

# Table of Contents

## Preface and Committee FFW 2024 & NME 2024 (joint)

## Chapter 1: Fracture, Fatigue and Wear Performance of Materials

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

## Chapter 2: Assessment of Hazardous Conditions of Structures

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

## Chapter 3: Design and Analysis of Mechanisms

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