Thapar Institute of Engineering and Technology, Patiala
Department of Computer Science Engineering
B.E. (2nd year) (IV-Semester) (July-Dec, 2020)
Course: Engineering Design Project II (UTA014)

Submission guidelines of Assignment-2

- **Assignment2** must be submitted by each student individually. You are restricted to submit assignment on Google form only once.
- The last date of submission is **November 02, 2020**.
- A maximum weightage of this assignment is of **10** marks.
- Assignment must be **typed** form with neat diagram (**4-5 pages only**) and the student is required to submit a scan copy (**pdf, up to 1 MB**) of his assignment.
- Marks will be deducted if submitted after the due date of submission.
- Assignment copied from other students will be treated as the case of plagiarism and marks will be deducted from the entire copied version (s).

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Assignment-2

Objective: Select any one of the experiment from the below list and write an Arduino based program and execute the program through the simulator.

1. Photoresistor (light sensor) to control the IOT objects
2. Stepper Motor Controller System using zigbee
3. Social Distancing Detector
4. Accident Avoidance System
5. Control computer with TV remote using arduino and python
6. Smart Dustbin
7. IOT based Smart Agriculture Monitoring System Project.
8. 7 – Segment display with its Binary, Octal, and Hexadecimal conversation display.
9. GSM based Home Protection/Alert System
10. 7- Segment display with alphabetical order
11. Arduino based home barge alert
12. Arduino Based blind stick.
13. Arduino based full body sanitizer system – Touchless
14. Arduino based soap/sanitizer sprayer/dispenser - Touchless
15. Arduino based glasses/spectacles for blind or low vision old people.
16. Smart wheelchair to avoid obstacle
17. Automated wireless controlled buggy/smart trolly for supplying medical aids.
18. Arduino based electrical appliances control system
19. Arduino based solar street lightning system.
20. Third eye for blind ultrasonic vibrator gloves.
21. Ultrasonic blind walking stick.
22. CNG/LPG Gas Leakage Accident Prevention System

23. Automatic Sketching Machine Project
24. Fingerprint Vehicle Starter Project
25. IOT Weather Reporting System

Note: Any course relevant experiment apart from the above list will be accepted once it is approved by their respective FA/RA.

The soft copy of individual **report MUST** include the following:
- Student Name, Roll No., Batch
- Experiment Name
- Logical workflow and circuit diagram of the experiment
- Code and Simulator video-link of the experiment.
- Others relevant information about experiment.

(Note: Report must be as per format provided only)

Assignment submission Link: https://forms.gle/CsTZBR6wp2WNZfdZA

References:
- www.circuitdigest.com
- www.tinkercad.com
- https://www.youtube.com/watch?v=yigeeyz4fW0