1. Record Nr. UNINA9910725929503321

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Titolo Materialising the Future : A Learning Path to Understand, Develop and

Apply Emerging Materials and Technologies / / edited by Venere

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Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,,

2023

ISBN 3-031-25207-1

Edizione [1st ed. 2023.]

Descrizione fisica 1 online resource (237 pages)

Collana Research for Development, , 2198-7319

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Disciplina 620.11

Soggetti Biomaterials

Technical education

Materials

Engineering design Nanotechnology

Technology and Design education

Materials Engineering Engineering Design

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Nota di contenuto Introducing Emerging Materials and technologies (EM&Ts) areas and

their theoretical framework by Venere Ferraro, Pirjo Kääriäinen, Paz Morer, Anke Pasold -- Part 1: The DATEMATS Project: Methods, Tools and Frames -- Designing with and for EM&Ts: describing a unique design approach – Venere Ferraro -- How do we approach and involve companies in Design Fields? Lesson learnt from surveys and participative workshops – Alba Obiols -- A supporting tool to design with and for EM&Ts: the materials toolkit – Gemma Esteban, Geraldine Kann, Veronica Sarbach, Daniela Amandolese -- Transferring Knowledge from Academia to the Companies: a new method –Aitor

Cazón -- Part 2 Field Studies: From Ideation to Applications -- Applying DATEMATS Methods and tools to Nanomaterials: A design

challenge by the company Antolin – Robert Thompson -- Applying DATEMATS Methods and tools to ICS Materials in wearable domain: mastering the complexity of hybrid materials – Stefano Parisi -- Applying DATEMATS Methods and tools to Advanced Growing Materials: handling the materials growing and design challenges launched by a company- Anke Pasold -- Applying DATEMATS Methods and tools to Experimental Wood-based Materials: Materiality in ideation process-Pirjo Kääriäinen, Tarja-Kaarina Laamanen -- How can we establish long-lasting collaboration with companies? The academia perspective – Venere Ferraro, Pirjo Kääriäinen, Anke Pasold, Paz Morer -- Critical Reflection on the learning process: envisioning future development - Venere Ferraro, Pirjo Kääriäinen, Maria Isabel Rodríguez, Anke Pasold -- Glossary by Stefano Parisi and Robert Thompson -- Appendix: Workshops Posters from the chapter 2.1, 2.2, 2.3, 2.4.

Sommario/riassunto

This open access book offers a host of theoretical knowledge at the basis of new EM&Ts (namely, Interactive Connected Smart Materials, Wearables (ICS), Nanomaterials, Advanced Growing Materials, and Experimental Wood-Based Materials), as communicated through the unique design teaching method developed within the context of the European Project DATEMATS, a result of the creative workshops held by the four higher education institutions that were partners in the project, stressing the pros and cons of the method and offering ideas for further development and improvement. The modern age requires its own innovations in regards to both social and industrial progress, innovations made possible by Emerging Materials and Technologies (EM&Ts). Frameworks for designing both with and for the new materials are presented, educating designers about the opportunities offered by EM&Ts and how to take advantage of them. At the same time, the book explains how the method developed through the knowledge generated at research centers and universities can be communicated to companies across various industries that stand to gain from it, linking the assorted stakeholders, and includes a final chapter based on feedback from both students and business professionals as to the benefits of academic/industrial cooperation. This is an open access book.