

## Round 2: Transistor Amplifier Design

### Instructions:

1. Participants are allowed to use any number of Resistors, Capacitors and the provided BJT model.
2. A maximum of 2 voltage sources can be used.
3. **Mention the trade-offs made as comments in your LTSpice Schematic.**  
If a given specification is not met, do not worry, as the evaluation/ marking scheme is not binary.
4. **Minimal use of passive components is preferred.**
5. Label the nodes with appropriate names wherever necessary.
6. Duration of 2hrs
7. Submit the Schematic (.asc file) (naming the file:  
20VVWWXXYYYYYZ.asc, where the ID number corresponds to the person who filled the google form during registration.)
8. A google form will be provided at the end of that round for submitting your schematic.

Design a BJT based Amplifier which has the following specifications.

Max Gain	$\geq 20\text{dB}$
3dB Bandwidth	$\geq 250\text{kHz}$
Power Dissipation	$\leq 10\text{mW}$
Load Resistance	$\leq 50\ \Omega$
Power Supply Rails	9V and 0V

