

34th Congress of the International Council of the Aeronautical Sciences (ICAS 2024)

Firenze, Italy
9-13 September 2024

Volume 1 of 15

ISBN: 979-8-3313-1205-3

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2024), rests with the authors or their affiliating organisations; all rights reserved.

Printed by Curran Associates, Inc. (2025)

For permission requests, please contact International Council of the Aeronautical Sciences (ICAS) at the address below.

International Council of the Aeronautical Sciences (ICAS)
ICAS Secretariat
c/o DGLR
Godesberger Allee 70
53175 BONN
Germany

Phone: +49.228.3080519

Fax: +49.228.3080524

ICAS@ICAS.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

VOLUME 1

01.1 - AIRCRAFT DESIGN AND INTEGRATED SYSTEM (BASICS AND THEORY)

TRANSLATING THE CONCEPT OF SUSTAINABILITY FOR THE DETERMINATION OF REQUIREMENTS FOR THE DESIGN OF FUTURE AIRCRAFT	1
<i>L. Paletti, L. Boggero, G. Wende, B. Nagel</i>	
MDAX : ENHANCEMENTS IN A COLLABORATIVE MDAO WORKFLOW FORMULATION TOOL	15
<i>S. Garg, J.H. Bussemaker, L. Boggero, B. Nagel</i>	
APPLICATION OF LAMBDA FRAMEWORK FOR AIRCRAFT MULTIDISCIPLINARY DESIGN, ANALYSIS AND OPTIMIZATION	38
<i>S. Hosseini, M.A. Vaziry Zanjany, H.R. Ovesy, E. Lekzian</i>	
DUCTED HEAT EXCHANGER THERMAL AND AERODYNAMIC SHAPE OPTIMIZATION.....	58
<i>E.J. Adler, A.H.R. Lamkin, J.R.R.A. Martins</i>	
A PROPOSAL TOWARDS A STEP CHANGE FROM ECO-DRIVEN TO SUSTAINABILITY-DRIVEN DESIGN OF AIRCRAFT COMPONENTS	82
<i>A. Filippatos, D.N. Markatos, A. Theochari, S. Malefaki, T. Kalampoukas, S.G. Pantelakis</i>	
PERFORMANCE AND ECONOMIC ASSESSMENT OF A WING-INTEGRATED HYBRID LAMINAR FLOW CONTROL SYSTEM.....	98
<i>B.M.H.J. Fröhler, A.A. Pohya, J. Häfny, T. Kilian, A.H. Bismark, M. Radestock</i>	
MAXIMUM SPEED OF BATTERY-POWERED TILT-ROTOR AIRCRAFT.....	122
<i>N. Roh, M. Park</i>	
ANALYZING THE IMPACTS OF SUSTAINABLE POWERTRAINS FOR SHORT-HAUL COMMUTER AIRLINES	133
<i>F. Salucci, N. Prabhakar, D. Karbowski</i>	
CRYOGENIC TANK SIZING MODEL FOR THE CONCEPTUAL DESIGN OF HYDROGEN-POWERED AIRCRAFT	143
<i>G. Licheva, S. Liscouët-Hanke</i>	
NUMERICAL AND THEORETICAL INVESTIGATION OF HELICOPTER DITCHING WITH VARIOUS INITIAL VELOCITY AND PITCHING ANGLE.....	155
<i>L. Zheng, M. Wang, Y. Lu, H. Qiao, T. Xiao, S. Deng</i>	
SET-BASED DESIGN TECHNIQUES FOR EVOLVABILITY EXPLORATION DURING CONCEPTUAL AIRCRAFT DESIGN.....	170
<i>A.S.J. van Heerden</i>	
EVALUATION OF ASWING FOR OVERALL AIRCRAFT DESIGN OF UNCONVENTIONAL CONFIGURATIONS. APPLICATION TO JOINED WINGS WITH FOLDING WINGTIPS.....	183
<i>R. Jan, S. Delbecq, E. Benard</i>	

STEADY ANALYSIS OF THREE-SURFACE AIRPLANES: IMPROVING THE AERODYNAMIC PERFORMANCE THROUGH REDUNDANT LONGITUDINAL CONTROL	210
<i>S. Cacciola, C.E.D. Riboldi, C. Spitale</i>	
PROCESSES, METHODS AND TOOLS SUPPORTING THE DEVELOPMENT OF AERONAUTICAL SYSTEMS	225
<i>L. Boggero, J. Bussemaker, G. Donelli, F. Torrigiani, B. Nagel</i>	
INCREMENTAL TRADE-OFF STUDY OF A HYDROGEN FUEL CELL-BASED PROPULSION SYSTEM USING MDAO TECHNIQUES	239
<i>R. di Giuseppe</i>	
POWER MANAGEMENT SUPPLY OPTIMIZATION FOR HYBRID-ELECTRIC REGIONAL AIRCRAFT	253
<i>G. Palaia, K. Abu Salem</i>	
TILT-DUCT AIRCRAFT WING AERODYNAMIC DESIGN AND OPTIMIZATION BASED ON ADJOINT METHOD	271
<i>Y.-T. Zhang, S.-R. Xu, Z.-J. Zheng, Y. Zheng, Y.-L. Liu</i>	
LARGE LANGUAGE MODEL-DRIVEN SIMULATIONS FOR SYSTEM OF SYSTEMS ANALYSIS IN FIREFIGHTING AIRCRAFT CONCEPTUAL DESIGN	281
<i>J.L. Lovaco, R.C. Munjulury, I. Staack</i>	
LONGITUDINAL STABILITY PARAMETERS FOR FLYING BOOM AERIAL REFUELING	300
<i>L.H. Peristy, R.E. Perez</i>	
CLIMATE IMPACT AND ECONOMIC ASSESSMENT OF LIQUID HYDROGEN AND SYNTHETIC KEROSENE LONG-RANGE AIRCRAFT CONCEPTS	318
<i>S. Wöhler, K. Buchtal, M. Iwanizki, J. Häßy, K. Dahlmann, C. Lois, M. Hepperle</i>	
A COST-EFFICIENT PREDICTIVE METHOD FOR AERODYNAMIC PERFORMANCE DEGRADATION OF HORIZONTAL TAIL UNDER ICING CONDITIONS	341
<i>S. Corcione, A. De Marco, V. Cusati</i>	
EFFICIENT MULTI-OBJECTIVE DESIGN OPTIMIZATION OF ROTOR AIRFOILS FOR IMPROVING DYNAMIC STALL CHARACTERISTICS	361
<i>Z. Lu, Z.-H. Han, W.-P. Song, K.-S. Zhang, K.-Y. Zhou</i>	
DATA-DRIVEN AERODYNAMIC SHAPE OPTIMIZATION AND MULTI-FIDELITY DESIGN EXPLORATION USING CONDITIONAL DIFFUSION-BASED GEOMETRY SAMPLING METHOD	374
<i>A. Yang, J. Zhang</i>	
INTEGRATING CRYOGENIC TANKS MODEL IN HYDROGEN AIRCRAFT DESIGN FOR PARAMETRIC PERFORMANCE ANALYSIS	396
<i>R. Parello</i>	
STRUT-BRACED WING INDUCED DRAG MODELING FOR REGIONAL TURBOPROP AIRCRAFT DESIGN	418
<i>G. Grazioso</i>	
MULTIDISCIPLINARY PRELIMINARY DESIGN PROCESS OF HYBRID-ELECTRIC SEAPLANE	438
<i>M. Tuccillo, P. Della Vecchia</i>	

LATENT SPACE CORRELATION FOR INTERPRETABLE AIRFOIL PARAMETERIZATION USING VARIATIONAL AUTOENCODERS	455
<i>K. Swannet, C. Varriale, N.A.K. Doan</i>	
EXPLORATION AND EVALUATION OF KNOWLEDGE-BASED ENGINEERING APPROACH FOR LIQUID HYDROGEN TANK INTEGRATION IN EXISTING FUSELAGE	477
<i>N. Bhargav, V. Elangovan, R.C. Munjulury</i>	
RAPID DESIGN OF UNCONVENTIONAL AIRCRAFT USING SOFTWARE TOOLS COUPLED IN OPTIMIZATION LOOP – LESSONS LEARNED	498
<i>T. Goetzendorf-Grabowski, A. Kwiek, J. Mieloszyk</i>	
HYDROGEN AIRLINER TANK OPTIMISATION	507
<i>P. De Felipe, C. Cumpsty, I. Iturriaga, H. Dance</i>	
RESEARCH ON MULTI-ATTRIBUTE DECISION MAKING AND VERIFICATION METHODS FOR SYSTEMS CONFRONTATION	517
<i>Y. Tong, M. Luo, Z. Cui, Z. Liu, Z. Ji</i>	
DESIGN OPTIMIZATION OF A WIG CRAFT’S HIGH LIFT DEVICE CONSIDERING GROUND EFFECT.....	531
<i>Y.H. Wang, W.P. Song, H. Nie, K.F. Zheng, Z.H. Han</i>	
AIRCRAFT-0 SAT D1 FOR GREENER, SAFER AND AFFORDABLE MORE ELECTRIC (MEA) AND FLY-BY-WIRE (FBW) SMALL AIR TRANSPORT (SAT)	543
<i>M. Alberti, G. Apuleo, A. Calia, D. Cirio, A. Cozzolino, F. Gravano, M. Mancini, F. Nunciato, A. Terrile</i>	
SUSTAINABLE AVIATION IN NORDIC COUNTRIES	559
<i>C. Jouanet, K. Amadori, E. Espinoza Juarez</i>	
HYDROGEN STORAGE SYSTEM DESIGN: CASE STUDIES FOR AIRBORNE APPLICATION	585
<i>F. Mazzoni, G. Accardo, R. Biga, E. Brusa, C. Delprete, C.A. Manrique-Escobar, V. Vercella</i>	
DATA-DRIVEN MULTI-RANGE MISSION-BASED OVERALL AIRCRAFT CONCEPTUAL DESIGN OPTIMIZATION	602
<i>L.J. Liu, D. Kim</i>	
FAST PARAMETRIC STRUCTURE MODELING FOR VARIETY OF AIRCRAFT CONFIGURATIONS	618
<i>Y.-L. Yin, K.-S. Zhang, H.-L. Qiao, A.-L. Che, Z.-H. Han</i>	
EXPLORATION OF EFFICIENT HYPERPARAMETERS ADAPTION OF SUPPORT VECTOR REGRESSION FOR AERODYNAMIC DESIGN.....	630
<i>K.-S. Zhang, H.-L. Qiao, P.-H. Wang, Y.-Q. Du, Z.-H. Han</i>	
A DISTRIBUTED UMDO ARCHITECTURE BASED ON SURROGATE MODELS FOR LAUNCH VEHICLE DESIGN.....	651
<i>Y. Liu, C.N. Li, C.L. Gong</i>	
INVESTIGATION ON AERODYNAMIC DESIGN OF VTOL AIRCRAFT PROPELLER.....	663
<i>L.D. Deng, W.P. Song, J.H. Xu</i>	
ROBUST SCHUR-COMPLEMENT SOLVERS AND LARGE-SCALE MULTIDISCIPLINARY DESIGN OPTIMIZATION	676
<i>M.A.S. Abdul-Kaiyoom, A. Yildirim, J.R.R.A. Martins</i>	

VOLUME 2

AN UNCERTAINTY MULTIDISCIPLINARY PROPAGATION ANALYSIS METHOD FOR CORRELATED HIGH-DIMENSIONAL DATA IN AIRCRAFT DESIGN	699
<i>S. Du</i>	
TRANSIENT SIMULATION CALCULATION FOR ELECTRIC THERMAL ANTI-ICING PERFORMANCE OF COMPOSITE WING IN ICING ENVIRONMENT	711
<i>Z. Dong, X. Guo, W. Dong, P. Wang</i>	
ON THE EXISTENCE OF A FAMILY OF IDEAL AIRCRAFT CONFIGURATIONS	725
<i>R.J. Huyssen</i>	
CFD STUDY OF AIR SUPPLY SYSTEM FOR COOLING OF A HYDROGEN POWERED UNMANNED SEAPLANE AND REDUCTION OF THE RESULTING DRAG	741
<i>A. Marsano, F. Bustos Ortega, G. Santarella, S.G. Soundararajan, F. Giargia</i>	
THE INFLUENCE OF DIFFERENT WING MOTIONS ON THE LIFT IN BIO-INSPIRED AERIAL VEHICLES	760
<i>B.T.V. Carnielo, D.D. Bueno</i>	
SURROGATE-ASSISTED HIERARCHICAL OPTIMIZATION METHOD FOR VARIABLE SWEEP FLIGHT VEHICLE TRAJECTORY	770
<i>N.-H. Ye, T. Long, B. Fu</i>	
OPTIMIZATION PROCEDURE FOR THE WING OF A MARS EXPLORATION DRONE	782
<i>A. Viviani, A. Arovitola, L. Iuspa, G. Pezzella</i>	
FUEL-BASED THERMAL MANAGEMENT SYSTEM ARCHITECTURES AND TANK TEMPERATURE EVOLUTION MODELS FOR AVIATION	796
<i>S. Favre, F. Di Fede</i>	
SCOPING OF AN AIR SUPPLY CONFIGURATION FOR ACTIVE FLOW CONTROL ON A COMMERCIAL TRANSPORT AIRPLANE HIGH-LIFT SYSTEM.....	815
<i>C.P. van Dam</i>	
METHODOLOGIES FOR THE PRELIMINARY SIZING OF HYDROGEN-POWERED AIRCRAFT AND SUPPORTING AIRPORT INFRASTRUCTURES	832
<i>L. Trainelli, C.E.D. Riboldi, G. Sirtori</i>	
AIRFOIL PRESSURE PREDICTION BASED ON PHYSICS-INFORMED DEEP LEARNING APPROACH.....	844
<i>J.Z. Li, Y.J. Yang, Y.F. Zhang</i>	
PERFORMANCE ENHANCEMENTS BETWEEN DIFFERENT APPLICATIONS OF ALTERNATIVE FUELS AND NOVEL AIRCRAFT CONFIGURATIONS.....	861
<i>J.L.C. Chan, Y. Sun, H. Smith</i>	
LOCAL AIR QUALITY AND NOISE OPTIMIZATION OF A LARGE ASPECT RATIO WINGS WITH DISTRIBUTED HYBRID ELECTRIC PROPULSION.....	875
<i>R. Cavallaro, P. Norczyk Simon, A. Cini</i>	
EU IMPACT MONITOR PROJECT - OVERVIEW AND APPROACH	894
<i>P. Shiva Prakasha, P. Ratei, M. Van Eenige, T. Lefebvre</i>	

IDENTIFICATION OF THE IMPACT OF BLOWING ON THE AERODYNAMIC MODEL OF AN AIRPLANE WITH DISTRIBUTED ELECTRIC PROPULSION911
S. Cacciola, L. Bottà, C.E.D. Riboldi, L. Trainelli

A MORPHOLOGICAL ANALYSIS OF METHODS FOR CONCEPTUAL AIRCRAFT DESIGN UNDER UNCERTAINTIES 926
V.T. Todorov, D. Rakov

01.2 - AIRCRAFT DESIGN AND INTEGRATED SYSTEM (APPLICATIONS)

RETROFITTING A JET DRIVEN UAV TO FORM A MULTI-PURPOSE TEST PLATFORM..... 943
D. Teubl, T.B. Sissing, M. Hornung

DUAL-STREAM JET NOISE TEST WITH INTERNAL MIXER DESIGN VARIATIONS FOR LTO NOISE OF SUPERSONIC AIRCRAFT 961
R. Habing, M.-J. Van der Meulen, M. Huet

CLEANSKY2/ CLEAN AVIATION LARGE PASSENGER AIRCRAFT FOR MORE SUSTAINABLE COMMERCIAL FUSELAGE TECHNOLOGIES – MAJOR ACHIEVEMENTS..... 980
Y.C. Roth, R. Herrmann, C. Sanchez Santos

GLOBAL SENSITIVITY ANALYSIS OF LIQUID HYDROGEN STORAGE DESIGN PARAMETERS FOR OVERALL AIRCRAFT DESIGN 1000
T. Burschyk, B. Fröhler, M. Alder, T. Zill

GEOMETRIC OPTIMIZATION OF HYDROGEN AIRCRAFT FUSELAGES IN PRELIMINARY DESIGN 1021
M. Engelmann, M. Hornung

PRELIMINARY SIZING OF HYDROGEN-BURNING JETLINER FOR DIRECT OPERATING COST OPTIMIZATION..... 1039
H. Mohammadi, G. Sirtori, L. Trainelli

LANDING AND TAKEOFF NOISE PREDICTION OF CONCEPTUAL SUPERSONIC AIRCRAFT 1051
M. Graebert, R. Jaron, M. Plohr, S. Zenkner, C. Richter, C. Stöhr, C. Villena Munoz

THERMODYNAMIC DESIGN AND EMISSIONS MODEL OF A MACH 1.8 SUPERSONIC AIRLINER ENGINE..... 1065
M. Plohr, S. Zenkner, S. Bake, D. Zeitz

A DESIGN APPROACH FOR A MODEL-SCALE VTOL POWERED BY TWO PIVOTING KEROSENE TURBINES..... 1077
T. Müller, V. Gollnick

MASS AND POWER ESTIMATIONS IN PRELIMINARY FLIGHT CONTROL SYSTEM DESIGN 1093
S.M. Lübbe, M. Schäfer, O. Bertram

ENERGY AND EMISSION ANALYSIS OF AN AIR-TAXI SERVICE USING DYNAMIC EVTOL SYSTEM MODELS1107
N. Prabhakar, F. Salucci, D. Karbowski

RESULTS FROM THE APPU PROJECT: THE POTENTIAL OF LOW-THRESHOLD HYDROGEN-POWERED BLI PROPULSION 1118
A. Heidebrecht, M. Hoogreef, A.T. Isikveren

FROM THEORY TO FLIGHT: THE BOX-WING CONFIGURATION IMPLICATIONS FOR THE NEXT-GENERATION AIRCRAFT	1134
<i>K. Abu Salem, G. Palaia, A. Frediani</i>	
ENVIRONMENTAL IMPLICATIONS OF HYBRID-ELECTRIC REGIONAL AIRCRAFT: EMISSIONS AND CLIMATE CHANGE	1162
<i>K. Abu Salem, G. Palaia</i>	
A PERFORMANCE COMPARISON OF HYDROGEN AIRCRAFT CONCEPTS	1178
<i>N. Wood, S. Taylor, M. Hales, M. Joynt, S. Chandran, D. Sanjeevekumar</i>	
SCALED FLIGHT TESTING FOR EVALUATING DISTRIBUTED ELECTRIC PROPULSION	1189
<i>H. Jentink</i>	
INNOVATIVE UAVS WITH CONFIGURATION OF LIKING BOTH PLANE AND KITE FOR WIND POWER	1204
<i>Z.X. Yao</i>	
DETERMINISTIC HYBRID POWER RATIOS CONSIDERING VARIOUS FAILURE CASES FOR QUAD TILTROTOR AIRCRAFT	1218
<i>M. Park, N. Roh</i>	
INVESTIGATING THE FLEXIBLE HYDROGEN AIRCRAFT SYSTEM INTERFACE DESIGN USING THE XR CO-DESIGN APPROACH	1234
<i>F. Reimer, M. Fuchs, J. Herzig, S. Cornelje, J. Biedermann, B. Nagel</i>	
IMPACT OF WELL-TO-TANK EFFICIENCY AND EMISSIONS ON HYBRID AIRCRAFT DESIGN OPTIMIZATION	1254
<i>M. Blandino, M.M. Molinari, J. Liberatori, P.P. Ciottoli, R. Malpica Galassi</i>	
ESTABLISHING THE DLR-F25 AS A RESEARCH BASELINE AIRCRAFT FOR THE SHORT-MEDIUM RANGE MARKET IN 2035	1275
<i>S. Wöhler, J. Häßy, V. Kriewall</i>	
DEVELOPMENT OF A SERVO-DRIVEN FLAPPING-WING AIR VEHICLE WITH FOLDING-WING MECHANISM.....	1303
<i>E.-H. Lee, H.-H. Yang, S.-G. Lee, J.-H. Han</i>	
CONCEPTUAL AIRCRAFT DESIGN OF A RESEARCH BASELINE WITH DIRECT LIQUID HYDROGEN COMBUSTION	1313
<i>M. Kotzem, S. Wöhler, T. Burschyk, C. Hesse, S. Hellbrück, T. Zill</i>	
PRELIMINARY DESIGN EXPLORATION OF PROSPECTIVE MULTIROTOR AEROBOTS FOR MARS	1334
<i>V. Youhanna, L. Felicetti, D. Ignatyev</i>	
FRAMEWORK DEVELOPMENT FOR CONCEPTUAL DESIGN AND CONFIGURATION ANALYSIS OF EVTOL AIRCRAFT	1354
<i>R.Y. Yanev, I. Staack</i>	
MISSION-BASED OPTIMAL PROPELLER SELECTION FOR VTOL SUAV CONFIGURATION.....	1373
<i>C. Reyner, C. Lee, D. Kim</i>	
POTENTIAL OF THE RANGE EXTENSION OF SUPERSONIC TRANSPORT	1391
<i>Z. Lei</i>	

ANALYSIS OF STEALTH ENHANCEMENT DESIGN PROCESS AND METHODS FOR UNMANNED AERIAL VEHICLE.....	1401
<i>G. Jia</i>	

VOLUME 3

MICRO-SIZE MARS AIRPLANE FOR THE STEPWISE MARS LANDING EXPLORATION PROGRAM.....	1409
<i>Y. Shiratsuchi, K. Kaneko</i>	
AERODYNAMIC DESIGN OF A SUPERSONIC TRANSPORT CONFIGURATION CONSIDERING AVERAGE LOUDNESS IN THE WHOLE BOOM CARPET.....	1419
<i>Q. Chen, Z.-H. Han, J.-L. Qiao, Y.-L. Ding, K.-S. Zhang, W.-P. Song</i>	
BATTERY PERFORMANCE METRICS FOR LARGE ELECTRIC PASSENGER AIRCRAFT.....	1430
<i>R. de Vries, R.E. Wolleswinkel, D. Rosen Jacobson, M. Bonnema, S. Thiede</i>	
PRELIMINARY SIZING OF A LOW-ALTITUDE AIRSHIP INCLUDING ION PLASMA THRUSTERS.....	1445
<i>C.E.D. Riboldi, M. Belan, S. Cacciola, R. Terenzi, S. Trovato, D. Usuelli, G. Familiari</i>	
DESIGN OF THE SENECA MACH 1.8 SUPERSONIC AIRLINER WITH MULTI-FIDELITY AERODYNAMIC ANALYSIS FOR NOISE-OPTIMISED TAKE-OFF TRAJECTORIES.....	1465
<i>C. Villena Muñoz, C. Lawson, A. Riaz, A. Sharma</i>	
A STUDY ON BATTERY SEPARATION DRONES TO EXTEND ENDURANCE.....	1482
<i>H. Kim, T. Kim</i>	
ANALYSIS OF BATTERY WEIGHT REQUIREMENTS IN THE DESIGN OF HYBRID ELECTRIC POWERED AIRCRAFT.....	1495
<i>D. Liu, Z. Chen, Z. Guo, B. Zhu, G. Jia, X. Yang</i>	
THE FUTURE OF CIVIL SUPERSONIC TRANSPORT IN EUROPE: THE SENECA AND MORE&LESS PROJECTS.....	1502
<i>R. Jaron</i>	
IMPACT OF HYDROGEN FUEL ON OVERALL DESIGN OF TRANSPORT AIRCRAFT.....	1512
<i>E. Nguyen Van, J. Gauvrit-Ledogar, C. Julien, B. Paluch, J.L. Ruan</i>	
SONIC BOOM COMPARATIVE STUDY BETWEEN MACH 4.7 OUTDOOR EXPERIMENTAL TESTS AND NUMERICAL SIMULATIONS.....	1525
<i>G. Fasulo, L. Federico, F. Petrosino, S. Graziani, N. Viola, S. Hengy, B. Martinez, M. Albisser</i>	
GENERAL DESIGN CONSIDERATIONS FOR SOLAR-ELECTRIC HIGH-ALTITUDE LONG-ENDURANCE AIRCRAFT.....	1538
<i>A. Bierig, F. Nikodem, D. Rothe</i>	
CONCEPTUAL DESIGN METHODOLOGY FOR LOW-SUPERSONIC LH2-POWERED PASSENGERS AIRCRAFT.....	1555
<i>E. Sunzeri, D. Ferretto, N. Viola</i>	
CONTINUING DEVELOPMENT OF A NOVEL CERTIFIABLE AIRLINER “GONDOLA” USING LIQUID HYDROGEN.....	1572
<i>R.K. Nangia</i>	

