-collegiate secondary students’ exploration of engineering design technology, future science teachers’ (collegiate students) perceptions of engineering, and pre-collegiate future engineers’ exploration of environmental radioactivity. All six articles speak to computer science and engineering education in pre-collegiate forums, but blend into the collegiate world for a look at what all audiences can bring to the conversation about these topics.

Journal of Engineering Education Sep 03 2022

Web-Based Engineering Education: Critical Design and Effective Tools May 07 2020 Rapid advances in computer technology and the internet have created new opportunities for delivering instruction and revolutionizing the learning environment. This development has been accelerated by the significant reduction in cost of the Internet infrastructure and the easy accessibility of the World Wide Web. This book evaluates the usefulness of advanced learning systems in delivering instructions in a virtual academic environment for different engineering sectors. It aims at providing

a deep probe into the most relevant issues in engineering education and digital learning and offers a survey of how digital engineering education has developed, where it stands now, how research in this area has progressed, and what the prospects are for the future.

The International Journal of Applied Engineering Education Dec 26 2021

Cambridge Handbook of Engineering Education Research Oct 04 2022 The Cambridge Handbook of Engineering Education Research is the critical reference source for the growing field of engineering education research, featuring the work of world luminaries writing to define and inform this emerging field. The Handbook draws extensively on contemporary research in the learning sciences, examining how technology affects learners and learning environments, and the role of social context in learning. Since a landmark issue of the Journal of Engineering Education (2005), in which senior scholars argued for a stronger theoretical and empirically driven agenda, engineering education has quickly emerged as a research-driven field increasing in both theoretical and empirical work drawing on many social science disciplines, disciplinary engineering knowledge, and computing. The Handbook is based on the research agenda from a series of interdisciplinary colloquia funded by the US National Science Foundation and published in the Journal of Engineering Education in October 2006.

Advances in Engineering Education in the Middle East and North Africa Jun 07 2020 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.

Transforming Engineering Education Sep 22 2021 The collection brings together new approaches to research in the use of computer-mediated learning technologies in civil engineering education.

The Assessment of Learning in Engineering Education Jun 19 2021 Explores how we judge engineering education in order to effectively redesign courses and programs that will prepare new engineers for various professional and academic careers Shows how present approaches to assessment were shaped and what the future holds Analyzes the validity of teaching and judging engineering education Shows the integral role that assessment plays in curriculum design and implementation Examines the sociotechnical system’s impact on engineering curricula

Technology-Assisted Problem Solving for Engineering Education: Interactive Multimedia Applications Apr 05 2020 Explores best practices in assisting students in understanding engineering concepts through interactive and virtual environments.

Bulletin of the Society for the Promotion of Engineering Education Jan 03 2020

Engineering Education Trends in the Digital Era May 31 2022 As the most influential activity for social and economic development of individuals and societies, education is a powerful means of shaping the future. The emergence of physical and digital technologies requires an overhaul that would affect not only the way engineering is approached but also the way education is delivered and designed. Therefore, designing and developing curricula focusing on the competencies and abilities of new generation engineers will be a necessity for sustainable success. Engineering Education Trends in the Digital Era is a critical scholarly resource that examines more digitized ways of designing and delivering learning and teaching processes and discusses and acts upon developing

innovative engineering education within global, societal, economic, and environmental contexts. Highlighting a wide range of topics such as academic integrity, gamification, and professional development, this book is essential for teachers, researchers, educational policymakers, curriculum designers, educational software developers, administrators, and academicians.

