

Table of Contents

Preface and Committee FFW 2024 & NME 2024 (joint)

Chapter 1: Fracture, Fatigue and Wear Performance of Materials

Modeling of Fatigue/Creep in Polymer Cage of Large Size Bearing Y. Kadin, G.J. Dop, R. Schaake, G. de Kort and M. Boehm	3
Analyzing Frictional Noise for Wear Monitoring under Dry and Lubrication Condition: Experimental Modelling with Pin-on-Disc Tribometer M. Kalifa, A. Starr and M. Khan	19
Evolution Mechanism of Three-Point Bending Impact Fatigue Damage in Ultra-High Strength Steel 23Co14Ni12Cr3MoE Material Q. Yang, C.Y. Bai and B.W. Wang	33
Mechanical and Thermal Property of Carbon Fiber Reinforced Composites Y. Şahin	43
The Microstructure and Diffusion Transformation of Precipitation-Hardened Sterling Silver for Jewelry Application P. Denjarukul, S. Sinpromma, A. Peerawat, T. Jintakosol, C. Yongperakul and K. Wongpreedee	55

Chapter 2: Assessment of Hazardous Conditions of Structures

Damage Detection for Truss Bridge Structure Using XGBoost N.H. Quyet, T.N. Hoa, N.N. Lan and B.T. Thanh	65
Multi-Hazard Analysis of Steel Buildings Subjected to Earthquake and Fire N. Moroni, M. Francioli, A. Guarnieri and F. Petrini	75

Chapter 3: Design and Analysis of Mechanisms

Sleeve Slippage Simulation and Slippage Damage Identification for the Development of Next Generation Sleeve Assembly Roll N. Noda	89
The New Design of an Elevator's Door Mechanism H. Mirzayev and Y. Şahin	103
A Computational Fluid Dynamics Model for Tornado Wind Turbine O.S. Abdelfatah, Y.A. Eldrainy, A.I. Shehata and A.S. Shehata	111