SENECA'S AIRCRAFT EMISSIONS EVALUATION AND THEIRS ENVIRONMENTAL	1582
<i>E. Terrenoire, M. Muller, E. Ramirez Correr, P. Leyland, K. Synylo, A. Krupko, O. Zaporozhets</i>	
DESIGN OF REMOTE-CONTROLLED GROUND BASED AIRCRAFT TUG.....	1597
<i>I. Kopec, D. Matyja</i>	
ESATTO: THE HOLISTIC FRAMEWORK TO SUPPORT THE DESIGN OF SUSTAINABLE SUPERSONIC AVIATION	1608
<i>R. Fusaro, G. Piccirillo, D. Ferretto, G. Saccone</i>	
DESIGN OPTIMISATION OF A BOUNDARY LAYER INGESTION PROPULSOR FOR A MULTI-FUEL HYDROGEN AIRCRAFT.....	1620
<i>A. Battiston, A. Magrini, R. Ponza, E. Benini, B. Türkyilmaz, A. Seitz, A. Heidebrecht</i>	
MODELLING HYDROGEN FUEL CELL AIRCRAFT IN SUAVE	1631
<i>C. Svensson, P. Miltén, T. Grönstedt</i>	
CONCEPTUAL DESIGN OF A ZERO-EMISSION REGIONAL AIRCRAFT FOR ENHANCED SHORT-HAUL MOBILITY	1651
<i>L. Trainelli, C.E.D. Riboldi, Y.M. Khan, F. Salucci</i>	
ARCHITECTURE DESIGN FOR A COMMERCIALLY VIABLE HYDROGEN-ELECTRIC POWERED RETROFITTED REGIONAL AIRCRAFT	1661
<i>B. Rietdijk, M. Selier</i>	
CONCEPTUAL DESIGN AND SIZING OF A SOLAR POWERED QUAD-ROTOR FIXED WING HYBRID UAV FOR EXPLORATION OVER MARS.....	1683
<i>A. Kalgutkar, P. Gupta, P. Priyadarshi</i>	
INTEGRATED SIZING OF AN ELECTRIFIED TILT-WING AIRCRAFT FOR VERTICAL AND CONVENTIONAL TAKEOFF AND LANDING.....	1702
<i>A.A. Mishra, B. Kunwar, I. Chakraborty</i>	
PRELIMINARY DESIGN OF A FULL ELECTRIC GENERAL AVIATION AIRCRAFT POWERED WITH FUEL CELL: A CASE STUDY.	1739
<i>G. Cafiero, P.J. Comunian, A. Lerro, F. Ponti, A.N. Damiani Ferretti</i>	
PERFORMANCE COMPARISON OF THE BLENDED WING BODY AND TUBE AND WING CONFIGURATIONS	1748
<i>J. Ahuja, C. Perron, R.D.B. Rivera, J.C. Tai, D.N. Mavris</i>	

02 - SYSTEMS ENGINEERING AND INTEGRATION

TECHNICAL RISK MANAGEMENT OF SYSTEM OF SYSTEMS BASED ON TECHNOLOGY READINESS ASSESSMENT.....	1770
<i>H. Cao, W. Cheng, C. Xing</i>	
TECHMAPS – TECHNOLOGY MANAGEMENT FOR THE ARCHITECTING PROCESS OF AIRCRAFT ON-BOARD SYSTEMS	1782
<i>N. Kuelper, V. Kriewall, K. Beschorner, F. Thielecke</i>	
REQUIREMENTS UNCERTAINTY PROPAGATION IN CONCEPTUAL DESIGN USING BAYESIAN NETWORKS	1801
<i>A. Spinelli, A. Sharma</i>	

MODEL-BASED APPROACH FOR HYDROGEN PRELIMINARY AIRCRAFT DESIGN CONSIDERING SAFETY AND OPERABILITY	1811
<i>A. Sarr, J. Jézégou, P. de Saqui-Sannes</i>	
AUTOMATING THE VERIFICATION OF GEOMETRIC REQUIREMENTS FOR AIRCRAFT FUEL SYSTEMS USING KNOWLEDGE-BASED ENGINEERING.....	1832
<i>B. Boden, M. Padilha, T. Burschyk, C. Cabaleiro de la Hoz, E. Moerland, M. Fioriti</i>	
AIRCRAFT SYSTEM DESIGN: A MODEL-BASED AND COLLABORATIVE APPROACH	1844
<i>V. Voth, O. Bertram</i>	
SAFETY ANALYSIS (CCA) OF THE AIR SUPPLY SYSTEM OF A FUEL CELL-POWERED AERO ENGINE FOR ELECTRIC REGIONAL AIRCRAFT	1863
<i>S. Kazula</i>	
RESEARCH ON TECHNOLOGICAL INNOVATION CAPABILITY EVALUATION INDEX FOR AVIATION INDUSTRIES.....	1873
<i>W. Cheng, R. Fan</i>	
APPLICATION OF SYSML IN THE DEVELOPMENT OF AIRCRAFT CABIN HEALTH MANAGEMENT	1883
<i>A. Hechelmann, T. Mannchen</i>	
RESEARCH ON UNMANNED CLUSTER RECONNECTION DECISION-MAKING METHOD CONSIDERING RESOURCE SUPPLEMENTATION	1902
<i>M. Yao, X. Wang, L. Kong</i>	
CONCEPT OF OPERATIONS IN AN AGENT-BASED SIMULATION: A SYSTEM-OF- SYSTEMS APPROACH.....	1915
<i>F. Villas, L. Knöös Franzén, C. Jouannet, K. Amadori, I. Staack</i>	
A HUMAN-CENTERED SYSTEMS ENGINEERING APPROACH FOR INTEGRATING ARTIFICIAL INTELLIGENCE IN AVIATION: A REVIEW OF AI SYSTEMS.....	1935
<i>L.D.O. Morais, P. Krus</i>	
A SYSTEM OF SYSTEMS AIRCRAFT DESIGN FRAMEWORK: DEMONSTRATION USING A SEAPLANE TRANSPORT NETWORK IN THE GREEK ISLANDS	1961
<i>V. Nugnes, C. Varriale</i>	
SYSTEM OF SYSTEMS ANALYSIS OF AUTONOMOUS AIRCRAFT OPERATIONS IN AIR CARGO FEEDER NETWORKS	1979
<i>P.W. Jansen, R.E. Perez, J.C.-H. Wang</i>	
AUTOMATION OF ENGINEERING INTEROPERABILITY FOR AIRCRAFT SYSTEM DESIGN	1997
<i>F. During, R.C. Munjulury, R. Hällqvist</i>	
LARGE LANGUAGE MODEL IN AIRCRAFT SYSTEM DESIGN.....	2010
<i>P. Krus</i>	
RESEARCH ON ROUTE PLANNING METHOD FOR UAV SWARM AREA COVERAGE MISSIONS BASED ON COMPLEX NETWORKS.....	2023
<i>X. Li, L. Deng, Y. Ge, Y. Pei, Y. Gu, L. Cao, A. Shi</i>	
FROM ONTOLOGY TO SYSTEM ARCHITECTURE: AN MBSE APPROACH TOWARD THE REALIZATION OF URBAN AIR MOBILITY	2034
<i>S. Sinha Roy, Y. Huang, D. Bekdache, T.-Y. Fung, B. Beck, C. Guariniello, D. DeLaurentis</i>	

A MODEL BASED SYSTEM ENGINEERING APPROACH TOWARDS AIRCRAFT DIGITAL CERTIFICATION	2050
<i>C. Mirabella, M. Tuccillo, P. Della Vecchia</i>	
MODELING CARGO DEMAND FOR REGIONAL AIR TRANSPORT NETWORKS IN CANADA AND THE UNITED STATES	2066
<i>M.M. Alexiev, R.E. Perez, P.W. Jansen, J.C.-H. Wang</i>	
A SEMANTIC MODEL-BASED SYSTEMS ENGINEERING APPROACH FOR SUPERSONIC BUSINESS JET CONCEPTUAL DESIGN	2088
<i>Z. Cui, M. Luo, J. Lu, J. Wang</i>	
AUTOMATIC SYSTEM REQUIREMENTS VERIFICATION FOR THE MBSE-ORIENTED AIRCRAFT DESIGN PROCESS.....	2101
<i>A. Dagna, S. Centomo, E. Brusa, C. Delprete, R. Gentile</i>	
APPLYING MODEL-BASED SYSTEM ENGINEERING AND DEVOPS ON THE IMPLEMENTATION OF AN AI-BASED COLLISION AVOIDANCE SYSTEM.....	2117
<i>T. Stefani, J.M. Christensen, E. Hoemann, A. Anilkumar Girija, F. Köster</i>	

VOLUME 4

EFFECTIVENESS EVALUATION METHOD FOR AVIATION EMERGENCY RESCUE SYSTEM OF SYSTEMS BASED ON EFFECT CHAIN.....	2129
<i>Y.-Z. Wang, B.-L. Shang, P.-F. Li, W.-Z. Liu, R.-X. Lin, K.-A. Xing, Y.-T. Deng</i>	
AN AUTONOMOUS SYSTEM FOR DOCKING AND BATTERY SWAPPING IN UAVS	2144
<i>I. Kute, J. Dagli, E. Khot, R. Verma, P. Gupta, D. Shukla, R. Pant</i>	
COLOSSUS EU PROJECT – COLLABORATIVE SOS EXPLORATION OF AVIATION PRODUCTS, SERVICES AND BUSINESS MODELS: OVERVIEW AND APPROACH.....	2156
<i>P. Shiva Prakasha, N. Naeem, K. Amadori</i>	
AN MBSE ENABLED MDAO APPROACH FOR THE CONCEPTUAL DEVELOPMENT OF COMPLEX SYSTEMS.....	2176
<i>M. Fouda, L. Willrodt, H. Almeida, J. Cortez, O. Hussein, F. Castaneda, H. Dhouib, C. Dahik, V. Drouet, R. Brook</i>	

03.1 - AERODYNAMICS – CFD METHODS AND VALIDATION

GRID EFFECT ON M823 BOMB AT TRANSONIC REGIME.....	2201
<i>J. Jiménez-Varona, G. Liaño</i>	
A NUMERICAL VIRTUAL FLIGHT PLATFORM DEVELOPMENT AND ITS APPLICATION ON HIGH MANEUVERABILITY FLIGHT VEHICLES	2222
<i>H. Qiao, F. Qin, S. Deng</i>	
APPLICATION OF DIFFERENT NUMERICAL TOOLS AND NUMERICAL METHODS FOR PREDICTION OF HEAT EXCHANGER RAMAIR-CONCEPTS FOR HYBRID ELECTRIC PROPULSION AIRCRAFT CONFIGURATIONS.....	2235
<i>A.-R. Hübner, J. Kirz, K. Weinman</i>	
ADJOINT-BASED TRANSONIC WING AERODYNAMIC SHAPE OPTIMIZATION INVESTIGATIONS	2252
<i>L.V. Rezende Sanches</i>	

TRANSITION MODELING IN SUPPORT OF CFD VISION 2030 - HIGHLIGHTS OF RECENT EFFORTS AT THE NASA LANGLEY RESEARCH CENTER.....	2271
<i>M. Choudhari, E. Beyak, N. Hildebrand, F. Li, E. Vogel, P. Paredes</i>	
VALIDATION OF CFD-BASED DATA SERVICE FOR DRONE INSPECTION OF WIND FARMS WITH FLIGHT TEST DATA.....	2303
<i>M. Turner, J. Sharpe, M. Kopacz, D. Standingford, C. Sequeira, B. Sanby, C. Rider</i>	
INVESTIGATING THE INFLUENCE OF AN INBOARD PROPELLER'S VERTICAL OFFSET ON A TRAILING WING'S LIFT AND DRAG DISTRIBUTIONS.....	2318
<i>S.S. Chauhan, G. Padovany da Silva</i>	
DATA-DRIVEN UNSTEADY AERODYNAMIC MODELS FOR AEROELASTIC STABILITY ANALYSES	2335
<i>A.C.N. Carloni</i>	
APPLICATION OF CONVOLUTIONAL NEURAL NETWORKS IN DETERMINING THE VELOCITY AND PRESSURE FIELDS AROUND AIRFOIL MODELS	2349
<i>G. Sharma, T.H. Tran</i>	
APPLICATION OF ARTIFICIAL NEURAL NETWORK (ANN) FOR PREDICTION OF DRAG COEFFICIENT OF AXISYMMETRIC BOATTAIL MODELS.....	2357
<i>Q. Nguyen Dinh, H. Tran The, G. Sharma, J. Tanimoto</i>	
NUMERICAL SIMULATION STUDY ON THE INFLUENCE OF WING SPACING OF DRAGONFLY-INSPIRED FLAPPING WINGS	2372
<i>Y. Luo</i>	
ENHANCING EFFICIENCY FOR UNSTEADY CFD COMPUTATIONS IN AERONAUTICS	2382
<i>M. Carlsson, P. Eliasson, P. Weinerfelt</i>	
KINETIC MONTE CARLO BASED CATALYTIC VISCOUS WALL BOUNDARY MODELING IN CFD SIMULATION OF HIGH-ENTHALPY NON-EQUILIBRIUM FLOW	2395
<i>Q. Li, X. Yang, W. Dong, Y. Du</i>	
EFFECTIVENESS OF CFD FOR AIRCRAFT DESIGN: STATUS AND PROSPECTS	2413
<i>P. Raj</i>	
AERODYNAMICS AND AEROACOUSTIC ANALYSIS OF A SUPERSONIC SLENDER-BODY GEOMETRY	2433
<i>M. De Rosa, A. Glorioso, G. Pezzella, A. Viviani</i>	
SEPARATION SAFETY ANALYSIS IN VARIABLE LAUNCH CONDITION OF SMALL AIR-LAUNCHED UAVS BASED ON NUMERICAL SIMULATION AND FLIGHT TEST.....	2443
<i>B. Guo, Y.F. Lu, B. Wang</i>	
ON THE CHOICE OF TURBULENCE MODEL FOR THE SIMULATION OF AIRFOILS AT REYNOLDS NUMBER BELOW 200,000.....	2456
<i>S. Shahjahan, B. Emmerson, D. Verstraete</i>	
FLUIDODYNAMIC ANALYSIS OF LOW REYNOLDS NUMBER FLOWS.....	2486
<i>N. Verde</i>	
LAUNCH SYSTEM ASSESSMENT OF AN EXPERIMENTAL HYPERSONIC SCRAMJET VEHICLE.....	2502
<i>F. Cascone, P. Roncioni, O. Russo, M. Marini, S. Di Benedetto, M. Albano, R. Bertacin, G. Ranuzzi</i>	

COMPUTATIONAL FLUID DYNAMICS ANALYSIS OF A DIRECT AIR CAPTURE FILTER SYSTEM.....	2520
<i>M. Panagopoulos, N.J. Lawson, D.M. D'Alessandro, E. Kearns</i>	
SHAPING SUSTAINABLE AVIATION WITH CFD-BASED DESIGN OPTIMIZATION.....	2534
<i>J.R.R.A. Martins, M.A.S. Abdul-Kaiyoom, E.J. Adler, A.C. Gray, H. Hajdik, E. Jonsson, A.H.R. Lamkin, B. Pacini, A. Yildirim</i>	
TOWARDS REFINED CONTRAIL SIMULATIONS OF FORMATION FLIGHT SCENARIOS	2560
<i>J. Pauen, S. Unterstrasser, A. Stephan</i>	
IDENTIFICATION METHOD OF LONGITUDINAL COEFFICIENTS BASED ON THE NUMERICAL STUDY OF THE FLOW TOPOLOGY AROUND THE SACCON GEOMETRY	2576
<i>B. Isnard, G. Tanguy, D. Farcy, E. Garnier, J.-M. Foucault</i>	
CONJUGATED HEAT TRANSFER SIMULATION OF BUOYANCY-INDUCED FLOW AND HEAT TRANSFER MECHANISMS IN A COMPRESSOR CAVITY.....	2598
<i>M. Jian, Y. Xiao, X. Cheng, W. Dong</i>	
AERODYNAMIC CHARACTERISTICS RESEARCH OF A DISTRIBUTED PROPULSION AIRCRAFT	2608
<i>S. Chen, Z. Guo, G. Jia, D. Liu</i>	
NUMERICAL STUDIES ON NOISE-SHIELDING EFFECTS OF A BLENDED-WING-BODY AIRCRAFT USING BOUNDARY ELEMENT METHOD.....	2621
<i>H.Y. Wang, C.T. Mutasa, Z.L. Chen</i>	
AEROACOUSTIC CAVITY FLOW ENERGY HARVESTING.....	2634
<i>J.M. Kirkness-Duncombe, N.J. Lawson, G.A. Vio, S.D. Moss, D.J. Munk</i>	
STABILITY CHARACTERISTICS OF CROSSFLOW MODES IN HYPERSONIC BOUNDARY LAYER WITH EXPANSION CORNER	2646
<i>P. Lu, Y. Xi, J. Sun, S. Fu</i>	
ON THE AERODYNAMIC CHARACTERISTICS OF CRESCENT WING.....	2661
<i>D.F. Kurtulus, B. Anilir, D. Raymer</i>	
COMPUTATIONAL ANALYSIS ON THE EFFECTS OF LEADING EDGE TUBERCLES ON THE PERFORMANCE OF ROTATING PROPELLER.....	2672
<i>D. Di Pasquale, T. Tarun</i>	
JET NOISE ABATEMENT VIA SURROGATE MODEL-BASED AEROACOUSTIC OPTIMISATION USING LARGE EDDY SIMULATION.....	2688
<i>G. Yang</i>	
EFFECTS OF GEOMETRY PARAMETERS ON AERODYNAMIC CHARACTERISTICS OF ROTOR AIRFOIL IN REVERSE FLOW	2703
<i>C.-P. Liu, W.-P. Song, S.-Q. Han</i>	
A SEQUENTIAL LOCAL ENUMERATION-BASED IMPROVED LATIN HYPERCUBE SAMPLING METHOD FOR BALLISTIC CONSTRAINT DESIGN SPACE.....	2718
<i>H. Zeng, Z.-H. Han, C.-Z. Xu, Y. Zhang</i>	
NUMERICAL STUDY OF FLOWS OVER LAUNCH VEHICLES WITH VARIOUS FAIRING BY SECOND-MOMENT CLOSURE DETACHED-EDDY SIMULATION	2734
<i>Q. Li, G. Wang, M. Qin, L. Xu</i>	

ANALYSIS ON COMPLEX HYPERSONIC FLOW DURING THE REENTRY OF EXPIRED SPACECRAFT	2746
<i>Z. Han, Z.-H. Li</i>	
A BOUNDARY INTEGRAL EQUATION FORMULATION FOR POTENTIAL COMPRESSIBLE FLOWS AROUND DEFORMABLE BODIES	2756
<i>E. Levati, C. Pasquali, G. Bernardini, M. Gennaretti</i>	
BOUNDARY-LAYER SUCTION AND AERODYNAMIC SHAPE OPTIMIZATION FOR HYBRID LAMINAR FLOW CONTROL ON A FIN	2765
<i>H. Wu, W. Song, H. Nie, Z. Han</i>	
A HIGH-PRECESSION PSEUDO ARC-LENGTH METHOD WITH POSITIVE VALUE PRESERVATION PROPERTIES BASED ON TV SPLITTING	2777
<i>C. Wang, P. Li, L. He, G. Li, H. Dai</i>	
ANALYSIS OF AERODYNAMIC INTERFERENCE CHARACTERISTICS AND AEROACOUSTICS FOR HIGH-SPEED COMPOSITE HELICOPTER IN HOVER	2787
<i>L.-Y. Huang, X. Zhao, X.-C. Li</i>	
RESEARCH ON AIRSPEED CORRECTION TECHNOLOGY OF EJECTION SEAT BASED ON CFD	2807
<i>L. Jin, G. Feng, L. Wu</i>	
THE EFFECTS OF INITIAL STRESS ON AERODYNAMIC PERFORMANCE OF FLEXIBLE MEMBRANE-SKELETON WINGS WITH FSI SIMULATION	2815
<i>Y.-Y. Guo, W.-Q. Yang, J.-L. Xuan, W. Wang, D. Xue</i>	
NUMERICAL INVESTIGATION OF THE INTERACTION OF OPPOSING JETS AND SUPERSONIC FREE FLOWS	2827
<i>Z.K. Liu, Y.L. Liu, Q.Z. Li, G. Wang</i>	
SURROGATE MODELING OF VORTEX SHEDDING TURBINE IN LOW REYNOLDS NUMBER.....	2839
<i>J.L. Kurniawan, M. Hu</i>	

VOLUME 5

ASSESSMENT OF AN ADAPTIVE ONE-EQUATION TURBULENCE MODEL FOR LEADING-EDGE VORTEX FLOWS ON MULTIPLE SWEEPED DELTA WINGS	2854
<i>M. Zieher, D. Sedlacek, C. Breitsamter</i>	
NUMERICAL ANALYSIS OF GENERALIZED AERODYNAMIC FORCES CONSIDERING LAMINAR-TURBULENT TRANSITION ON A NLF WING	2875
<i>C. Sebastia Saez, J. Martin Ferres, M. Hornung</i>	
EFFICIENT SHAPE OPTIMIZATION IN AERONAUTICS: INTEGRATING PARAMETRIC CAD AND MESH MORPHING FOR ENHANCED AERODYNAMIC PERFORMANCE	2892
<i>A. Lopez, G. Magrì, U. Cella, G. Urso</i>	
PRELIMINARY DESIGN OF A FIXED-WING DRONE FOR MARS EXPLORATION ACTIVITIES	2903
<i>G. Barbato, G. Pezzella, A. Viviani</i>	