Goals of Engineering Education Nov 12 2020

Projects as Socio-Technical Systems in Engineering Education Apr 17 2021 This book presents the case for Project-Based Learning within Socio-Technical Systems in Engineering Education. The book highlights the importance of projects as Socio-Technical Systems as a means for supporting and enhancing international accreditation of engineering programs. Practical examples illustrate how Socio-Technical Systems are brought into the educational environment through Project-Based Learning. The book goes on to discusses the impact this may have on Engineering Education practice. The work presented will enable engineering educators to develop curricula that can respond to societal needs, while also enhancing teaching and learning. It offers an approach to engineering education that centers on engaging scholars in projects that are located within socio-technical systems. University, government and industry leaders will gain from this book as it provides insight into strategic planning and partnership-building for Engineering Education. We hope this book will further foster deep scholarship of research to ready engineering faculties for engaging responsibly with their surrounding communities. Features: Offers applications of Project-Based Learning (PBL) in Engineering Education Matches elements of Socio-Technical Systems in Higher Engineering Education, with the Exit Level Outcomes (ELOs) required by professional engineering bodies Provides practical examples for the establishment of project environments within an academic faculty Shows examples in the success of execution of projects involving engineering educators, researchers, program developers, government agencies and industry partners Presents a framework to develop Project-Based Learning in Engineering Education that addresses Socio-Technical requirements and will enable engineering educators to collaboratively develop engineering curricula with industry that will respond to societal needs

International Journal of Electrical Engineering Education Nov 24 2021

Holistic Engineering Education Jul 21 2021 Holistic Engineering Education: Beyond Technology is a compilation of coordinated and focused essays from world leaders in the engineering profession who are dedicated to a transformation of engineering education and practice. The contributors define a new and holistic approach to education and practice that captures the creativity, interdisciplinarity, complexity, and adaptability required for the profession to grow and truly serve global needs. With few exceptions today, engineering students and professionals continue to receive a traditional, technically-based education and training using curriculum models developed for early 20th century manufacturing and machining. While this educational paradigm has served engineering well, helping engineers create awe-inspiring machines and technologies for society, the coursework and expectations of most engineering programs eschew breadth and intellectual exploration to focus on consistent technological precision and study. Why this dichotomy? While engineering will always need precise technological skill, the 21st century innovation economy demands a new professional perspective that recognizes the value of complex systems thinking, cross-disciplinary collaborations, economic and environmental impacts (sustainability), and effective communication to global and community leaders, thus enabling engineers to consider "the whole patient" of society's needs. The goal of this book is to inspire, lead, and guide this critically needed transformation of engineering education. "Holistic Engineering Education: Beyond Technology points the way to a transformation of engineering education and practice that will be sufficiently robust, flexible, and systems-oriented to meet the grand challenges of the 21st century with their ever-increasing scale, complexity, and transdisciplinary nature." -- Charles Vest, President, National Academy of Engineering; President Emeritus, MIT "This collection of essays provides compelling arguments for the need of an engineering education that prepares engineers for the problems of the 21st century. Following the National Academy’s report on the Engineer of 2020, this book brings together experts who make the case for an engineering profession that looks beyond developing just cool technologies and more

into creating solutions that can address important problems to benefit real people." -- Linda Katehi, Chancellor, University of California at Davis "This superb volume offers a provocative portrait of the exciting future of engineering education...A dramatically new form of engineering education is needed that recognizes this field as a liberal art, as a profession that combines equal parts technical rigor and creative design...The authors challenge the next generation to engineering educators to imagine, think and act in new ways. " -- Lee S. Shulman, President Emeritus, The Carnegie Foundation for the Advancement of Teaching and Charles E. Ducommun Professor of Education Emeritus, Stanford University

International Journal of Electrical Engineering Education Oct 12 2020

Designing Better Engineering Education Through Assessment Dec 02 2019 "The work describes various assessment methods and provides examples of various assessment tools that have been utilized by a variety of programs. Valuable for faculty and administrators who are concerned with satisfying the ABET accreditation requirements in engineering and technology programs. Recommended." Choice"

The Journal of Engineering Education Jul 01 2022

Manufacturing Engineering Education Jan 27 2022 Manufacturing Engineering Education includes original and unpublished chapters that develop the applications of the manufacturing engineering education field. Chapters convey innovative research ideas that have a prodigious significance in the life of academics, engineers, researchers and professionals involved with manufacturing engineering. Today, the interest in this subject is shown in many prominent global institutes and universities, and the robust momentum of manufacturing has helped the U.S. economy continue to grow throughout 2014. This book covers manufacturing engineering education, with a special emphasis on curriculum development, and didactic aspects. Includes original and unpublished chapters that develop the applications of the manufacturing engineering education principle Applies manufacturing engineering education to curriculum development Offers research ideas that can be applied to the work of academics, engineers, researchers and professionals

