UNIVERSITY OF TEHRAN

Electrical and Computer Engineering Department

Core-Based Embedded System Design
ECE 160 - Spring 1403-1404
Project – Part B: High-level Implementation
Due Date: Khordad 2

Description:

In this part of the project, you will design your embedded system at the algorithmic level.

Tasks:

A. Define the Problem and Constraints

Begin by clearly defining the problem your application addresses and specifying all constraints, including software and hardware requirements.

B. Algorithm Implementation

Implement your system at the algorithmic level using a high-level programming language such as C/C++ or Python. This implementation corresponds to the Software Timed (ST) abstraction level, where transactions are assumed to execute instantaneously (with zero delay).

C. Write the Report:

Follow the provided templates to prepare your report. The report may be written in either English or Persian, but the final report must be in English. The report should include:

- **Abstract:** A concise summary of your project, covering its motivation, main idea, and key outcomes.
- **Introduction:** An overview of your application, its challenges, and your motivation. Clearly define the problem and outline all constraints.
- **Embedded System Design:** resent your preliminary embedded system design, modeled at a high level of abstraction. Explain your algorithmic implementation.
- **Experimental Results:** Validate your implementation and summarize your findings.
- **References:** Cite all sources used in your work.

Deliverables

- All implementation code files.
- A PDF report file
- Put all codes and the report file in a folder and zip it. Name your zipped file using the following format

'Family1_Family2_PJ#B.zip'