



## Design & Build Competition 2017



On Saturday 4<sup>th</sup> March, 2017, the Institution of Mechanical Engineers (IMEchE) Pan-Caribbean Group (PCG) in collaboration with the Mechanical Division (MD) of the Association for Professional Engineers of Trinidad and Tobago (APETT), hosted its inaugural 2017 Design and Build Competition, at the University Inn and Conference center, St Augustine, Trinidad and Tobago. The goal of the competition was to encourage high school students to network with professionals to discover more about the field of mechanical engineering. The objective of this year's competition was the design, build, and test of a catapult. Each team was required to present a catapult that will propel an object. Points were awarded for accuracy, distance and design.

The event got off to a timely start with an opening prayer and the singing of the nation anthem. Thereafter, Mr. Deepak Lall, Co-ordinator for this year's event, re-emphasized the rules of the competition as stipulated in the registration package issued to each participating team. He also, reminded the teams of the judging criteria and prizes to be awarded. On the day, each team was also provided with the 'raw' material – cardboard, rubber bands, paper clips, string, cardboard tape, heavy-duty scissors, stapler, cup, paper fasteners, ruler and pencil; which the catapults were to be constructed from.



The competition began at 9:00 am where members of each team conceptualized their design and refined accordingly, prior to using the given material to build their functioning prototype. There were seven teams with a combination of members which included students from high schools, university students, recent graduates and professionals from the industry. The events committee allowed this mix, as it was the inaugural competition and eliminated any disparity with the teams.



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The participating teams were Presentation College Chaguanas, Holy Faith Convent Couva, IPSL (2 teams), Hillview College/UWI, Qualitech Machining Services/UTT and Naparima Girls' High School.

Teamwork was definitely displayed as the participants' design and technical skills shone through. Regular office supplies were turned into high-tech tools. Naparima Girls' High School students incorporated the scissors and stapler in their design. Presentation College students adorned their catapult to showcase their identity. The executive members of both IMechE-PCG and APETT-MD provided timely guidance and suggestions as the teams proceed towards completion of building their model by 12:00 noon.



Competitors fabricating their design

As all participated in lunch, the students were provided with career guidance and suggestions from the academia and industry professionals within the mechanical engineering field. The students were most appreciative and enjoyed this one-to-one interaction. After lunch, the teams



presented their respective models for viewing by the audience and competitors whose number exceeded 50.



Prototypes on display

The judging was done using the previously established criteria by Anthony Mathura (PCG Secretary), Jason Micoo (PCG Public Relations Officer) and Jainarine Bansee (PCG Assistant Treasurer / Chair APETT-MD). Both competing team members and the audience enjoyed and encouraged the respective teams as they were judged during the testing stage of the competition. At the conclusion of judging, the winners were declared and presentation of prizes were awarded.



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The prize for Most Innovative was awarded to Naparima Girls High School (\$300TT, presented by Chris Maharaj – Chair PCG). Third place went to Qualitech Machining Services Limited (\$400TT, presented by Neysa Gunness – IMechE/APETT member), second place to Holy Faith Convent Couva (\$700TT, presented by Michael Merritt - APETT member) and first place went to Presentation College Chaguanas (\$1,000TT, presented by Jainarine Bansee).



Group shot of competitors and volunteers

Certificates of participation together with thank you letters will be issued to all schools/teams. As the event came to a close with excitement, all eagerly look forward with anticipation to 2018 Design and Build competition.

The 2017 Design & Build committee would like to express their appreciation to council members of both IMechE-PCG and APETT-MD.

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