Real Time Embedded Systems

Mini-Projects

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Mini-Projects RTES - Objectives

- Be able to define and realize:
  - A Multi-processor system
  - An accelerator or a custom instruction
  - Synchronization between 2 processors
  - Profiling
  - Hardware and Software design
Mini-Projects RTES – Projects idea

• Linux web server for FPGA services
• Camera on a Web server
• Pictures viewer on the FPGA from a Web server
• A SD card Reader/Writer, data on a Web server
• Audio In, processing, Audio Out
• Data logger of A/D, i2c, SPI interfaces
• Thermal Camera IR, could be stereoscopic
• LCD TFT24, VGA as display
• … your own idea
Mini-Projects RTES – Final work

• Groups of 2 students
• 2 groups can work together
  ➢ A common report per group, with identified parts for each student
  ➢ The full source of code (VHDL, C, …)
  ➢ A final oral presentation
  ➢ A demonstration