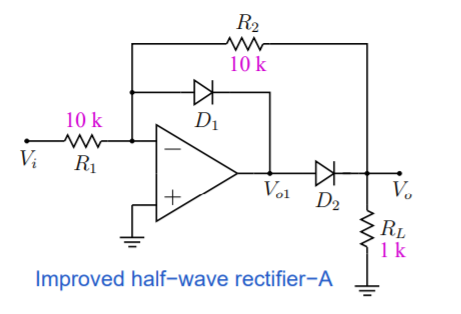
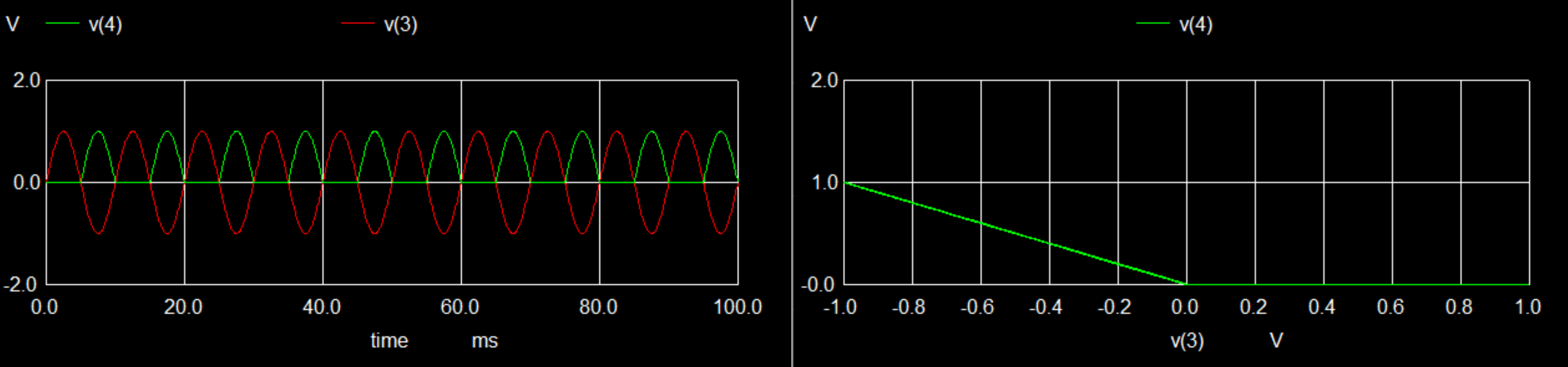
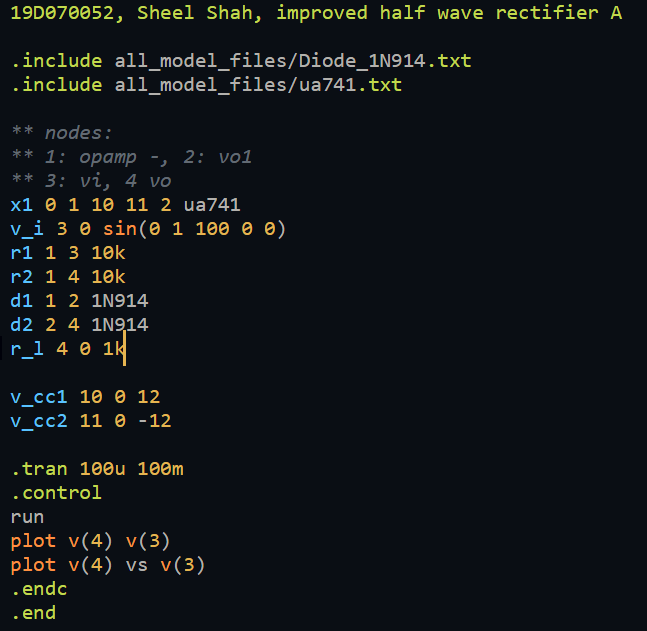
**Sheel Shah**