What is Global Engineering Education For? The Making of International Educators, Part I & II Dec 14 2020 Global engineering offers the seductive image of engineers figuring out how to optimize work through collaboration and mobility. Its biggest challenge to engineers, however, is more fundamental and difficult: to better understand what they know and value qua engineers and why. This volume reports an experimental effort to help sixteen engineering educators produce ""personal geographies"" describing what led them to make risky career commitments to international and global engineering education. The contents of their diverse trajectories stand out in extending far beyond the narrower image of producing globally-competent engineers. Their personal geographies repeatedly highlight experiences of incongruence beyond home countries that provoked them to see themselves and understand their knowledge differently. The experiences were sufficiently profound to motivate them to design educational experiences that could challenge engineering students in similar ways. For nine engineers, gaining new international knowledge challenged assumptions that engineering work and life are limited to purely technical practices, compelling explicit attention to broader value commitments. For five non-engineers and two hybrids, gaining new international knowledge fueled ambitions to help engineering students better recognize and critically examine the broader value commitments in their work. A background chapter examines the historical emergence of international engineering education in the United States, and an epilogue explores what it might take to integrate practices of critical self-analysis more systematically in the education and training of engineers. Two appendices and two online supplements describe the unique research process that generated these personal geographies, especially the workshop at the U.S. National Academy of Engineering in which authors were prohibited from participating in discussions of their manuscripts. Table of Contents: The Border Crossers: Personal Geographies of International and Global Engineering Educators (Gary Lee Downey) / From Diplomacy and Development to Competitiveness and Globalization: Historical Perspectives on the Internationalization of Engineering Education (Brent Jesiek and Kacey Beddoes)

/ Crossing Borders: My Journey at WPI (Rick Vaz) / Education of Global Engineers and Global Citizens (E. Dan Hirleman) / In Search of Something More: My Path Towards International Service-Learning in Engineering Education (Margaret F. Pinnell) / International Engineering Education: The Transition from Engineering Faculty Member to True Believer (D. Joseph Mook) / Finding and Educating Self and Others Across Multiple Domains: Crossing Cultures, Disciplines, Research Modalities, and Scales (Anu Ramaswami) / If You Don't Go, You Don't Know (Linda D. Phillips) / A Lifetime of Touches of an Elusive ""Virtual Elephant"": Global Engineering Education (Lester A. Gerhardt) / Developing Global Awareness in a College of Engineering (Alan Parkinson) / The Right Thing to Do: Graduate Education and Research in a Global and Human Context (James R. Mihelcic) / Author Biographies

Overcoming Challenges in Software Engineering Education: Delivering Non-Technical Knowledge and Skills Sep 30 2019 Computer science graduates often find software engineering knowledge and skills are more in demand after they join the industry. However, given the lecture-based curriculum present in academia, it is not an easy undertaking to deliver industry-standard knowledge and skills in a software engineering classroom as such lectures hardly engage or convince students. Overcoming Challenges in Software Engineering Education: Delivering Non-Technical Knowledge and Skills combines recent advances and best practices to improve the curriculum of software engineering education. This book is an essential reference source for researchers and educators seeking to bridge the gap between industry expectations and what academia can provide in software engineering education.

Blended Learning in Engineering Education Mar 05 2020 Blended Learning combines the conventional face-to-face course delivery with an online component. The synergetic effect of the two modalities has proved to be of superior didactic value to each modality on its own. The highly improved interaction it offers to students, as well as direct accessibility to the lecturer, adds to the hitherto unparalleled learning outcomes. "Blended Learning in Engineering Education: Recent Developments in Curriculum, Assessment and Practice" highlights current trends in Engineering Education involving face-to-face and online curriculum delivery. This book will be especially useful to lecturers and postgraduate/undergraduate students as well as university administrators who would like to not only get an up-to-date overview of contemporary developments in this field, but also help enhance academic performance at all levels.

