**EEE – 4483**

Assignment – 1

**Guidelines**

1. Submit a PDF file
2. Please write on paper, scan using a suitable app and upload.
3. Prepare a top page that should contain your name, ID, date of submission and course name.
4. You won’t receive any points if submission is after the deadline.
5. For resources, check Google Classroom first.
6. Please do not send any emails without any specific query.

**Questions**

1. What is Schmitt Trigger (ST)?
2. Why is it used?
3. Draw an inverting Schmitt trigger circuit.
4. Draw a non-inverting Schmitt trigger circuit.
5. How are comparator circuits utilized in ST circuits?
6. What do you mean by UTP and LTP? Briefly explain.
7. How does ST exhibit hysteresis? Elaborate with details. Draw diagrams and waveshapes to elucidate explanations.
8. Mention 5 applications of Schmitt trigger circuits.
9. Design a voltage level detector with noise immunity that indicates when an input signal crosses the nominal threshold of . The output is to switch from high to low when the signal crosses the threshold in the positive direction, and vice versa. The expected noise level is maximum. Assume the output levels are and .