LOW SPEED AERODYNAMICS OF SIX OPTIMISED UNCONVENTIONAL RE-ENTRY VEHICLE AEROSHAPES	2921
<i>S.M. Giannino, G. Pezzella, A. Viviani</i>	
ASSESSMENT OF A MACROSCOPIC MODEL FOR THE AEROTHERMODYNAMICS CHARACTERIZATION OF ICE GIANTS ATMOSPHERIC ENTRY	2934
<i>D. Ninni, F. Bonelli, A. Laricchiuta, G. Colonna, G. Pascazio</i>	
AERO-THERMAL ANALYSIS OF A REUSABLE LAUNCH VEHICLE DURING RE-ENTRY MANOEUVRER.....	2944
<i>A. Assonitis, R. Paciorri , V. Orlandini, A. Neri</i>	
HYDRODYNAMIC ANALYSIS OF STATIC WATER IMPACT ON WEDGE-SHAPED HULL WATERTIGHT TEST SPECIMEN THROUGH NUMERICAL ANALYSIS	2961
<i>M. Niu</i>	
NUMERICAL INVESTIGATION OF HYPERSONIC FLOWS.....	2972
<i>C.-S. Dikmen, M.-N. Yüksel, M. Yumusak</i>	
SCALE EFFECT ON WATER LANDING PERFORMANCE OF AMPHIBIOUS AIRCRAFT.....	2984
<i>H. Zhang, J. Chen, F. Wang, G. Zhang, Z. Shen</i>	
ANALYSIS OF SUCTION FORCE EFFECT ON DIFFERENT FUSELAGE SHAPE DURING THE WATER DITCHING.....	2994
<i>J.-Y. Li, X.-Y. Wang</i>	
NUMERICAL INVESTIGATION ON THE LIQUID SLOSHING DAMPING INSIDE A TANK WITH A FLEXIBLE ANTI-SLOSHING DEVICE.....	3005
<i>F. Rossetti, L. Pirillo, M. Cimini</i>	
RESEARCH ON AERODYNAMIC PERFORMANCE OF OVERSIZE MODULAR PARAFOIL IN RANDOM WIND FIELD.....	3016
<i>F. Duan, J.-Y. Li, Z.-D. Li</i>	
LINEAR SYSTEM TECHNIQUES APPLIED TO NONLINEAR AEROSERVOELASTIC ANALYSES	3025
<i>M.V.G. Muniz, J.A.A. Lyrio</i>	
PERFORMANCE AND ACOUSTIC ANALYSIS OF A DISTRIBUTED ELECTRIC PROPULSION UNMANNED AIRCRAFT.....	3038
<i>R. Navarro, L.M. García-Cuevas, J. García-Tíscar, F.N. Ramírez</i>	
AERODYNAMIC NUMERICAL/EXPERIMENTAL COMPARISON OF A HYPERSONIC TEST VEHICLE IN MORE&LESS PROGRAM	3050
<i>P. Roncioni, M. Marini, R. Fusaro, N. Viola, D. Pepelea</i>	
MACHINE LEARNING INTEGRATION IN COMPUTATIONAL FLUID DYNAMICS FOR RAPID FLOW FIELD PREDICTION.....	3063
<i>M. Nematì, A. Jahangirian</i>	
HIGH FIDELITY MODELING OF ACOUSTIC LINERS FOR AERONAUTICAL APPLICATIONS.....	3071
<i>L. Pinelli, M. Marconcini, A. Arnone , D. Bacchi</i>	
PREDICTION OF TRANSIENT DEFORMATION BY COUPLING CFD AND FEM ANALYSIS USING MACHINE LEARNING BASED CORRELATION FUNCTION	3084
<i>J. Parez, P. Kovar, T. Vampola</i>	

INITIAL DEVELOPMENT OF A CFD ICING TOOL.....	3094
<i>J.R. Teixeira Da Silva, M.E.M.C. Lopes, A.P.R. Pregoica, C.F. Rafael, P.C. Souza Villela, G.A. Lima da Silva</i>	
DETACHED EDDY SIMULATION OF HYPERSONIC SHOCK-WAVE/BOUNDARY-LAYER INTERACTIONS ON HIFIRE-1 AXISYMMETRIC CONE-CYLINDER-FLARE.....	3112
<i>R.O. Bura</i>	
FLUID-SOLID INTERACTIVE MODELLING OF FABRIC-BASED ATMOSPHERIC ENTRY SIZED AERODYNAMIC DECELERATORS	3123
<i>E. Malof, J. Bayandor</i>	
EVALUATION OF CFD TRANSITION MODELING FOR TRANSONIC, NATURAL-LAMINAR-FLOW DESIGN	3138
<i>J.G. Coder</i>	
ANALYSIS OF THE R FAMILY OF LIMITERS APPLIED TO HIGH-ORDER FR/CPR SCHEMES FOR THE SIMULATION OF SUPERSONIC FLOWS	3155
<i>F.B. Oliveira</i>	
ASSESSMENT OF EXPLICIT ALGEBRAIC REYNOLDS STRESS MODELS APPLIED TO AERONAUTICAL FLOWS	3168
<i>T. Chagas Silva</i>	
UNCERTAINTY ANALYSIS OF THE AERODYNAMIC PERFORMANCE OF EVTOL PROPELLERS VIA REYNOLDS STRESS TENSOR PERTURBATION	3185
<i>G. Gori, A. Zanotti</i>	
PARELLEL UNSTEADY REYNOLDS-AVERAGED NAVIER-STOKES (URANS) STUDEIS OF THE PERFORMANCE OF ONR WATERJET AXWJ-2.....	3203
<i>S.E. Monroe</i>	
 <u>03.2 - EXPERIMENTAL AERODYNAMICS</u>	
HOT-WIRE ANEMOMETRY OF THE BOUNDARY LAYER PRIOR TO A CAVITY IN RESPONSE TO VARIED UPSTREAM GEOMETRY	3214
<i>C.O.L. Hamilton Smith, N.J. Lawson</i>	
SURFACE VISUALISATION OF TIME AVERAGED FLOW BEHAVIOUR AROUND RIGID AND FLEXIBLE HEMISPHERES UTILISING UV SENSITIVE OIL	3225
<i>N. Menakath, N.J. Lawson, G.A. Vio</i>	
REVITALIZATION OF A FLOW-CELL DEVICE FOR AIR INTAKE TESTING AND ITS INTEGRATION WITH WIND TUNNEL SYSTEMS.....	3241
<i>D. Damljanovic, D. Vukovic, L. Petrovic</i>	
EXPLORING WINGTIP COLUMNAR VORTEX GENERATORS FOR UAV PERFORMANCE ENHANCEMENT.....	3253
<i>R. Bardera, A.A. Rodríguez-Sevillano, J.C. Matías, E. Barroso, M. Ojeda, J. Fernández</i>	
PIV AND AERODYNAMIC FORCES ANALYSIS OF A HELICOPTER OPERATING AROUND A BUILDING BY WIND-TUNNEL EXPERIMENTS.....	3267
<i>R. Bardera, J.C. Matias, E. Barroso</i>	

ELECTRIC FIELD MEASUREMENT IN GLOW DISCHARGE PLASMA INTERACTING WITH SHOCK WAVE IN HYPERSONIC FLOW	3286
<i>N. Cao Van, H. Itoh, M. Mizoguchi, A. Uenaka</i>	
ANALYSIS OF AN ELECTRICAL-POWERED-DUCTED-THRUST VECTORING-FLAP	3298
<i>V. Gollnick, J. Luehrmann, F. Danquah, A. Semke, T. Mueller, J. Thoben</i>	
ASSESSING THE SONIC BOOM OF A FULL-SIZE AIRCRAFT FROM FREE FLIGHT TESTS ON A SUB-SCALE MODEL	3313
<i>G. Fasulo, L. Federico</i>	
UPGRADE OF THE VTI T-38 BLOWDOWN TRISONIC TEST FACILITY: WIND TUNNEL CONTROL SYSTEM.....	3327
<i>B. Ilic, G. Ocokoljic, M. Samardžic, J. Isakovic</i>	
INFLUENCE OF REINFORCED TRAILING EDGE ON FLAPPING WING AERODYNAMIC FORCE AND DEFORMATION	3347
<i>Y.-F. Wang, B.-F. Song, Y. Luo, X.-Y. Lang, W. Wang</i>	
EFFECT OF FREESTREAM DISTURBANCES ON BOUNDARY LAYER TRANSITION IN HYPERSONIC WIND TUNNEL	3359
<i>J. Yuan, S. Yu, Z. Qian</i>	
EVALUATION OF WIND TUNNEL TEST RESULTS OF TAXIDERMY BLACK-TAILED GULL (LARUS CRASSIROSTRIS).....	3369
<i>N. Kishimoto</i>	
EXPERIMENTAL INVESTIGATION OF THE DLR-F23 CONFIGURATION AT TRANSONIC SPEEDS USING FAST-RESPONSE PRESSURE-SENSITIVE PAINT	3376
<i>P. Hartl, M. Ritschel, M. Braune, H. Mai</i>	
DESIGN OF MEASUREMENT SETUP FOR HIGH-ALTITUDE IN-FLIGHT EXPERIMENTS ON DU89-134/14 AIRFOIL AT LOW REYNOLDS NUMBER	3397
<i>M. Avirovic, C. Brunelli, K. Wykes, C. Mengdehl, B.G. Marinus, J. Degroote</i>	
EXPERIMENTAL AND NUMERICAL INVESTIGATION ON AERODYNAMIC PERFORMANCE OF A MARS ROTOR SYSTEM.....	3407
<i>Y. Liu, J. Xiao, N.A. Benai-dara, Z. Chen, N. Qin</i>	
DESIGN OF DUAL-FUSELAGE FLIGHT PLATFORM FOR JET CONTROL FUNCTION VERIFICATION	3420
<i>C.P. Li</i>	
DEVELOPMENT OF UNSTEADY PRESSURE-SENSITIVE PAINT FOR LOW REYNOLDS NUMBER WIND TUNNEL TESTS IN LOW-PRESSURE ENVIRONMENTS.....	3429
<i>S. Takaya, K. Shibata, D. Numata</i>	
EXPERIMENTAL AND NUMERICAL INVESTIGATION OF A STRUCTURAL-DYNAMICALLY SCALED DELTA WING WITH TRAINING EDGE FLAPS.....	3439
<i>K. Bantscheff, F. Santelli, C. Breitsamter</i>	
DESIGN OF A HIGH ENTHALPY HYPERSONIC NOZZLE FOR “GHIBLI” PLASMA WIND TUNNEL	3459
<i>D. Guida, A. Smoraldi, A. Schettino</i>	
AERODYNAMIC INTERACTION EFFECTS OF TILTROTOR EVTOL AIRCRAFT	3474
<i>C. Moreira, C. Breitsamter</i>	

03.3 - BASIC FLUID DYNAMICS AND FLOW CONTROL

NUMERICAL SIMULATION OF FLOWS AROUND AN AIRFOIL DURING ACCELERATED AND DECELERATED FLIGHT	3491
<i>R. Yamashita</i>	
A BRIEF REVIEW OF PANEL AEROELASTICITY WITH SHOCK INTERACTION.....	3501
<i>A. Shi</i>	
VALIDATION OF MULTIPHASE FLOW SIMULATIONS BY EXPERIMENTAL MEASUREMENTS IN A CHANNEL FLOW.....	3522
<i>M. Khaled, B. Faraji-Tajrishi, A. Herrgen</i>	
PASSIVE FLOW CONTROL DEVICES ON LOW-REYNOLDS DU89-134 AIRFOIL	3536
<i>C. Brunelli, M. Avirovic, B. Janssens, B.G. Marinus, M. Runacres</i>	
RESEARCH ON UNSTEADY AERODYNAMIC MODELING METHOD OF PREPOSITIVE WING - MAIN WING COMPOSITE SYSTEM AT HIGH ATTACK ANGLE	3548
<i>X. Bai</i>	

VOLUME 6

NUMERICAL INVESTIGATION OF THE FLOW FEATURES ON THE TURRET WITH DIFFERENT CYLINDER HEIGHT IN THE TRANSONIC FLOW	3562
<i>X.-T. Tan, H.-Y. Xu, Z. Pei</i>	
NUMERICAL INVESTIGATION ON THE EFFECT OF REYNOLDS NUMBER ON TANDEM DROPLET	3571
<i>S.-T. Peng, F.-Z. Chen, H. Yan, X.-Q. Sun</i>	
RESEARCH ON EFFICIENT ACTIVE T-S WAVE GENERATION METHOD IN BOUNDARY LAYER.....	3582
<i>P. Li, Z. Cao, D. Li</i>	
NUMERICAL STUDY ON ACOUSTIC RECEPTIVITY OF COMPRESSIBLE LAMINAR FLOW OVER A FLAT PLATE WITH MODIFIED SUPER-ELLIPSE LEADING EDGE	3603
<i>B.Z. Xu, Z.L. Chen</i>	
WALL TEMPERATURE EFFECTS ON AERODYNAMIC HEATING MECHANISMS IN SHOCK WAVE TURBULENT BOUNDARY LAYER INTERACTION	3615
<i>Z.Y. Tang</i>	
CROSSFLOW AND GÖRTLER INSTABILITIES IN HYPERSONIC BOUNDARY LAYERS	3631
<i>Y. Xi, S. Fu</i>	
MITIGATING DYNAMIC STALL WITH A MOVABLE LEADING-EDGE: THE NACA0012-IK30 WING	3648
<i>E.A.R. Camacho, A.R.R. Silva, F.D. Marques</i>	
NUMERICAL INVESTIGATION ON AERODYNAMIC PERFORMANCE OF HOVERING ROTOR IN GROUND EFFECT	3658
<i>X.-L. Li, J.-H. Xu, W.-P. Song, S.-Q. Han</i>	

FAULT DIAGNOSIS AND TOLERANCE SYSTEM OF FLIGHT STATE PERCEPTION MODEL BASED ON MACHINE LEARNING FOR CO-FLOW JET AIRFOIL.....	3667
<i>Y.-R. Zhao</i>	
MEASUREMENTS OF T-S WAVES DUE TO ACOUSTIC DISTURBANCES IN EXPERIMENTS	3682
<i>Z. Cao, P.F. Li, D. Li</i>	
A CFD STUDY OF THE ACTIVE FLOW CONTROL SYSTEM BEHAVIOUR ON A VERTICAL TAIL SECTION OF AN AIRPLANE, WITH THE AID OF AI.....	3691
<i>C. Cordini, A. Saporiti, M. Boffadossi</i>	
STUDY OF THE SCAVENGE PUMP PERFORMANCE FOR TWO-PHASE FLOW IN AN AIRCRAFT ENGINE LUBRICATION SYSTEM	3707
<i>N. Wu, J.-P. Hu, Y.-G. Lyu, J. Wang, Y. Tan, Z.-X. Liu</i>	
ACTIVE-PASSIVE HYBRID CONTROL OF SHOCK BUFFET	3718
<i>C.Q. Gao</i>	
EXPERIMENTAL STUDY ON MULTI-ATTITUDE OIL SUPPLY STRUCTURE.....	3727
<i>Y. Xu, Y.-G. Lyu, J.-P. Hu, Z. Liu</i>	
MECHANISM STUDY ON THE IMPACT OF PULSED JET AT THE BLADE TIP LEADING EDGE ON THE FLOW FIELD IN COMPRESSOR.....	3741
<i>Y. Yang</i>	
IMPLEMENTATION OF ACTIVE FLOW CONTROL ON A SHORT-INLET UHBR ENGINE NACELLE.....	3751
<i>S. Hayböck, C. Breitsamter</i>	
ON THE INFLUENCE OF BASE FLOW CHARACTERISTICS ON CROSSFLOW INSTABILITY IN SWEEPED BOUNDARY LAYERS	3768
<i>Z.-M. Xu, Z.-H. Han, H. Nie, W.-P. Song</i>	
STUDY OF DROPLET MOTION AND WATER FILM FLOW CHARACTERISTICS ON SUPERHYDROPHOBIC SURFACES UNDER AIRFLOW SHEARING.....	3778
<i>H. Zhao, D. Zhu, S. Wang, S. Chang, L. Yu, Y. Wu</i>	
NUMERICAL STUDY OF THE FLOWFIELD IN A DIFFERENTIALLY-THROTTLED LINEAR AEROSPIKE	3786
<i>J. Hassan , R. Marsilio, G.M. Di Cicca, M. Ferlauto</i>	
EXPERIMENTAL SETUP FOR THE INVESTIGATION OF WATER SEPARATION IN ANNULAR FLOW WITHIN A CIRCULAR CHANNEL	3795
<i>R. Haidl, B. Weigand</i>	
ON THE INFLUENCE OF SURFACE ROUGHNESS ON BOUNDARY-LAYER TRANSITION FOR SWEEPED WINGS	3811
<i>V. Prieto</i>	
NONLINEAR DROPLET DYNAMICS IN IDEALIZED TRAILING VORTICES.....	3827
<i>O. Avni, Y. Dagan</i>	
NUMERICAL STUDY ON ACTIVE FLOW CONTROL SOLUTIONS FOR HIGH LIFT.....	3836
<i>P. Scavella, G. Paolillo, T. Astarita, G. Cardone, C.S. Greco</i>	

ON THE OPTIMIZATION OF (GENERALIZED) IMPEDANCE FOR ACOUSTIC LINERS.....	3856
<i>E. De Bono</i>	
FLYING WING CIRCULATION DISTRIBUTIONS, AERODYNAMIC PERFORMANCE AND WAKE ROLL-UP.....	3875
<i>H.W.M. Hoeijmakers, M.P.J Sanders, L.H. Groot Koerkamp, A. van Garrel, C.H. Venner</i>	
GENETIC ALGORITHM OPTIMIZATION OF AN OPPOSITION CONTROL STRATEGY IN A FULLY TURBULENT CHANNEL FLOW	3927
<i>E. Saccaggi, G.M. Di Cicca</i>	

03.4 - APPLIED AERODYNAMICS

MORPHING LEADING-EDGE TUBERCLES ON CESSNA 172 WING	3941
<i>G. Abate, H.P. Monner</i>	
REFINED PREDICTIONS COMPARED WITH THE PROPULSION AIRFRAME AEROACOUSTICS AND AIRCRAFT SYSTEM NOISE FLIGHT RESEARCH TEST DATA.....	3954
<i>R.H. Thomas, Y. Guo</i>	
DESIGN OF A HIGHLY EFFICIENT TRANSPORT NLF AIRCRAFT WITH A BACKWARD SWEPT WING AND A LONG SINGLE-AISLE FUSELAGE	3972
<i>T. Streit, J. Ruberte Bailo, A. Büscher</i>	
SUMMARY OF DLR RESULTS FROM THE SEVENTH AIAA DRAG PREDICTION WORKSHOP.....	3992
<i>S. Keye, O. Brodersen, S. Melber-Wilkending</i>	
SIMULATION OF AN INSTALLED PROPELLER BY MEANS OF STEADY AND UNSTEADY BODY-FORCE MODELING.....	4009
<i>H. Pantel, F. Falissard, G. Dufour</i>	
MODELLING ASTEROID TRAJECTORY IN EARTH'S ATMOSPHERE.....	4021
<i>R.H. Morais, L.F. Ferreira Marques</i>	
DECOUPLING STORE AND PARENT AERODYNAMICS FOR FAST PREDICTION OF SUBSONIC STORE TRAJECTORIES	4030
<i>N. Mthembu, H. Ndlovu, B. Ndebele, K. Jamison, L. Zwane</i>	
AERODYNAMIC SHAPE OPTIMIZATION OF FILLETED INTERSECTIONS WITH SURFACE MESH DEFORMATION.....	4050
<i>H.M. Hajdik, A. Yildirim, J.R.R.A. Martins</i>	
LOW-SUBSONIC AERODYNAMIC ANALYSES OF A NONPLANAR BWB MODEL: AN EXPERIMENTAL AND CFD STUDY.....	4066
<i>M. Nikbay, K. Kontis, H. Aleisa, B. Pirlepeli</i>	
EXPERIMENTAL MEASUREMENTS OF SLIPSTREAM DEFORMATION FOR AN INSTALLED DISTRIBUTED PROPELLER CONFIGURATION.....	4079
<i>R.R. Duivenvoorden, F. do Nascimento Monteiro, T. Sinnige</i>	
LOCALIZED AERODYNAMIC SHAPE OPTIMIZATION FOR AUTOMOTIVE APPLICATIONS	4091
<i>M. Nayman, R.E. Perez</i>	

EVALUATING INSTALLATION EFFECTS IN SEMI-SPAN WIND TUNNEL EXPERIMENTS USING CARTESIAN-GRID-BASED FLOW SOLVER UTCART	4117
<i>Y. Tamaki, Y. Yokoyama, T. Imamura</i>	
NOVEL GRADIENT-ENHANCED MULTI-FIDELITY SURROGATE MODEL ASSISTED ROBUST MULTIDISCIPLINARY DESIGN OPTIMIZATION OF TAILLESS FLYING WING	4133
<i>H. Zhao, K.-K. Wang, Z.-Y. Gong, K.Y. Gan</i>	
ON THE CHALLENGES OF SURROGATE-BASED AERODYNAMIC SHAPE OPTIMISATION	4148
<i>J. Rasines, D. Verstraete</i>	
ASPECT RATIO AND ADVANCE RATIO EFFECTS ON AERODYNAMIC CHARACTERISTICS OF FLEXIBLE FLAPPING WINGS	4165
<i>R. Addo-Akoto, S.-G. Lee, J.-S. Han</i>	
WIND TUNNEL ANALYSIS OF A SPACE RE-ENTRY VEHICLE AT LOW-SPEED CONDITIONS.....	4174
<i>N. Montella</i>	
SONIC BOOM ANALYSIS OF DIFFERENT SUPERSONIC AIRCRAFT	4198
<i>A. Glorioso, F. Petrosino, M. Barbarino, G. Pezzella, A. Viviani</i>	
WIND-TUNNEL TESTS OF INNOVATIVE TAILPLANE CONFIGURATIONS.....	4214
<i>F. Nicolosi, P. Della Vecchia</i>	
SPARSE POLYNOMIAL CHAOS-BASED SONIC BOOM UNCERTAINTY QUANTIFICATION AND AERODYNAMIC/SONIC BOOM ROBUST DESIGN OPTIMIZATION UNDER MULTI- PARAMETER UNCERTAINTIES	4232
<i>S. Wang, H. Zhao, K. Gan, Z. Gong, Y. Gan</i>	
DESIGN AND AERODYNAMIC OPTIMIZATION OF A THIN-HAUL AIRCRAFT WITH DISTRIBUTED ELECTRIC PROPULSION: ZETHA	4256
<i>G. Beghetto, M. Boffadossi</i>	
NUMERICAL STUDY ON THE FIRST-STAGE RE-ENTRY TRAJECTORY USING AN INFLATABLE BALLUTE.....	4269
<i>V. Orlandini, R. Paciorri, A. Assonitis, A. Bonfiglioli</i>	
VOLUME 7	
AEROACOUSTICS INVESTIGATION OF PROPELLER LEADING EDGE TUBERCLES APPLIED TO ADVANCED AIR MOBILITY	4291
<i>D. Skrna</i>	
CHARACTERIZATION OF EXTERNAL LIQUID HYDROGEN TANK INTERFERENCE DRAG.....	4307
<i>C. Graham, R.E. Perez</i>	
DATA MINING ANALYSIS ON AERODYNAMIC STEALTH DESIGN PRINCIPLES OF AIRFOIL PROFILES.....	4321
<i>S.-Y. Jin, Z.-H. Gao, S.-S. Chen, Y.-Q. Wang</i>	
SIMULATION STUDY ON AERODYNAMIC CHARACTERISTICS OF COMBINED LOW ASPECT RATIO UAV	4332
<i>Y. Li, X. Xu, Z. Zhou, Y. Bai, H. Wang, B. Xu</i>	

