1. Record Nr. UNINA9910299902803321

Titolo	Advanced Gear Engineering / / edited by Veniamin Goldfarb, Evgenii Trubachev, Natalya Barmina
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2018
ISBN	9783319603995 331960399X
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (497 pages) : illustrations, photographs
Collana	Mechanisms and Machine Science, , 2211-0992 ; ; 51
Disciplina	621.833
Soggetti	Engineering design Industrial engineering Production engineering Software engineering Computer-aided engineering Engineering Design Industrial and Production Engineering Software Engineering Computer-Aided Engineering (CAD, CAE) and Design
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Preface, by M.Ceccarelli -- Introduction, by V. Goldfarb -- Computerized simulation of manufacturing errors in cylindrical spur gears and their compensation through flank modifications, by A. Fuentes, S.Eisele, I.Gonzalez -- Gear geometry as function of production method – proposal of Invo-Planar bevel gear for good productivity with 5X-machine, by A. Kubo, A. Ueda -- Model of loaded contact in multi-pair gears, by E. Trubachev, A. Kuznetsov, A. Sannikov -- Quality characteristics of gearing, by D. Babichev, M. Storchak -- Geometric pitch configurations - basic primitives of the mathematical models for the synthesis of hyperboloid gear drives, by V. Abadjiev, E. Abadjieva -- Load distribution in meshing of planetary gearwheels and its influence on the technical and economic performance of the

mechanism, by F. Plekhanov, V. Goldfarb, E. Vychuzhanina -- Actual issues of design and production of advanced worm gears, by S. Lagutin, A. Sandler, E. Gudov -- Multi axis CNC manufacturing of straight and spiral bevel gears, by C.Gosselin -- Increase in contact strength of heavy-loaded rolling bearings for gear drives and transmissions, by E. Tesker -- Features of relationship of vibration, lubrication and noise of gears, by V. Basinyuk, V. Starzhinsky, A. Mardasevich, S. Shil'ko, E. Petrokovets -- Development of geometric descriptors for gears and gear tools, by D.Babichev -- S-gears: from metal to polymer solution, by J. Hlebanja, G. Hlebanja -- Aspects of teaching "Advanced gears" for future mechanical engineers within "Bachelor of Sciences" program in technical universities, by V. Goldfarb, E. Krylov, O. Perminova, N. Barmina, L. Vasiliev -- Kinematics of bevel biplanetary gear, by J. Drewniak, T. Kdzioka, S. Zawilak -- Tool profiling for grinding of helical surfaces, by V. Medvedev, A. Volkov -- Practice of design and production of worm gears with localized contact, by . Trubachev, . Savelyeva, . Pushkareva -- Optimization of requirements to the accuracy of base surfaces of spur and helical pinions within their tooth cutting, by M. Kane -- Optimization of HCR gearing geometry from scuffing point of view, by M. Rackov, M. Vereš, M. avi, M. Peni, Ž. Kanovi, S. Kuzmanovi, I. Kneževi -- Problems of developing the model of class of objects in intelligent CAD of gearbox systems, by O. Malina -- Approximated rod toothed gears, by B. Timofeev, M. Sachkov -- Planetary rotor hydraulic machine with two central gearwheels having similar tooth number, by G. Volkov, D. Kurasov -- Aspects of optimization of the process of computer-aided design of complex objects, by O. Malina, O. Valeyev -- Efficient schemes and methods for gear machining of spiroid gearwheels and worms, by E. Trubachev, S. Loginov, K. Bogdanov, D. Khvatov, A. Shutkina -- Influence of layout features and parameters of a planetary gear on its dynamics and strength indicators, by F. Plekhanov, A. Pushkarev, I. Pushkarev -- Subject Index. .

Sommario/riassunto

This book covers recent developments in practically all spheres of mechanical engineering related to different kinds of gears and transmissions. Topics treated range from fundamental research to the advanced applications of gears in various practical fields, prospects of manufacturing development, results and trends of numerical and experimental research of gears, new approaches to gear design and aspects of their optimization synthesis. .