

## AceGen Pre-Course

**Day 00: Tuesday, 28 February 2017**



09:00	Registration
09:45	Welcome & Opening
10:00	Lecture 1: Mathematica & AceGen preliminaries
12:00	Lunch
13:30	Lecture 2: Intro to FEM with AceGen
15:30	Coffee break
16:00	Lecture 3: Advanced FEM examples
18:00	End of the day

## RCM 2017

**Day 01: Wednesday, 01 March 2017**

08:00	Registration		
08:30	Welcome & Opening		
08:45	Invited Lecture 1. Peter Wriggers - Mixed methods for large-strain finite element simulations		
10:15	Coffee break		
10:45	Session #01		
	10:45 - 11:00	G. Scalet	Constitutive Modeling of shape-memory alloys
	11:00 - 11:15	R. Bethelsen	Nonlinear thermomechanically coupled multiscale finite element framework
	11:15 - 11:30	A. Seitz	Thermo-elasto-plastic contact: A monolithic computational approach
	11:30 - 11:45	B. Wcislo	Regularization of large strain thermoplasticity and it's implementation in Ace packages
	11:45 - 12:00	M. Pintar	AceGen and AceFEM in custom M5 industrial applications
12:00	Lunch		
13:30	Invited Lecture 2. Jörg Schröder - Novel computational approaches for anisotropic hyperelasticity		
15:00	Session #02		
	15:00 - 15:15	J. Dietzsch	Locking free elements for polyconvex anisotropic material formulations
	15:15 - 15:30	A. Rutunno	A finite element approach for propagating cavities in porous media
15:30	Coffee break		
16:00	Invited Lecture 3. Udo Nackenhorst - Computational modeling in biomechanics		
17:30	Session #03		
	17:30 - 17:45	M. Matikainen	ANCF Formulation for Soft Tissue Modeling
	17:45 - 18:00	J. Kovecses	On the performance improvement of real-time simulation of large-scale multibody systems
18:00	End of the day		

**Day 02: Thursday, 02 March 2017**

08:30	Invited Lecture 4. Jakub Lengiewicz - Recent advances in computational contact mechanics		
10:00	Coffee break		
10:30	Invited Lecture 5. Laura de Lorenzis - Phase-field modeling of fracture		
12:00	Lunch		
13:30	Session #04		
	13:30 - 13:45	T. Cajuhi	Phase field modeling of fracture in partially saturated porous media
	13:45 - 14:00	P. Hennig	Adaptive isogeometric phase field modeling
	14:00 - 14:15	C. Schmeid	Highly efficient incompatible model finite elements in explicit time integration
	14:15 - 14:30	M. Pandey	Multiphysics based design of MEMS compliant mechanism
14:30	Poster session + Coffee break		
15:15	Invited Lecture 6. Jozse Korelc - Sensitivity analysis for multiphysics and multiscale frameworks		
16:45	Session #05		
	16:45 - 17:00	S. S. Padhee	Unified concurrent multi-scale model for analyses of fiber reinforced composites
	17:00 - 17:15	J. M. Mok	Multiscale approach for coupled thermo-chemo-mechanical problems
17:15	Presentation of Hands-on project and Brainstorming		
18:00	End of the day		
19:30	Social dinner		

**Day 03: Friday, 03 March 2017**

08:30	Project session #1
10:00	Coffee break
10:30	Project session #2
12:00	Lunch
13:30	Project session #3
16:00	Coffee break
16:30	Projects presentations and Awards
18:00	End of the day



## Poster presentations

**Day 02: Thursday, 02 March 2017 - 14:30h**

S. Hubrich	A high-order enrichment strategy for the finite cell method considering problems with weak discontinuities
A. Hussein	Automation of the virtual element method
U. Yadav	Prediction of interfacial debonding in cord-rubber composites
H.R. Nadella	Computational modelling of enhanced damage in rubber-like-materials under cyclic loading
N. Zupan	Unified approach to sensitivity analysis based automation of multi-scale modeling
L. Rose	Displacement field based parameter identification for thermo-mechanically coupled material models