19D070052

*Expt8*

Q1. Improved half wave rectifier A

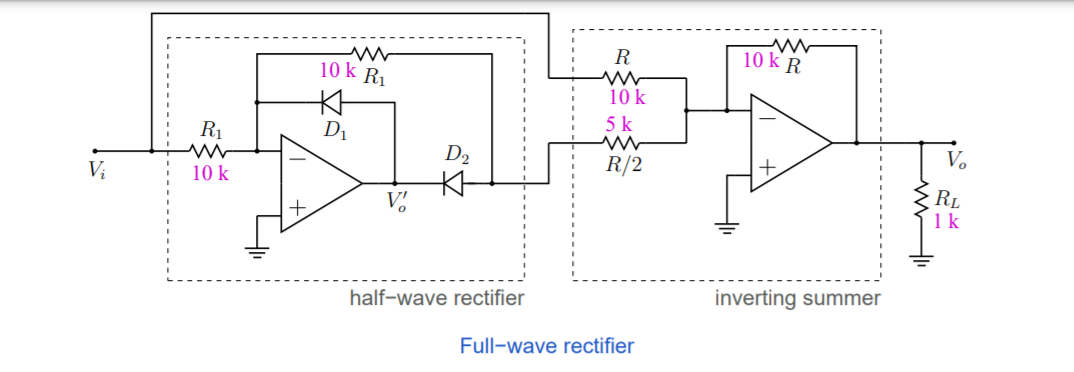


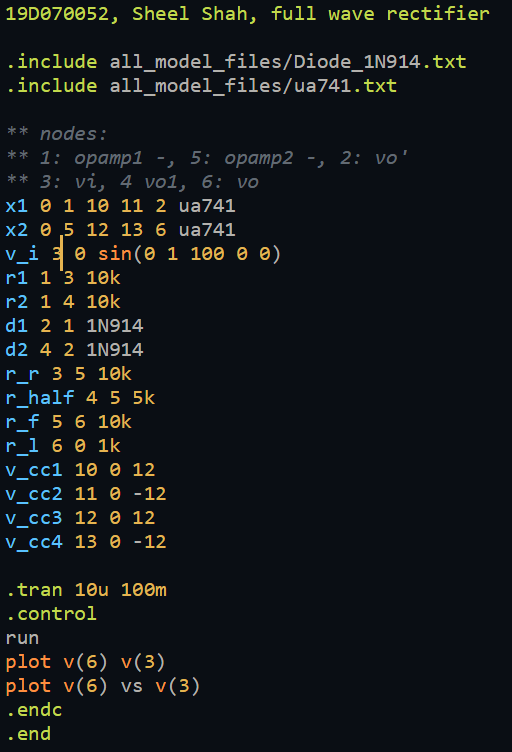


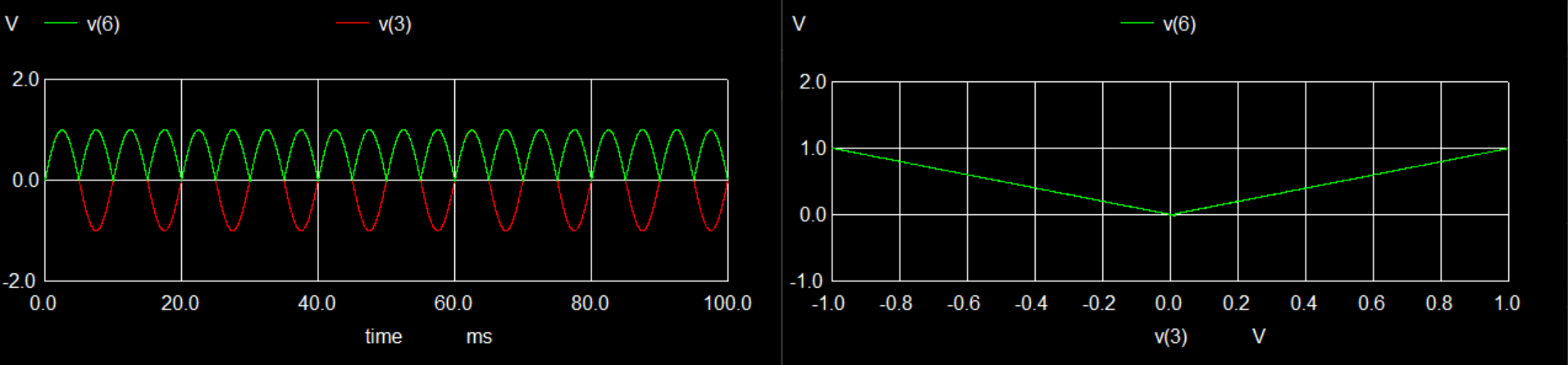
Learnings:

* The improved circuit has a better response and there is no delay when input switches from negative, as op amp is never saturated.

