Record Nr. UNINA9910845099803321 Autore Marjanovi Dorian Titolo Design Research: The Sociotechnical Aspects of Quality, Creativity, and Innovation [[electronic resource] /] / edited by Dorian Marjanovi, Mario Štorga, Stanko Škec Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2024 **ISBN** 3-031-50488-7 Edizione [1st ed. 2024.] Descrizione fisica 1 online resource (192 pages) Altri autori (Persone) StorgaMario SkecStanko Disciplina 620.0042 Soggetti Engineering design Technical education Industrial engineering Production engineering

Business
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Nota di contenuto Introduction -- From Design Optimization to Design Science: An

Evolution in Design Thinking -- DESIGN, building a global, interdisciplinary community -- Designing a design conference in an emerging design science community: Danish experiences from the International Conference on Design (DESIGN) -- Dynamics of Using Information and Communication Technology Tools in a Distributed Project-Based Design Course -- European Global Product Realisation: creativity and innovation in educating engineers and product designers of 21st Century -- Creativity – a bottleneck in engineering design? -- Basics of Integrated Design Engineering (IDE) -- HumanCentered Design Methodology as Bridge between Academic Research and

## Sommario/riassunto

Requirements in Industry -- What Does it Mean: "Quality of Design Research"? -- Conclusion.

The book provides a holistic insight into design research, a comprehensive and cohesive vision of state-of-the-art knowledge about creating and improving quality products, creativity and innovation. Contributions in this volume serve as the illuminating compass for understanding engineering design research, offering a comprehensive perspective on product development, creativity, innovation, invention, and productivity, providing the historical trajectory of design science and exploring the frontiers of engineering design research. The presented educational projects were deployed across EU universities, providing insights for future design courses. Central to the discussions is the pivotal role of sociotechnical dimensions in engineering design, discussing issues of creativity, quality, human-centric methodologies, and the demands of emerging technologies emphasizing their pivotal role in engineering design success. The text offers a panoramic view of design research's current state and critical themes, providing a comprehensive overview for young researchers. Educators and mentors will deepen their knowledge, while experts will refine their methodologies and tools.