Table of Contents

Preface

<u>Cl 4</u>	1.	D	<u>-</u>	- C C4	4 1	1/1-4-1-
Chapter	1:	Proce	essing	oi Stri	ucturai	Metais

Energy of Hastelloy C22, C276 & X					
P.S. Suvin, A. Singh, B.D.K. Patro, V. Edachery, S.V. Kailas and J.H. Horng	3				
Die Design and Forging Analysis of Piston Connecting Rod of Aluminum Alloy T.S. Yang, G.Y. Li, Z.Y. Li, J.W. Li and Z.Z. Chen					
Development of Manufacturing Process for High-Chromium Steel Large Welding Roll V.V. Kukhar, O. Vasylevskyi, K. Malii, V. Zurnadzhy, B. Efremenko and I. Sili	23				
Chapter 2: Engineering Tribology					
Elastohydrodynamic Rotational Lubrication Analysis on the Multi-Body Dynamic Properties of Journal-Bearing Systems Y.L. Hwang and A. Adhitya	33				
Effects of the Lubricants on the Tribology Properties under the Extreme Pressure for the Induction-Treated Linear Guides					
Y.P. Chang, H.Y. Wang, L.M. Chu, C.T. Liu and C.C. Yang Wear of the 3D Printed Polylactic Acid Elements Sliding against the Synthetic Resins at the Higher Speed Friction	41				
Y.P. Chang, C.T. Liu, J.C. Wang, K.W. Chen and M.F. Suyeh	47				
Fatigue Crack Propagation in 5754 Aluminum Alloy under Four-Point Bending M.E. Makhatha, P. Kumar and D.A. Baruwa	55				
Physical Experiments and DEM Simulations for Erosion of Iron Target by Two Impingements of Al ₂ O ₃ Particle with Impingement Angles of Double 90° Z.Q. Fang and S.L. Peng	63				
Chapter 3: Materials and Technologies for Opto- and Microelectronics Investigation of Structural, Morphological and Luminescent Features of Eu ³⁺ Activated					
Molybdate Based Phosphor for W-LED Applications P. Sharma, M. Kaushik and M. Jayasimhadri	71				
Wafer Defect Identification with Optimal Hyper-Parameter Tuning of Support Vector Machine Using the Deep Feature of ResNet 101	70				
S.P. Dash, J. Ramadevi, R. Amat, P.K. Sethy, S.K. Behera and S. Mallick	79				
Chapter 4: Modelling of Heat and Mass Transfer in Engineering Systems					
Study on Shape Effect of MHD Radiative Ag-Water and CuO-Water Nanofluid Flow in a Semi-Porous Channel D.C. Paul, M.A. Hye, M.M. Islam, M.Z. Hosen and M.S. Alam	93				
Numerical Investigation of the Magnetohydrodynamic Mixed Convection inside an Extended Curved Duct in the Presence of a Nanofluid of Different Metallic Oxides	73				
Nanoparticles D. Derbal, M. Bouzit, A. Mokhefi and F. Bouzit	107				
Effect of the Non-Linear Radiative Unsteady Mixed Convective Flow over a Curved Stretching Surface with Soret and Dufour Effects: A Numerical Study	122				
T. Jamir and H. Konwar	133				