Q2. Full wave rectifier



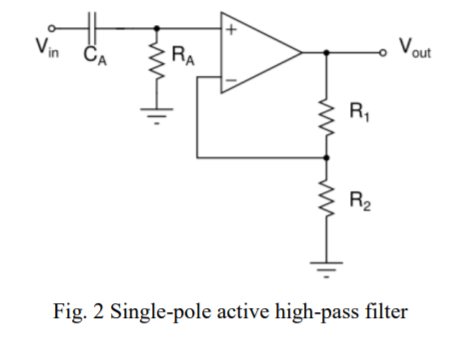


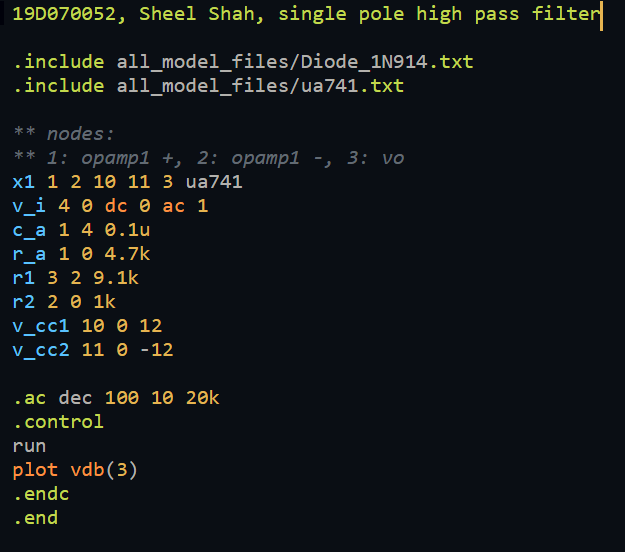
Learnings:

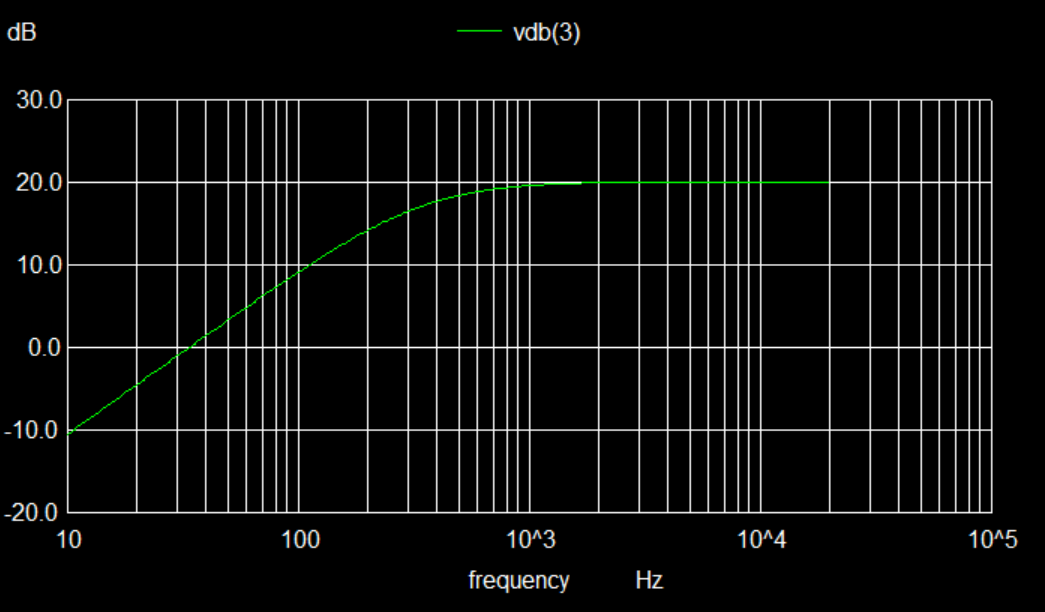
* There is no saturation and the output is very good.

