

## CONTENTS

<b>Valerii Stavytskyi, Oleksandr Bashta, Pavlo Nosko, Yurii Tsybrii</b> <i>Determination of Hydrodynamic Power Losses in A Gearing</i> .....	1
<b>Krzysztof Sokół, Piotr Ptak</b> <i>Experimental Evaluation of Circuit Board Components under Extreme Conditions</i> .....	8
<b>Hongli Cao</b> <i>Design of a Fuzzy Fractional Order Adaptive Impedance Controller with Integer Order Approximation for Stable Robotic Contact Force Tracking in Uncertain Environment</i> .....	16
<b>Paweł Bałon, Edward Rejman, Bartłomiej Kielbasa, Robert Smusz</b> <i>Using HSM Technology in Machining of Thin-Walled Aircraft Structures</i> .....	27
<b>Ildar Sharifullin, Andrey Nosko, Eugene Safronov</b> <i>Mathematical Model of the Pallet Motion on a Magnetic Brake Roller of a Gravity Flow Rack</i> .....	34
<b>Roman A. Usenkov, Igor A. Popov, Yuri F. Gortyshov, Svetlana Y. Kokhanova, Ravil A. Latypov</b> <i>Thermodynamic Calculation of a Rotary Engine With External Heat Supply Based on The Ideal Rallis Cycle</i> .....	40
<b>Zoulikha Bouhamatou, Foudil Abedssemed</b> <i>Fuzzy Synergetic Control for Dynamic Car-Like Mobile Robot</i> .....	48
<b>Mohamed Belhorma, Aboubakar S. Bouchikhi</b> <i>Multi-Objective Optimisation of the Electric Wheelchair Ride Comfort and Road Holding Based on Jourdain's Principle Model and Genetic Algorithm</i> .....	58
<b>Meriem Toumi, Mohamed Bouzit, Fayçal Bouzit, Abderrahim Mokhefi</b> <i>MHD Forced Convection using Ferrofluid over a Backward Facing Step Containing a Finned Cylinder</i> .....	70
<b>Vladimir Morkun, Vitalii Tron, Vadym Zymohliad</b> <i>Modelling of Iron Ore Processing in Technological Units Based on The Hybrid Approach</i> .....	82
<b>Abstracts</b> .....	V