

Guest editorial

12th READ Conference & 6th SCAD Symposium

It is my pleasure to present the special issue of the *Aircraft Engineering and Aerospace Technology* journal, dedicated to an exceptional event arising from a joint undertaking: the READ&SCAD Conference. The conference was hosted by the Polish Society of Aeronautics and Astronautics together with the Warsaw University of Technology and Institute of Aviation on 12-14 September of 2016.

The READ Conference – Research and Education in Aircraft Design (former name: RRDPAE – Recent Research and Design Progress in Aeronautical Engineering and Its Influence on Education) was established in 1994 by Prof Zdobysław Goraj, who was the Chair of the conference over a 20-year period. These seminars were organized every two years as a general forum for the exchange of information related to progress in aerospace engineering research. The unique character of these seminars is given by its focus on aircraft engineering education and the inclusion of juried student sessions.

Over the years, these seminars have been hosted sequentially in Warsaw (Poland), Vilnius (Lithuania), Riga (Latvia), Tallinn (Estonia) and Brno (Czech Republic); then in Warsaw, Brno and Vilnius; and finally back to Warsaw in 2016 (Figure 1).

The Symposium on Collaboration in Aircraft Design (SCAD) has been organized by the Research Section of the CEAS (Council of European Aerospace Societies) Technical Committee in Aircraft Design every year since 2011. The first two symposia were hosted by DLR (Deutschen Zentrums für Luft- und Raumfahrt). The next symposium was held in Linköping (Sweden) together with the CEAS Air & Space

Conference, and after that, hosted in Toulouse (France), then Naples (Italy) and, on this occasion, in Warsaw.

The combination of READ&SCAD events generated added value because it allowed groups of researchers from different parts of Europe to meet at a common event. More than 80 participants from 12 countries totaling about 50 presentations resulted from this initiative. Furthermore, distinguished invited speakers updated the delegates on the latest opportunities for carrying out aeronautics-related research, on available research infrastructure and on novel research results. I would like to cordially thank the invited speakers Hannes Ross, Patrick Berry, Carlos Esteban Pinilla, Ray Whitford, Parithi Govindaraju and Krzysztof Piwek for their interesting presentations.

The following 11 conference papers have been selected for publication in this peer-reviewed special issue:

- 1 Malinowski, M., Goraj, Z. and Frydrychewicz A., “Design of novel aerial jet target”.
- 2 Heinemann, P., Schmidt, M., Jeßberger, C., Will, F., Kaiser, S. and Hornung, M., “Sizing implications of a regional aircraft for inner-city operations”.
- 3 Tarnowski, A., “Morphing wing with skin discontinuity – kinematic concept”.
- 4 Nicolosi, F., Ciliberti, D., Della Vecchia, P., Corcione, S. and Cusati, V., “A comprehensive review of vertical tail design”.
- 5 Da Ronch, A., Panzeri, M., Anas Abd Bari, M., d’Ippolito, R. and Franciolini, M., “Adaptive design of experiments for efficient and accurate estimation of aerodynamic loads”.
- 6 Mieloszyk, J., “Practical problems of numerical optimization in aerospace sciences”.
- 7 Tomasiewicz, J., Marjanowski, J. and Frączek, W., “The electric-powered motorglider AOS-71 – the study of development”.
- 8 Deskiewicz, A. and Perz, R., “Agricultural aircraft wing slat tolerance for bird strike”.

Figure 1 SCAD and RRDPAE-READ – travelling seminars



- 9 Trifari, V., Ruocco, M., Cusati, V., Nicolosi, F. and De Marco, A., “Java framework for parametric aircraft design – ground performance”.
- 10 Klimczyk, W. and Goraj, Z., “Robust design and optimization of UAV empennage”.
- 11 Schülke, F. and Stumpf, E., “Cross-flow effects regarding laminar flow control within conceptual aircraft design”.

The articles deal with different solutions for future aerospace challenges in the areas of novel aircraft configurations, aerodynamics, design methods, multidisciplinary design optimization, unmanned aerial vehicles and damage detection.

With great appreciations, I would like to thank Prof Zdobysław Goraj for his help and advice in organization of the conference and Prof Witold Wiśniowski, Director of Institute of Aviation in Warsaw, for hosting the conference. I would

also like to thank all authors for writing such excellent technical papers and the reviewers for their insightful critique and suggestions, which contributed directly to improving the technical content of this Special Issue. Finally, I would like to thank the Editor-in-Chief of the *Aircraft Engineering and Aerospace Technology* journal, Dr Askin T. Isikveren, for his agreement and support in making this issue possible.



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