Q3. Single pole high pass filter

F\_c = 1 / (2\*pi1\*r\_a\*c\_a) = 338.6 Hz





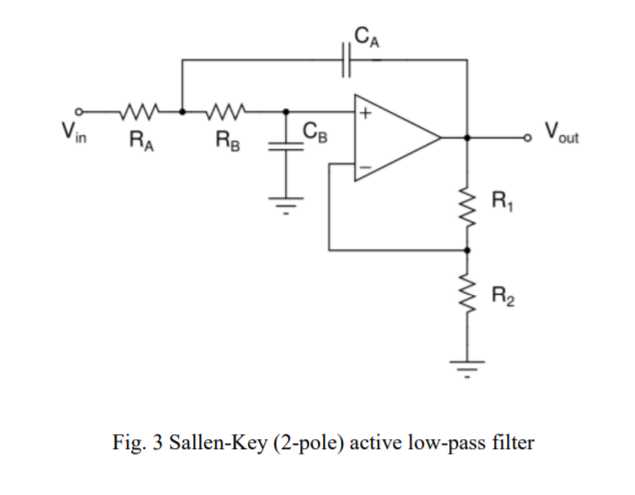


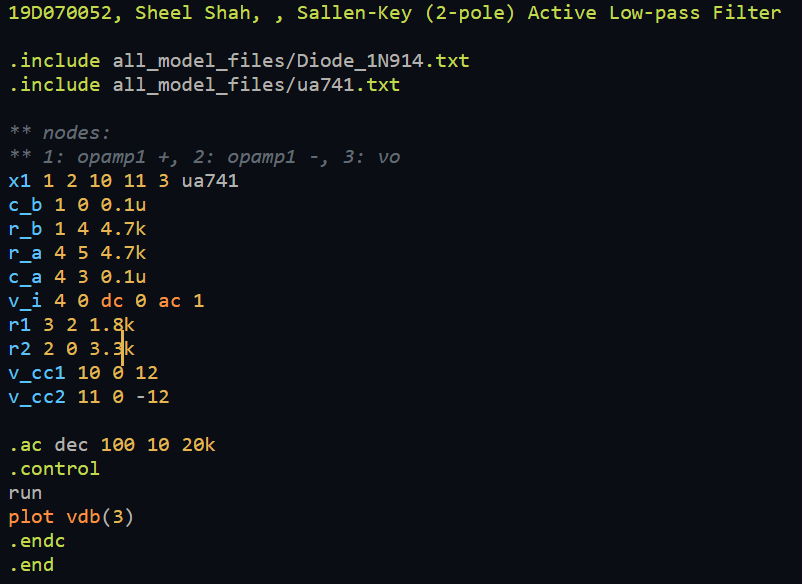
Learnings:

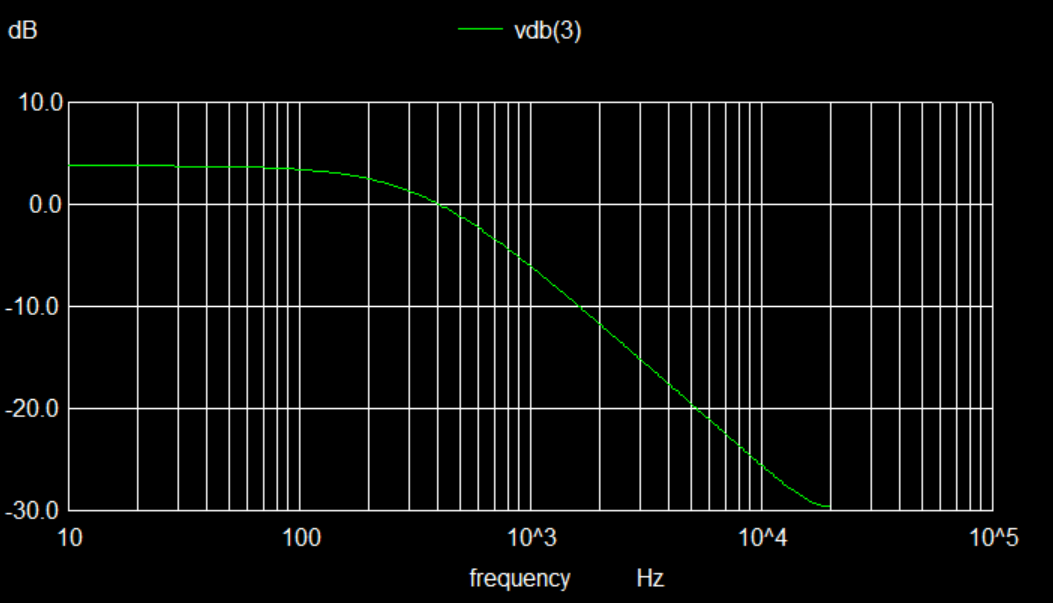
* Expected plot from analysis matches with the simulated plot.

Q4. Sallen Key low pass filter

F\_c = 1 / (2 \* pi \* sqrt(ra \* rb \* ca \* cb)) = 338.6 Hz







Learnings:

* Expected plot from analysis matches with the simulated plot.