

Welcome from the President of the International Council of the Aeronautical Sciences (ICAS), Dr. Susan X. Ying

It is our great pleasure to invite you to the 31st International Council of the



Aeronautical Sciences (ICAS) Congress, the only international forum that covers the world of aeronautics. ICAS was established 60 years ago under the leadership of Professor Theodore von Karman.

Today ICAS continues to support the work of aerospace professional Member Societies from 40 countries around the world. Through Associate Memberships, ICAS brings together industry, national laboratories and academia. This world congress is the key opportunity for the professionals to meet face-to-face, present, network, discuss and create opportunities that can only be done in such an international forum. The 2018 ICAS Congress will be held in Belo Horizonte, Brazil; the first time in South America.

The global aerospace industry is now on the cusp of its Third Revolution. The First Revolution took us to the jet age. The Second Revolution brought us to today where at any given time, there are thousands of commercial jets in the air. With the convergence of breakthrough innovations yielding unprecedented integrated capabilities, we can now open the design space beyond the traditional tube-and-wings and fossil-fuel based power plant. This rapid pace of technological and disruptive developments coupled with the diversity of business challenges facing our industry makes the 2018 ICAS Congress an unique opportunity to learn from and interact with the global innovators and leaders in the aeronautical sciences.

The ICAS Program Committee ensures that congress presentations cover not only core aeronautical disciplines but also topics that reflect new challenges and opportunities facing us today. More importantly, areas showing rapid growing impact have been strategically highlighted in the 2018 agenda including for example: Additive Manufacturing (3D Printing), Model Based Systems Engineering, and All (or Hybrid) Electric Aircraft.

For the 2018 ICAS Congress, we are introducing a marquee program element, the Technology Leadership Forum (TLF). This is a new panel forum with globally respected panelists who are innovators and leaders of the thematic topic area. The particular TLF theme is "Intelligent and Autonomous Technology". There is sure to be passionate discussion on unmanned air vehicles and human-machine teaming, along with the operational challenges these technologies present for urban mobility and in the global air transport system.

We have benefitted from a high level of sponsorship from a number of companies whose names you will see prominently displayed. Some companies have also contributed to the impressive exhibition. We invite you to join us and have a very enjoyable time participating at the congress; or just being inspired, informed, and enjoying the company of old friends and new friends alike from around the world at the many social events and technical tours that we have arranged.

We look forward to seeing you in Belo Horizonte!

Welcome from the President of Brazilian Society of Mechanical Sciences and Engineering (ABCM)

On behalf of ABCM, the Brazilian Association of Mechanical Sciences and Engineering, we would like to welcome you to the 31st Congress of the International Council of the Aeronautical Sciences (ICAS 2018), to be held in Belo Horizonte, Brazil, from September 9-14, 2018.

This is the first ICAS Congress in South America, and Belo Horizonte, capital of the state of Minas Gerais, has the honor to host the world most important event in aeronautical engineering and sciences. Surrounded by beautiful landscapes, this 120 year old city combines the cultural and gastronomic traditions of the 'mineiros' with an important industrial park with a modern aeronautical industry.

ICAS 2018 is promoted by ABCM and ICAS and organized by academic, industrial and government institutions.

The ICAS 2018 Local Organizing Committee is devoting all efforts with enthusiasm to offer to all participants a memorable conference and all conditions for a wonderful stay in Belo Horizonte.

We warmly invite you to participate in ICAS 2018 and exchange your highly appreciated technical contribution.

We wish to all participants fruitful technical and cultural experiences during ICAS 2018.



Sergio V. Möller
President of ABCM
2013-2015, 2015-2017



Gherhardt Ribatski
President of ABCM
2017-2019