

## **Briefing Session on HKIE 40th Anniversary Solar Power Model Car Design Competition**

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This is the fifth year that the Electrical Division has organized the “Electrical Model Design Contest” to promote electrical engineering and understanding on renewable energy among lower form students. This year, this event is also selected as one of the special events for the HKIE 40<sup>th</sup> Anniversary. Similar to last year, this event is co-organized with the Education Bureau and the Hong Kong Polytechnic University and with the sponsorship from the HK Electric and the CLP Group. Unlike the previous contests in which wind power and hydro power were selected as the main theme, we have chosen another type of renewable energy – solar power as the main theme of this year event. All participated lower form students (F.1 to F.3 full time students) were given opportunity to show their creativity through design and create a solar powered electrical model car.

The responses to this event are very encouraging and a total of 33 secondary schools enrolled the contest. A briefing session was arranged on 16<sup>th</sup> January 2016 (Saturday) at the Hong Kong Polytechnic University and there were more than 80 participants joined. In the briefing session, Chairman of the Organising Committee, Ir Tony Yeung, introduced the objectives of the contest, rules and format of the game, programme and reimbursement arrangement, followed with sharing of previous year and Q&A. In order to allow more creativity, students are free to choose the design and materials including solar panels, battery and motor for their own solar powered model car and associated charging station with the only limitation that the model car and the whole set up must be within the size of 600mm x 600mm x 600mm. To provide a fair and controlled competition environment, the Organising Committee has designed an artificial light source which simulated the change in direction of sunlight over the day and also a very challenging runway to test the energy output of the model cars. In addition to total energy output, the other winning criteria also include creativity, workmanship and presentation skill.

A sample setup was also displayed in the briefing session so that the participated teams can have a better understanding of how the contest will be conducted. In the Q&A session, plenty of participants raised questions about how the energy output is measured and the format of presentation. In addition, some very technical questions such as energy conversion efficiency of different types of solar panel and the appropriate gear ratio of the electric car were also raised.

To further enhance the participants’ understanding on renewable energy, a technical visit to some renewable energy installation will be arranged before the contest, tentatively in end March. The final contest will be held on 8 May 2016 (Sunday) at the podium of the Hong Kong Polytechnic University. All members and public are welcome to join and cheer up the participating teams. Through this contest, we believe the awareness on energy efficiency and understanding of electrical engineering among lower forms students will be enhanced.



Group photos of the participants and Organizing Committee members.



Students and teachers were keen to understand more about the sample set-up.