Record Nr. UNINA9910743265903321 **Titolo** Recent trends in engineering design: select proceedings of ICCEMME 2021 / / Bangarubabu Popuri [and three others], editors Pubbl/distr/stampa Singapore:,: Springer,, [2022] ©2022 981-16-2900-5 **ISBN** 981-16-2899-8 1 online resource (xii, 121 pages): color illustrations, charts Descrizione fisica Collana Lecture Notes in Mechanical Engineering Disciplina 621 Engineering design Soggetti Computer-aided engineering Computer simulation Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Includes bibliographical references. Nota di bibliografia Nota di contenuto Bond graph analysis of dynamic interaction between the concrete slab and subgrade for high-speed track -- Identification of damping in sandwich beam -- Effect of groove dimensions on pressure profile of twin axial groove hybrid journal bearing -- Method of obtaining planar state of stress using Mohr's circle--some typical cases --Computational modeling of bubble formation on submerged orifice --Design and development of a multivariant exercise machine (MEM) for the patients suffering from spine-related problems -- Parametric study and optimization in deep drawing of headlight reflector -- Numerical simulation of a race car wing operating in the wake of leading vehicle with varying diffuser angles -- A review on design optimization of leaf spring -- Numerical study of twisted tape with circular cutout and triangular cutout in a circular tube. This book discusses the recent researches and concrete findings in the Sommario/riassunto field of mechanical design and automation with its allied branches. Various topics covered in this book include modeling and simulation. application of modelling to complex real-world systems, application of machine or deep learning in mechanical problems, artificial intelligence, vehicle design, robotics, vehicle dynamics and control,

biomechanics, and vibration-related problems.