## Preliminary program of the International Conference on
**Recent Advances in Aerospace Actuation Systems and Components**
April 2-3, 2014, Hotel Mercure Compans-Cafarelli, Toulouse, France

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<th><strong>Tuesday, 1 April 2014, Tutorial</strong></th>
<th>9 - 17:30, Tutorials on preliminary design of actuators, INSA Toulouse, special registration required</th>
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<td><strong>Wednesday, 2 April 2014 - Talks</strong></td>
<td>7.30 - 9 am, Registration</td>
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<td>9 - 9.15 am, Welcome and opening address</td>
<td>J-C. MARE, Chair of the conference, INSA Toulouse, France</td>
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| 9.15 - 10.45, Session 1, Applications: helicopters and engines | High Bandwidth Electromechanical Actuator for Swashplateless Blade Control System  
M. GIANFRANCESCHI, UTAS, Italy  
G. JACAZIO, Politecnico di Torino, Italy  
J. WANG, Agusta Westland, Italy  
Helicopter EMA System: Electrical Drive Optimisation and Test  
M. ROTTACH, Liebherr-Aerospace-Lindenberg GmbH, Germany  
C. GERADA, P. WHEELER, University of Nottingham, United Kingdom  
Electromechanical Actuators for Aero-engines to Control IGVs  
A. ISTURIZ, A. MUGARRA, J. VINALS, Sener, Spain |
| 10.45 - 11.15 Coffee break | |
M. TODESCHI, L. BAXERRES, Airbus Operations SAS, France  
Electrical Actuators for Aircraft Landing Gear and Nose Wheel Steering  
M. BENAROUS, United Technologies Actuation Systems, United Kingdom |
| 12.45 – 2 pm, Lunch | Electric Brake  
P. CHICO, Safran Messier-Bugatti-Dowty, France |
| 2 pm – 3.30 pm, Session 3, System level | More Electrical Aircraft Control  
M. FERVEL, L. ANDRIEU, M. TODESCHI, J. ROIZES, Airbus Operations SAS, France  
Innovative Flight Control Systems Electronic Architectures for a More Electrical Aircraft  
J-C. DERRIEN, J-C. MINICHETTI, E. BRIDOT, M. WENDLING, Safran Sagem Défense et Sécurité, France  
Moog Next Generation Control and Actuation  
E. GILSON, Moog Inc., France  
J. D. KOPP, D. MANZANARES, Moog Inc., United States of America |
| 3.30 - 4 pm, Coffee break | |
| 4 – 5.30 pm, Session 4 | Deterministic High-Bandwidth Networks: Models of Computation and System Integration Capabilities for Actuator/sensor Networks  
M. JAKOVLJEVIC, J. GATARD, TTTech, Austria  
Analysis of Minimum Delta Pressure Specifications Between Actuators and Hydraulic Power Generation and their Effect on Overall System Sizing  
C. DUNKER, P. THIELECKE, Hamburg University of Technology, Germany  
T. HOMANN, Airbus Operations GmbH, Germany  
Towards Electrical Actuator Standardisation  
L. BRAULT, S. GRAND, S. SANDER, UTC Goodrich France, France |
| 7.30 pm, Conference banquet at Salle des Colonnes, Hotel-Dieu, Toulouse | |
| **Thursday, 3 April 2014 - Talks** | 8.30 - 10.30 am, Session 5, Health Monitoring |
| Model-based Fault Diagnosis of a Flight-Critical Actuator | A. BOBRINSKOY, Thalès Systèmes Aéroportés, France  
F. CAZAURANG, Université de Bordeaux, France  
B. BLUTEAU, Estia-Recherche, France  
M. GATTI, O. GUERINEAU, Thalès Systèmes Aéroportés, France |
| Multi-phase High Reliability PM Brushless DC Motors for Aircraft Applications | M. VILLANI, M. TURSINI, G. FABRI, University Of L’Aquila, Italy  
The Internet of Things and the Future of Condition Monitoring: Mechatronic Technology Development for Aerospace and Industry Bearing Solutions |
10.30 - 11.00 Coffee break

11.00 - 12.30, Session 6, Jamming and damping in EMAs

A Built-in Testable Jam Release Device for Electromechanical Actuators in Flight Control Application
M. BILDSTEIN, Liebherr-Aerospace Lindenberg GmbH, Germany

Active Damping, Inertial Electro-Mechanical Ballscrew Actuator
N. MATTEUZZI, N. NARDESCHI, S. TORO, Umbria Cuscinetti SpA, Italy
A. COLOGNI, M. MADASCHI, F. PREVIDI, Università degli Studi di Bergamo, Italy
S. SAVARESI, Politecnico di Milano, Italy

Electromechanical Actuator with Anti-Jamming System for Safety critical aircraft applications
S. JIMENEZ, E. NOVILLO, F. AGUADO, E. MORANTE, CESA, Spain

12.30 - 2 pm, Lunch

2 pm - 3.30 pm, Session 7, Model-based Design

A Methodology for Rapid Modelling and Sizing: Design Parameter Studies of High Lift Actuation Systems
S. BENISCHKE, F. THIELECKE, Hamburg University of Technology, Germany

Scaling-law-based Metamodels for the Sizing of Actuation Systems
M. BUDINGER, I. HAZYUK, F. SANCHEZ, J-C. MARE, Insa Toulouse, France

Virtual Performance Evaluation for Electro-mechanical Actuators considering Parameter Uncertainties (to be confirmed)
T. KREITZ, D. ARRIOLA, F. THIELECKE, Hamburg University of Technology, Germany

3.30 - 4 pm, Coffee break

4 – 5.30 pm, Session 8

O. PASIES-RUBERT, C. MUR, M. GAREY, M. BAREILLE, Altran Sud-Ouest, France

Hydraulic System Noise Attenuators for Aircraft Application: Study of a “Disc-Silencer” Design
A. WAITSCHAT, F. THIELECKE, Hamburg University of Technology, Germany
C. NISTERS, P. KLOFT, Hydac Technology GmbH, Germany
R. M. BEHR, U. HEISE, AIRBUS Operations GmbH, Germany

Two Phase Cooling System for Aircraft Actuators
M. LECLEIR, L. BARREMAECKER, Euro Heat Pipes SA, Belgium

Friday, 4 April 2014, Tutorial

9 - 17:30, Tutorials on virtual prototyping of actuators, INSA Toulouse, special registration required

Poster sessions during coffee breaks (with full paper included in the proceedings)

Thermal Management Materials to Improve the Performance of Electric Devices for Aerospace Applications
D. E., BARBER, Open Technology Innovation - Lord Corporation, United States of America

Pre-sizing of Permanent Magnet Synchronous Machine Under Mass Constraints
P. ESTIVAL, C. MARCHAND, G. KREBS, Laboratoire de Génie Electrique de Paris, France
R. SEHAB, B. BARBEDETTE, Estaca, France

Fault Tolerant Electromechanical Flap Actuation System
M. TURSINI, M. VILLANI, G. FABRI, University Of L’Aquila, Italy