EMBEDDED DESIGN CHALLENGE

Team Event   **Points: 35**

Problem Statement

To design a smart Internet of Things (IoT) based table clock capable of real time automatic update & display of reminders and To-Do list.

Explanation

The project must have following features.

- ➤ The clock must be connected to Internet through Wi-Fi.
- ➤ Auto update of time and date.
- ➤ A computer interface to add/update reminders and To-Do list.

Constraints

- ➤ Only 8 bit microcontroller platforms like Arduino are allowed.
- ➤ MQTT protocol must be used for all networking applications.
- ➤ You are only allowed to use ESP8266-01 Wi-Fi module.
- ➤ Use of any single board computer like Raspberry Pi etc. is not allowed.

General Rules

➢ A team of maximum 4 members can be a formed.
➢ The participating team must necessarily register themselves for the event.
➢ The software written should be original and not copied from any other source.
➢ The teams must adhere to the spirit of healthy competition. The teams must not damage their fellow participants' circuit in any way.
➢ Judges reserve the right to disqualify any team indulged in misbehavior.

Judging criteria

➢ The judging criterion favors a proper layout of the components along with a robust circuit.
➢ The effectiveness of the hardware and software used in solving the problem statement.
➢ User interface of the device.
➢ The overall design of clock and its casing.
➢ All basic compulsory features should be implemented and only after their evaluation would the extra features would be considered and assessed.
➢ Extra features implemented, may add much to your score. They should complement the original design.
➢ Presentation (either a PowerPoint presentation or a neat block diagram can be used).