

7-Apr-08 (1)

CEG5010: Conclusion

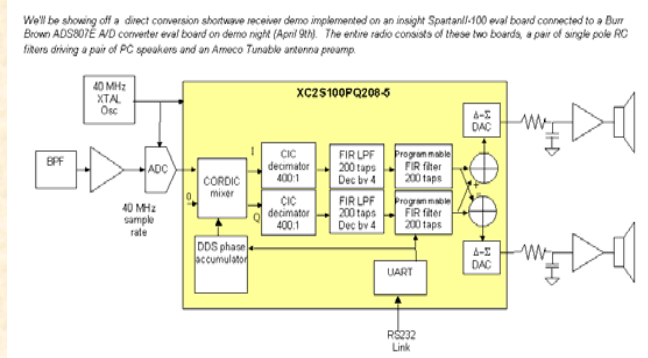
7-Apr-08 (2)

What have we learnt?

- FPGA
 - When to use them
 - Low volume, upgradability, easy re-engineering
 - How to take advantage of the architecture
 - Runtime reconfiguration
 - Use special features: RAM, SRL, DLL, flip-flop rich
- Computer Arithmetic
 - Distributed arithmetic
 - CORDIC
 - STAM
- Computer Architecture
 - Finding parallelism via pipelining and parallel processing
 - Customization for a given problem: module generators, runtime specialization
 - Bus interfaces can be a bottleneck

7-Apr-08 (3)

Example application where many of these ideas are used (Andraka software radio)



7-Apr-08 (4)

Demonstration

- **23/4/2008 (WED) 10:30 a.m.** in lab
- Informal demo to give me a chance to ask questions about your project
 - Show understanding of the problem and design decisions made

7-Apr-08 (5)

Report

- Due same day
- 4 page report include previous work, full description of system, system performance, resource utilization, memory map etc (like a full conference paper)
- Appendix: Host program, VHDL listing, simulation graphs
- Submit hard and soft copy to Matthew

7-Apr-08 (6)

Outline of a Report (or Thesis)

- **TITLE**
- **Abstract**
 - approx 1 page summary of the whole thesis
- **Acknowledgements**
- **Table of Contents**
- **Ch 1. Introduction**
 - Motivation and aims
 - why is this an important problem?
 - what are we trying to do?
 - Contributions
 - what is the new ideas contributed by this work?
 - Previous work
 - what have others already done
- **Ch 2. to n-2.**
- **Body of the thesis**
 - all the background information so that the thesis is self contained so that an engineer not expert in this field can follow the thesis without referring to other books
 - no results here (keep them reading)
- **Ch n-1.**
- **Results** - present all results here, preferably in graphical forms with tables etc. in appendices **Ch n.**
 - **Conclusions** - interpret your results
 - **Future work** - present avenues for further study
- **Appendices**
- Use past tense to describe work that you or others have done