



INSTITUTE OF INFORMATICS
SLOVAK ACADEMY OF SCIENCES

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Department: Sensory Systems

TITLE OF THE PROJECT:

***CONSTRUCTION AND CONTROL OF MICRO-ELECTRO-MECHANICAL
ELEMENTS AND DEVICES.***

<i>PROJECT ID:</i>	2/0006/10
<i>DURATION OF THE PROJECT:</i>	01/2010 - 12/2012
<i>PRINCIPAL INVESTIGATOR:</i>	ŠTEFAN HAVLÍK

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The project elaborates methods and solves tools for design, modeling and simulation of micro-electromechanical structures and systems (MEMS). The study and elaboration of subjects go out from mechatronics approach and it is based on knowledge of design and control of robotic devices, sensors, signal processing as well as MEMS technology.

The project theoretically and methodically elaborates following objectives:

- Analysis, modeling and simulation of MEMS characteristics based on compact compliant mechanical structures with integrated electronics.
- Methods and tools for optimal solution and design of MEMS with respect to application.
- Information-control systems with MEMS. Methods of signal processing (sensors), communications and control (micro-robotics elements and devices).
- Technological aspects in solving MEMS structures.