



ELECTRIFY

μC MANIA

The most favorite event μC MANIA is now Microcontrollers open, and as the name implies, we're open to any microcontroller you are comfortable with. So come and take part in this unique event and get to know more about your little friend.

Round 1

In this round participants will be tested on how well they apply their basic electronics knowledge and logical reasoning in Arduino related problems. There will be a time constraint for this round.

Round 2

Selected teams from the first round will be further tested on their skills. This round will contain complicated questions which may need making small algorithms and complicated connections. Again, teams are required to complete the tasks within a given time limit.

Rules of participation:

- Each team can have a maximum of 2 members.
- Each team should have the microcontroller board they are comfortable with, be it Arduino, TI's MSP430 MCU series, 8051 development board etc. and a laptop with required software for programming the board.
- Questions will be same for all the teams even if they are using different boards.
- Any other hardware components and datasheets required will be provided.
- Participants may use the internet in round one.
- Participants may use any type of offline documentation for their reference.
- Any violation of rules or mishandling of equipment will lead to disqualification.
- Marks will be given on the basis of final outputs of each subpart (if any) of the question and no help while debugging will be given.
- The decision of the jury is FINAL and no further excuses will be entertained.

CONTACT

Aditya 8872005011
Satyadeep 7309705302



Digilogica

Do you think that Digital Design is just a boring course just about gates and logic? Well, you're in for a huge surprise! Welcome to the vast world of digital logic! Get ready to go beyond with counters, multiplexers, flip-flops, encoders, decoders and much more and be prepared to be challenged at a whole new level!

General Rules

- Each team shall consist of a maximum of 3 participants.
- Any sort of malpractice or mishandling of equipment will lead to immediate disqualification.
- The decision of the jury is final and is to be abided by in any case.
- The above rules and judging criteria are subject to change based on the jurisdiction of the Event Managers.

Round 0

- A Pre-Quark Wild Card event, which gives the winners direct entry to the second round. You think it'll be easy? Brace yourself, Winter is Coming! Get ready for December, which will challenge you to a quick mock-compre, which will be a surprise event. So be prepared for any format, be it a Quiz where the top two teams qualify for Round 2, or, a round of Digital Circuit Designing to your Wild Card ticket to Round 2. The conventional way (Round 1) or this way, the Choice is Yours!
- Beat others to be among the Top 2 teams, to qualify for Round 2.
- Series of challenging surprises await you!
- The judgment will be based on Perfection and Accuracy and will be easy to conquer. So expect high cut-offs!

Round 1

- A rapid series of mind puzzling MCQs with sand trickling down the hourglass. How many of these basic digital electronics questions can you answer in the given time?
- Teams would be short-listed for the next round based on the quiz score.
- In case of a tie, the completion time will be taken into account.
- This round is to be attempted online from any location convenient for the team.
- The questions are of variable weightage, and negative marking would be there.

CONTACT

Aditya 88720050 | I
Satyadeep 7309705302



Round 2

- Teams will have to design a combinational/sequential circuit as the solution to the given problem. A hardware implementation of the design has to be done on the breadboard using the components provided. Datasheets and pin diagrams will be provided if necessary.
- Correctness and efficiency of the design will be considered.
- Final and intermediate outputs of the hardware implementation will be observed and will be given high weightage.
- In case of a tie, the time taken for the design and the implementation as well as the neatness of the circuit would be taken into consideration.
- This round will be carried out in the digital electronics lab at BITS Pilani K. K. Birla Goa Campus. All equipment-power supply, function generator, wire stripper, breadboard, etc. will be provided.

Round 3

- Just like the previous round, the teams have to design a digital circuit for the given problem.
- However, this one will be on a completely different level! A simulation of the design on Lab center Proteus (version 7.10) will decide who will carry home the trophy.
- Correctness and efficiency of the design will be considered
- Marks will be given only for final and intermediate outputs of the simulation.
- In case of a tie, the time taken for the design and the implementation will be taken into consideration.
- Teams are advised to install and be well versed with the software beforehand.

CONTACT

Aditya 8872005011
Satyadeep 7309705302