Record Nr. UNINA9910483176103321 Mechatronics 2019: Recent Advances Towards Industry 4.0, Warsaw, Titolo Poland, September 16-18, 2019 // editors, Roman Szewczyk [et al.] Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2020 **ISBN** 3-030-29993-7 Edizione [1st edition 2020.] 1 online resource (XIV, 515 p. 343 illus., 238 illus. in color. :) Descrizione fisica Collana Advances in Intelligent Systems and Computing, , 2194-5357;; 1044 Disciplina 621 Soggetti Robotics Automation **Engineering mathematics** Mechatronics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Simulation, Modelling and ICT -- Sensors, Measurement and Nota di contenuto Diagnostics -- Robotics, Actuators and Control -- MEMS and Nanotechnology -- Smart Materials and Structures -- Biomedical Applications -- Other Problems Connected with advanced Mechatronics. Sommario/riassunto This book gathers papers presented at Mechatronics 2019, an international conference held in Warsaw, Poland, from September 16 to 18, 2019. The contributions discuss the numerous, multidisciplinary technological advances in the field of applied mechatronics that the emerging Industry 4.0 has already yielded. Each chapter presents a particular example of interdisciplinary theoretical knowledge, numerical modelling and simulation, or the application of artificial intelligence techniques. Further, the papers show how both software and physical devices can be incorporated into mechatronic systems to increase production efficiency and resource savings. The results and guidelines presented here will benefit both scientists and engineers looking for solutions to specific industrial and research problems.