

# Preface

This publication contains the selected papers presented at the 12th International Conference on Fracture Fatigue and Wear (FFW 2024) and the 7th International Conference on Numerical Modelling in Engineering (NME 2024). Both conferences were held together in Xi'an, China, during the period 28-31 July 2024.

FFW 2024 attracted international researchers in fields related to fracture mechanics, fatigue of materials, tribology and wear of Materials, while NME 2024 attracted researchers in fields related to advanced numerical techniques and their applications to a wide range of engineering disciplines. In both conferences, several presentations concerned the application of numerical modelling techniques to fracture, fatigue and wear problems.

Four keynote speakers were invited to these two conferences:

- Prof. Lihua Wang, Professor, School of Aerospace Engineering and Applied Mechanics, Tongji University, for her keynote speech “Improved artificial neural network algorithms and its applications for non-destructive testing”;
- Prof. Nao-Aki Noda, Professor Emeritus, Kyushu Institute of Technology, Mechanical Engineering Department, Kitakyushu 804-8550, Japan, with the keynote speech entitled “Study on sleeve slip mechanism and slip damage through load shifting simulation and miniature roll experiment for development of next-generation sleeve assembly type rolls”;
- Prof. Jeng-Tzong Chen, Distinguished Chair Professor, Department of Harbor and River Engineering, National Taiwan Ocean University, for his keynote speech entitled “Recent development on the double-degeneracy mechanism of the BEM/BIEM”;
- Dr. Yunlai Zhou, Associate Professor, Department of Engineering Mechanics, Xi'an Jiaotong University, China, with the keynote speech entitled “Large structural dynamic analysis: from structural optimization to condition assessment”.

The organising committee would like to thank all keynote speakers and all authors who presented their research works at the FFW & NME conferences venue.

Professor Magd Abdel Wahab  
Chairman of FFW & NME 2024

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