NUMERICAL EVALUATION FOR FAN-NOISE SHIELDING EFFECTS ON AFT-FUSELAGE MOUNTED AND EMBEDDED ENGINES.....	4351
<i>T. Ikeda, R. Furuya</i>	
RESEARCH ON OPTIMAL TORSIONAL DEFORMATION OF FLAPPING WING	4364
<i>J. Liu, D. Xue</i>	
FLIGHT TEST AND CFD STUDY OF THE EFFECT OF WING BOUNDARY LAYER TRANSITION ON AILERON BALANCE	4377
<i>L. Manfriani, X. Liu</i>	
OPERATIONAL LIMITS ASSESSMENT FOR HIGH-ALTITUDE LONG-ENDURANCE UAVS CONSIDERING PROPELLER ICING EFFECT	4388
<i>Y.H. Kim</i>	
LONG-WAVE INSTABILITY OF AIRCRAFT WAKE VORTEX UNDER SHEAR CROSSWIND.....	4400
<i>Z. Xu, D. Li, J. Cai, J. Han</i>	
RESEARCH ON AERODYNAMIC DESIGN OF ENGINE NACELLE UNDER THE INFLUENCE OF PROPELLER SLIPSTREAM FOR THE TURBOPROP AIRCRAFT	4409
<i>R.-F. Xu, W.-P. Song, X.-H. Li, R.-Z. Qian, Y.-J. Zhang, J.-H. Xu, X.-L. Li</i>	
AERODYNAMIC PERFORMANCE AND INTERACTION EFFECTS OF AN OVER-THE-WING DISTRIBUTED-PROPELLER SYSTEM IN CRUISE CONDITIONS	4417
<i>R. de Vries, T. Sinnige, L.L.M. Veldhuis</i>	
SPARSE RECONSTRUCTION OF SURFACE LOADS ON AIRCRAFT USING POD AND RBFNN.....	4446
<i>X. Jia, C. Gong, C. Li</i>	
AERO-KINEMATIC OPTIMIZATION OF HIGH-LIFT DEVICES WITH DOWNWARD DEFLECTION OF SPOILER	4459
<i>C. Wei, C. Rao, L. Yang, T. Zhang</i>	
NUMERICAL-THEORETICAL EVALUATION OF THE DITCHING OF A HULL WITH DIHEDRAL ANGLES BETWEEN -5 AND 20 DEGREES.....	4468
<i>D. Guagliardo, E. Cestino, A. Viridis, A. Alfero, V. Sapienza</i>	
FINITE-STATE AEROELASTIC MODELLING OF MORPHING WING THROUGH UNSTEADY LIFTING-LINE THEORY	4484
<i>R. Giansante, G. Bernardini, M. Gennaretti</i>	
FAST PREDICTION OF PRESSURE DISTRIBUTION FOR 3D CONFIGURATION BASED ON LARGE LANGRAGE MODEL.....	4494
<i>B.W. Shu</i>	
RESEARCH ON MULTI-OBJECTIVE AERODYNAMIC/STRUCTURAL DESIGN OPTIMIZATION METHOD FOR LARGE THICKNESS FLATBACK AIRFOILS	4503
<i>K.-Y. Zhou, S.-Q. Zhang</i>	
AERODYNAMIC ANALYSIS OF CAMBER MORPHING AIRFOILS USING PARTICLE IMAGE VELOCIMETRY AND COMPUTATIONAL FLUID DYNAMICS METHODS	4517
<i>M. Marciniuk, L. Kiszkiwiak, P. Piskur</i>	
INTELLIGENT RECONSTRUCTION METHOD OF AIRFOIL FLOW FIELD BASED ON DEEP ATTENTION NETWORK	4529
<i>K. Zuo, X. Yuan</i>	

A HYBRID APPROACH FOR RECONSTRUCTION OF TRANSONIC BUFFET AERODYNAMIC NOISE: INTEGRATING RANDOM FOREST AND COMPRESSIVE SENSING ALGORITHM	4544
<i>Q. Zhang</i>	
ENGINEERING-BASED TOOL FOR THREE-DIMENSIONAL ESTIMATIONS OF RE-ENTRY VEHICLES AEROTHERMODYNAMICS	4561
<i>P.E. Di Nuzzo</i>	
NUMERICAL SIMULATION OF THE RESPONSE CHARACTERISTICS OF THE WING STRUCTURE OF A SEAPLANE PLANING IN WAVE	4576
<i>Z.-W. Lu, Y.-H. Li, J.-C. Chen, M.-B. Tong, B. Wu</i>	
MULTI-FIDELITY SURROGATE MODELING BASED ON DATA EXTENSION USING POD AND ANN.....	4588
<i>W. Wang, X. Jia, C. Gong, C. Li</i>	
CORRELATION MODELLING OF SURFACE INVISCID FLOW CHARACTERISTICS AND FRICTION DISTRIBUTION BASED ON MACHINE LEARNING	4600
<i>S. Zhao, W. Zhang</i>	
DYNAMIC STALL PREDICTION THROUGH COMBINING PHYSICAL MODELS AND MACHINE LEARNING	4617
<i>W. Zhang, X. Wang, J. Kou, Z. Liu</i>	
TRANSFER LEARNING FOR REDUCED-ORDER MODELING OF TRANSONIC FLOWS USING MULTIFIDELITY DATA.....	4630
<i>J. Kou, C. Ning, W. Zhang</i>	
ABOUT MODELLING OF EMPIRICAL CORRELATIONS WITHIN AERODYNAMIC PROFILES USING HIGHER ORDER ARTIFICIAL NEURAL NETWORKS.....	4650
<i>P. Kovar</i>	
AERODYNAMIC ANALYSIS OF A FLAP-BASED DEPLOYABLE RE-ENTRY SYSTEM UNDER RAREFIED CONDITIONS.....	4662
<i>D. Vera Sepúlveda, R. Cassineli Palharini, E. Gaglio</i>	
<u>04.1 - AEROSPACE GRADE MATERIALS, STRUCTURAL ANALYSIS, FATIGUE AND DAMAGE TOLERANCE</u>	
SURFACE QUALITY CHALLENGE FOR TI-6AL-4V ADDITIVE MANUFACTURED TOPOLOGIC OPTIMIZED LIGHTWEIGHT STRUCTURE	4679
<i>C. Matias, A. Diskin, O. Golan</i>	
ELECTROMAGNETIC INDUCTION HEATING OF TP-CFRP LAMINATES: FEM MODELLING AND VALIDATION	4689
<i>W.J. Vankan, N. van Hoorn, A.J. de Wit, T.P.A. Koenis</i>	
STUDY ON LOW-VELOCITY IMPACT BEHAVIOR AND RESIDUAL PERFORMANCE PREDICTION OF CFRP T-JOINTS	4708
<i>J. Zhou</i>	
PROCESS MODELLING OF COMPOSITES USING A MULTISCALE FRAMEWORK	4718
<i>G.M. Odegard</i>	

NUMERICAL SOLUTION OF LOX FLOW IN A LIQUID ROCKET ENGINE ADDITIVELY MANUFACTURED COOLING CHANNEL	4726
<i>N. Monokrousos, L. Könözsy, V. Pachidis, E. Sozio, F. Rossi</i>	
CONVOLUTIONAL NEURAL NETWORKS ALGORITHMS FOR STRUCTURAL HEALTH MONITORING OF AIRCRAFTS COMPOSITES PANELS	4742
<i>E. Monaco, F. Ricci</i>	
TRAIN ON SYNTHETIC - TEST ON REAL: DOMAIN ADAPTATION FOR STRAIN-BASED DAMAGE DETECTION ON AN AIRCRAFT WING	4752
<i>P. Conen, F. Raddatz, G. Wende</i>	
THE RESISTANCE TO THE HIGH-VELOCITY IMPACT OF THE INTRA-LAYER HYBRID PLAIN WEAVE COMPOSITES.....	4771
<i>H. Wu, Y. Bai, S.-L. Fang, Z.-Q. Zhao, C. Zhang</i>	
MODELING THE TEMPERATURE-RISE BEHAVIOR OF 2D TRIAXIAL BRAIDED COMPOSITES UNDER IMPACT LOADS.....	4779
<i>C. Zhang, P. Liu, Y.-L. Li</i>	
THE EFFECT OF TARGET THICKNESS ON THE BALLISTIC BEHAVIOR OF HYBRID CFRP/KFRP COMPOSITES.....	4790
<i>S. Zhao, J. Huang, C. Zhang</i>	
DEMOCRATIZATION OF FATIGUE EVALUATION FOR REALISTIC RIVETING CONFIGURATIONS USING STATE-OF-THE-ART SIMULATIONS.....	4806
<i>I. Rivero, A. Palomar, M. Rebollo, J. Domingo, M. Lozano, Z. Mujika, D. Garijo, G. Lara, A. Capitan, J. Gomez-Escalonilla</i>	
ON AN EFFICIENT GLOBAL/LOCAL STOCHASTIC METHODOLOGY FOR FAILURE PREDICTION OF AIRCRAFT COMPOSITE STRUCTURES	4817
<i>P. Minigher</i>	
MACRO, MESO AND MICRO SCALE ENERGY EVALUATION IN LAMINATED AND COMPOSITE STRUCTURES USING THE COMPONENT-WISE APPROACH.....	4829
<i>S. Saputo, R. Augello, E. Carrera</i>	
A MESO-SCALED SIMULATION ON THE THICKNESS EFFECT OF TWO-DIMENSIONAL TRIAXIALLY BRAIDED COMPOSITES UNDER TENSILE LOADS	4837
<i>Y. Bai, P. Liu, Z.-Q. Zhao, C. Zhang</i>	
ANALYSIS OF THE POSSIBILITY OF INCREASING THE THERMAL RESISTANCE OF EPOXY RESIN WITH CWNT AND MMT.....	4848
<i>R. Szczepaniak, P. Przybyłek, D. Szczechula, A. Krzyzak, A. Komorek, G. Woroniak</i>	
MULTIAXIAL TESTING OF AERONAUTIC COMPOSITE STRUCTURES AT INTERMEDIATE SCALE	4859
<i>B. Castanié, J.-C. Passieux, J.-N. Périé, C. Bouvet, J.-E. Dufour, J. Serra</i>	
DYNAMIC AND STABILITY ANALYSES OF ROTATING THIN-WALLED FILAMENT WOUND GLASS FIBRE COMPOSITE CYLINDERS WITH METAL LINER.....	4872
<i>R. Hu</i>	
MACHINE LEARNING AND NUMERICAL OPTIMIZATION OF BIO-INSPIRED 3D- PRINTABLE SANDWICH CORE CELL	4878
<i>B. Omede', A.M. Grande</i>	

THERMAL HISTORY PAINT UNDER HIGH SUBSONIC FLOW	4895
<i>W. Stryczniewicz, T. Kwiatkowski, I. Kaminska, M. Chojnacki, K. Fronc</i>	
A PHASE FIELD BASED DEEP LEARNING APPROACH FOR MECHANICAL PROPERTY PREDICTION OF SINTERED SILVER IN POWER ELECTRONICS.....	4902
<i>B.R. Yang, B. Wan, G.C. Fu, X.H. Wang, X.H. Wang, J. Yao</i>	
REDESIGN OF AN AERONAUTICAL COMPOSITE STIFFENED PANEL WITH THE DOUBLE-DOUBLE DESIGN APPROACH.....	4915
<i>A. Riccio, A. Garofano, G. Rigliaco, M. Boccaccio, F. Acerra</i>	
WEAR EVOLUTION OF PYRAMID-STRUCTURED ABRASIVE BELTS AND ITS EFFECT ON GRINDING OPERATIONS	4929
<i>Y. Liu, W. Wang, J. Zhao, Y. Song, L. Zou</i>	
FATIGUE CRACK LIFE PREDICTION BASED ON BAYESIAN DYNAMIC UPDATE	4940
<i>Y. Zhang</i>	
HOT-WET CONDITIONING AND THE SENSITIVITY OF MECHANICAL TESTING WITHIN SURFACE TREATMENT QUALIFICATION FOR AIRCRAFT	4950
<i>D. Blanco Garde, F. Mews, J. Jokinen, N. Pournoori, M. Kanerva</i>	
STUDY ON FATIGUE PROPERTIES OF TITANIUM ALLOY BASE MATERIAL AND WELDED STRUCTURE IN THERMAL COMBINED ENVIRONMENT.....	4958
<i>H. Peng, B. Wang, Y. Zhang, L. Ji, S. Li</i>	
FLUID-STRUCTURE INTERACTION OF TWO-PHASE SCATTERER METAMATERIALS FOR VIBRATION SELF-SUPPRESSION	4969
<i>W.H. Yuan, Y.J. Chai, X.W. Yang, F. Ripamonti</i>	
OPTIMIZATION OF POST-PROCESSING HEAT TREATMENT FOR LPBF MODIFIED 2024 ALUMINIUM ALLOY	4978
<i>M. Bona, A.M. Grande</i>	
DEVELOPMENT OF A MACHINE LEARNING-BASED STRESS SPECTRUM ESTIMATION TECHNIQUE FOR FATIGUE MONITORING.....	4988
<i>E.G. Park</i>	
INTEGRATIVE ANALYSIS OF LOW-CYCLE FATIGUE AND CRACK PROPAGATION IN TURBINE BLADES	4997
<i>N.M. Hoang, M.D. Ha, T.Q. Nguyen, P.M. Nguyen</i>	

VOLUME 8

ELASTIC/PLASTIC SEMI-ANALYTICAL METHOD FOR ARBITRARY CURVED SURFACES OF SCARF REPAIRED COMPOSITES	5007
<i>Y. Liu, B. Liu</i>	
A DYNAMIC TEST METHODOLOGY FOR DETERMINING THE LONGITUDINAL COMPRESSIVE RESPONSE OF CARBON FIBER COMPOSITE TOWS	5021
<i>J. Gu, Y. Bai, Z. Zhao, C. Zhang</i>	
FATIGUE PROPERTIES OF ADDITIVELY MANUFACTURED TOOL STEEL.....	5031
<i>C.M. Johnston, L.C. Tshabalala, M. Davids</i>	

IMPROVING SHAPE SENSING OF AERONAUTICAL STRUCTURES WITH STRAIN PRE-EXTRAPOLATION AND SENSOR PLACEMENT OPTIMIZATION	5043
<i>E. Del Priore, L. Lampani</i>	
FULLY-EMBEDDED PRESSURE SENSOR FOR AERODYNAMICS SURFACES BASED ON FBG TECHNOLOGY	5055
<i>P.E. Boffa, E. Casciaro, P. Bettini</i>	
DAMAGE AND MECHANICAL REPAIR OF COMPOSITE LAMINATES: EFFECTS OF EMBEDDED DEFECTS AND LOW VELOCITY IMPACTS	5073
<i>G. Zhang</i>	
TOWARDS EFFICIENT ANALYSIS OF POSTBUCKLING IN AIRCRAFT STIFFENED STRUCTURES	5089
<i>M.H. Elalfy, R. de Breuker, S.G.P. Castro</i>	
INVESTIGATION ON THE MECHANISM OF THERMAL CYCLING FAILURE IN C/SIC COATING COMPOSITE MATERIALS.....	5097
<i>Y. Ma</i>	
EFFECT OF INFILL STYLE AND DENSITY ON SELECTED MECHANICAL PROPERTIES OF THE CARBON FIBRE REINFORCED ABS MFD FILAMENT	5110
<i>M. Mucha, D. Sikorski</i>	
NUMERICAL ANALYSIS OF PROCESS-INDUCED DEFORMATIONS AND STRESSES IN AERONAUTICAL COMPOSITE COMPONENTS	5120
<i>R. Masia, M. Petrolo, E. Zappino, N. Zobeiry</i>	
DEVELOPMENT AND ANALYSIS OF THE THEORY OF COMPOSITE EXPANSION RING UNDER ELECTROMAGNETIC LOADING	5128
<i>Z.-X. Liu, J. Liu</i>	
HIGH TEMPERATURE BALLISTIC IMPACT TEST TECHNOLOGY BASED ON ELECTROMAGNETIC LAUNCH	5137
<i>C. Zhang, J. Liu</i>	
DESIGN OF HYDROGEN STORAGE SYSTEMS IN NEW-GENERATION REGIONAL AIRCRAFT	5146
<i>V. Memmolo, L.M. Cardone, G. Petrone, S. De Rosa</i>	
INFLATABLE SPACE SHIELD STRUCTURE FOR SPACE HABITATION MODULE.....	5157
<i>J.-H. Cha</i>	
EFFICIENT THERMOMECHANICAL SIMULATION FOR METALLIC LATTICE STRUCTURES FABRICATED BY ADDITIVE MANUFACTURING.....	5170
<i>N. Tsushima</i>	
LASER SHEAROGRAPHY-PREDICTION AND OPTIMIZING ITS FLAW DETECTION CAPABILITIES USING AN ADVANCED HYBRID APPROACH	5184
<i>Y. Elbaz</i>	
A METHOD FOR OPTIMISING THE ARRANGEMENT OF INTERNAL CHANNELS IN AIRCRAFT HYDRAULIC MANIFOLDS MANUFACTURED BY ADDITIVE MANUFACTURING	5204
<i>D.-B. Li</i>	

IMPACT RESPONSES AND FAILURE MECHANISMS OF ALMGB14 UNDER DYNAMIC LOADS.....	5213
<i>Y. Lu, W. Wang, Y. Zhang</i>	
THERMAL AND MECHANICAL CYCLING OF THIN-PLY COMPOSITES FOR CRYOGENIC APPLICATIONS.....	5221
<i>M.S. Loukil, J. Xu, E. Marklund, M. Merzkirch, F. Moreau, F. Ohlsson</i>	
STIMULATED THERMOGRAPHY AS NON-DESTRUCTIVE TESTING TO ASSESS THE STRUCTURAL INTEGRITY OF AERONAUTICAL COMPONENT IN CFRP.....	5232
<i>G. Masciopinto, E. D'Accardi, D. Palumbo, U. Galietti</i>	
EMBEDDED SENSORS FOR AIRCRAFT PREDICTIVE MAINTENANCE: SHM SYSTEM INTEGRATION & TRADE-OFF ANALYSIS.....	5243
<i>V.M. Sharma, P. Jha, V. Samanyusree, A. Sharma, S. Maheshwari, G.S. Mamatha</i>	
INVESTIGATION ON VARIABLE-HEIGHT PROTRUSION ARRANGEMENT OF METAL–COMPOSITE HYBRID JOINTS UNDER A TENSILE LOAD.....	5257
<i>Y. Zhao</i>	
INVESTIGATING THE EFFECT OF DELAMINATION-INDUCED FRICTIONAL CONTACT ON THE DYNAMIC BEHAVIOR OF LAMINATE STRUCTURES.....	5268
<i>S. Kiasat, A.S. Nobari</i>	
IMPACT TOLERANCE OF CERAMIC MATRIX COMPOSITES FOR AEROSPACE APPLICATIONS.....	5282
<i>G. Janszen, A.M. Caporale, L. Cavalli</i>	
THE FATIGUE LIFE PREDICTION OF THIN-WALLED WELDED JOINTS.....	5296
<i>M. Sladky, M. Machac, J. Papuga, I. Jebacek</i>	
STRUCTURAL HEALTH MONITORING OF CFRP DURING FATIGUE LOAD VIA THE ASSESSMENT OF CRACK DENSITY BY MEANS OF THERMOGRAPHY.....	5311
<i>R. De Finis</i>	
NUMERICAL TOOLS FOR SLOW-GROWTH APPROACHES TO DAMAGE TOLERANT COMPOSITE AERONAUTICAL STRUCTURES.....	5320
<i>M. Khella, S. Ghiasvand, P. Ballarin, F. Panzeri, S. Piacquadio, A. Airoidi</i>	
DAMAGE TOLERANCE OF A CURVED COMPOSITE STIFFENED PANEL FABRICATED BY AN OUT OF AUTOCLAVE – LIQUID RESIN INFUSION PROCESS.....	5330
<i>D. Fanteria, L. Boni, F. Romano</i>	
VIBRATION OF COMPOSITE SHELLS OF REVOLUTION USING EQUIVALENT SINGLE LAYER APPROACH.....	5341
<i>E. Carrera</i>	
CONCEPTUAL DESIGN AND TOPOLOGY OPTIMIZATION OF A COMPLIANT MORPHING FLAP FOR NEXT GENERATION HYBRID-ELECTRIC REGIONAL AIRCRAFT.....	5357
<i>M.C. Noviello, I. Dimino, S. Ameduri, A. Concilio</i>	
PATCHBOND II - CERTIFICATION OF ADHESIVE BONDED REPAIRS FOR PRIMARY AEROSPACE COMPOSITE STRUCTURES.....	5367
<i>J. Jokinen</i>	

04.2 - AEROSTRUCTURES DESIGN, STRUCTURAL DYNAMICS, AEROELASTICITY

CLOSED-LOOP GUST LOADS ANALYSIS OF A SUPERSONIC FIGHTER AIRCRAFT	5377
<i>A. Voß, J. Baier</i>	
POTENTIAL LIMITS OF LOAD ALLEVIATION IN REDUCING THE STRUCTURAL MASS OF A LONG-RANGE TRANSPORT CONFIGURATION	5396
<i>V. Handojo, S. Puelm</i>	
W-WING AEROELASTIC DEMONSTRATOR DESIGN MODIFICATION AND UPGRADE	5413
<i>J. Cecrdle, O. Vich, J. Starek, J. Vlach, M. Kolar, M. Smid</i>	
EFFECTS OF SHOCK IMPINGEMENT LOCATION ON PANEL AEROELASTIC STABILITY IN MACH REFLECTION	5431
<i>Y. He, A. Shi</i>	
ABSOLUTE NODAL COORDINATE FORMULATION FOR NONLINEAR MULTIBODY MODELING OF FLARED HINGED WINGS	5444
<i>K. Otsuka</i>	
FLIGHT LOADS RESEARCH OF TWIN VERTICAL TAIL FOR BLENDED WING-BODY AIRCRAFT BASED ON STRAIN GAUGE CALIBRATION	5460
<i>Z. Guo, A. Tang, Q. Jing</i>	
STRUCTURAL AND AEROELASTIC OPTIMISATION OF A LARGE AIRCRAFT WING WITH A PASSIVE TWIST WINGTIP	5474
<i>Y.J. Pan, M. Alam, A. Spinelli, E. Bragado Aldana</i>	
INFLUENCE OF SKIN CURVATURE ON WINGBOX OPTIMIZATION WITH NONLINEAR STRUCTURAL STABILITY CONSTRAINTS	5492
<i>F.M.A. Mitrotta, A. Pirrera, T. Macquart, J.E. Cooper, A. Pereira do Prado, P.H. Cabral</i>	
DEVELOPMENT OF A MASS EVALUATION TOOL FOR CLASSICAL AND DISRUPTIVE AIRCRAFT STRUCTURES	5515
<i>V. Priasso, A. Lannoo</i>	
TRADE OFF STUDIES ON WING MANEUVER LOAD ALLEVIATION STRATEGIES BASED ON AILERONS AND WINGLETS MOVABLE SURFACES	5528
<i>R. Pecora</i>	
MEASUREMENT OF WING BENDING IN-FLIGHT FROM A T67 SLINGSBY FIREFLY LIGHT AIRCRAFT	5551
<i>N.J. Lawson</i>	
GUST LOAD PASSIVE ALLEVIATION BY MEANS ON NONLINEAR, BUCKLING DRIVEN, STRUCTURAL RESPONSE	5559
<i>F. Toffol, C. Bisagni</i>	
EXPLORING MULTI-FIDELITY AEROELASTIC TAILORING: PROSPECT AND MODEL ASSESSMENT	5569
<i>H.F. Maathuis, S.G.P. Castro, R. De Breuker</i>	
FAST TRANSONIC CORRECTIONS FOR PANEL METHODS USING VISCOUS-INVISCID INTERACTION	5585
<i>A. Crovato, P. Dechamps, A.P. Prado, P.H. Cabral, V.E. Terrapon, G. Dimitriadis</i>	

