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Sommario/riassunto

This book reports on advances in mechanical engineering, with a special emphasis on innovative design approaches, constructions and working processes, and on intelligent devices. It discusses physical aspects during pressing and vibrational processing, and findings relating to static stiffness and wear resistance. Further chapters report on the modeling and simulation of mechanical systems using mathematical modeling, numerical simulation, and experimental studies. This book also describes the use of LabVIEW, an infrared camera, and acoustic technology for the control and diagnostic of air leaks and radial runout of gear wheels. It discusses topics concerning the efficiency of systems and processes, reporting on new strategies for improving the design and operation of hydraulic machine rotors, screw and roller presses, and homogenizers, among others. Based on the 8th International Conference on Design, Simulation, Manufacturing: The Innovation Exchange (DSMIE-2025), held on June 17-20, 2025, in Porto, Portugal, this second volume of a 4-volume set provides academics and professionals with extensive information on technologies, trends, challenges, and practice-oriented experience in all the above-mentioned.

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