Assignment 10
Art of Compact Modeling
E3 225

Please note that late submissions will NOT be accepted

1. Calculate Drain Current (I_D) and plot, using EKV, PSP and Surface Potential Based Model, and compare:

   1.1. I_D-V_G characteristics, for one low and high V_D, semilog (left y-axis) and linear (right y-axis).

   1.2. I_D-V_{DS} characteristic, for different V_G.

2. Plot Inversion Charge along the channel (Fig.2(b) in PSP_Core.pdf) using EKV, PSP and Surface Potential Based model approach and compare.

3. Plot Transcapacitances ($C_{gg}, C_{dg}, C_{sg}, C_{bg}$) as function of V_G, at high and low V_{DS} (Fig.3 in PSP_Core.pdf), using EKV, PSP and Surface Potential Based Model and compare.