Physical Design Automation of VLSI systems EE/CE6375

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Semester: Fall 2013

Some general guidelines/FAQs for the EE/CE 6375 Programming Assignments/Projects:

This course will require you to implement several DA algorithms and test these out on real designs (some of which will be fairly large in size and complexity). The following points are meant to serve as rough guidelines to help you navigate through the projects in a smooth manner. If you have any further questions, contact the instructor/TA.

1. Programming Language: You may use a programming language of your choice. However, it is recommended that you use C/C++.

2. Choice of data structures: It may be helpful to design your data structures on a piece of paper so that you avoid implementation bottlenecks—drawing the data structure that you intend to use on a piece of paper before you start coding will help you to visualize it more effectively.
   - Note that the choice of data structure will greatly influence the efficiency of execution of the algorithm that you are implementing. Put some thought into this beforehand to avoid re-implementing it later!
   - You may use some of the basic data structures available in the standard library (e.g., vector, map etc.) as building blocks if you wish. However, implementing your own data structures from scratch will give you good programming experience!
   - You may NOT use code from any other source or link your binaries to any third party library other than the standard libraries. In other words, you WILL have to implement the algorithm yourself!

3. Testing and debugging: It is a good practice to perform regular unit tests incrementally so that you iterate towards a sound overall design. Test your implementation with small inputs which you can (possibly) cross verify using pen and paper.

DO NOT compare your results with that of your peers. That is not a (good) measure of quality of your output!

Note that the TA/instructor will NOT help debug your code! Questions regarding design and implementation however, are most welcome.