AEROELASTIC TAILORING BASED ON VIRTUALLY-GENERATED ALLOWABLES AND HIGH ORDER FINITE ELEMENTS FOR IMPROVED COMPOSITE WING AEROELASTIC TAILORING BASED ON VIRTUALLY-GENERATED ALLOWABLES AND HIGH ORDER FINITE ELEMENTS FOR IMPROVED COMPOSITE WING DESIGN	5597
<i>P.H. Cabral, A.P. do Prado, E. Carrera, A. Pagani, A. Racionero Sánchez-Majano, M. Enea</i>	
THE EFFECTS OF ENGINE MASS AND LOCATION ON THE FLUTTER CHARACTERISTICS OF AIRCRAFT WINGS	5609
<i>J.R. Banerjee, A. Ananthapuvirajah, P.H. Cabral</i>	
ENHANCING THE PERFORMANCE OF SLENDER STRUCTURES WITH GEOMETRIC CONSTRAINTS: A CASE STUDY WITH THE ROORDA FRAME.....	5636
<i>L. Zhu, J. Shen</i>	
NOVEL TEST RIG TO DEMONSTRATE A MULTI FUNCTIONAL FLAP MECHANISM OFFERING A 2ND DEGREE OF FREEDOM.....	5646
<i>J. Docter, H. Pijlman, D. de Wit, J. Vervliet, J. Katarzynski, R. Postma, K.-J. Bisschop, J. Vroon</i>	
A-BASIS AND B-BASIS BUCKLING ALLOWABLES FOR AN AIRCRAFT COMPOSITE WING.....	5665
<i>R.A.S. Cardoso, M.S. Reis, L.P.S. Ferreira</i>	
LARGE-SCALE STRUCTURAL DYNAMIC TOPOLOGY OPTIMIZATION DESIGN FOR AIRCRAFT VIBRATION REDUCTION UNDER RANDOM EXCITING RESPONSE	5678
<i>S. Xiao, L.-Y. Liu, H.-M. Xue, M.-Q. Wang, D.-Y. Chen</i>	
OPTIMIZATION DESIGN OF MULTI-SCALE ACTIVE COOLING STRUCTURE FOR AIRCRAFT	5691
<i>P. Xu, Q.-X. Mu, W.-N. Zhang</i>	
MULTI-OBJECTIVE DESIGN OPTIMIZATION OF A MORPHING AILERON FOR A HYBRID ELECTRIC REGIONAL AIRCRAFT	5707
<i>A. De Gaspari, V. Cavalieri, M. Corti, S. Ricci</i>	

VOLUME 9

CONCEPTUAL DESIGN OF HYDROGEN-POWERED AIRCRAFT: HIGH ASPECT RATIO WINGS AND FLOATING WINGTIPS	5721
<i>F. Healy, H. Gu, D. Rezgui, J. Cooper</i>	
DYNAMIC BUCKLING ANALYSIS OF THIN-SHELL COMPOSITE STRUCTURES BASED ON ISOGEOMETRIC ANALYSIS.....	5742
<i>H. Qiu, Y. Guo, Z. Guan, H. Zhu, Y. Pan</i>	
FINITE ELEMENT MODEL UPDATE OF VERY FLEXIBLE AIRCRAFT BASED ON GROUND VIBRATION TESTS	5754
<i>C.E.S. Cesnik, S. Sharqi</i>	
OPTIMIZATION OF COMPOSITE WING STRUCTURE FOR TILT-DUCT AIRCRAFT CONSIDERING DISCRETE AND CONTINUOUS DESIGN VARIABLES.....	5772
<i>S.-R. Xu</i>	
ROTOR DYNAMIC LOADS CHARACTERISTIC ANALYSIS WITH BLADE TIP TWIST DISTRIBUTION	5783
<i>Z. Yu, J. Huang, Q. Jiang, F. Fan</i>	

NUMERICAL AND EXPERIMENTAL RESEARCH ON AEROELASTICITY OF HIGH-ASPECT-RATIO WINGS	5795
<i>J. Liu, W. Qian, X. Hu, X. Ai, X. Ran</i>	
REDUCED ORDER MODELLING OF UNSTEADY AERODYNAMICS FOR GROUND FLUTTER TEST SYSTEM	5806
<i>W.-Z. Feng, J.-H. Zhang, Z.-H. Liang, W. Qian</i>	
INVESTIGATION ON INFLUENCE PARAMETER OF AIRCRAFT-MISSILE SEPARATION BY CONSIDERING AEROELASTICITY	5816
<i>Y. Zhang, H. Zhan, B. Mi, M. Zhang</i>	
ANALYSIS AND STUDY ON FLUTTER CHARACTERISTICS OF WINGS UNDER TYPICAL FRAGMENT DAMAGE.....	5833
<i>M. Zhang, H. Zhan, B. Mi, Y. Zhang, Y. Liu</i>	
SANDWICH COMPOSITES SKIN PANEL OPTIMIZATION FOR THE COMMON RESEARCH MODEL WING	5847
<i>Y.M. Meddaikar, J.K.S. Dillinger, W.R. Krüger, R. De Breuker</i>	
ADVANCED MULTIDISCIPLINARY DESIGN OF NEXT-GENERATION GREEN AIRCRAFT	5863
<i>L. Pustina, R.M. Galassi, M. Blandino, F. Mastroddi</i>	
ON THE FUTURE OF TRANSONIC FLIGHTS: CURVED PLANFORM WINGS FOR BUFFET-ONSET CONTROL	5879
<i>M.R. Chiarelli, S. Bonomo, G. Cascinelli</i>	
ADAPTIVE WING FLUTTER SUPPRESSION BY MEANS OF MULTIPLE TRAILING EDGE CONTROL SURFACES - A COMPARATIVE STUDY.....	5891
<i>C.R. Vindigni, G. Mantegna, A. Esposito, C. Orlando, A. Alaimo</i>	
EXPERIMENTAL INVESTIGATION AND NUMERICAL ANALYSIS OF THE EFFECT OF TEMPERATURE ON THE MECHANICAL PROPERTIES OF AEROSPACE COMPOSITE-METAL HYBRID JOINTS	5900
<i>R. Hou, B.T. Wang</i>	
DESIGN OF A BODY FREEDOM FLUTTER FLIGHT MODEL WITH CONVENTIONAL CONFIGURATION.....	5913
<i>X. Tian, Y. Gu, Z. Yang</i>	
GUST LOAD ALLEVIATION IN A SCALED UAV DEMONSTRATOR	5926
<i>A. Herwig, M. Haupt, T. Brack, J. Bustamante, S. Heimbs</i>	
DYNAMIC DROP SIMULATION OF THE MAIN LANDING GEAR OF A GENERAL AVIATION AIRCRAFT	5937
<i>N. Li, H. Wang, Z.Q. Li, Z.H. Wang</i>	
PRELIMINARY STRUCTURAL DESIGN OF A HIGH ASPECT RATIO TRANSPORT AIRCRAFT WITH LAMINAR WING.....	5964
<i>M.R. Ritter, M. Schmalz, M. Fehrs</i>	
AEROELASTIC DIVERGENCE AND FLUTTER ANALYSIS OF A WING WITH ALL MOVING WING TIP.....	5979
<i>W. Wang, W. Qian, X. Ai</i>	

EFFICIENT AEROSTRUCTURAL DESIGN OPTIMIZATION COMBINING GRADIENT- ENHANCED KRIGING WITH COUPLED ADJOINT METHOD	5992
<i>H.-J. Guo</i>	
SEMI-ANALYTICAL SENSITIVITY METHODS FOR AEROELASTIC SHAPE OPTIMIZATION.....	6005
<i>G.M. Gagliardi, M.D. Kulkarni</i>	
NUMERICAL METHOD TO DETERMINE STRUCTURAL ELEMENT REDUCED STIFFNESS FOR DESIRED COMPOSITE WING STRUCTURES CONFIGURATIONS	6022
<i>S. Stammel, C. Bisagni</i>	
COMPUTATIONAL/EXPERIMENTAL AEROELASTIC STUDY FOR AN ALL-MOVABLE HORIZONTAL TAIL WITH TORSION FREE-PLAY	6032
<i>X.-Y. Ai</i>	
EXPERIMENTAL VALIDATION OF THE DYNAMIC FINITE ELEMENT MODEL OF A 1:8 SCALE SEAPLANE USING A LASER DOPPLER VIBROMETER (LDV).....	6043
<i>F. Lovero, G. Biggi, S. Lombardi, M.A.C. Costa, V. Amore, E. Cestino</i>	
NUMERICAL INVESTIGATION OF PASSIVE AND ACTIVE ALLEVIATION OF DYNAMIC LOADS ON HIGH-ASPECT-RATIO-WING VEHICLES	6060
<i>C.W. Cheng, S. Duessler, R. Palacios, G. Wilson</i>	
STUDY OF AEROELASTIC PROBLEM OF RUDDER SYSTEM WITH ELECTRIC ACTUATOR AND STRUCTURAL NONLINEARITIES.....	6068
<i>W. Qian, W.-Z. Feng</i>	
DETECTION OF DELAMINATIONS IN DAMAGED COMPOSITE PLATES VIA LOCAL DAMAGE RESONANCE APPROACH.....	6077
<i>F. Nicassio, A.P. Fontanella, M. Cinefra, G. Scarselli</i>	
FREE VIBRATIONS OF CYLINDRICAL SHELLS WITH CUTOUTS BY A SINGLE-DOMAIN RITZ FORMULATION.....	6087
<i>A. Milazzo</i>	
MULTIPHYSICS MODELING FOR SAFE BATTERIES USING LS-DYNA	6101
<i>G. Di Mauro, M. Guida, G. Olivares, L.M. Gomez</i>	
COUPLED THERMOELASTIC ANALYSIS OF BEAM STRUCTURES USING A REFINED 1D FINITE ELEMENT MODEL.....	6116
<i>M. Filippi, R. Azzara, M. Santori, M. Petrolo, E. Carrera</i>	
AEROELASTIC ISSUES IN THE DESIGN OF HIGH ASPECT RATIO STRUT-BRACED WING AIRCRAFT	6126
<i>E. Roncolini, F. Toffol, S. Ricci</i>	
RANDOM MATRIX MODELLING FOR UNCERTAINTY QUANTIFICATION IN PRESTRESSED STRUCTURES.....	6141
<i>A. Mannoosseril, S. Adhikari, A.P. Prado, P.H. Cabral</i>	
EFFICIENT MULTI-FIDELITY REDUCED-ORDER MODELING FOR FLUTTER PREDICTIONS ACROSS MULTIPLE MACH NUMBERS	6160
<i>X. Wang, X. Peng, H. Liu, J. Kou, W. Zhang</i>	

ANALYTICAL STUDY ON HYDROSTATIC RESPONSE CHARACTERISTICS DURING WATER LANDINGS OF AMPHIBIOUS AIRCRAFT	6174
<i>F. Sun</i>	
REVIEW ON NONLINEAR AEROELASTIC ANALYSIS WITH FREEPLAY	6180
<i>Y. Sun, Z. Han, H. Cao, W. Cheng, Z. Wu, C. Yang</i>	
PARAMETERISATION OF NONLINEAR AEROELASTIC REDUCED ORDER MODELS WITH AERODYNAMIC AND STRUCTURAL NONLINEARITY	6206
<i>M. Candon, E. Hale, M. Balajewicz</i>	
HIGHER-ORDER 1D STICK MODELS FOR THE FLUTTER ANALYSIS OF AIRCRAFT STRUCTURES	6219
<i>E. Zappino, M. Santori, M. Petrolo, E. Carrera</i>	
MODELING AND VALIDATION OF MORPHING WING TRAILING EDGE BASED ON ZERO POISSON'S RATIO HONEYCOMB	6230
<i>S.-Y. Sun, H.-Z. Wang, R. Yang, W. Qian</i>	
INVESTIGATING AN OPTIMAL AEROELASTIC DESIGN FOR AIRCRAFT WINGS WITH DISTRIBUTED PROPELLERS MADE OF COMPOSITES	6242
<i>M. Abouhamzeh</i>	
STRUCTURAL DESIGN OF NEXT-GENERATION REGIONAL GREEN AIRCRAFT	6253
<i>L. Pustina, F. Mastroddi, P. Della Vecchia</i>	
STOCHASTIC BUCKLING ANALYSES OF LAMINATED COMPOSITE PLATES UNDER HYGROTHERMAL, GEOMETRIC AND MATERIAL UNCERTAINTIES MODELED AS NON-GAUSSIAN RANDOM FIELDS	6276
<i>H.E.A.A. Santos</i>	
ACTIVE CONTROL DAMPING WITH THE USE OF VOICE COIL ACTUATORS	6289
<i>G. Cardellino, T. Melz, R. Feldmann, C. Adams</i>	
A FORMULATION FOR WING AEROELASTIC ANALYSIS BASED ON THE UNSTEADY VLM AND STRUCTURAL DISCONTINUOUS GALERKIN TECHNIQUE.....	6302
<i>F. Montano, I. Benedetti, V. Gulizzi</i>	
A PRELIMINARY METHODOLOGY TO ASSESS GUST SPECTRA VIA SATELLITE DATA.....	6311
<i>E. Carrera, A. Pagani, M. Valente, G. Palaia</i>	
BIRD AND DRONE IMPACT DAMAGE PROGNOSIS OF ON-DEMAND AIR MOBILITY SERVICE AIRCRAFT ENGINE	6322
<i>H. Raza, P. Vaghela, E. Stumpf</i>	

05 - PROPULSION

ON THE WATER ENHANCED TURBOFAN CONCEPT: PART B – FLOW PATH AND MASS ASSESSMENT	6337
<i>J. Häßy, A. Görtz, M. Schmelcher, J. Schmeink, M. El-Soueidan</i>	
FLOW CHARACTERISTICS OF THE INLET IN TURBOPROP ENGINE WITH THE INFLUENCE OF SANDS.....	6355
<i>B. Mi, H. Zhan, J. Yu</i>	

STUDY OF HYBRIDISATION SCENARIOS FOR TURBOPROP AIRCRAFT IN THE GENERAL AVIATION SEGMENT	6367
<i>F. Lutz, J. Jézégou, M. Budinger, A. Reysset</i>	
DESIGN AND ANALYSIS OF A SCALED COMPOSITE UHBR FAN BLADE FOR WIND TUNNEL TESTS	6386
<i>B.A.T. Noordman, W.J. Vankan</i>	
HYDROGEN-POWERED SOLID OXIDE FUEL CELL - GAS TURBINE SYSTEM FOR AERONAUTICAL APPLICATION.....	6397
<i>D. Kierbel, T. Neuland, P.-E. Roux, P. Nehter, J. Hollmann, C.N. Dagli, P. Köhler, S. Kabelac, A.G. Rao, F. de Domenico, M. Hoogreef, L. Van Biert, F. Yin, C. Rossignol, L. Dessemond, M.C. Steil, P. Maas, F. Winter, C. Warsch, S.S. Ventura, M. Metten, M.P. Heddrich, S.A. Ansar</i>	
DESIGN OF A WIND TUNNEL MODEL FOR A REUSABLE LAUNCH VEHICLE DURING ITS LANDING BURN.....	6409
<i>A.T. Hoang, N.J. Lawson, T. Bykerk</i>	
MODEL-BASED CONCEPTUAL DESIGN AND EVALUATION OF A SOLID-FUEL SCRAMJET VEHICLE.....	6419
<i>M. Bhardwaj, S. Rajashankar, N. Ananthkrishnan, A. Sharma, W.-D. Ki, H.-J. Namkoug</i>	

VOLUME 10

ON THE WATER ENHANCED TURBOFAN CONCEPT: PART A - THERMODYNAMICS AND OVERALL ENGINE DESIGN	6446
<i>A. Görtz, J. Häfÿ, M. Nickl, A. Lessis, M. Schmelcher, M. El-Soueidan</i>	
RAMJET/SCRAMJET TEST BENCH WITH CAVITY INJECTION OF HYDROGEN	6463
<i>F. Strauss, T. Nilsson</i>	
PROPULSIVE CFD ANALYSIS OF THE SCRAMJET HYPERSONIC EXPERIMENTAL VEHICLE.....	6475
<i>O. Russo, P. Roncioni, M. Marini, S. Di Benedetto, G. Ranuzzi, S. Pizzurro, M. Albano</i>	
MODELLING AND INITIAL ASSESSMENT OF A FUEL CELL AUXILIARY PROPULSION AND POWER UNIT.....	6488
<i>M.G. Kolb, A. Seitz, B. Türkyilmaz, Y. Ma, M. Hornung</i>	
UNSTEADY AERODYNAMICS OF A COUPLED COMPACT INTAKE-FAN IN CROSSWIND	6508
<i>L. Lobbuono, D. MacManus, R. Christie, L. Boscagli</i>	
KNOWLEDGE-BASED TURBINE DISK MODELING – A CONCEPTUAL DESIGN PROCESS CALIBRATED TO THE NASA ENERGY EFFICIENT ENGINE	6525
<i>P. Wehrel, J. Schmeink, J. Häfÿ</i>	
A MOMENTUM-INTEGRAL METHOD TO CALCULATE WINDAGE LOSSES ON A ROTATING DRUM WITH SUPERPOSED FLOW	6545
<i>H. Tuo, P. Liu, S. Ding, T. Qiu, C. Liu, R. Cheng</i>	
NUMERICAL SIMULATION OF HEAT TRANSFER IN MINIATURE RADIALLY ROTATING SODIUM/POTASSIUM HEAT PIPES	6560
<i>G. Li</i>	
INFLUENCE OF MOTOR CHARACTERISTICS ON OPTIMAL PROPROTOR DESIGN	6577
<i>S. Shahjahan, D. Verstraete</i>	

AN EXPERIMENTAL SIMULATION ON THE INFLUENCE OF DIFFERENT FILM COOLING HOLE SHAPES ON PARTICLE DEPOSITION ON TURBINE VANE.....	6592
<i>Z. Liu, R. Ruan, L. Cheng, Y. Zhang, Z. Liu, D. Wu</i>	
AERODYNAMIC OPTIMIZATION OF HIGH-ALTITUDE PROPELLER COMBINED WITH MACHINE LEARNING METHOD	6606
<i>D. Li, Z. Ge, R. Cui, L. Yang, C. Wei, W. Song</i>	
AERODYNAMIC PERFORMANCE OF BLADELESS DUCTED FAN BASED ON EJECTION EFFECT WITH DIFFERENT DESIGN VARIABLES.....	6616
<i>K. Han</i>	
CFD-BASED SCOUTING FOR THE DESIGN OF A MULTI-FUEL KEROSENE/HYDROGEN ATMOSPHERIC BURNER	6636
<i>L. Palanti, L. Mazzei, C. Bianchini, S. Link, K. Dave, F. De Domenico, A.G. Rao</i>	
AIRPORT CHARGING SYSTEM DESIGNS AND POWER MANAGEMENT FOR MEGAWATT-LEVEL CHARGING OF BATTERY-ELECTRIC AIRCRAFT.....	6652
<i>J. Hellgren, M. Persson, H. Alfredsson</i>	
FAST PREDICTION METHOD FOR RADIAL GROWTH OF LABYRINTH SEAL CLEARANCE BASED ON TRANSIENT THERMAL-FLUID COUPLING NETWORK	6667
<i>Z. Li, C. Liu, P. Liu, Y. Wang, X. Jin, S. Ding</i>	
BASE FLOW CHARACTERISTICS FOR A SUB-SCALE HIGH-SPEED EXHAUST AT OVER-EXPANDED MODE	6683
<i>S. Tsentis, I. Goulos, S. Prince, V. Pachidis, V. Zmijanovic</i>	
EXPERIMENTAL AND NUMERICAL INVESTIGATIONS OF A SWIRL-STABILIZED JET ENGINE COMBUSTOR	6697
<i>B.O. Cakir, D. Sanned, P. Vauquelin, M. Prakash, J.-P. Hannappel, A. Subash, M. Richter, X.-S. Bai, C. Fureby</i>	
PERFORMANCE ASSESSMENT OF AN ENGINE-INTEGRATED CLOSED-AIR COOLING THERMAL MANAGEMENT SYSTEM IN A NEXT GENERATION FIGHTER CONFIGURATION.....	6709
<i>T. Matuschek, J. Häßy, M. Schmelcher, A. Görtz</i>	
FUEL CONSUMPTION MONITORING OF TURBOPROP ENGINE.....	6721
<i>J. Juracka, Z. Hubnerova</i>	
SUSTAINABLE FUELS SAFETY BOUNDARIES DEMARCATION METHOD.....	6732
<i>T. Qiu, S. Bao, S. Ding</i>	
EFFECTS OF SHAPE AND STREAMWISE SPACING OF PIN-FINS ARRAYS ON FLOW AND HEAT TRANSFER.....	6746
<i>L.W. Li, T.L. Dong, W.T. Ji, J.M. Wu</i>	
GRADIENT-BASED OPTIMIZATION OF AN AXIAL COMPRESSOR UNDER INLET DISTORTION USING BODY-FORCE MODELING	6763
<i>C. Dosne, R. Barrier, S. Bourasseau, M. Carini, A. Dumont, J. Peter</i>	
EVALUATION AND SIMULATION OF PARALLEL HYBRID ELECTRIC PROPULSION WITH REAL FLIGHT DATA	6788
<i>H. Murphy, C. Gallagher, C. Stuart, S. Spence, S. Fitzgerald</i>	

