

COUNTER-TORQUE issue 51 November 2019

It is a year since the last Counter-torque, for the second year I appear to have relied on the Chair's report to the Annual Meeting on April 5th to cover the events between November 2018 and April 2019. For those who were not at the Annual Meeting, I will briefly review the events for those six months.

Our Festive Event which we share with IET was held on December 14th. The lecture was given by Nick Sion, a Fellow of the IMechE, who spoke on "Should we Fear Radiation". The presentation discussed radiation, its discovery and early mishandling. We were told radiation affects DNA which may lead to cancer, and has been shown to have effects on organics and plants, as seen after the Fukushima seismic accident. Nick continued by explaining the beneficial remediation effects of radiation, encompassing current medical procedures and therapies using isotopes. Nick concluded by discussing how to cope with galactic radiation in space.

This event was attended by 38 members and guests. The Americas Region Young Members Representative, William Hesser, visited the Branch for this event.



Nick Sion 1932-2019

It is with much sadness I have to report the passing of Nick Sion in March of this year. He was 86 and had joined IMechE in 1956. He was always very active and had most recently been researching radiation biological effects on astronauts in outer space. For this, NASA had sent his name, (on a microchip) along with

those of other researchers, aboard the InSight spacecraft, which landed on Mars on November 26th 2018.

On March 14th Stephen Armstrong, a former Central Canada Branch Chair, and currently an Adjunct Professor, Department of Mechanical and Industrial Engineering at the University of Toronto, gave a lecture titled "Inspiring MEng Candidates to Innovate". Stephen explained that over the past 10 years the M.Eng professional degree at the University of Toronto has experienced exponential growth. Since 2009 Stephen had built six M.Eng courses focusing on innovation, management, history and philosophy of engineering. Stephen provided an overview of his career journey that, in 2014, led to his appointment as Professor of Innovation at the University of Toronto, and his goal to transform the role of the Engineer in Society so that they can become leaders and facilitators of global Innovation and change. He has processed well over 2,000 Masters & PhD students through his courses. Stephen then outlined how the courses are project-based, collaborating with industrial enterprises across many sectors, and how these courses are delivered.

He claimed the traditional UK engineering apprenticeship system, is now making a comeback there, and that it is the optimum form of education for practice-based professional engineers.

Attendance for this event was disappointing, with only 12 attendees, who all enjoyed a very interesting and thought-provoking presentation.

For another year we continued to sponsor Formula North which took place from May 30th to June 2nd, 2019, at the Molson Centre, Barrie. Our Hon. Secretary, Phil Apperly was the only CCB member to attend this year; once again he was head of one of the judging teams for the design event. The design event was won by ETS Montreal (Ecole Technique Supérieure) with Rutgers University runners up and Ecole Polytechnique Montreal in third. The endurance race was won by University of Michigan, Ann Arbor with Carlton in second

and Cincinnati in third. When all the categories were tallied, ETS Montreal came out on top overall, with Michigan, Ann Arbor in second and Carlton in third. In the electric vehicle category Carnegie-Mellon were overall victors with Ann Arbor second and Université Laval in third.



McGill's car with extensive aerodynamic aids



Lining up for the Saturday Autocross event



Neat carbon-fiber construction on the winning car

As long-time sponsors of Formula North, the Central Canada Branch was advised in 2018, that the Formula North competition would be transitioned under SAE International's Formula SAE program. Formula North Inc., the organisation that has run Formula North since its start in 2010, will cease to exist. The 2019 program was the first launched under the new branding as "Formula SAE® North", and they hosted both Internal Combustion (IC) and

Electric Vehicle (EV) classes at the Molson Centre in Barrie.

We have now been advised by Formula SAE® North that the 2020 event will be held at the Jukasa Motor Speedway, Hagersville ON; this is after 9 successful years at the Molson Centre, Barrie.

In view of this change in organisation and a much less convenient location, your Committee has decided to no longer support the event. We did discuss supporting an Ontario University team. However, in view of the fact we are receiving much less financial support from London, than in past years, we decided not to do this either.

As is our practice we do not organise lectures or plant tours over the summer months.

In addition to the IET, we continued to collaborate with other UK based organisations, these are: CIBSE, CIPS and BCS. Over the past year CCB members have been invited to the meetings of several events of these organisations.

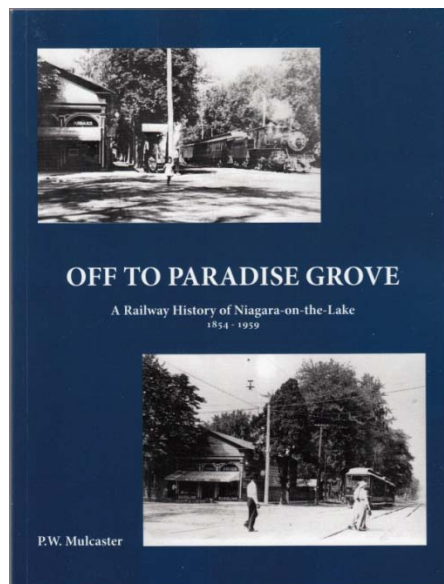
For our annual Festive Event, IET have already reserved our usual venue at the Novotel in North York for December, 6th, 2019. We are fortunate to have a guest speaker Dr Vijay Parsa of Western University who will speak on the subject of Hearing Loss and Hearing Aids. The flyer giving full details is being sent out with this issue of Counter torque. We have usually shared this event with IET; this year IET are taking the lead in organizing the event. We chose the Novotel, North York because it is reasonably central to the GTA, is accessible by car and has direct access from North York Centre subway station, so I hope as many as possible will attend. Numbers are limited so early registration is recommended.

Immediately before the start of the Festive event we plan to have a face to face CCB Committee meeting; all fellows and members are welcome to attend if they can arrive early enough.

A New book written by Central Canada Branch member Peter Mulcaster

Peter Mulcaster a fellow of the IMechE and a Past Chair of the Central Canada Branch will be attending the Annual Festive Event. Some may recall, in October 2017 Peter gave a talk to the CCB on "A Railway History of Niagara-on-the-Lake". During that presentation he mentioned he was writing a book on the subject, some attendees expressed

great interest. During this past summer, Peter's book was published and is called "Off to Paradise Grove - A Railway History of Niagara-on-the-Lake 1854 -1959". A photo of the book cover is shown below. There are 148 pages of text and a total of over 150 photographs, maps and drawings and the book sells for \$37.50. Peter will bring copies to the Festive Event on December 6th.



A little engineering nostalgia

Your Committee has a few very active members who are dedicated to providing at least 4 to 6 events per year. I have often said we would really appreciate some input from the general membership of the CCB. We always welcome suggestions of topics for lectures/talks and for plant tours. Even better, if you know of a speaker or lecturer, we would certainly be happy to contact them. Similarly, if anyone knows of a facility or plant they are interested in visiting, please let us know. Again, a contact name is always helpful. Feedback is important to your Committee, if we are to continue to provide a program of interest to the membership.

Last, but certainly not least, I must thank all Branch Officers, especially our Hon-Secretary Phil Apperly, and our Hon-Treasurer Peter Dennis, who have both served the Central Canada Branch for another year with dedication and perseverance. I must also acknowledge Helen Varley who has served as our webmaster for another year. Over the past year several other CCB committee members have contributed in many ways to the successful running of the Branch

It is probably not too early to wish everyone all the best for the season and for the New Year.

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