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| Descrizione fisica | 1 online resource (158 pages) |
| Collana | Environmental Footprints and Eco-design of Products and Processes, , 2345-766X |
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| Soggetti | Sustainability<br>Industrial design<br>Building materials<br>Industrial Design<br>Wood, fabric, and textiles |
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| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | Chapter 1: Adaptive façades: a comparative analysis of bimetal solutions -- Chapter 2: Utilization of accessible 3D technologies for the study of Bionics in Jewelry Design -- Chapter 3: Ecological Materialities: Exploring the Entanglement of Nature, Design, and Technology in Contemporary Materials -- Chapter 4: Nature Sparkles by Design: natural molecules for polymer functionalization for sustainable design applications -- Chapter 5: Crafting Ecosystems. Algae, echinoids, and algorithms for a new biomimetic design experience -- Chapter 6: Design Beyond the Environmental Pillar: Potential Contributions of Biomimicry to Social Design -- Chapter 7: Nature as inspiration in learning processes -- Chapter 8: Design of Bio-Based Coated Textiles with Incorporation of Pine Wood Wastes that Mimics Leather. |
| Sommario/riassunto | For billions of years, nature has provided efficient solutions to complex problems, by means of natural selection, in a harsh environment that only the fittest organisms survived. Such sustainable – still ruthless – driven evolution can be explored by designers, architects, engineers and more for the development of innovative projects. Biomimetics |

makes the link between Biology and Design, where features like shapes, mechanisms, colors, structures, and more can be analyzed, organized, modeled, and simulated for application in multiple creations. Therefore, such knowledge can contribute to more efficient and innovative solutions to many fields of applied science. This project aims to highlight some of the recent technological breakthroughs in Biology, Biomimetics and Natural Design that contribute to the development of sustainable and innovative materials and projects. This work consists of contributions from some of the main international groups of Biomimetics, exhibiting exciting cases of how technological advancements are leading to improved design solutions as well as shaping our very comprehension of nature and its complex organization.