In recent decades it has been widely recognised that preventing failure of engineering structures necessitates involvement of a large amount of expertise and, depending on the application, might require for a multi-disciplinary and multi-scale approach in terms of both, size and time. The series of the International Conference of Engineering Against Failure (ICEAF) aims to provide on a bi-annual basis a forum to present relevant scientific and technological achievements and discuss with an audience of international experts.

The current issue is the Part I of the special issue, containing papers presented at the 4th International Conference of engineering Against Failure (ICEAF-IV), which took place during the period 24-26 of June 2015. Several distinguished scientists and researchers contributed to a high-level scientific gathering during which the latest advancements in the conference topics were presented and discussed upon.

The conference, co-organised by the Laboratory of Technology and Strength of Materials (University of Patras) and the Hellenic Metallurgical Society, is held under the auspices of The Federation of European Materials Societies and the EASN Association.

I am confident that the 5th ICEAF conference, will build on the successful ICEAF-II, ICEAF-III and ICEAF-IV and continue the already established tradition of a “customised”, low-cost conference acting as a forum for experienced international scientists but also young, motivated researchers to present new scientific knowledge and technological innovation, exchange views and establish new cooperation perspectives.

Looking forward to seeing you again during ICEAF-V!

Spiros Pantelakis

Department of Mechanical Engineering and Aeronautics, University of Patras, Patras, Greece