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Descrizione fisica	1 online resource (XII, 466 p. 200 illus., 114 illus. in color.)
Collana	IFIP advances in information and communication technology ; ; 597
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Soggetti	TRIZ theory Technological innovations Creative thinking Artificial intelligence - Industrial applications
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Computing TRIZ -- Managing AI Technologies in Earthwork Construction: A TRIZ-based Innovation Approach -- TRIZ Driven Identification of AI Application to Improve Navigation of Mobile Autonomous Robots -- Real-time Contradiction Matrix of a given field using unstructured texts of patent contents and Natural Language Processing -- Algorithmic approach for Idea landscaping and prioritization -- Conceptual semantic analysis of patents and scientific publications based on TRIZ tools -- Build Links between Problems and Solutions in the Patent -- Summarization as a denoising extraction tool -- Problem-Solving Tools as Methods for Managing the Information Content of Systems -- Education and Pedagogy -- Easy-to-use Ideation Technique based on Five Cross-Industry Analogies Enhances Engineering Creativity of Students and Specialists -- MOOCs vs Face to Face (F2F) model: what relevance for creativity development? -- Effective improvement solutions in organizations using data envelopment analysis (DEA) and TRIZ: A case study in higher education -- Understanding and overcoming the low utilization rate of ARIZ in

TRIZ practices -- Sustainable Development -- Excesses in Engineering Systems: a Helpful Resource -- Learning Eco-Innovation from Nature: towards Identification of Solution Principles without Secondary Eco-Problems -- A future eco-design framework based on TRIZ's contradictions and Bio-Inspired Design -- TRIZ to solve challenges for designing sustainable, intelligent and inclusive buildings -- Tools and Techniques of TRIZ for Enhancing Design -- Application of TRIZ Substance-Field Analysis and Situational Analysis for risk analysis and development of common language among stakeholders -- How to organize a Knowledge base using TRIZ Evolution tree -- An Approach of Product-type Process Trimming -- High Power Density Speed Reducers: a TRIZ based classification of mechanical solutions -- TRIZ and System Engineering -- A systematic innovation process oriented to multi-disciplinary -- Eliminating disadvantages by changing transitions in a state machine cause-effect model -- Contribution to TRIZ progress in combining lean and Inventive Design Method -- Quantification of influences between components, functions and process usage stages by linking TRIZ Methods and Systems Engineering -- TRIZ and Complexity -- Network of Contradictions Analysis in Marketing Information Quality Management -- Feature selection-based approach for generalized contradiction recognition -- Flow structure information model for multi-flow problem analysis of complex systems -- Multi-conflict problem resolution process model of complex technical system -- Cross-fertilization of TRIZ for Innovation Management -- A Study on the Effect of Improved Collective Intelligence Combined with TRIZ Methodology for Solving Complex Technology Systems -- The Man and its Technical Systems -- Quantifying sustainable patents for enhancing ESG factors using bibliometric indicators from patent portfolio valuation -- Method about Patent Design Around Based on Technological Evolution -- Dynamization and Real Options – Discussing the Economic Success of Design Inventions -- TRIZ-based approach for improving the adoption of Open Innovation 2.0.

Sommario/riassunto

This book constitutes the refereed proceedings of the 20th International TRIZ Future Conference on Automated Invention for Smart Industries, TFC 2020, held in Cluj-Napoca, Romania, in October 2020 and sponsored by IFIP WG 5.4. The conference was held virtually. The 34 full papers presented were carefully reviewed and selected from 91 submissions. They are organized in the following thematic sections: computing TRIZ; education and pedagogy; sustainable development; tools and techniques of TRIZ for enhancing design; TRIZ and system engineering; TRIZ and complexity; and cross-fertilization of TRIZ for innovation management.
