

### **Mandatory assignment 3 – Self choice of Silvaco Atlas simulation**

Unlike the previous two assignments, this assignment will be graded and count towards the final grade. It will however be possible to hand in a revised version to improve the grade if necessary.

The description is simple: Pick a subject of your own interest which can be investigated by numerical device simulations. The simulations should be performed using Silvaco Atlas, and the results should be clearly presented and discussed. The model can be based on previous files/examples, but should be significantly different in one or more aspects, e.g chosen material(s), device geometry, etc. Write a report of 10-15 pages which should include:

- Introduction and motivation
- Background with several sources from scientific literature
- Description of simulation model and inputs (Deckbuild file(s) can be attached separately or included in the text)
- Graphs and tables with key results
- Discussion of the validity of the simulation results, inputs, models used, etc
- Short conclusion.

Good luck!