LOW ENERGY CONSUMPTION DESIGN METHOD AND STRATEGY FOR HIGH-ALTITUDE PROPELLERS BASED ON FLIGHT PROFILE	6801
<i>M. Zhang, J. Jiao, J. Zhang, Z. Zhang</i>	
EFFECT OF POPULAR ADDITIVE MANUFACTURING TECHNOLOGIES ON THE PERFORMANCE AND ACOUSTICS OF UAV PROPELLERS.....	6810
<i>J. García-Tíscar, P. Quintero, F.N. Ramírez, A. Cremades</i>	
AERODYNAMIC DEFORMATION EXPERIMENT OF SERPENTINE NOZZLE FOR TURBOFAN AND ANALYSIS OF FLUID-STRUCTURE INTERACTION METHOD	6822
<i>Q.-L. Li, L. Zhou, Z.-X. Wang, X.-B. Zhang, S. Huang</i>	
EXPERIMENTAL AND NUMERICAL INVESTIGATION ON SEPARATION CHARACTERISTICS OF SERPENTINE CONVERGENT-DIVERGENT NOZZLE.....	6837
<i>M.-X. Wang, L. Zhou, J.-W. Shi, W.-J. Deng, H. Xiao</i>	
COMPARISON OF LIFE CYCLE COST FOR MACH 8 AND MACH 5 HYPERSONIC PASSENGERS AIRCRAFT	6856
<i>L. Pugliese, D. Ferretto, R. Fusaro, N. Viola</i>	
NOVEL SOFTWARE-DRIVEN VARIABLE-PITCH AND LEVEL FLIGHT CONTROL SYSTEM: PRINCIPLES AND APPLICATIONS FOR SMALL AIRCRAFT WITH A QUADROTOR CASE STUDY.....	6871
<i>X. Xiong, S. Wu</i>	
PSYCHOACOUSTICAL ANALYSIS OF SYNTHESIZED MOTOR-PROPELLER ROTOR SYSTEM NOISE	6885
<i>J.H. Jeong</i>	
ASSESSING THE TECHNICAL VIABILITY OF ALL-ELECTRIC HYDROGEN-POWERED AIRCRAFTS	6897
<i>P. Marocco, M.C. Massaro, A.H.A. Monteverde, M. Santarelli</i>	
DEEP LEARNING BASED FAST PREDICTION OF AERODYNAMIC PARAMETERS FOR DUCTED PROPELLERS	6907
<i>L. Liu, L. Zeng, T. Wang, Z. Gao, X. Shao</i>	
MULTI-DIMENSIONAL DESIGN AND THERMAL PROTECTION CAPABILITY OF A REGENERATIVE COOLED RBCC VARIABLE-GEOMETRY COMBUSTOR	6916
<i>L. Zhang</i>	
SAFETY-DRIVEN BASELINING OF HYBRID ELECTRIC AIRCRAFT ELECTRICAL POWER SYSTEM ARCHITECTURES.....	6927
<i>K. Fong, P. Norman, C.E. Jones</i>	
PROJECTION OF KEY POWERTRAIN COMPONENT FIGURES OF MERIT FOR OVERALL ASSESSMENT OF ELECTRIC FLIGHT SCENARIOS	6945
<i>A. Link, S. de Graaf</i>	
DESIGN APPROACH FOR HYBRID ELECTRIC PROPULSION CONCEPTS OF MID-RANGE AIRCRAFT INCLUDING SUSTAINABLE AVIATION FUELS	6960
<i>K. Ziaja, D. Lieder, J. Göing, J. Friedrichs, F. di Mare</i>	
MODELLING A HYDROGEN FUELLED COMPOSITE CYCLE AEROENGINE	6973
<i>A. Johansson, P. Miltén, A. Lundblad</i>	

A SENSITIVITY ANALYSIS ON THE ENDURANCE EQUATION FOR HYBRID-ELECTRIC AIRCRAFT	6990
<i>A. Batra, R. Raute</i>	
INSTRUMENTATION OF A SUBSCALE GROUND EFFECT VEHICLE, VOLITAN, TO MEASURE FLIGHT PROPULSION EFFICIENCY	7002
<i>C. Fischer</i>	
EXPERIMENTAL AND NUMERICAL INVESTIGATION OF NOISE GENERATION IN HYDROGEN AND METHANE-HYDROGEN LAMINAR FLAMES	7008
<i>F.G. Schiavone, M. Durand, M. Torresi, S.M. Camporeale, T. Schuller, D. Laera</i>	
CHALLENGES OF INTEGRATING PHOTOVOLTAIC CELLS ONTO THE WINGS OF AN UNMANNED SOLAR-POWERED AIRCRAFT.....	7021
<i>R. Lopusiewicz, N. Ksiazek</i>	
DESIGN SPACE EXPLORATION OF NEXT-GENERATION SUPERSONIC BUSINESS JET ENGINE WITH A FOCUS ON LANDING AND TAKE-OFF (LTO) NOISE	7031
<i>D. Del Gatto, S. Adamidis, C. Mourouzidis, S. Brown, V. Pachidis</i>	
LOW-SPEED PROPELLER FOR UAV APPLICATIONS, FROM DESIGN TO EXPERIMENTAL EVALUATION	7042
<i>M. Crona, S. Dinger, P. Samuelsson, H. Strömfeldt, I. Jonsson</i>	
 <u>06.1 - FLIGHT DYNAMICS AND CONTROL (CONTROL & MODELLING)</u>	
LINEAR QUADRATIC PURSUIT AND EVASION DIFFERENTIAL GAME GUIDANCE STRATEGY WITH OBSTACLE AVOIDANCE	7050
<i>X. Wang, M. Yang, P. Ma, T. Chao</i>	
LEARNING-BASED FULL-ENVELOPE AUTOPILOT DESIGN BASED ON THE KOOPMAN OPERATOR THEORY	7060
<i>Y. Lee, J. Kim, Y. Kim</i>	
APPLICATION OF CLUSTERING TECHNIQUES IN OPTIMISATION-BASED FLIGHT CONTROL SYSTEM CLEARANCE.....	7072
<i>P. Piprek, P.M. Dias, J. Tonti, D. Schwalb</i>	
SYSTEM ARCHITECTURE AND EVALUATION METHOD OF HUMAN-MACHINE COLLABORATION IN FLIGHT CONTROL SYSTEM	7084
<i>J. Che, X. Chen, S. Che</i>	
STRUCTURED H-INFINITY DESIGN OF PREDICTORS FOR THE MONITORING OF AN AIRCRAFT IN ITS FLIGHT ENVELOPE.....	7094
<i>K.H. Kienitz</i>	
INFLUENCE OF CONTROL POWER RATE ON HIGH-ALPHA ROLL MANOEUVRABILITY	7106
<i>P. Månsson</i>	
STUDY ON CONFIGURATIONS OF AIRBORNE LAUNCH SYSTEM FOR DELIVERY OF SMALL PAYLOAD TO LOW EARTH ORBIT	7124
<i>T. Goetzendorf-Grabowski, L. Kiskowiak, A. Kwiek, P. Zalewski, K. Chudy, M. Figat</i>	
A GENETIC ALGORITHM FOR TRAJECTORY GENERATION IN ENGINE-OUT EMERGENCY LANDING SCENARIOS OF COMMERCIAL AIRCRAFT	7140
<i>J. Gauci</i>	

A COMPARISON OF TRAJECTORY GENERATION ALGORITHMS FOR A TERRAIN FOLLOWING FLIGHT	7158
<i>H. Lee, S. Lee</i>	

VOLUME 11

TRAJECTORY OPTIMIZATION FOR LONG-RANGE AIR-LAUNCHED GLIDING VEHICLES USING CONVEX PROGRAMMING	7168
<i>C.-G. Jung, C.-H. Lee, M.-J. Tahk</i>	

ATTITUDE CONTROL DESIGN FOR A FLYING-CRAWLING INTEGRATED FLAPPING-WING MICRO AIR VEHICLE	7180
<i>Z.Y. Yuan, W.Y. Yang, J.X. Xuan</i>	

DATA ORIENTED EVALUATION OF FLIGHT CHARACTERISTIC MODELS BY USING BAYES FACTOR.....	7191
<i>M. Naruoka, T. Ninomiya</i>	

A MODEL PREDICTIVE CONTROL ALGORITHM FOR THE FORMATION CONTROL OF NANOSATELLITES IN LEO ORBIT	7204
<i>C. Santoro, S.R. Bassolillo</i>	

INTEGRATING POST-OPTIMAL SENSITIVITIES INTO SUPERVISED TRAINING OF NEURAL NETWORKS.....	7212
<i>J. Diepolder, J.Z. Ben-Asher</i>	

AILERON-FLAP-INTEGRATED ROLL CONTROL LAW BY OPTIMIZED CONTROL ALLOCATION FOR FLEXIBLE TRANSPORT AIRCRAFT	7222
<i>H. Wilke, G.C. Silva, F.J. Silvestre</i>	

DYNAMICS ANALYSIS AND CONTROL OF A LARGE WINGSPAN FLAPPING-WING VEHICLE.....	7237
<i>C. Zhai, B. Song, Q. Fu, J. Xuan, J. Li</i>	

DATA-DRIVEN MODEL DISCOVERY AND CONTROL OF HIGH-PERFORMANCE TRAINER AIRCRAFT VIA SPARSE IDENTIFICATION OF NONLINEAR DYNAMICS.....	7250
<i>M.-W. Kang, D.-W. Lee, S.-H. Yun, H.-C. Bang</i>	

VALIDATION OF ENERGY CHARACTERISTICS IN FLIGHT CONTROL SYSTEM BASED ON A MULTIDISCIPLINARY VIRTUAL PLATFORM.....	7264
<i>Y. Wang, M. Sun, J. Fu</i>	

FAULT DETECTION FOR AN AIRCRAFT ELEVATOR	7276
<i>F.C. Antoniazzi, A.G.P. Sarmiento, E. Villani</i>	

PILOT INDUCED OSCILLATIONS AND FLIGHT PHASES IDENTIFICATION OF THE SPACE SHUTTLE AND TRANSPORT AIRPLANES	7285
<i>S. Kolb</i>	

ASSISTED AND AUTOMATED AERIAL REFUELLING – OVERVIEW OF THE CONDUCTED RESEARCH AT THE GERMAN AEROSPACE CENTER (DLR).....	7300
<i>T. Jann, N. Fezans, A. Koloschin, S.-O. Schmidt, P. Link, J. Ament, S. Krause</i>	

PURSUIT-BASED LONG-RANGE AIR-TO-AIR MISSILE MIDCOURSE GUIDANCE ROBUST TO CHANGES IN THE PREDICTED IMPACT POINT	7324
<i>M. Shin, M.-J. Tahk, B. Kim, C.-H. Lee</i>	

CONVEX PROGRAMMING APPROACH OF ROBUST POWERED DESCENT GUIDANCE THROUGH DYNAMIC TUBE MPC.....	7332
<i>J.-I. Jang, C.-H. Lee, S. He</i>	
SELF-DRIVING AND MODEL-BASED EXTREMUM SEEKING CONTROL IN TIGHT FORMATION FLIGHT FOR FUEL SAVING.....	7344
<i>D.B. Rossato</i>	
ENERGY PREDICTION DURING APPROACH AND LANDING BASED ON LONG SHORT-TERM MEMORY MODEL	7360
<i>J.-Q. Yan</i>	
APPLICATION OF A MORE INTEGRATED TOTAL ENERGY CONTROL SYSTEM FOR IMPROVING AIRCRAFT AND ENGINE CONTROL EFFICIENCY	7368
<i>T. Giusti Degaspare</i>	
DOWNRANGE CONTROL GUIDANCE FOR REENTRY BURN OF REUSABLE LAUNCH VEHICLE.....	7381
<i>K.-W. Jung, C.-H. Lee</i>	
GROUND EFFECT ON A SLENDER 65° DELTA WING WITH SIDESLIP, IMAGE METHOD, USING EULER.....	7392
<i>R.K. Nangia, T. Nangia</i>	
MODELING AND FLIGHT CONTROL LAW DESIGN FOR A SEAPLANE DURING WATER SURFACE TAKEOFF.....	7401
<i>Y. Liu, Y.-H. Nong, X. Liu</i>	
FLYING V DIRECTIONAL FLIGHT CONTROL: AN EXPERIMENTAL INVESTIGATION.....	7409
<i>R. Vos, N. Johnson, S. Nolet</i>	
PREDICTIVE CONTROL DRIVEN TACTICAL MANEUVERING	7419
<i>J. Novák , J. Hanák, P. Chudý</i>	
TRAJECTORY DESIGN FOR ASTEROID SAMPLE RETURN COMBINING BALLISTIC CAPTURE AND AEROBRAKING.....	7431
<i>Z.-F. Luo, Y.-J. Lian</i>	
REENTRY TRAJECTORY DESIGN FOR DEFORMABLE HYPERSONIC VEHICLES BASED ON NEURAL NETWORKS	7450
<i>C.-K. Zhou, Z.-F. Luo, T. Zhang</i>	
OPTIMAL APPROACH AND DEPARTURE TRAJECTORIES WITH ACOUSTIC FOOTPRINT ASSESSMENT FOR AN AIR MOBILITY QUAD-ROTOR	7467
<i>C. Varriale, F. Yunus, M. Snellen</i>	
A NONLINEAR MODEL PREDICTIVE CONTROL METHOD FOR AIRBREATHING HYPERSONIC VEHICLE BASED ON KOOPMAN OPERATOR.....	7481
<i>C.R. Li, W.Q. Li, Y. Li, S. Tang</i>	
RESULTS OF THE SCALED FLIGHT DEMONSTRATOR FLIGHT TESTS.....	7492
<i>P. Schmollgruber, C. Toussaint, P. Iannelli</i>	
EXPLICIT MODEL FOLLOWING TRAJECTORY CONTROL SYSTEM FOR MULTIPLE VERTICAL TAKEOFF AND LANDING CONFIGURATIONS	7507
<i>A. Comer, I. Chakraborty</i>	

CONTROL ALLOCATION FOR A DISTRIBUTED ELECTRIC PROPULSION AIRCRAFT USING DIFFERENTIAL THRUST	7540
<i>C. Döll, S. Waitman</i>	

06.2 - FLIGHT DYNAMICS AND CONTROL (UAV RELATED)

ROBUST SLIDING MODE CONTROL FOR UAV FORMATION WITH EXTERNAL DISTURBANCES UNDER EVENT-TRIGGERED STRATEGY	7544
<i>L.H. Wang, A.J. Li, C.Q. Wang, Z. Yury</i>	

HYBRID MODELING APPROACH FOR OPTIMIZATION BASED CONTROL OF MULTIROTOR UNMANNED AERIAL VEHICLES.....	7557
<i>J. Novák , J. Hanák, P. Chudý</i>	

HAWK-INSPIRED COOPERATIVE ENCIRCLEMENT GUIDANCE OF FIXED-WING UAV SWARM WITH LIMITED COMMUNICATION IN THREAT SCENARIO	7567
<i>B.-Y. Qin, D. Zhang, S. Tang</i>	

MANNED AND UNMANNED AERIAL VEHICLES COOPERATIVE COMBAT FRAMEWORK BASED ON LARGE LANGUAGE MODELS.....	7584
<i>H. Shi, S. Li</i>	

ONBOARD TRAJECTORY OPTIMIZATION FOR RADIUS TO FIX TURNS	7606
<i>D.M. Gierszewski, P. Piprek, F. Holzapfel</i>	

MEDIAL AXIS TRANSFORMATION-BASED CONVEX MODEL PREDICTIVE CONTROL FOR MULTIROTOR INDOOR AUTONOMOUS FLIGHT WITH FIXED ALTITUDE	7625
<i>H.J. Ahn, H.C. Bang</i>	

FLIGHT MECHANICAL ANALYSIS OF A VERY FLEXIBLE HIGH-ALTITUDE PLATFORM UNDER UNCERTAINTY CONSIDERATIONS.....	7636
<i>Y.J. Hasan, N. Fezans, A. Voß</i>	

ENHANCING QUADCOPTER CONTROL: A MODEL REFERENCE ADAPTIVE CONTROL APPROACH WITH NEURAL NETWORKS	7655
<i>S.R. Bassolillo, G. Raspaolo, L. Blasi, E. D'Amato</i>	

DYNAMICS OF THE MECHANISM FOR VENTILATION ACROSS FEATHERS IN FLAPPING WING UAV	7664
<i>R.C. Silva, D.D. Bueno</i>	

A NOVEL APPROACH TO AUTOMATED TRACKING CONTROL OF HYBRID TILTING ROTOR UAVS USING LQG CONTROLLER AND STATE MACHINE	7681
<i>J.L. Kurniawan, P.B.A. Baylon, R.A. Sasongko</i>	

STUDY ON CONTROL PERFORMANCE OF A NEW TYPE OF TILT-ROTOR AIRCRAFT.....	7697
<i>K. Miyabe, M. Bando, S. Hokamoto</i>	

PASSIVE FAULT TOLERANT CONTROL OF A DUAL-SYSTEM UAV IN TRANSITION FLIGHT.....	7708
<i>J. Cai, M. Lovera</i>	

DESIGN OF ATTITUDE CONTROL SYSTEM FOR DRAGONFLY-INSPIRED FLAPPING WING AERIAL VEHICLE	7722
<i>L. Wang, X. Yang, Y. Luo, H. Chen, J. Li</i>	

A SIMULINK APPROACH TO MODELING HETEROGENEOUS DRONE FORMATIONS FOR AGENT-BASED SIMULATION	7735
<i>G. Raspaolo</i>	
FLIGHT CONTROL SYSTEM KNOWLEDGE GRAPH CONSTRUCTION BASED ON AERONAUTICAL DOMAIN KNOWLEDGE AUGMENTED LARGE LANGUAGE MODEL	7745
<i>Y. Fan</i>	
AERODYNAMIC MODEL IDENTIFICATION OF A VTOL TAILSITTER UAV USING SPARSE IDENTIFICATION OF NONLINEAR DYNAMICS	7755
<i>H.-S. Lee, D.-W. Lee, H.-C. Bang</i>	
AUTONOMOUS LANDING OF A QUADROTOR ON A MOVING TARGET WITH OCCLUSION AVOIDANCE MANEUVER	7767
<i>D. Kim, H.J. Kim</i>	
INCREMENTAL NONLINEAR DYNAMIC INVERSION CONTROLLER FOR A FLYING WING OPERATED IN AN AIRBORNE WIND ENERGY SYSTEM.....	7777
<i>D.F. Duda, H. Fuest, J. Müller, T. Islam, D. Moormann</i>	
ON THE DEVELOPMENT OF THE STRUCTURAL DIGITAL TWIN OF AN UNMANNED AERIAL VEHICLE.....	7798
<i>X. Zhou, M. Dziendzikowski, K. Dragan, M. Giglio, L. Dong, C. Sbarufatti</i>	
TRAJECTORY OPTIMIZATION OF EVTOL VEHICLES FOR URBAN AIR MOBILITY USING INDIRECT METHODS	7808
<i>K. Mall, R. Gadre, J. Gerardus, D.A. DeLaurentis</i>	
FUZZING ON TARGET DETECTION SYSTEM OF UNMANNED AERIAL VEHICLE.....	7823
<i>H. Dai, Z. Wang, J. Ding, G. Li, C. Wang, L. He, H. Liu</i>	
ADVANCED SOLUTIONS AND CHALLENGES IN MULTI-DRONE SYSTEMS FOR SEARCH AND RESCUE MISSIONS: TECHNICAL APPROACHES AND UNRESOLVED MATTER.....	7833
<i>E. D'Amato</i>	
MODEL PREDICTIVE CONTROL DRIVEN AERIAL GRASPING WITH SOFT OPERATIONAL CONSTRAINTS	7842
<i>J. Novák , J. Hanák, P. Chudý</i>	
HARDWARE-IN-THE-LOOP SIMULATION FRAMEWORK FOR THE EVALUATION OF AUTONOMOUS FLIGHT FUNCTIONS	7857
<i>D. Pla Guerrero, A. Hegde, J. Wan</i>	
FLIGHT PERFORMANCE AND DYNAMICS OF AN UNCONVENTIONAL SOLAR POWERED UAS.....	7867
<i>G. Charruaz, A. Borgia, A. Braghin, T. Bussi, A. Esposito, A. Pescosolido</i>	

VOLUME 12

ULTRA-LOW-ALTITUDE PENETRATION PATH PLANNING FOR FIXED-WING AIRCRAFT BASED ON NMP ALGORITHM	7887
<i>H.-X. Huang, D.-B. Li, P.-Y. Qi, Y.-X. Shang</i>	

IN-FLIGHT MEASUREMENT OF WING SURFACE PRESSURE DISTRIBUTION ON A FIXED-WING UAV AND ITS APPLICATION TO FLIGHT CONTROL	7895
<i>Y. Hayashi, J.-H. Kim, T. Tsuchiya</i>	
IN-FLIGHT VIBRATION SIGNAL BASED DETECTION AND LOCALIZATION FOR UAV PROPELLER ANOMALIES UNDER UNCERTAINTY VIA MACHINE LEARNING TYPE METHODS.....	7906
<i>I.A. Iliopoulos, J.S. Korolis, S.D. Fassois, J.S. Sakellariou</i>	
AN UAV MANEUVERING DECISION-MAKING ALGORITHM BASED ON DEEP TRANSFER REINFORCEMENT LEARNING	7921
<i>K. Li, K. Zhang, H. Liu, Y. Li, Q. Wang</i>	
DYNAMIC FREE FLIGHT TESTS WITH A SUB-SCALE AIRPLANE DESIGNED ACCORDING TO THE FROUDE NUMBER.....	7942
<i>C. Fischer</i>	
ADAPTIVE CONTROL AND MISSION PLANNER DESIGN FOR UAV OPERATIONS WITH BATTERY MANAGEMENT.....	7953
<i>A. Boldrini, G. Gozzini, D. Invernizzi</i>	
FLIGHT PATH RECONSTRUCTION OF A FLEXIBLE WING UAV WITH WING MOUNTED VANES	7973
<i>V.P. Fernandes, T.R. Paula, R.C. Nascimento, R.G.A. Silva, L.C.S. Góes</i>	
AN OPTICAL FLOW BASED GUIDANCE ALGORITHM FOR A QUADROTOR UAV MOVING INSIDE CIRCULAR CORRIDORS.....	7985
<i>A. Bagherzadeh, F. Saghafi</i>	

07 - SYSTEMS, SUBSYSTEMS AND EQUIPMENT

THE DESIGN FOR TESTABILITY OF CIVIL AIRCRAFT AVIONICS SYSTEMS	7997
<i>G.-M. Li, W.-T. Xie</i>	
FLIGHT TEST RESULTS FOR PERFORMANCE-BASED ICE DETECTION.....	8006
<i>C. Deiler</i>	
HYBRID AIR DATA SYSTEM ARCHITECTURE: FROM DESIGN TO FLIGHT TEST VERIFICATION	8028
<i>M. Rovelli, A. Brandl, S. Di Bitonto, F. Di Donfrancesco, E. Maruccia, I. Viglietti, D. Marchetti</i>	
SMART ELECTRIC POWER MANAGEMENT ONBOARD FUTURE AIRCRAFT.....	8042
<i>F. Cuomo, C. Musto, S. Bozhko</i>	
SIMULATION AND VERIFICATION OF HYDRAULIC ROTOR GAP PARAMETERS OF A NOVEL HIGH EFFICIENT WET ELECTRO MOTOR PUMP FOR AEROSPACE APPLICATIONS.....	8058
<i>R. Tirschmann, D. Metzler, T. Koch, M. Spieler, W. Nendel, L. Kroll</i>	
DEVELOPMENT OF AN ELECTRO-HYDROSTATIC NOSE LANDING GEAR ACTUATION AND STEERING SYSTEM	8073
<i>M.N. Duval, T. Lammering</i>	
HYDROGEN SAFETY: A COMPARATIVE ANALYSIS OF LEAK DETECTION SENSORS	8090
<i>O. Petrella, A. Martucci, P. Caruso, L. Travascio, A. Vozella</i>	

