NATIONAL CHENG KUNG UNIVERSITY

College of Electrical Engineering and Computer Science

DEPARTMENT OF ELECTRICAL ENGINEERING

Advanced VLSI System Design

Fall 2024 ver. 1.5

Project Final Presentation Guidelines

Due Date: 11:59 am on 01/15 (Wed.)

- *** Please refer to Project Guidelines for details on the project description.
- A. The final project consists of the proposal, the body of the work via demonstration, and the final presentation. This guideline is intended for the final presentation only.
- B. The final presentation aims to cover the following items:
 - Understanding of your Final Project: Provide insights into the proposed project, including motivation, application background, and a technical overview in a proper length.
 - Specifications for the Target IC: Outline the essential requirements and justifications for significant features of your target integrated circuit, such as input/output data bitwidth, neural network models, frames per second, operating speed, encryption key lengths if applicable, throughput, and security features.
 - System Architecture: Introduce your system architecture, dedicating at least four minutes to this section. The appendix page provides a sample system architecture. Use this as a foundation, incorporating additional blocks and detailing the architecture and data flow relevant to application-specific modules. Feel free to include any information about the algorithms and concepts behind your design.
 - Simulation Results: Define the key results you anticipate, which will help measure the progress of your design based on your targets. Explain why these metrics are essential, referring to standard benchmarks or programs relevant to the application, such as achieving an EPU performance of 50 MHz
 - Credibility Enhancements: Highlight elements that can bolster your credibility and demonstrate your efforts to industry professionals.
 - **Teamwork.** It indicates how your team members contribute to the project. The team works to organize and present the technical content.
- C. **Video making**. Every team must submit a 15-minute video and PowerPoint slides, which will count toward the final presentation grade. If the file size is too large, please email it to the TA's contact email.
- D. **PPT making**. Your presentation slides should at least include the following elements:
 - Photos and names of your team members on the cover page. Everyone shall have a significant place in the presentation.
 - Explanation of the critical issues outlined in the Project Guidelines with explicit technical content.
 - Major specifications of the proposed EPU. Unless you have anything special to say, the Requirement BASE strongly suggests that it be completed within two slides.
 - Anything that can amplify your efforts and contributions to your work.
 - Task assignments for all team members. Please be precise as much as possible.

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 All team members must be present during the final presentation to answer questions. Failure to do so will result in deductions for the individuals.

E. Grading

- The grades for the final project presentation will consist of two components: baseline grading on the video presentation + advanced-level grading on the live presentation by professional reviewers. TAs grade the baseline videos, while the professional reviewers grade the live presentation. Only top-performance teams can enter the live presentation and receive the advanced-level points.
- Twelve teams will be chosen based on the scores to enter the live presentation competition. The top 12 scoring groups will be selected based on the summation of the Demo points and the baseline video.
- Students who cannot attend the live presentation in the advanced competition can only obtain partial points.

F. Time Schedule

- The presentation video will be due at noon on January 15th
- The teams entering the live presentation will be announced around 9:30 pm on January 15th.
 - Professional reviewers will listen to your live presentation with Q&A between 9:30 and 17:30 on January 16th.
- G. **Deliverables**. Please upload your PowerPoint file, 15-minute presentation video, and related documents as specified to the designated submission area by only one person, typically the team leader, for the final presentation.