

AMERICAS REGION YOUNG MEMBERS NEWSLETTER

ISSUE 1, DECEMBER 2014

Institution of
**MECHANICAL
ENGINEERS**

IN THIS ISSUE WE HAVE UPDATES FROM OUR REPRESENTATIVES IN TORONTO (WELCOME ADDRESS), TEXAS (ORION SPACECRAFT), GEORGETOWN (UNIVERSITY OF GUYANA STUDENT CHAPTER LAUNCH), AND SANTIAGO (RENEWABLE ENERGY ACTIVITIES IN S. AMERICA).



Image courtesy Google Maps



Americas Region Chair
Dr. Anthony Green



Dr. Green presenting at
the UWI Student
Chapter inaugural event

WELCOME ADDRESS FROM THE AMERICAS REGION CHAIR

It is with great pleasure I welcome all young members to this first issue of the Young Members Newsletter.

Rapid developments have occurred within the Americas Region during the past eighteen months focussing on students and young members and creating a stronger presence of IMechE. In 2013 a new student chapter was inaugurated at the University of Houston and supported by the Texas Group in holding of technical presentations and the award of prizes for best papers. In addition the Texas Group has succeeded in obtaining additional sponsorship funds from both Region and HQ to provide awards for the annual student senior design project competition for Team Vibramatic at the University of Houston, Department of Mechanical Engineering.

More recently, a new student chapter was inaugurated on February 20th, 2014 at the University of the West Indies (UWI), St. Augustine Campus, Trinidad & Tobago. This acted as a catalyst to the subsequent formation and inauguration of a new student chapter at the University of Guyana on September 19th, 2014. Furthermore, proceedings are underway to obtain IMechE accreditation for University of Guyana degrees in Mechanical Engineering.

At the time of the UWI chapter formation it was my vision to see the development of a strong network of members within the Caribbean and proposed the formation of the Pan-Caribbean Group. International Strategy Board approval of the Group was granted on 30th

September 2014. Currently the Group comprises the countries Trinidad and Tobago, Guyana, French Guiana, Suriname, Barbados, Venezuela, Colombia, Bermuda, Bahamas, British Virgin Islands, Jamaica and Montserrat. Further strengthening the case for the Group's formation was the holding of a successful and well-attended student/professional networking event in Trinidad on September 18th, 2014. Primary benefits of forming the Group include consolidation of the membership and establishing a strong IMechE presence throughout the Caribbean, enabling concurrent participation by members in common events through videoconferencing technologies and providing the opportunity for each member country to develop their own events for Pan-Caribbean participation.

Having witnessed the enthusiasm and energy of the participants given to achieving success in these new developments it is envisaged they will be a source of inspiration to young members across other parts of the Region to achieve similar developments. Therefore, I extend my appreciation to the committees of the Pan-Caribbean and Texas Groups for their efforts in strengthening the presence of the IMechE within the Americas Region.

Furthermore, this first issue of the YM Newsletter would not have been realized without the efforts of Dr. Chris Maharaj, newly appointed YM Rep. As we move forward it would be a tremendous achievement in enabling a strong YM network across a disparate member population and geographically vast Region.



Engineer Mr. Mike Aselin discusses the Orion Multi-Purpose Crew Vehicle



Author: IMechE Texas Branch Representative Mr. Richard Clayton

ORION SPACECRAFT

The warm surroundings of the Stag's Head pub provided the venue for the IMechE Texas Branch to be joined in Houston on September 3rd 2014 by IMechE member and Lockheed Martin Engineer Mike Aselin to present the Orion Spacecraft. Mike is a member of the Orion engineering team.

The Orion Multi-Purpose Crew Vehicle is being developed by Lockheed Martin and their partners for NASA to carry crews to the Moon, asteroids and Mars. On 5th December 2014, a 4 ½ hr test mission of the spacecraft was accomplished.

At the presentation, Mike explained the launch abort system; a rocket powered system which can pull the crew module away from the launch vehicle to safety

in the event of a problem during the launch. Missions to Mars will require space for life support and supplies for the crew while working within the constraints of a mini-van sized crew module in which the Astronauts can expect to live for a few months.

The Orion, like most significant engineering projects, involves a number of partner companies and organizations, with much of the work being undertaken all over the United States and Europe. Mike's explanation of the different partners involved led to a discussion around how the partners work together, and how NASA manages complex projects.

