ADVANCED COMPUTER ARCHITECTURES, AA 2022-2023, PROF. C. SILVANO

TOPICS to be covered by the ACA pre-exam (theory & exercises) to be held on 8 May 2023:

- MIPS Processor Pipelining and Hazards
- Exceptions/Interrupts Handling
- Performance Evaluation and Metrics
- Static and Dynamic Branch Prediction
- Memory Hierarchy: Basic and Advanced Concepts
- Instruction Level Parallelism: Multicycle Pipeline, Superscalar MIPS; Static vs Dynamic Scheduling
- Scoreboard Dynamic Scheduling
- Tomasulo Dynamic Scheduling
- Register Renaming, Reorder Buffer and Speculative Tomasulo Algorithm
- VLIW Architectures and Static Scheduling