

# **Electronic Systems of Computers**

Lab Assignments

## First assignment (done)

- Modify IOb-SoC's firmware to print Fibonacci numbers
- Simulate
- Run on FPGA board

## **Second assignment (due 10/12/22)**

- Add GPIO peripheral to IOB-SoC
- Modify firmware to drive GPOs
- Modify firmware to read GPIs
- Simulate
- Run on FPGA board

# Project proposal (due 15/12/22)

- Propose a IOb-SoC system that uses the resources of the BASYS3 FPGA board
- Firmware and peripherals that read buttons and switches and write to display and VGA
- External hardware may be added to project (be careful with voltage compatibility, study docs and schematics)
- CAUTIONS: hold USB socket with one hand while plugging with the other hand
- The proposal is a 3-page presentation placed in the doc directory of your repo: short intro, description of project and expected results.

# Project execution (due 15/01/23)

- Prepare 10 minute slide presentation
  - Short intro mentioning other works 1-2 slides
  - Project description: 6 slides
  - Conclusion: 2 slides (what you learned, what you did, directions for continuation)
- Demo the project in the Lab (5 minutes)