

„Moderno tehnoloģiju fizikālo procesu datormodelēšana” (10. - 13. aprīlis)

**Block 3:**

- Physical models in ANSYS CFX
- Complex mechanical problems
- 1way fluid-structure interaction



Time	10.04.2007	11.04.2007	12.04.2007	13.04.2007
09:00 – 10:30		Lecture: Physical models in CFX - Heat transfer - Multi-component fluids - Thermal radiation	Lecture: Modeling capabilities in Ansys - Modal analysis - Contact definition - 1-way coupling with CFX - Non-linear material properties	<b>Laboratory work</b> Individual project consultations
10:30 – 11:00		<b>Coffee break</b>	<b>Coffee break</b>	<b>Coffee break</b>
11:00 – 12:30		Exercise: CFX: Heat transfer - Cross flow heat exchanger	Exercise: Ansys: Modal analysis - Eigenvalues of a tuning fork	Individual project work Open Forum: - Questions - Suggestions - Outlook
12:30 – 13:30		<b>Lunch time</b>	<b>Lunch time</b>	
13:30 – 14:00	Organizing introduction			
14:00 – 14:45	Introduction: - Participants' simulation tasks (individual project) - Revisited training course content		Exercise: Ansys: Non-linear simulation - Thermal deformation of a bearing	
14:45 – 15:30	Lecture: Introduction to Ansys 11 - User guidance - Grid generation			
15:30 – 16:00	<b>Coffee break</b>		<b>Coffee break</b>	
16:00 – 16:30	Exercise: CFX: Moving and rotating walls	ANSYS licenses information	Exercise: Ansys/CFX: 1-way coupling - T-Junction	
16:30 – 17:30		Lecture: Physical models in CFX - Non-Newtonian fluids - Multi-phase flow		
17:30 – 17:45	<b>Break</b>	<b>Coffee break</b>	<b>Break</b>	
17:45 – 18:30	<b>Laboratory Work</b>	Exercise: CFX: Multi-phase flow - Non-Newtonian free surface flow	<b>Laboratory Work</b>	
18:30 – 19:15		<b>Laboratory Work</b>		