MEASURING THE ANGLE OF ATTACK – PRACTICAL CONSIDERATIONS FOR THE DEVELOPMENT OF FAULT DETECTION RESIDUALS	8107
<i>C. Raab, N. Fezans</i>	
DEVELOPMENT AND TESTING OF AN ACTUATION SYSTEM FOR A MORPHING CONTROL SURFACE.....	8124
<i>M. Schäfer, R. Keimer, O. Bertram</i>	
SENS4ICE EU PROJECT HYBRID ICE DETECTION ARCHITECTURES DEMONSTRATION RESULTS.....	8137
<i>C.W. Schwarz, C. Deiler, J. Lucke, T. Jurkat-Witschas, A. Orazzo, B. Thillays</i>	
CONFIGURATION ANALYSIS OF INTEGRATED THERMAL MANAGEMENT BASED ON THE TURBINE-FAN REFRIGERATION SYSTEM	8158
<i>H.-C. Ma, T. Guo, G.-D. Li, J.-B. Bai</i>	
INTEGRITY MONITORING OF TIGHTLY INTEGRATED BDS/SINS USING MULTI-HYPOTHESIS SOLUTION SEPARATION (MHSS) ALGORITHM.....	8170
<i>S. Sun, H. Wang, R. Liu, S. Kuang, W. Chen</i>	
DESIGNING A HARDWARE-IN-THE-LOOP SIMULATION TEST BED FOR AIRCRAFT ENERGY MANAGEMENT APPLICATIONS.....	8182
<i>A. Dell'Amico</i>	
POTENTIAL APPLICATION OF PHASE CHANGE MATERIALS FOR THERMAL MANAGEMENT SYSTEM OF NEXT GENERATION AIRCRAFT	8195
<i>E. Revello, M. Boccaccio</i>	
DEVELOPMENT OF THRUST CONTROL SYSTEM FOR SPACECRAFT'S DOCKING MANEUVER	8209
<i>H. Lee, H. Lee, S. Lee</i>	
ENHANCED SAFETY THROUGH AI: AN ASSESSMENT OF ADVERSARIAL REINFORCEMENT LEARNING FOR CONTROL OF COMPLEX AIRCRAFT.....	8217
<i>C. Koopman, D. Zammit-Mangion</i>	
FAILURE HANDLING ON A SPLIT-FLAP ULTRALIGHT GENERAL AVIATION AIRCRAFT WITH HYBRID NONLINEAR DYNAMIC INVERSION.....	8227
<i>D. Milz, M. May, J. Martins, R. Kuchar, G. Looye</i>	
PRELIMINARY ANALYSIS OF TEMPERATURE EFFECTS AND MANEUVER-INDUCED DEFORMATIONS ON FBG OPTIC FIBER INTEGRATED SYSTEMS.....	8243
<i>A. Aimasso, M. Bertone, C. Ferro, M.D.L. Dalla Vedova, P. Maggiore</i>	
EXPERIMENTAL RESULTS OF ANTENNA PLACEMENT TEST ON A CARBON-FIBER SCALE REPLICA OF THE S55X SEAPLANE	8255
<i>R. Fallucca, A. Iannuzzo, S. Gallina, E. Cestino, V. Sapienza</i>	
TOWARDS A HOLISTIC APPROACH TO INCREASE SUSTAINABILITY IN AIRCRAFT CABIN DESIGN.....	8272
<i>S. Wehrend, K. Zumach, L. Schwan, D. Krause</i>	
SIMPLIFIED MODELS OF PILOT BIOMECHANICS FOR ROTORCRAFT VERTICAL BOUNCE ANALYSIS	8285
<i>T. Aresi, A. Zanoni, G. Cassoni, P. Masarati</i>	

ANGLE AND DISTANCE EFFECT ON PHOSPHOR THERMOMETRY	8302
<i>Q. Yin, Y. Quan, L. Ma, J. Liu, J. Chai, J. Liu, L. Zhang</i>	
RESEARCH ON MODELING THE TEMPERATURE FIELD OF A NEW AEROSPACE SERVO ELECTRO-HYDROSTATIC MODULE BASED ON THERMO-MAGNETIC BIDIRECTIONAL COUPLING ANALYSIS.....	8312
<i>X. Hu, Y. Fu, D. Lyu, M. Sun, S. Zhao</i>	
VIBRATION ANALYSIS AND INFLUENCING FACTOR STUDY OF HELICOPTER HYDRAULIC PIPELINE	8332
<i>S. Yang, S. Huang, Y. Wang, Y.-P. Huang</i>	
AN IMPROVED END-TO-END STAR MAP RECOGNITION METHOD FOR AEROSPACE VEHICLE.....	8346
<i>Y. Zhang, Y. Yang, Q. Xiao, R. Li, Z. Xu</i>	
AERODYNAMIC DESIGN METHODOLOGY OF A NON-UNIFORM PERFORATED INVERSE CONICAL FLOW SPREADER IN INTERMITTENT BLOW DOWN WIND TUNNEL	8360
<i>Q.-H. Nghiem, T.-G. Nguyen, B.-M. Pham, P.-M. Nguyen</i>	
MODEL-BASED DESIGN OF ACTIVE/ACTIVE ELECTRO-HYDROSTATIC ACTUATION FOR HELICOPTER FLIGHT CONTROLS	8370
<i>M.-W. Sun, J. Fu, D.-C. Lyu, J.-C. Mare</i>	
NUMERICAL METHOD FOR DESIGNING AND MODELING AN EXHAUST CLUSTER FOR A SMALL TURBOJET ENGINE TEST CELL	8387
<i>T.-G. Nguyen, Q.-H. Nghiem, P.-M. Nguyen</i>	
MULTIPLATFORM SIMULATION USING ROS.....	8397
<i>C.C.D. Silva, Y. Castro, A. Sarmiento, E. Villani</i>	
ENHANCED AIRCRAFT TAKEOFF/LANDING SAFETY USING DEEP LEARNING MODEL IN RUNWAY ASSISTANCE SYSTEM.....	8407
<i>N.L. Ywet, A.A. Maw, J.W. Han, J. Chung</i>	
ATTITUDE ESTIMATION USING KALMAN FILTERING FOR SPACEBORNE SAR SYSTEMS.....	8421
<i>Y. Ding, D. Xu, Y. Li, Z. Fang, T. Chen, H. Zhang</i>	
EXPLORING A CATEGORY OF LIMIT CYCLE OSCILLATIONS IN AIRCRAFT HYDRAULIC SYSTEMS.....	8433
<i>S. Yang, Y. Long</i>	
VOID FRACTION CALCULATION MODEL BASED ON TWO-PHASE FLOW PATTERNS IN THE SCAVENGE PIPE	8444
<i>J.-W. Xie, P.-F. Zhu, J.-P. Hu, Y.-G. Lyv, Z.-X. Liu</i>	
MULTI SENSOR AND MULTI TASK ALLOCATION BASED ON IMPROVED WHALE OPTIMIZATION ALGORITHM	8458
<i>B. Yuan, S. Zhang, B. Wang</i>	
A STUDY ON THE AIRLOCK MECHANISM OF THE OIL SUPPLY PUMP IN AERO-ENGINE LUBRICATING OIL SYSTEM	8474
<i>S. Zhang</i>	
MODELING AND ANALYSIS OF ELECTRO-HYDROSTATIC ACTUATORS EFFICIENCY	8487
<i>C. Jiang, Y. Shang, T. Yu, Z. Liu, M. Li</i>	

PRELIMINARY DESIGN OF POWER CONTROL STRATEGIES FOR THE HYBRID-ELECTRIC PROPULSION SYSTEM OF A LIGHTWEIGHT FIXED-WING UAV	8499
<i>G. Di Rito, A. Suti</i>	
DUAL STAGE BATTERY SIZING AND PERFORMANCE ASSESSMENT ON-BOARD HYBRID ELECTRIC AIRCRAFT	8507
<i>A. Wise, S. Bozhko, S. Yeoh, S. Sumsurooah, C. Manrique</i>	
DEVELOPMENT OF UAVS/DRONES EQUIPPED WITH THERMAL SENSORS FOR THE SEARCH OF INDIVIDUALS LOST UNDER RUBBLE DUE TO EARTHQUAKE COLLAPSES OR ANY EVENTUALITY REQUIRING SUCH CAPABILITIES.....	8517
<i>J.A. Herrera Velasco</i>	
NONLINEAR BEHAVIOR IN AIRCRAFT FUEL GAUGE READINGS: AN EXPLORING ANALYSIS.....	8536
<i>M.A.D. Di Marzo, O.A. Gonzatto Junior, H.N. Najafabadi</i>	
PRELIMINARY ASSESSMENT FOR STRUCTURAL BATTERY COMPONENTS.....	8554
<i>G. di Mauro, M. Guida, G. Olivares, L.M. Gomez, R. Turco, R. Tesser, S. Mallardo, G. Santagata, P. Russo</i>	

08 - MANUFACTURING AND SUPPLY CHAIN MANAGEMENT

THE PRODUCTION OF HIGH-PERFORMANCE HEAT EXCHANGERS FOR AEROSPACE APPLICATIONS.....	8567
<i>J. Shipley, A. Magnusson, J. Gårdstam, C. Beamer, A. Cassese</i>	
A SUPPORTING FRAMEWORK FOR AIRCRAFT MRO OPERATIONS. CAPACITY PLANNING, TASKS TRACEABILITY AND DISEMBARKED ITEMS TRACKING	8576
<i>F. Martone, G. Zazzaro, M. Inverno, S. De Luca</i>	
COMPUTER VISION ALGORITHMS FOR THE IDENTIFICATION OF DAMAGES ON FULL-SCALE AIRCRAFT COMPONENTS.....	8595
<i>S. Merola , M. Guida, F. Marulo</i>	

VOLUME 13

THERMAL AND GRINDING PERFORMANCE OF 3D PRINTED COMPLIANCE GRINDING TOOLS WITH ROTARY-ENHANCED HEAT TRANSFER STRUCTURE	8607
<i>M.C. Li</i>	
REDESIGN AND MACHINING OF LEADING EDGE OF TRANSONIC COMPRESSOR BLADE IN ROBOTIC GRINDING OPERATION	8618
<i>H. Li, L. Zou, W. Wang, L. Gui</i>	
PRELIMINARY RESULTS FOR AN INSTRUCTION DESIGN PROCEDURE IN AERONAUTICAL MANUFACTURING	8629
<i>M. Bartolomei, F. Barravecchia, L. Mastrogiacomo, F. Franceschini, F. Acerra, D.M. Gatta, D. Cannizzaro</i>	
BUILDING METHODS FOR A COMPOSITE CONSTRUCTED VTOL USING 3D PRINTING TECHNIQUES.....	8645
<i>T. Müller, V. Gollnick</i>	

PRESERVING HUMAN EXPERTISE: EXPLORING MIXED REALITY TRAJECTORY PLANNING FOR ROBOTIC BELT GRINDING	8670
<i>W.-X. Wang, H.-L. He, T.-Y. Zhou</i>	
A DIGITAL METHOD FOR THE COMPENSATED MOLD DESIGN OF COMPOSITE PARTS.....	8685
<i>E. Delsol, I. Taouil, W. Azoti, B. Castanie, P. Olivier, L. Ratsifandrihana</i>	
VALUE-DRIVEN TRADESPACE EXPLORATION FOR AIRCRAFT DESIGN, MANUFACTURING AND SUPPLY CHAIN	8698
<i>G. Donelli, J.M.G.D. Mello, F.I.K. Odaguil, T. Van der Laan</i>	
EFFECTS OF PROCESSING STRATEGIES ON SURFACE QUALITY AND MECHANICAL PROPERTIES IN HYBRID ADDITIVE MANUFACTURING OF IN718 ALLOY.....	8712
<i>T. Wang, C. Wang, J.-J. Li, W.-X. Wang</i>	
CYBER-PHYSICAL SYSTEM IMPLEMENTATION FOR THE AR-ASSISTED AIT OF AEROSPACE COMPONENTS	8725
<i>J. Pesce, A. Carini, M. Marinacci, M. Boscia, P. Marzioli, M. Pasquali, M. Eugeni, M. Mecella, P. Piergentili, P. Gaudenzi</i>	
DESIGN AND DEVELOPMENT OF THE VISUAL AND AUDITORY LAYER FOR DIFFERENT CABIN/COCKPIT LAYOUT	8742
<i>A. Alaimo</i>	
UNCERTAINTY PROPAGATION IN VALUE-DRIVEN DECISION-MAKING FOR THE AIRCRAFT, MANUFACTURING AND SUPPLY CHAIN DESIGN	8754
<i>G. Ascione, G. Donelli, L. Boggero, B. Nagel</i>	
LIGHT WEIGHT DESIGN AND LASER ADDITIVE MANUFACTURING OF METAL BIPOLAR PLATES FOR THE APPLICATION OF AIRCRAFT FUEL CELL.....	8769
<i>K.J. Lin</i>	
FRICITION RIVETING OF THERMOPLASTIC COMPOSITE WITH A CNC MACHINE: EXPERIMENTAL WORK.....	8786
<i>I. Tan, G. Cohen, A.-C. Araujo, A. Daidié</i>	
AN ONTOLOGY-BASED APPROACH FOR THE CO-DEVELOPMENT AND OPTIMIZATION OF AIRCRAFT CABIN DESIGN AND ASSEMBLY ARCHITECTURES.....	8796
<i>Y. Ghanjaoui, J.H. Bussemaker, J. Biedermann, B. Nagel</i>	
DESIGN OF A SUSTAINABLE FLEXFORMING PROCEDURE FOR AERO ENGINE COMPONENTS IS ALLOY 718	8811
<i>P. Ottosson, E.-L. Westman, I. Nygren</i>	
 <u>09 - AIR TRANSPORT SYSTEM EFFICIENCY</u>	
ATM CONTROLLER SUPPORT IN CASE OF SPACIOUS SEVERE WEATHER CONSTELLATIONS ILLUSTRATED USING TWO AIRSPACE EXAMPLES	8824
<i>L. Nöhren, O. Gluchshenko, M.-M. Temme, K. Muth</i>	
MITIGATING THE CLIMATE IMPACT OF AVIATION BY OPERATIONAL MEANS - A COMPARATIVE STUDY FOR DIFFERENT WEATHER SITUATIONS	8837
<i>Z.L. Zengerling, M. Mendiguchia Meuser, A. Lau, V. Gollnick</i>	

CHARACTERISING THE ROLE OF FLEET RENEWAL ON THE PATHWAY TO 2050: A EUROPEAN AIRLINE CASE STUDY	8853
<i>N. Barry, C. Gallagher, S. Fitzgerald</i>	
COMPARING CONVECTIVE WEATHER IMPACTS ON AIR TRAFFIC MANAGEMENT OPERATIONS IN UNITED STATES, CANADA & EUROPE.....	8873
<i>G. Enea, T. Reynolds, J. Venuti, T. Polishchuk, V. Polishchuk, A. Lemetti, A. Lau, J. Solzer, T. Bölle</i>	
ESTIMATING THE IMPACT OF NUMERICAL WEATHER PREDICTION DATA MODELS ON SHORT-HAUL MINIMUM COST TRACKS.....	8888
<i>N.K. Wickramasinghe, Y. Nakamura, A. Senoguchi</i>	
COMPARING THE CAPACITY OF DIFFERENT VERTIPOINT TOPOLOGIES USING DISCRETE EVENT SIMULATION.....	8899
<i>E. Wille</i>	
DEVELOPMENT OF LOW ALTITUDE 4-DIMENSIONAL OPERATIONS MANAGEMENT SYSTEM FOR ADVANCED AIR-MOBILITY.....	8913
<i>T. Iijima, N. Matayoshi, N. Yokoyama, H. Yoshida, A. Oosedo, S. Kikkawa, M. Yawata, S. Nakada, T. Yahata</i>	
CLASSIFICATION OF EXTENDED REALITY BASED HUMAN MACHINE INTERFACES SCENARIOS FOR URBAN AIR MOBILITY	8923
<i>M. Gomes Araujo, C. Conte, F. De Crescenzo, D. Accardo</i>	
CORUS-XUAM: TACKLING URBAN AIR MOBILITY AIRSPACE INTEGRATION CHALLENGES.....	8933
<i>G. Riccardi, L. Brucculeri, E. Fornaciari</i>	
A COMPREHENSIVE METHODOLOGY FOR PERFORMING PROSPECTIVE LIFE CYCLE ASSESSMENTS OF FUTURE AIR TRANSPORT SCENARIOS	8978
<i>F. Pollet, T. Planès, S. Delbecq</i>	
RELATIONSHIPS BETWEEN AIRCRAFT ROUTES AND TURBULENCE-RELATED WEATHER DATA.....	9001
<i>Y. Nakamura, A. Senoguchi</i>	
ROUTE PLANNING FOR VOLCANIC ASH AND RADIOACTIVITY IN-SITU DRONE MEASUREMENTS USING A GENETIC ALGORITHM AND KRIGING	9010
<i>K.A. Buchtal, A. Lau, D. Ebert, J. Richters, K. Schneiders</i>	
OVERVIEW OF FACTORS RELATED TO AIRCRAFT OPERATION ASSOCIATED WITH A NEGATIVE IMPACT ON THE ENVIRONMENT	9024
<i>D. Kacik</i>	
EXPLORING RIDESHARING IN PASSENGER URBAN AIR MOBILITY: A COMPARATIVE ANALYSIS.....	9036
<i>A. Edsel, S.D. Biswas, M. Kilbourne, R. Gadre, S. Vashi, K. Mall, W.A. Crossley, D.A. DeLaurentis, M.D. Patterson, B.E. Sells</i>	
SPEED GATED INTERCEPT PROCEDURE STUDY FOR INTEGRATION OF INCREASING DIVERSE OPERATIONS (IDO) AT EUROPEAN AIRPORTS.....	9056
<i>T. Welsch, M.-M. Temme</i>	

AIRPORT INFRASTRUCTURE SIZING FOR A REGIONAL ELECTRIC AVIATION NETWORK.....	9074
<i>F. Vehlhaber, M. Salazar</i>	
DESIGN OF A UAM GROUND INFRASTRUCTURE NETWORK WITH RESPECT TO MAINTENANCE CAPACITY REQUIREMENTS.....	9084
<i>M. Swaid</i>	
PAIRWISE SWAPPING SEQUENCE OPTIMIZATION BY METROPOLIS-HASTING ALGORITHM WITH QUANTUM ANNEALING FOR AIR TRAFFIC CONTROL	9098
<i>N. Yoshikawa</i>	
PROBING AND MODELING LARGE-SCALE AIRLINE NETWORK DISRUPTIONS: 2022 SOUTHWEST AIRLINES SCHEDULING CRISIS	9104
<i>M. Peng, A. Kamat, V. Tran</i>	
LOW-ALTITUDE INTEGRATED AIRSPACE OPERATIONS OF AIRCRAFT FLYING UNDER VISUAL FLIGHT RULES: THE VERTICAL DIMENSION.....	9125
<i>A. Andreeva-Mori, K. Ohga, K. Kobayashi</i>	
MODELING TECHNIQUE FOR THE EVALUTAION OF ENVIRONMENTAL EFFECT OF FLIGHT-PATH NEAR AIRPORTS: THE CASE STUDY OF A NEW ROUTE AT NAPLES AIRPORT	9134
<i>M. Viscardi</i>	
WHAT-IF SCENARIO ANALYSIS OF REGIONAL AIR MOBILITY OPERATIONS IN SOUTH KOREA	9141
<i>J.C. Lee, S.K. Kim</i>	
AUTOMATED OPERATION OF HIGH-PERFORMANCE FIXED-WING DRONES: A POTENTIAL GAME-CHANGER FOR GREEN AERIAL SERVICES	9152
<i>M. Spieck</i>	
INTEGRATING ECO-EFFICIENT FLIGHT PLANNING IN AIRCRAFT CONCEPTUAL DESIGN: MINIMAL NOX ROUTES FOR HIGH-SPEED AIRCRAFT USING HYDROGEN.....	9167
<i>F. Borgna, V. Borio, R. Fusaro, N. Viola, G. Saccone</i>	
DEMAND CAPACITY BALANCING FOR URBAN AIR MOBILITY USING MULTIAGENT SIMULATION.....	9181
<i>G. Sato</i>	
DEVELOPMENT OF A NEW OPERATIONAL FRAMEWORK TO ACCOMMODATE STOCHASTIC AIR TRAFFIC FLOW AT TOKYO INTERNATIONAL AIRPORT	9192
<i>D. Iwata</i>	
TIME-BASED CONTROL TO REDUCE TRAJECTORY COMPLEXITY IN THE FLOW-CENTRIC AIR TRAFFIC CONTROL PARADIGM.....	9205
<i>K. Tominaga, N. Inoue, M. Schultz</i>	
VALIDATING FLOW-BASED EN ROUTE AMAN COUPLING ESCAPE LIGHT WITH AIRTOP SOFTWARE.....	9220
<i>K. Sekine, P. Bouchaudon</i>	
A ROADMAP FOR TRANSFORMING TRADITIONAL ATCO TEAMS INTO COLLABORATIVE HUMAN-MACHINE TEAMS.....	9232
<i>T. Finck</i>	

STRUCTURED ANALYSIS ESTIMATION FOR ELECTRICAL ENERGY DEMAND ON AIRPORT OPERATIONS FOR HYBRID REGIONAL AND ELECTRIC TOWING PARAMETERIZED BY MOVEMENT METRICS CONSIDERING UPCOMING ELECTRIC INTENSIVE TECHNOLOGIES AND EMISSION REDUCTIONS IN THE UPCOMING DECADE.....	9245
<i>T. Oliveira, A. Carvalho</i>	
EXTENDED REALITY IN AIRPORT CONTROL TOWERS: FROM CONCEPT DESIGN TO PRELIMINARY ASSESSMENT OF AN INNOVATIVE HUMAN-MACHINE INTERFACE FOR AIR TRAFFIC CONTROL OPERATORS.....	9252
<i>S. Bagassi, M. Corsi, T. Fadda</i>	
APPLICATIONS AND CHALLENGES FOR AIRBORNE AD-HOC COMMUNICATION NETWORKS IN ORP AIRSPACES USING THE L-BAND	9262
<i>T. Marks, A. Hillebrecht, M.A. Bellido-Manganell</i>	
ADVANCED HUMAN MACHINE INTERFACES FOR DRONE MONITORING: ASSESSMENT OF THE TECHNOLOGICAL FRAMEWORK FOR THE DESIGN OF AN AUGMENTED REALITY INTERFACE	9280
<i>S. Bagassi, T. Fadda, M. Corsi</i>	
AI-ASSISTED DESIGN OF UAV DOCKING STATION NETWORK FOR DUAL USE PURPOSES	9294
<i>A. Avi, G. Quaranta, A. Valentini</i>	
WEATHER-AWARE INTEGRATED AIRPORT/AIRSPACE CAPACITY PREDICTION TECHNOLOGIES.....	9306
<i>T. Reynolds, K.C. Woodrow, H. Iskenderian, D. Johnson, M. Matthews, J. Venuti, M. Worris, G. Enea, B. Crawley</i>	
FEASIBILITY STUDY ON OPERATIONAL FLIGHT PLANS ADAPTED FOR TRAJECTORY BASED OPERATION.....	9318
<i>A. Harada</i>	

VOLUME 14

NASA RESEARCH TO EXPAND UAS OPERATIONS FOR DISASTER RESPONSE	9328
<i>K. Ellis, M. Johnson, N. Neogi, J. Homola</i>	

10 - SAFETY AND SECURITY

SLEEPINESS IN BRAZILIAN AVIATION: A PROBLEM-SOLVING APPROACH.....	9340
<i>V. Gomes, T. Paiva, A. Herculano, T. Dias, M.M. Cardoso-Junior, M.C. Belderrain</i>	
IDENTIFICATION OF FACTORS CONTRIBUTING TO UNFAVORABLE LANDINGS	9352
<i>R. Mori</i>	
STUDY ON THE BALLISTIC-RESISTANT AIRWORTHINESS STANDARDS FOR COMMERCIAL AIRCRAFT COCKPIT DOOR.....	9361
<i>T. Hu, J. Song, N. Yue, Z. Zhang, Y. Zhang, T. Chen</i>	
VALIDATING ASSUMPTIONS ABOUT PILOT RECOGNITION: A PCM-BASED APPROACH FOR AIRCRAFT CERTIFICATION SAFETY ASSESSMENT PROCESS	9370
<i>D.M.C. de Lima, D.C. Fernandes, M.M. Cardoso Junior</i>	

