Lab 1 Guide

Report format

Each group must demonstrate a project for evaluation at the lab, and all members must be present. A report must be submitted to the Fenix system in PDF format.

The report shall include information on all points achieved and highlight the competences acquired: "must demonstrate application functionality (simpler processing) and verification competences (HW IP co-simulation and Integrated Logic Analysis) and evaluate performance".

A possible report structure is as follows:

1. Introduction
2. Base Application (software)
   a. Description Summary
   b. Implementation and Results
3. Application HW/SW
   a. HW IP
      i. Specification HLS
      ii. Co-Simulation
   b. Architecture HW/SW
      i. Summary description, principal components, and interconnections.
      ii. Software
      iii. Integrated Logic Analysis (ILA). See the included slides.
   c. Implementation and Results (performance and resources consumed)
4. Optimization (optional)
5. Results
   a. Overall results, comparison, and critical analysis
6. Conclusions

Note that this only indicates the points to be mentioned and not a predefined structure to follow blindly and/or rigidly.

Report content

- The report may be written in Portuguese or English.
- The report must be written in a single-column format with a (minimum) 10pt font size. An indicative page limit will be given for each project.
- Start the report with a small introduction summarizing your work and highlighting the major results (like an abstract in a technical document).
- **Do not** repeat the information from the lecture slides or the project assignments.
- Describe your specific design and highlight the most critical design issues you faced and how you solved them.
- Describe and analyze the results achieved. Include table(s) to report your design's performance and resource consumption. If you did different design explorations and/or used multiple optimization methods, please compare their results.

- **Do not** include screenshots from the tool **reports**. Create your tables (and figures) to show the exact results and relevant issues (and filter out the irrelevant data). All the figures and tables should be explained in the text.
- Always align the numbers in the columns of the tables (for the same metric). List your results metrics using no more than 3 digits. If necessary, use the appropriate digit separators.
- End the report with a small conclusion highlighting your main achievements and the competences acquired.

Note that this is only a non-exhaustive indication of some points to be mentioned and not a predefined structure to follow blindly and/or rigidly.