EE 232: Final Project – Open Ended Sentaurus Simulation

Due Date: 5pm, Friday, May 8, 2015

Brief Description: The aim of this project is to create a new or interesting sentaurus opto-electronic simulation. The scope is rather limited due to the limited time spent on sentaurus this semester and the short time frame for submission. We expect you to take the existing project from the previous homework assignment and extend it slightly to do something new.

It is OK to simulate the same thing as another person, as long as it is clear when you hand in your submission that the work done was independent.

For your convenience, here are some examples of simple extensions to the previous homework:

- Single or multiple quantum well laser
- Adding strain to the active layer
- Different material system (e.g. InP/InGaAs or GaN)
- Adding quaternary materials (e.g. InGaAsP)
- VCSEL (A partially working example has been uploaded to piazza)
- Small signal analysis of laser

Deliverables: Please assemble a 2-3 page technical report summarizing what you have simulated with some supporting figures (e.g. L-I-V curve for a laser, schematic figure). Hand calculations or parameters used should be given where applicable. Attach your sentaurus code as an appendix.