MOREALIS – A HOLISTIC APPROACH TO ENHANCE SAFETY FOR MICRO-AIRCRAFT OPERATIONS.....	9381
<i>R.O. Kuchar, W. Scholz, B. Dörfler</i>	
DECODING AN IN-FLIGHT REFUELING INCIDENT: AVIATION COMPLEXITY THROUGH STAMP/CAST AND ACCIMAP METHODS	9397
<i>J.G. Fowler, D.C. Fernandes, D.M.C. de Lima, G.V. da Rocha, M.M. Cardoso Júnior</i>	
FROM THA TO REAL-TIME MONITORING: INTEGRATING NEW VIEW OF SAFETY INTO FLIGHT TEST PROGRAMS.....	9417
<i>T.F. Macedo, M.M. Cardoso Junior</i>	
INSIGHTS INTO HUMAN FATIGUE: STATISTICAL ANALYSIS IN AIRCRAFT MAINTENANCE.....	9442
<i>J.C. Silva</i>	
A SYSTEMATIC REVIEW OF HUMAN FACTORS AND AI INFLUENCING OPERATOR PERFORMANCE IN MUM-T ENVIRONMENTS	9454
<i>I. de Souza Rehder, M.M. Cardoso Júnior, E. Villani</i>	
PILOT FATIGUE DETECTION USING BP NEUTRAL NETWORKS.....	9472
<i>C.-R. Huang, H.-L. Shi</i>	
ASSESSING MENTAL WORKLOAD AND INTERFACE USABILITY IN MILITARY PILOTS: AN ADVANCED EYE-TRACKING METHODOLOGY	9490
<i>A.C. Russo</i>	
REMOTE OBSERVATION EXPERIMENT OF VOLCANIC ASH USING POLARIZATION LIDAR.....	9501
<i>H. Inokuchi, H. Oikawa, G. Morimoto</i>	
GENERATION AND COMMUNICATION OF STRATEGIC PLANS AT DIFFERENT LEVELS OF ABSTRACTION FOR INTELLIGENT ASSISTANCE SYSTEMS IN GENERAL AVIATION.....	9511
<i>P. Jamakatel, J.J. Kiam</i>	
THE IMPACT OF PIEZOELECTRIC STACK HEATING ON AIRCRAFT DEICING	9521
<i>L. Yuan, B. Miao, K. Yan, C.L. Zhu</i>	
INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS OF WINGS UNDER ICING CONDITIONS AT VARIOUS SWEEP ANGLES.....	9530
<i>X. Xu, Y. Zhang, G. Chen, X. Ma</i>	
HELICOPTER ACCIDENTS IN BRAZIL: AN ANALYSIS OF MAINTENANCE FROM THE PERSPECTIVE OF HUMAN FACTORS	9536
<i>F. de Assis da Silva Junior, J.M. Vieira da Fonseca, I.N.M. da Silva, A.V. Gaspar, M.M. Cardoso Junior</i>	
PILOT SAFETY – SUPPORT BY BIOMEDICAL MONITORING IN PILOTS WITH HEALTH RISKS.....	9547
<i>M. Lindlar, J. Klennert</i>	
MIXED FLIGHT CONTROL LAYOUT FOR ULTRALIGHT GENERAL AVIATION AIRCRAFT	9565
<i>M. May, D. Milz, W. Scholz, P. Herrmann, J. Karger, L. Peters, N. Mumm, R. Kuchar</i>	
A FAST INFORMATION THEORETICALLY SECURE RADIO COMMUNICATION PROTOCOL BASED ON GNSS POSITIONING	9581
<i>S. Morioka</i>	

A METHOD FOR AUTOMATIC GENERATING SAFETY ANALYSIS BASED ON AVIATION PISTON ENGINE MODEL	9597
<i>G. Li, Y.-D. Teng, Z.-L. Wang, T.-G. Xu, S.-T. Ding</i>	
SENSITIVITY ANALYSIS OF SAFETY FACTORS BASED ON MODEL OF AVIATION RECIPROCATING ENGINE TURBOCHARGING SYSTEM.....	9608
<i>Z. Wang</i>	
MUTUAL POSITION PLAUSIBILITY CHECKING IN FLYING AD-HOC NETWORKS USING DISTANCE MEASUREMENTS	9622
<i>T. Marks</i>	
COMPARATIVE ANALYSIS OF EVTOL, DRONE AND GROUND TRANSPORTATION SYSTEMS FOR EMERGENCY DELIVERY OF BLOOD-DERIVED MEDICATION	9635
<i>D. Angelini, E. Cestino, D. Cestino, F. Cattel</i>	
SENSOR AND COVERAGE PATH PLANNING FOR THE MONITORING OF AIRCRAFT EMERGENCY LANDING SITES.....	9653
<i>D. Nospes, P. Stütz</i>	
ENABLING AIRWORTHINESS SECURITY BY A HOLISTIC SECURITY ENGINEERING PROCESS AT VARIOUS AIRCRAFT DESIGN LEVELS	9663
<i>M. Blecken, H. Hintze, R. God</i>	
DYNAMIC RESPONSE MONITORING OF FLIGHT CONTROL WITH INCREMENTAL NONLINEAR DYNAMIC INVERSION	9675
<i>H. Hofstätter, F. Holzapfel</i>	
METAMODELLING OF THE WORKLOAD ASSESSMENT IN SIMULATED FLIGHTS USING THE KRIGING METHOD	9686
<i>A. Esposito, G. Iacolino, C. Orlando, A. Alaimo</i>	
A CALL TO ACTION TO ENGAGE THE COMMUNITY TO MEET THE CHALLENGES THAT MUST BE TACKLED TO MAKE ELECTRIFIED AIRCRAFT PROPULSION REAL.....	9697
<i>V.P. Schultz</i>	
HANDLING QUALITIES RATING SCALE: THE IMPACT OF THE PILOT SUBJECTIVITY IN WORKLOAD EVALUATION.....	9704
<i>M.D. Turazza, J.P.C.A Macedo , J.H. Bidinotto</i>	
CLASSIFICATION OF COGNITIVE LOAD BASED ON THE PILOT' VISUAL SCAN PATTERNS.....	9717
<i>J. Yao</i>	
IMPROVING DISTRIBUTION OF CRASH ENERGY ABSORPTION FOR CIVIL AIRCRAFT BASED ON PROGRESSIVE BENDING FAILURE MECHANISM.....	9730
<i>T.-J. Jiang, Z.-P. Luo, Z. Kan, J.-W. Xiang, X.-C. Liu, C.-Y. Bai, X.-L. Xi</i>	

11 - OPERATIONS AND SUSTAINMENT

MIXED REALITY FOR AIRCRAFT STRUCTURAL DENT AND BUCKLE NON- DESTRUCTIVE EVALUATION	9742
<i>A.-K. Koschlik, M.J. Scott, T. Keser, F. Rauscher, H. Meyer, W. Verhagen, P. Marzocca, F. Raddatz, G. Wende</i>	

DIGITAL TWIN OF AN AIRCRAFT LANDING GEAR TO ENHANCE FAILURE ANALYSIS AND MANAGE PREDICTIVE MAINTENANCE.....	9758
<i>D.Y. Sabag, O. Yakimenko</i>	
APPLICATION OF NATURAL LANGUAGE PROCESSING FOR AIRCRAFT DEFECT TRACKING IN MAINTENANCE OPERATIONS.....	9779
<i>M.J. Scott, O. Kirkpatrick, W. Verhagen, V. Kekoc</i>	
A DESIGN OF VFR APPROACH AND DEPARTURE PROCEDURES OF UAM AT VERTIPTS ADJACENT TO THE AIRPORT	9791
<i>S. Kim, O. Park, H.-S. Shin</i>	
CINNABAR PROJECT – COST-BENEFIT ANALYSIS OF DIGITAL PROCESSES FOR NON-DESTRUCTIVE INSPECTIONS OF AIRCRAFT STRUCTURES.....	9808
<i>J. Aigner, A.-K. Koschlik, H. Meyer, F. Raddatz, G. Wende</i>	
CINNABAR PROJECT - AUGMENTED REALITY WORKFLOW FOR AIRCRAFT DENT & BUCKLE INSPECTION.....	9825
<i>T. Keser, R. Schmied-Kowarzik, A.-K. Koschlik, L. Kaschub, M.J. Scott</i>	
A NOVEL DEEP MULTIMODAO INFORMATION FUSION MODEL FOR AERO-ENGINE STATE PREDICTION.....	9836
<i>Y. Huang, G. Sun, J. Tao, J. Feng</i>	
CINNABAR PROJECT: EXAMINING REQUIREMENTS FOR USER ACCEPTANCE OF AIRCRAFT STRUCTURE INSPECTION IN AUGMENTED REALITY	9847
<i>R. Schmied-Kowarzik, T. Keser, L. Kaschub, A.-K. Koschlik, R. Rodeck, G. Wende</i>	
DIGITALISATION AND SUSTAINABILITY IN CABIN DESIGN: SYNERGIES AND DEPENDENCIES	9863
<i>M.C. Berschik, S. Wehrend, F.N. Laukotka, D. Krause</i>	
THE JOURNEY TOWARDS CONDITION-BASED MAINTENANCE: A FRAMEWORK FOR THE HORIZONTAL TAIL ACTUATOR OF AN ADVANCED JET TRAINER AIRCRAFT	9873
<i>L. Baldo, A. De Martin, M. Ternner</i>	
CLIMATE RESILIENCE – THE IMPACT OF EXTREME WEATHER EVENTS - A CASE STUDY: HEATHROW AIRPORT	9892
<i>M. Osund-Ireland, B. Elzen</i>	
ENSURING THE NEXT GENERATION GREEN AIRCRAFT’ SUSTAINABILITY FROM THE DESIGN PHASE VIA A LIFE-CYCLE COST ANALYSIS.....	9902
<i>E. Stefana, E. De Paola, L. Pustina, R. Patriarca, F. Mastroddi</i>	
AN EMPIRICAL AND CUSTOMISABLE FLEET RENEWAL MODEL FOR PROSPECTIVE SCENARIOS USING OPEN-ACCESS DATA.....	9915
<i>P. Viry, T. Planès, S. Delbecq, L. Joly</i>	
ASSESSMENT OF A HIGHLY PARAMETERIZED STEADY-STATE MICROSCALE WIND SIMULATOR FOR URBAN AIR MOBILITY APPLICATIONS	9938
<i>D.S. Nithya, G. Quaranta, V. Muscarello, M. Liang</i>	
SUSTAINABLE ENGINE MAINTENANCE: EVALUATING THE ECOLOGICAL IMPACT OF LIFE LIMITED PART REPLACEMENT.....	9949
<i>A. Oestreicher, A. Rahn, J. Ramm, J. Städing, C. Keller, K. Wicke, G. Wende</i>	

FASTVIBE SW TOOL FOR RIDE-ALONG VIBRATION SURVEY ANALYSIS	9968
<i>S. Bianchi, F. Negroni, M. Riganti</i>	
ENVIRONMENTAL AND ECONOMIC ASSESSMENT OF AN EVTOL AIRCRAFT FLEET FOR URBAN AIR MOBILITY	9986
<i>M. Fioriti, M. Borghi, G. Pavan</i>	
LIFE CYCLE ASSESSMENT OF ALTERNATIVE LAUNCH METHODS	9998
<i>S. Wildermuth, W. Veraburenon, T. Bellier, C. Bil</i>	
HOLISTIC AND SCALABLE SMART OPTIMIZATION FRAMEWORK FOR PRESCRIPTIVE MAINTENANCE.....	10016
<i>A. Giacotto, A.C. Pereira Mesquita, H. Costa Marques, A. Martinetti</i>	

VOLUME 15

FACTORS INFLUENCING THE CLIMATE-RELEVANT ENVIRONMENTAL IMPACT OF AIR TRANSPORT COMPARED TO RAIL AND ROAD TRANSPORT.....	10062
<i>J. Roesing</i>	
E-KEROSENE POTENTIAL FOR COMMERCIAL AVIATION DECARBONIZATION.....	10072
<i>G. Quaresma, L.B. Magalhães</i>	
COMPARATIVE ANALYSIS OF MACHINE LEARNING ALGORITHMS FOR HEAT EXCHANGERS DIAGNOSIS IN ELECTRIFIED AIRCRAFT	10085
<i>D.F. Migliore, G. D'Alessio, S. Caggese, A. De Martin, F. Acerra, M. Sorli, M. Fioriti</i>	
MRO FOR VTOLS IN A FUNCTIONAL SEQUENCES SOLUTION SPACE.....	10101
<i>S. Papakonstantinou, D. Kloock-Schreiber, M. Ziegler, A.N. Mishra</i>	
TOWARDS TRUSTWORTHY DATA-DRIVEN GAS TURBINE PROGNOSTICS	10119
<i>A. Apostolidis, S. Le Dantec</i>	
HYDROGEN TANKERING: TOOLS FOR ECONOMIC AND ENVIRONMENTAL IMPACT SCENARIO STUDIES.....	10130
<i>G. Sirtori, L. Trainelli, Z. Lahmam</i>	

14 - EDUCATION AND TRAINING

A TIERED CONTINUOUS CULTIVATING SYSTEM FOR AVIATION TECHNOLOGY TALENTS THAT INTEGRATES STEM AND POPULAR SCIENCE EDUCATION	10143
<i>J. Li, Y. He</i>	
TRANSFORMATIVE PEDAGOGY: CO-TEACHING COURSE CLUSTERS THROUGH COMPETITIVE TEAM DESIGNS FOR INNOVATIVE TALENT DEVELOPMENT IN AEROSPACE EDUCATION	10161
<i>M. Luo, H. Liu, X. Zhang, Z. Cui</i>	
DESIGN AND VISUALIZATION OF A KNOWLEDGE-BASED AIRCRAFT CABIN IN VIRTUAL REALITY.....	10171
<i>F. Prokic, C. Eriksson, R.C. Munjuluru</i>	

DESIGN BUILD AND FLY: A STUDENT APPROACH TO THE CREATION OF AN RC DRONE FOR UNIVERSITY COMPETITION.....	10188
<i>E. Gaspari, E. Bianchini, L. Pezzullo, A. Giorgi, M. Giannetti, D.M. Macchini, L. Ferrarini, F. Bondanese, S. Celli, T. Strafforello, U. Mignemi, A. Arnaldi, M. Ferrazzani, M. Sanna, D. Geraci, M.R. Chiarelli, A.A. Quarta, G. Palaia, L. Boni</i>	
LESSONS LEARNED FROM PROJECT BASED TEACHING IN AEROSPACE AT CHALMERS	10204
<i>I. Jonsson, C. Xisto, V. Chernoray, A. Capitaio Patrao</i>	
DESIGNING A FRAMEWORK FOR FLIGHT SIMULATOR TRAINING SCENARIOS. AN EVIDENCE BASED TRAINING APPROACH.....	10215
<i>G. Kontos, O. Lehmann</i>	
INTEGRATING UNMANNED AERIAL SYSTEMS INTO THE INTELLIGENT SYSTEMS ENGINEERING CURRICULUM	10227
<i>O.D. Dantsker</i>	
MICKEY MOUSE AND A GIANT: COMPARISON OF AERONAUTICS EDUCATION IN FINLAND AND CHINA	10237
<i>M. Kanerva, Y. Zhang</i>	
DLR DESIGN CHALLENGE 2024: DESIGN OF A COST AND ENERGY EFFICIENT REGIONAL AIRCRAFT	10245
<i>C. Ehrich, L. Kriebel, T. Schulz, M. Tekkel, L. Wauer, L. Wenz, L. Kugler, S. Müller, C. Niro</i>	
<u>15 - GUEST LECTURES</u>	
IFAR-X: COLLABORATIVE ENGINEERING FRAMEWORK FOR NEXT GENERATION OF AEROSPACE ENGINEERS WORKING ON AIRCRAFT DESIGN	10269
<i>S. Garg, A.M.P. Silva, P.F. Albuquerque, E. Nguyen Van</i>	
AIRCRAFT WING STRUCTURAL SIZING COMPUTATIONAL TOOL TAILORED FOR A COLLABORATIVE MULTIDISCIPLINARY DESIGN FRAMEWORK	10290
<i>P.F. Albuquerque, A.M.P. Silva, A. Pereira</i>	
NASA TRANSONIC TRUSS-BRACED WING STUDIES.....	10309
<i>D.P. Wells, G.M. Gatlin, J.C. June, T.V. Marien</i>	
OPTIMIZING FLEET ASSIGNMENT DECISIONS FOR REGIONAL AIRLINES WITH HYBRID ELECTRIC AIRCRAFT UPTAKE	10322
<i>B. Chan</i>	
DEVELOPMENT OF CORE TECHNOLOGIES FOR HYDROGEN AIRCRAFT	10340
<i>M. Kazari</i>	
STRUT-BRACED DRY WING CONCEPT FOR HYDROGEN-POWERED AIRCRAFT.....	10347
<i>M. Méheut, D. Losada Costoso, F. Moens, O. Atinault, C. Julien, L. Vertonghen, L. Coelho, V. Priasso, A. Lannoo, S. Defoort, E. NGuyen Van, C. David, D. Glenis, J. Sodja, S. de Boer, J. Schwingel, D. Eisenhut</i>	
AIRCRAFT DX IN COMMERCIAL AVIATION SYSTEMS.....	10373
<i>Y. Yamaguchi</i>	

SIZING AND PERFORMANCE ANALYSIS OF A MW-CLASS ELECTRIFIED AIRCRAFT PROPULSION (EAP) SYSTEM FOR A PARALLEL HYBRID TURBOPROP CONCEPT	10385
<i>D.D.V. Pham, C. Recine, R.H. Jansen</i>	
DEVELOPMENT OF AIRCRAFT SYSTEM ELECTRIFICATION AND HYBRID ELECTRIC PROPULSION	10402
<i>N. Seki, T. Inoue</i>	
REASSESSMENT OF PARAMETRIC OPTIMIZATION AND PERFORMANCE ANALYSIS METHODOLOGY FOR MILD HYBRID AIRCRAFT PROPULSION SYSTEMS	10411
<i>J. Gladin, E. Aydin, J. Kenny, A. Burell, J. Decroix, T. Zaidi, R. Gautier, D. Mavris</i>	
VEHICLE ASSESSMENT AND SYSTEM-WIDE BENEFIT ANALYSES OF HYBRID- ELECTRIC COMMERCIAL AIRCRAFT – ELECTRIFIED POWERTRAIN FLIGHT DEMONSTRATION PROJECT (EPFD)	10428
<i>K.D. James, A. Meade</i>	
A CFD VALIDATION ECOSYSTEM TO ADVANCE THE PREDICTION OF LOW-SPEED AERODYNAMICS	10436
<i>J.P. Slotnick</i>	
CHALLENGES IN GEOMETRY DEVELOPMENT FOR THE CRM-HL ECOSYSTEM.....	10452
<i>A.M. Clark, D.S. Lacy</i>	
THE CRM-HL ECOSYSTEM - DLR CONTRIBUTIONS	10475
<i>R. Rudnik, S. Pülm, F. Schmidt, J. Wild, A. Schröder, C. Spehr, P. Mühlmann</i>	
TEST SUMMARY OF THE FULL-SPAN HIGH-LIFT COMMON RESEARCH MODEL AT KHI AERO-ACOUSTIC LOW-SPEED WIND TUNNEL	10492
<i>T. Hashioka, Y. Murahashi, H. Yasuda, Y. Sawaki, S. Onda, Y. Tsuchimoto, Y. Nishizaki, W. Suzuki, T. Kawamura</i>	
HIGH-LIFT PREDICTION WORKSHOPS: RETROSPECTIVE, LESSONS LEARNED, AND FUTURE PROSPECTS.....	10526
<i>C.L. Rumsey</i>	
THE BEVERLI HILL EXPERIMENTS FOR SMOOTH-BODY TURBULENT FLOW SEPARATION - RETROSPECTIVE, LESSONS LEARNED, AND FUTURE PROSPECTS.....	10541
<i>C.J. Roy, K.T. Lowe, W.J. Devenport, A. Borgoltz, A. Gargiulo</i>	
ADVANCING URBAN AIR MOBILITY: COLLABORATIVE EXCELLENCE AND INFRASTRUCTURE INITIATIVES BY DLR.....	10551
<i>O. Bertram, B. Schuchardt, A. König, K. Wendt, P. Shiva Prakash</i>	
OPTIMAL WING ASPECT RATIO OF HIGHLY EFFICIENT LONG-RANGE AIRCRAFT.....	10564
<i>T.F. Wunderlich</i>	
EUROPEAN RESEARCH COUNCIL (ERC) - FUNDING OPPORTUNITIES AND REPRESENTATIVE PROJECT HIGHLIGHTS.....	10584
<i>G. Symeonidis</i>	
NABUCCO TAKE-OFF: MULTI-STABLE PANELS FOR AN ADAPTIVE WING	10593
<i>C. Bisagni</i>	
NASA HYBRID THERMALLY EFFICIENT CORE (HYTEC) PROJECT OVERVIEW	10602
<i>A.L. Nerone, J.M. Haglage, L.M. Nakley, R. Tornabene</i>	

TOWARDS SUSTAINABLE AVIATION WITH EFFICIENT AIRSPACE OPERATIONS.....	10613
<i>W.J. Coupe, S. Saxena</i>	
ENHANCING PUBLIC GOOD MISSIONS AND DISASTER RESPONSE WITH ADVANCED AERIAL TECHNOLOGY: OPPORTUNITIES AND CHALLENGES.....	10629
<i>A. Andreeva-Mori</i>	
RESEARCH RESULTS AND PERSPECTIVES ON NON-COOPERATIVE SENSING FOR SAFE UAM OPERATIONS.....	10648
<i>F. Vitiello, F. Causa, R. Opromolla, G. Fasano</i>	
SENSOR UNCERTAINTY MITIGATION FOR DETECT AND AVOID SYSTEMS.....	10660
<i>E. Theunissen</i>	
PRELIMINARY APPLICATION OF FORMAL VERIFICATION TO AN AUTONOMY ARCHITECTURE FOR UNMANNED AIRCRAFT	10675
<i>L.R. Humphrey, C.A. Muñoz</i>	
ON-GOING WILDLAND FIRE WORK AT THE NATIONAL RESEARCH COUNCIL OF CANADA WITH A FOCUS ON THE USE OF COTS RPAS FOR REDUCTION OF NON-FIRE PILOT WORKLOAD.....	10691
<i>G. Leblanc, G. Ifimov, M. Kalacska, O. Lucanus, J.P. Arroyo-Mora, J. Gorman, M. Wheatley</i>	
X-57 TRACTION POWER AND COMMAND SYSTEMS DEVELOPMENT	10695
<i>S. Clarke, J. Terry, K. Harris, D. Avanesian</i>	
FLIGHT PERFORMANCE ESTIMATES FOR THE NASA X-57 DISTRIBUTED ELECTRIC PROPULSION FLIGHT DEMONSTRATOR	10719
<i>N. Borer</i>	
DISTRIBUTED THRUST TAKEOFF FOR THE NASA X-57 MOD IV FLIGHT DEMONSTRATOR.....	10734
<i>N.K. Borer, R.D. Wallace, J.R. Reynolds, D.E. Cox, C. Sales, T.L. Williams, W.M. Ringelberg</i>	

Author Index