Engineering Education Apr 29 2022 A synthesis of nearly 2,000 articles to help make engineers better educators While a significant body of knowledge has evolved in the field of engineering education over the years, much of the published information has been restricted to scholarly journals and has not found a broad audience. This publication rectifies that situation by reviewing the findings of nearly 2,000 scholarly articles to help engineers become better educators, devise more effective curricula, and be more effective leaders and advocates in curriculum and research development. The author's first objective is to provide an illustrative review of research and development in engineering education since 1960. His second objective is, with the examples given, to encourage the practice of classroom assessment and research, and his third objective is to promote the idea of curriculum leadership. The publication is divided into four main parts: Part I demonstrates how the underpinnings of education—history, philosophy, psychology, sociology—determine the aims and objectives of the curriculum and the curriculum's internal structure, which integrates assessment, content, teaching, and learning Part II focuses on the curriculum itself, considering such key issues as content organization, trends, and change. A chapter on interdisciplinary and integrated study and a chapter on project and problem-based models of curriculum are included Part III examines problem solving, creativity, and design Part IV delves into teaching, assessment, and evaluation, beginning with a chapter on the lecture, cooperative learning, and teamwork The book ends with a brief, insightful forecast of the future of engineering education. Because this is a practical tool and reference for engineers, each chapter is self-contained and may be read independently of the others. Unlike other works in engineering education, which are generally intended for educational researchers, this publication is written not only for researchers in

the field of engineering education, but also for all engineers who teach. All readers acquire a host of practical skills and knowledge in the fields of learning, philosophy, sociology, and history as they specifically apply to the process of engineering curriculum improvement and evaluation.

Approach to Engineering Education at Nanyang Technological University Mar 29 2022

Technology and Tools in Engineering Education Sep 10 2020 This book explores the innovative and research methods of the teaching-learning process in Engineering field. It focuses on the use of technology in the field of education. It also provides a platform to academicians and educationalists to share their ideas and best practices. The book includes specific pedagogy used in engineering education. It offers case studies and classroom practices which also include those used in distance mode and during the COVID-19 pandemic. It provides comparisons of national and international accreditation bodies, directions on cost-effective technology, and it discusses advanced technologies such as VR and augmented reality used in education. This book is intended for research scholars who are pursuing their masters and doctoral studies in the engineering education field as well as teachers who teach undergraduate and postgraduate courses to engineering students.

Engineering Education and Technological / Professional Learning Nov 05 2022 The focus of this Special Issue is aimed at enhancing the discussion of Engineering Education, particularly related to technological and professional learning. In the 21st century, students face a challenging demand: they are expected to have the best scientific expertise, but also highly developed social skills and qualities like teamwork, creativity, communication, or leadership. Even though students and teachers are becoming more aware of this necessity, there is still a gap between academic life and the professional world. In this Special Edition Book, the reader can find works tackling interesting topics such as educational resources addressing students' development of competencies, the importance of final year projects linked to professional environments, and multicultural or interdisciplinary challenges.

The International Journal of Mechanical Engineering Education Oct 24 2021

Engineering Education for Sustainable Development Jul 09 2020 This book demonstrates how the theoretical concepts of the capabilities approach can be applied in the context of engineering education, and how this could be used to add nuance to our understanding of the contribution higher education can make to human flourishing. In demonstrating the usefulness of the capability approach as a lens through which to evaluate the outputs of engineering education, the author also shows how the capability approach can be informed by, and informs, the concept of 'sustainable development' and discusses what pedagogical and curricula implications this may have for education for sustainable development (ESD), particularly in engineering. As such, the book builds on the work of scholars of engineering education, and scholars of university education at the nexus of development and sustainability. Engineering employers, educators and students from diverse contexts discuss both the capabilities and functions that are enlarged by engineering education and the impact these can have on pro-poor engineering or public-good professionalism. The book therefore makes an original conceptual and empirical contribution to our thinking about engineering education research. The book provides inspiration for both engineering educators and students to orient their technical knowledge and transferable skills towards the public good. It will also be of great interest to students and researchers interested in education for sustainable development more generally and to engineers who are interested in doing work that is aligned with the goals of social justice. The book will also appeal to scholars of the capability approach within higher education.