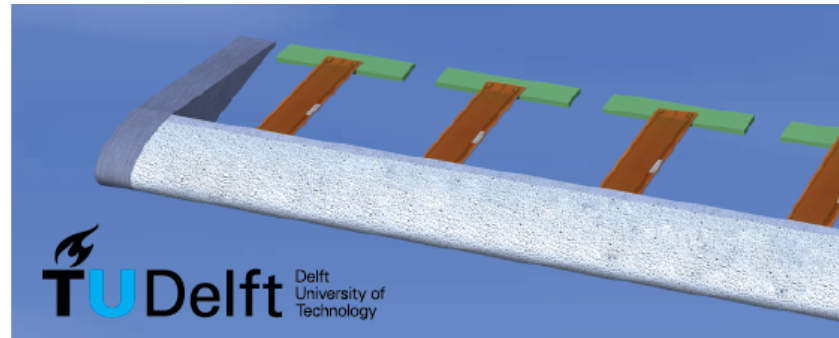


DeMEASS VI Conference
Ede, the Netherlands
25-28 May 2014



Programme

Sunday 25 May 2014

18:00 – 19:00	Conference registration	
19:00	Welcome dinner	

Monday 26 May 2014

08:30 – 08:50	Opening of the conference	Prof. Dr. Erasmo Carrera Dr. Roeland De Breuker
08:50 – 10:30	Session 1: CHANGE I	Prof. Dr. Yavuz Yaman Dr. Jurij Sodja
08:50 – 09:15	Multiscale computational modelling for mechanical properties of polymers	M. Papanikolaou
09:15 – 09:40	A hybrid trailing edge control surface concept	M. Sahin
09:40 – 10:05	A generic aeroelastic morphing wing analysis framework	N. Werter
10:05 – 10:30	Comparison span-wise and camber morphing for performance and efficiency	C. Beaverstock

10:30 – 10:50	<i>Break</i>	
10:50 – 12:30	Session 2: Sensing and control	Prof. Dr. Erasmo Carrera Dr. Marcias Martinez
10:50 – 11:15	Control system based on the analysis of biological signals for an artificial muscle applied to a hand prosthesis	A. Rubiano
11:15 – 11:40	The smart rotor: Load alleviation and power generation	L. Bernhammer
11:40 – 12:05	Structural design of distributed piezoelectric modal sensors for plate structures	S. Hoffmann
12:05 – 12:30	Load monitoring of a composite UAV wing using Rayleigh backscattering	M. Martinez
12:30 – 13:50	<i>Lunch</i>	
13:50 – 15:30	Session 3: FE modelling	Prof. Dr. Gennady Kulikov Dr. Michele D'Ottavio
13:50 – 14:15	Robust plate/shell finite element with Zig-Zag function for piezoelectric analysis	M. D'Ottavio
14:15 – 14:40	3D exact thermoelectroelastic analysis of piezoelectric laminated plates	G. Kulikov
14:40 – 15:05	Plate finite elements applied to the free-edge singularity in bending and extension	C. Wenzel
15:05 – 15:30	A finite element with continue transverse electric displacement for the electro-mechanical analysis of shell structures	M. Cinefra
15:30 – 15:50	<i>Break</i>	
15:50 – 17:30	Session 4: Morphing and actuation I	Dr. Salim Belouettar Dr. Chris Beaverstock
15:50 – 16:15	Dynamic analysis of piezoelectric actuators under mechanical and electrical loads	E. Carrera
16:15 – 16:40	Energy harvesting for sensors using free-floating flaps: Simulation and experiment	L. Bernhammer
16:40 – 17:05	Warping wing as an application of morphing structures	M. Alharbi
17:05 – 17:30	Optimisation of a mechanical linkage for a morphing winglet	E. Gillebaart
19:00	<i>Dinner</i>	

Tuesday 27 May 2014

09:00 – 09:50	Session 5: CHANGE II	Dr. Ben Woods
09:00 – 09:25	Structural optimization of an UAV leading edge with topology optimization	M. Radestock
09:25 – 09:50	Telescopic wing for improved flight performance	P. Santos
09:50 – 10:40	Session 6: Morphing and actuation II	Prof. Dr. Pedro Gamboa
09:50 – 10:15	Negative stiffness spring system for morphing aircraft actuation energy balancing	B. Woods
10:15 – 10:40	Geometry and actuation force validation of a morphing leading edge	J. Sodja
<i>10:40 – 11:00</i>	<i>Break</i>	
11:00 – 12:40	Session 7: Structural modelling	Prof. Dr. Michael Krommer Dr. Philippe Vidal
11:00 – 11:25	Investigation of modelling approaches for dielectric elastomer actuators	M. Kleo
11:25 – 11:50	Novel mass-lumping technique for the spectral cell method	S. Duczec
11:50 – 12:15	Nonlinear modelling of thin structures with inelastic strains based on a multiplicative decomposition of the deformation gradient	A. Humer
12:15 – 12:40	Load-bearing brittle dental implants for enhanced reliability	I. Trikalinos
12:40 – 13:05	Thermo-hydro-mechanical modelling of crack growth in SOFC-like multi-layered structures	Q. Shao
<i>13:05 – 14:30</i>	<i>Lunch</i>	
<i>14:30 – 17:30</i>	<i>Social programme: walk on the national park “Veluwe”</i>	
<i>19:00</i>	<i>Dinner</i>	

Wednesday 28 May 2014

08:30 – 09:30	Keynote lecture	Prof. Dr. Pier Marzocca
09:30 – 11:10	Session 8: Material modelling	Prof. Dr. Thomas Wallmersperger Prof. Dr. Laurent Gallimard
09:30 – 09:55	Investigation of the magneto-mechanical behaviour of magnetic-polymer gels	A. Attaran
09:55 – 10:20	A modified molecular mechanics approach for the calculation of carbon nanotube properties	O. Eberhardt
10:20 – 10:45	Comparison of modelling approaches of chemically induced hydrogel swelling	P. Leichsenring
10:45 – 11:10	On the use of spatial description in mechanical modelling of axially moving material	Y. Vetyukov
11:10 – 11:30	<i>Break</i>	
11:30 – 12:00	<i>Closing of the conference</i>	<i>Dr. Roeland De Breuker</i>
12:00 – 13:20	<i>Lunch</i>	