

SPECIAL ISSUE ON ME-NETT2015

Editors Preface

This special issue of **ME-NETT2015** (*The 29th Conference of Mechanical Engineering Network of Thailand*) contains articles that address challenges in different fields of mechanical engineering. The first paper of this special issue "*Flow and mixing in a model swirl combustor equipped with a telescopic end plate porous medium*" explores the a non-reacting turbulent swirl flow in a transparent model swirl combustor equipped with a telescopic end plate porous medium (PM), in an effort to design and developing a future combustion system based on a concept of a PM burner by using PIV technique. The second paper "*Performance of high-order schemes on collocated and staggered grids*" investigate the decay of homogeneous isotropic turbulence (HIT) using the second-order to sixth-order central-finite-difference approximations (CDAs) and compare the results with those from the pseudo-spectral scheme. The third paper "*Thermal characteristics in a heat exchanger tube fitted with zigzag-winglet perforated-tapes*" deals with the enhanced heat transfer and pressure loss characteristics using zigzag-winglet perforated-tape inserts (ZW-PT) in a round tube having a uniform heat-fluxed wall. The final paper of this special issue "*Diversity factor analysis of energy consumption for school building*" presents the diversity factor which shows the actual energy consumption and reflects the energy consumption behavior. The editors hope that this special issue will draw reader's attention to the multi-functionalization of mechanical engineering.

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