The Texas Branch would like to extend its thanks to Mike for his excellent presentation.



A captive student audience listen to the presentations



Author: IMECHE pan-Caribbean group Vice-Chair Mrs. Niebert Blair-Jacobus

UNIVERSITY OF GUYANA STUDENT CHAPTER LAUNCH

University of Guyana (UG) Faculty of Technology's Department of Mechanical Engineering on September 19th, 2014 launched the IMechE UG Student Chapter. IMechE pan-Caribbean group Vice-Chair Mrs. Niebert Blair-Jacobus is credited with putting the IMechE initiative before the Department.

"The objective and key activities of IMechE in the various regions of the world where the Institution can be found is to provide proactive support structures for Engineers within independent localities," Mrs. Blair-Jacobus indicated to the attendees.

John Benn, Chair of the IMechE UG

Student Chapter, encouraged his colleagues to become a part on the Chapter since through the activities of the Chapter students can gain much needed experience in the field. The many events of IMechE, he said, help students especially in the area of networking.

IMEchE now has three Student Chapters in the Region: one at the University of Houston, University of the West Indies (UWI) and now at UG.

If you are interested in establishing a student chapter at your university please contact your Young Member representative, Chris Maharaj, at americasymrep@imechenetwork.org



Solar powered racing vehicles on display in Chile



Author: IMECHE South America Representative Mrs. Patricia Darez

UPDATE ON RENEWABLE ENERGY ACTIVITIES IN SOUTH AMERICA

Renewable energy is flourishing in South America with many interesting activities taking place across the region.

The IMechE will be sponsoring the website for the GTER (Grupo Tecnico de Energias Renovables or Renewable Energy Technical Group) who is an informal association of renewable energy professionals looking to enhancing "best practice" in renewable energy projects across the region. In the next few months they will be publishing studies such as how to quantify the interannual variability of the wind and solar resource in the Atacama Desert. The page is still under construction but will be available soon at www.gter.cl

In November 2014 there were 4 days of solar racing in Chile in the Carrera Solar Atacama. This event saw several teams who have previously designed solar power vehicles race across the desert. Competitors came from different backgrounds: private sector, universities and technical colleges. The IMechE has followed the race closely with possible views to getting involved next year as several members from the region have previously made enquiries about entering formula student and this might be a more local alternative for those not wanting to ship their vehicle overseas and also looking for more environmentally friendly racing. More information can be found at <http://www.carrerasolar.com/2014-race/>

SNAPSHOTS OF SOME 2014 AMERICAS REGION EVENTS AND MEETINGS



Student/Professional Networking event held in Trinidad



Representatives on break after Americas Region meeting



Audience at the UWI Student Chapter inaugural event

DIARY OF EVENTS FOR 1st QUARTER 2015

Texas Branch Monthly Social Gathering
First Wednesday of the Month
Responsible Division: Texas Branch
Location: TBC
Contact: TexasSec@imechenetwork.org

Engineering, Risk and the Law
January 2015
Responsible Division: Texas Branch
Location: Technip Offices, Houston
Contact: TexasSec@imechenetwork.org

Pan-Caribbean Mentor/Mentee Program
Kick-Off and Seminar on being an Engineering Manager
January 2015
Responsible Division: Pan-Caribbean group
Location: St. Augustine, Trinidad
Contact: americasymrep@imechenetwork.org

AGM and Seminar
28th January 2015
Responsible Division: Western Canada Group of Chartered Engineers (WCGCE)
Location: Vancouver
Contact: wcgcecontact@imechenetwork.org

Pool Night
29th January, 2015
Responsible Division: Pan-Caribbean group
Location: Georgetown, Guyana
Contact: guyanarep@imechenetwork.org

Anton de Kom University Student Chapter Formation meeting
11th – 14th February, 2015
Responsible Division: Pan-Caribbean group
Location: Paramaribo, Suriname
Contact: guyanarep@imechenetwork.org

Student Networking Event
5th March, 2015
Responsible Division: UG Student Chapter
Location: Georgetown, Guyana
Contact: guyanarep@imechenetwork.org

AGM and Technical Meeting
28th March, 2015
Responsible Division: Central Canada Branch
Location: Novotel Hotel, North York, Toronto
Contact: john.w.white@sympatico.ca

CONTACT US

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To find and contact your nearest Americas region representative, please visit:

<http://nearyou.imeche.org/near-you/The-Americas/contact-us>