

## **Project work**

### **Topic:**

- Establishing a control system to access the DRAM of an Arty Z7 development board comprising programmable logic and a processing system

### **Tasks:**

- getting familiar with development environment Xilinx Vivado and the PL (programmable logic)/ PS (processing system) architecture of an Arty Z7 development board
- use Xilinx IP blocks to control the FPGA (field programmable gate array, is equivalent to programmable logic) integrated on the Arty Z7 development board
- researching the usage of Xilinx IP blocks that control the access to the on-board DRAM from the programmable logic side
- building a control system to access the on-board DRAM in programmable logic utilizing Xilinx IP blocks and/or custom IP blocks
- build a small test bench and create test cases to check the functionality of the built control system

### **Your qualifications:**

- interest in programmable logic, control systems and development boards
- self-organized and conscientious way of working
- ideally experience in programming FPGAs or programmable logic
- fluent in either English or German
- ability to work in a team

### **We offer:**

- an inspiring international and open atmosphere
- a team consisting of a well-balanced mixture of PhD students and experienced scientists from different fields
- focused guidance through the project
- involvement in a project with research institutes and industry

**Timeline:**

- Starting date: as soon as possible

**Contact at NaMLab:**

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By sending us your application documents, you agree to the use of your personal data for the purpose of the application procedure.

**Responsible Professor:**

- Prof. Dr.-Ing. Thomas Mikolajick