



Final project proposal

Type	Master
Title	<i>Modelling Information processing in living beings</i>
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Department / Group	
Intelligent Systems	
Topic(s)	
Biosystems, Modelling of living beings	
Project can start from	01.04.2014 or 01.10.2014
Project duration	4 months
Short description	
<p>The living systems are the most complex systems known to man and as such represent constant interest in bio-medical as well as engineering sciences. This project deals with the sub-systems and the components of the living systems and their communication. It gives insight to the modeling of the living systems, tools for systems' modeling and the communication on the nano, micro or macro level. Generating, transmitting and processing the signals and information they carry in the living beings is the core of this project. Upon completion of this project the students should be able to understand the bio-molecular specificity of the living organisms, envision the influence of the abstraction and modelling of living systems and their sub-systems, be able to model the processing of the signals in the living beings, understand the way of transmitting the information to and through the living systems or in their broader living area – the ecosystem.</p>	
Results and assessment	
<p>The student should present an application that models one of the levels of information transmission and processing in the living beings, i.e that models one specific aspect of information transmission in the living beings. The application should be accompanied by a written report that deals with the specificity of this specific sub-system represented in the application. Comparison with similar models is expected from the candidates. Final visual presentation of the work is required.</p>	
Other (additional) information	