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Nota di contenuto	Intro -- Preface -- Organization -- Contents -- Design Engineering -- Optimization of the Counterweight Mass of a Passenger Elevator -- 1 Introduction -- 2 Literature Review -- 3 Research Methodology -- 4 Results and Discussion -- 5 Conclusions -- References -- An Increase in the Service Life and Reliability of Machines' Structural Components Using Innovative Engineering Solutions -- 1 Introduction -- 2 Literature Review -- 3 Research Methodology -- 4 Results and Discussion -- 5 Conclusions -- References -- Modernization of the Drive Belt Transmission for the Machining Center -- 1 Introduction -- 2 Literature Review -- 3 Research Methodology -- 3.1 Machine Center Design -- 3.2 3D Modeling of MC Drive -- 3.3 Parametric Modeling of Modified Belt Drive -- 4 Results and Discussion -- 4.1 Structural Part of the TVBT Development -- 4.2 Experimental Part -- 4.3 Discussion -- 5 Conclusions -- References -- An Increase in the Durability

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Application of Nanomaterials and Nanotechnologies to Increase
the Durability of Agricultural Machinery Working Bodies.

Sommario/riassunto

This book reports on topics at the interface between mechanical and materials engineering, emphasizing aspects related to design, simulation, and manufacturing. It covers advanced methods in design and process engineering applied to mechatronic systems, industrial equipment, turbines, and drives. It covers cutting-edge theoretical and experimental findings relating to material behavior, composites, nanomaterials, and coatings design. Based on the 7th International Conference on Design, Simulation, Manufacturing: The Innovation Exchange (DSMIE-2024), held on June 4–7, 2024, in Pilsen, Czech Republic, this second volume of a 2-volume set provides academics and professionals with extensive information on technologies, trends, challenges, and practice-oriented experience in all the above-mentioned areas.
