



Study and Design of a Micro-trochoidal Gear Pump for High Precision Dosage of Liquids

Contractors & Engineers Magazine

Advances in Design, Simulation and Manufacturing IV

Study of a Prototype of a Mini-gerotor Pump

*Second International Conference on Intelligent Computing and Applications was the annual research conference aimed to bring together researchers around the world to exchange research results and address open issues in all aspects of Intelligent Computing and Applications. The main objective of the second edition of the conference for the scientists, scholars, engineers and students from the academia and the industry is to present ongoing research activities and hence to foster research relations between the Universities and the Industry. The theme of the conference unified the picture of contemporary intelligent computing techniques as an integral concept that highlights the trends in computational intelligence and bridges theoretical research concepts with applications. The conference covered vital issues ranging from intelligent computing, soft computing, and communication to machine learning, industrial automation, process technology and robotics. This conference also provided variety of opportunities for the delegates to exchange ideas, applications and experiences, to establish research relations and to find global partners for future collaboration.*

*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 Wroclaw, 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. "Advanced Tribology" is the proceedings of the 5th China International Symposium on Tribology (held every four years) and the 1st International Tribology Symposium of IFToMM, held in Beijing 24th-27th September 2008. It contains seven parts: lubrication; friction and wear; micro/hano-tribology; tribology of coatings, surface and interface; biotribology; tribo-chemistry; industry tribology. The book reflects the recent progress in the fields such as lubrication, friction and wear, coatings, and precision manufacture etc. in the world. The book is intended for researchers, engineers and graduate students in the field of tribology, lubrication, mechanical production and industrial design. The editors Jianbin Luo, Yonggang Meng, Tianmin Shao and Qian Zhao are all the professors at the State Key Lab of Tribology, Tsinghua University, Beijing.*

*The latest research on power transmission systems Power Transmission and Motion Control is a collection of papers showcased at the 2002 PTMC conference at the University of Bath. Representing the work of researchers and industry leaders from around the world, this book features the latest developments in power transmission media and systems, with an emphasis on pneumatic and hydraulic devices and systems. Insight into current projects on the forefront of technology and innovation provides an overview of the current state of the field while informing ongoing work and suggesting direction for future projects.*

*Fundamental Concepts*

*Advanced Manufacturing Processes IV*

*Proceedings of the 14th International Scientific Conference: Computer Aided Engineering*

*Journal of Mechanical Design*

*Drives and Control for Industrial Automation*

*Machine Design*

Machine Drawing is divided into three parts. Part I deals with the basic principles of technical drawing, dimensioning, limits, fits and tolerances. Part II provides details of how to draw and put machine components together for an assembly drawing. Part III contains problems on assembly drawings taken from the diverse fields of mechanical, production, automobile and marine engineering.

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 various manufacturing processes, such as grinding, boring, milling, broaching, coatings, including additive manufacturing. It focuses on cutting, abrasive, stamping-drawing processes, shot peening, and complex treatment. It describes temperature distribution, twisting deformation, defect formation process, failure analysis, as well as the convective heat exchange and non-uniform nanocapillary fluid cooling, highlighting the growing role of quality control, integrated management systems, and economic efficiency evaluation. It also covers vibration damping, dynamic behavior, failure probability, and strength performance methods for aviation, heterogeneous, permeable porous, and other types of materials. Gathering the best papers presented at the 4th Grabchenko's International Conference on Advanced Manufacturing Processes (InterPartner-2022), held in Odessa, Ukraine, on September 6–9, 2022, 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.

This widely used and acclaimed reference demonstrates how air and oil equipment can be applied to the manual and automatic operation of all types of production machinery.

This book reports on topics at the interface between manufacturing, mechanical and chemical engineering. It gives special emphasis to CAD/CAE systems, information management systems, advanced numerical simulation methods and computational modeling techniques, and their use in product design, industrial process optimization and in the study of the properties of solids, structures, and fluids. Control theory, ICT for engineering education as well as ecological design, and food technologies are also among the topics discussed in the book. Based on the 2nd International Conference on Design, Simulation, Manufacturing: The Innovation Exchange (DSMIE-2019), held on June 11-14, 2019, in Lutsk, Ukraine, the book provides academics and professionals with a timely overview and extensive information on trends and technologies behind current and future developments of Industry 4.0, innovative design and renewable energy generation.

ICICA 2015

How to Build Max Performance

Issues in Engineering Research and Application: 2011 Edition

Advanced Manufacturing Processes II

Fundamentals and Applications