

Special Issue

Advances in Propulsion and Energy Systems Utilising Alternative Fuels: Fuel Injection and Combustion Systems

Message from the Guest Editors

In this Special Issue, we aim to present research on recent advances and new interventions in propulsion and energy production systems utilising renewable and alternative fuels (including pre-treatment of existing fuels and combustion air additives), with a particular focus on the investigation of fuel spray characteristics, jet or gas interactions, mixture preparation, ignition and propagation, combustion performance and heat transfer. We welcome new, associated developments in FIE and combustion system design, applied in conventional or novel combustion systems. The scope is not limited to one sector but encompasses stationary energy generation and light to heavy duty applications, including shipping. Contributions should highlight the significance and impact of the work in the transition to reducing carbon, NO_x and SO_x in existing and new applications. We welcome contributions using both experimental and modelling approaches, from a fundamental level to system performance evaluation and validation. In addition, we are interested in the application of new experimental techniques and simulation approaches to the investigation of alternative fuel and combustion system strategies.

Guest Editors

Dr. Steven Begg

Advanced Engineering Centre, University of Brighton, Brighton BN2 4AT, UK

Dr. Nwabueze Emekwuru

Engineering Department, Harper Adams University, Newport TF10 8NB, UK

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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Editor-in-Chief

Prof. Dr. Badie Morsi

Swanson School of Engineering, University of Pittsburgh, 940 Benedum
Hall, 3700 O'Hara Street, Pittsburgh, PA 15261, USA

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