Record Nr. UNINA9910337655903321 Proceedings of the 14th International Scientific Conference: Computer **Titolo** Aided Engineering / / edited by Eugeniusz Rusiski, Damian Pietrusiak Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2019 **ISBN** 3-030-04975-2 Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (886 pages) Lecture Notes in Mechanical Engineering, , 2195-4356 Collana 620.00420285 Disciplina Soggetti Computer-aided engineering Engineering design Manufactures Machinery Power electronics Computer-Aided Engineering (CAD, CAE) and Design Engineering Design Manufacturing, Machines, Tools, Processes Machinery and Machine Elements Power Electronics, Electrical Machines and Networks Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Design and Manufacture of Machines and Technical Systems --Nota di contenuto Durability Prediction -- Repairs and Retrofitting of Power Equipment --Strength and Thermodynamic Analysis for Power Equipment -- Design and Calculation of Various Types of Load-carrying Structures --Numerical Methods for Dimensioning Materials Handling -- Longdistance Transport Equipment. Sommario/riassunto This book presents the proceedings of the 14th International Conference on Computer Aided Engineering, collecting the best papers from the event, which was held in Wrocaw, Poland in June 2018. It includes contributions from researchers in computer engineering addressing the applied science and development of the industry and offering up-to-date information on the development of the key

technologies in technology transfer. It is divided into the following

thematic sections: • parametric and concurrent design, • advanced numerical simulations of physical systems, • integration of CAD/CAE systems for machine design, • presentation of professional CAD and CAE systems, • presentation of the modern methods of machine testing, • presentation of practical CAD/CAM/CAE applications: – designing and manufacturing of machines and technical systems, – durability prediction, repairs and retrofitting of power equipment, – strength and thermodynamic analyses of power equipment, – design and calculation of various types of load-carrying structures, – numerical methods of dimensioning materials handling and long-distance transport equipment (cranes, gantries, automotive, rail, air, space and other special vehicles and earth-moving machinery), • CAE integration problems. The conference and its proceedings offer a major interdisciplinary forum for researchers and engineers in innovative studies and advances in this dynamic field.