FPGA

Team Event, Open-To-All
Points: 30

INTRODUCTION:

Are you one of those who geeks who dream of building their own processor? Or do you want to do something that sets you apart from the rest of the electro maniacs?
If yes, then, we have something great for you. Yes! We are talking about FPGA.

Field-programmable Gate Array (FPGA) is an integrated circuit which can be configured by the user which provides it a major advantage over MCUs which have a fixed configuration. This enables the user to implement any digital circuit (YES! EVEN A PROCESSOR) on FPGA. The FPGA configuration is generally specified using a hardware description language like Verilog.

If you want to go ahead but don't know where to start, just wait for the lecture on FPGA.

PROBLEM STATEMENT:

The contest is on the spot.

Prelims

Each team will have to give a half an hour quiz separately. The quiz will comprise questions on basics of Verilog (Hardware Description Language)

Finals

Level 1: Circuit Design using Simulation

Teams will be given some simple design problems. They will be required to write Verilog modules for

the same.

Level 2: On board Design

Teams completing level 1 will go ahead and will have to simulate their result on ISIM/ModelSIM.

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TAKNEEK'14
Innovation At Its Best
August 28-31

JUDGING CRITERIA

Prelims:

10 top scoring teams will move to the finals.

Finals: Level 1:

Judging shall be done on the basis of:

- Number of problems solved
- Number of modules used
- Ease of understanding of the code
- Extra features if any

Level 2:

Teams will be provided points for this level only when their simulations of the problems solved

by them work perfectly.

RULES AND REGULATIONS :

Eligibility & Team structure

- Students belonging all batch and programme are eligible.
- Team strength should be 2.
- At least one member of each team should belong to Y13 batch. The Team could comprise of two Y13 Students but it could not be comprised of two non Y13 students.
- There are no restrictions on number of teams from a pool. Though all members of a
- single team should belong to the same pool.

Judging

- Judging shall be subjective.
- Judges decision shall be final and binding on all.
- All of the above rules may be subject to change as they deem fit. Change in rules, if any will be highlighted on the following links:

Electronics Club Website: http://students.iitk.ac.in/eclub/

Takneek Website: http://students.iitk.ac.in/takneek/2014

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