

**Department of Electrical Engineering
Indian Institute of Technology, Kanpur**

EE 210

Analog Electronics

2024-25-II

Instructor: Aloke Dutta (aloke)

Tutors: Deepak Kumar (deepakrv), Ankit Sirohi (asirohi), Arnab Bose (abose), R S Ashwin Kumar (ashwinrs), Amit Verma (amitkver), S S K Iyer (sskiyer)

Schedule: Lectures: MWF 10-11 am (L-16)
Tutorials: Tu 10-11 (T101-T106)

Text: Semiconductor Devices and Circuits, Aloke Dutta, Oxford University Press, 2008

Reference: Lectures in Class

Topics:

1. I-V characteristics and small-signal models of Diodes, BJTs, and MOSFETs
2. Biasing
3. Amplifiers
4. Output stages
5. Low- and high-frequency responses of amplifiers
6. Stability and compensation of amplifiers
7. Operational amplifier

Grading: Mini-Quizzes – 20%
2 Major Quizzes (4th February and 1st April) – 10%
Mid-Sem – 30%
End-Sem – 40%

Note:

- * Lecture slides and assignments will be posted in mookit at regular intervals
- * Assignments are not to be submitted
- * Regular biometric attendance will be taken, which will be used discretionarily
- * No make-up for any mini-quiz under any circumstances
- * For main quizzes and mid-sem exam, make-up may be allowed only under production of medical certificate from a doctor of our Institute Health Center
- * For end-sem exam, make-up will be decided by the DOAA
