Record Nr. UNINA9910733709403321 Advanced Manufacturing Processes III: Selected Papers from the 3rd **Titolo** Grabchenko's International Conference on Advanced Manufacturing Processes (InterPartner-2021), September 7-10, 2021, Odessa, Ukraine // edited by Volodymyr Tonkonogyi, Vitalii Ivanov, Justyna Trojanowska, Gennadii Oborskyi, Ivan Pavlenko Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2022 3-030-91327-9 **ISBN** Edizione [1st ed. 2022.] Descrizione fisica 1 online resource (728 pages) Lecture Notes in Mechanical Engineering, , 2195-4364 Collana Disciplina 670.42 Soggetti Industrial engineering Production engineering Engineering design **Building materials** Computer-aided engineering Industrial and Production Engineering **Engineering Design** Structural Materials Computer-Aided Engineering (CAD, CAE) and Design Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Sommario/riassunto This book offers a timely snapshot of innovative research and

developments at the interface between manufacturing, materials and mechanical engineering, and quality assurance. It covers a wide range of manufacturing processes, such as grinding, boring, milling, turning, woodworking, coatings, including additive manufacturing. It focuses on laser, ultrasonic, and combined laser—ultrasonic hardening treatments, and dispersion hardening. It describes tribology and functional analysis of coatings, separation, purification and filtration processes, as well as ecological recirculation and electrohydraulic activation, highlighting the growing role of digital twins, optimization and lifecycle management

methods, and quality inspection processes. It also covers cutting-edge heat and mass transfer technologies and energy management methods. Gathering the best papers presented at the 3rd Grabchenko's International Conference on Advanced Manufacturing Processes (InterPartner-2021), held in Odessa, Ukraine, on September 7–10, 2021, this book offers a timely overview and extensive information on trends and technologies in manufacturing, mechanical, and materials engineering, and quality assurance. It is also intended to facilitate communication and collaboration between different groups working on similar topics and to offer a bridge between academic and industrial researchers.