Thapar Institute of Engineering and Technology, Patiala

Department of Electronics & Communication Engineering

Jan-June, 2021

Course: Engineering Design Project II (UTA014)

Submission guidelines of assignment-3A (ECED)

Assignment must be submitted by each student individually as per the following guidelines.

- The last date of submission is **June 10, 2021**. Submit your assignment-3A on LMS and Google form (circulated by respective faculty members) **on or before** the last date.
- A maximum weightage of this assignment is **10** marks.
- Assignment must be in **typed form** with neat diagrams (images) (**2-3 pages only**) and the student is required to submit a soft copy (**pdf, up to 1 MB**) of his/her assignment.
- Marks will be reduced if **not submitted** within **due date** of submission **without prior permission**.
- Assignment **copied** from other students will be **treated** as the case of **plagiarism** and marks will be **deducted** from the **entire copied version** (s) submitted by students.

Assignment-3A (ECED)

Objective:

Design a **schematic diagram** and it **PCB layout** for **any one** of the electronics circuits of your choice from the following list using **Autodesk Eagle** software.

- **BJT Transistor amplifier**: Common emitter (CE) **or** common Base (CB) **or** common collector (CC)
- **Diode full wave rectifier**: Center taped rectifier **or** Bridge rectifier
- **Diode clipper**: Positive clipper **or** Negative Clipper **or** Biased clipper
- **Diode clamper**: Positive clamper **or** Negative Clamper **or** Biased clamper
- **Operational amplifier**: Adder circuit **or** subtractor circuit **or** Differentiator circuit **or** integrator circuit

The project write-up **must include** the following points in detail:

- Basic description of electronics circuit diagram
- Schematic diagram of the electronic circuit through Autodesk Eagle
- PCB layout diagram of the electronic circuit through Autodesk Eagle
- Applications of the electronic circuit