

# The Freescale Cup 2011

## Requirements on Technical Reports

Each racing team should submit a technical report no later than 3rd September 2011. The technical report should be written independently by team members with help of their respective advisors. The technical report should provide detailed technical information related with design and production of the intelligent car model.

Technical reports will be reviewed and rated by the experts invited by the organizing committee of the event. The organizing committee will select the best technical report based on report quality and compile it into a thesis collection and grant the certificate of best technical report and token of appreciation from Freescale to the corresponding racing team.

Technical reports should contain the following basic information:

1. Brief description of major concepts and specific technical implementation schemes for design and production of car models;
2. Description of mechanical design of car model;
3. Description of control circuit design;
4. Description of control software design;
5. Description of development tools, production and debug processes;
6. Description of key technical parameters of car models;
  - a) Total weight and dimensions (Length and width) of the reengineered car model;
  - b) Power consumption and total capacitance of all capacitors;
  - c) Count and type of sensors used;
  - d) Number of servo motors besides the existing driving motors and rudder motors of the car model;
  - e) Accuracy and frequency of racing track information detection.

Technical report should be accurate, clear and fluent, with detailed text and diagrams. Any editing format is acceptable and technical report must be submitted in **PDF format**. This has to be sent via email to [Jesslyn.Lim@freescale.com](mailto:Jesslyn.Lim@freescale.com) no later than 3rd September 2011 with title "Freescale Cup 2011 Technical Report – (team name)".

In addition, incase required by the respective judges and organizing committee, each racing team should prepare related raw documents on the competition day (softcopy). This includes mechanical design, circuit design and MCU program of car models.