

# The Freescale Cup Competition Guidelines

# I. Platform and Content of the Racing Competition

- 1. Freescale Semiconductor will be responsible for providing teams with the following items:
  - a. Model car kit (plastic parts + drive and steering motors)
  - b. Line scanning camera
  - c. Battery
  - d. TRK-MPC5604B controller board
  - e. Motor Drive board
  - f. Battery Charger
  - g. Serial cable
  - h. USB cable
  - i. Documentation CD
- 2. The team should use above car model platform and produce an intelligent racing car that can recognize the track automatically and run on the specifically designed racing track. There should not be any alteration to the car kit and hardware platform provided. The students are allowed only to change the sensor mounting.
- 3. Rank of each racing team in the competition will be determined based on scores for shortest time taken for a lap, completion of the racing and quality of technical report, etc.
- 5. The allowed teams per university will be determined by the organizing committee of the racing competition.
- 6. The organizing committee of the racing competition will determine the number of teams eligible for the final race.

## II. Competition Schedule

The competition will be as per the schedule provided in the competition poster of each region. The students will not be allowed to attend preliminary round of the competition outside their region.

# III. Team Members, Registration Method and Training

#### 1. Team Members

Any full-time undergraduate and graduate students can apply to participate in the racing event. Each racing team should be composed of 3 and 1-2 directing teachers. If there are two directing teachers for a team, they should have different specialty and background. Each student can only participate in one team.

## 2. Registration Method

Each racing team should complete registration form. The organizing committee should notify qualification certification information within all universities that were registered. After notifying universities of qualification acknowledgement, Freescale Semiconductor may deliver to each selected racing team all the material needed to develop the car model. After successful qualification certification, individual racing team should complete the "Event Participation Agreement". After receiving racing participation agreement of each racing team from corresponding university, the organizing committee can confirm qualification of each team.

#### 3. Training

Freescale Semiconductor will train the team members through on-line training lecture material which will be posted on the website. The training web site information will be provided in The Freescale cup website.

### **IV.** Competition Prize

For the final, all the racing teams will compete for the first, second, third and 3 consolation prizes.

## V. Intellectual Property

All the racing teams should sign a racing participation commitment agreement with the organizing committee. Copyright of the racing cars should be owned by corresponding racing team, but Freescale Semiconductor can post design, technical report as well as video and image of the racing car on related web page of the event.

Website: www.cedt.iisc.ernet.in/tfcindia2011

