

## COUNTER-TORQUE issue 34 March 2009

Although not what members might have become accustomed to, or could reasonably expect, this issue of Counter-Torque bears content not substantially different from the previous issue. This unusual result follows directly from the extraordinary response to the appeal in the last Counter-Torque. for members to:

- Attend Branch events
- Volunteer for Committee positions
- Let Committee know what members' wishes are in terms of events, and send comments/views on Branch and Institution matters

The response was extraordinary not only because JUST ONE member (out of 400 plus) communicated with us, but also because this member stated that he had *not been aware* that CCB held regular events of interest.

For years, two issues of Counter-Torque have been produced annually, and a *copy has been mailed out to each and every member in the Branch*. Every issue has made reference to events that have been staged by CCB during the year. Every issue has requested input to the Committee and comment about matters of interest to members.

Contact details have been prominently shown, both for correspondence by regular mail and by e-mail. But the pity is that, to date, over all these many years, the number of people responding does not even amount to ten.

Our **website at imeche-ccb.org** has also been running for quite some time. If any person takes the trouble

to log in, details of upcoming events are always available. Additionally, event flyers are mailed out personally to a good percentage of Branch members who requested this service some time ago. The events themselves are planned with due concern for convenience in timing and location, and of course interesting content.

It is worth repeating that our Branch is facing steadily dwindling membership, mostly for reasons not within our control. Therefore it devolves even more strongly on our still existing membership to actively participate in Branch activities. Our annual programme of events is as rich as it has ever been, and we urge members to turn out in force. Those members who do make the effort to attend on a regular basis know that there is always the promise of a good lecture, strong camaraderie and a unique networking potential with IMechE members and other professionals. Not to mention the complimentary refreshments and free parking, and all at a venue which is chosen to be easily accessible.

We also have plant visits where there is direct exposure to surprisingly deep technological innovation.

To ensure that we provide the maximum "added value" to our members through these events, we take the following steps:

- Have annual planning meetings to which all members are invited to submit suggestions
- Organize interesting lectures and plant visits covering a vast range of technologies,

from biomedical engineering to aerospace

- Try to arrange these events at easily accessible venues
- Have fun and social events – e.g., picnics, visits to miniature railways, transportation and aerospace museums
- Have both evening and day events, incl. joint events in collaboration with other UK/US institutions.

Needless to say, the health of the Central Canada Branch depends on continuing local member interest, so that member participation in events, and also hopefully in the Committee, is absolutely vital. **So please --- Attend our events, join our Committee, give us feedback, write for Counter-Torque, bring ideas for new activities, .... these will all give you much personal satisfaction – and, most importantly, sustain our Branch.**

Just as an illustration of the range of interests we cover, please look at the following aspects of two of our very successful recent events: an engrossing factory visit to **Comtek Advanced Products** in Burlington, and an outstanding social/fun event–cum–technical visit to the **Richmond Hill Miniature Railway**.

Although the Richmond Hill event was the earlier, let us examine the Comtek event first.

The company falls within the Small-Medium category, but has carved out for itself a strong niche in the aerospace sector. It designs and develops specialised components and assemblies based on high-performance

composite materials for several well-known companies in both civil and defence aviation. It was a revelation to discover that it has developed a patented resin infusion technology which requires no processing whatsoever in traditional autoclaves. This technological advance has enabled the company to become an approved supplier of major assemblies and components for the emergency escape chute system on the Airbus 380 superjumbo aircraft. Comtek works with Universities and research institutions around the world and has developed not only the resin infusion process but also highly advanced computer-based simulation technology, based on flow and resin-cure kinetics, as an aid to both component and process design.

The company takes pride in having on staff several high level scientists and engineers, particularly in the areas of polymers, engineering analysis, and computer systems. The latest CAE and CAD tools are employed, and advanced techniques are used to render optimised life-cycle product cost benefits to their customers.

A slide presentation and a most interesting tour through the plant were followed by a very pleasant dinner at a local restaurant. There was much stimulating conversation, and business cards were exchanged. How can such an event be beaten as a learning and networking opportunity?

The Miniature Railway event was a tour-de-force of an entirely different kind. Imagine a beautiful wooded landscape with miniature train track of different gauges winding its way between tall, shady trees, crossing bridges, climbing inclines, and terminating at a station equipped with a platform and, just ahead, a water tower and coaling shed.

Now imagine miniature wagons, on which are precariously seated assorted ecstatic adults and squealing children, all being authoritatively pulled along by miniature *live steam* locomotives, busily huffing and puffing their way while emitting micro-blasts of steam and smoke – and even the odd glowing cinder. Whistles are blowing, brakes are screeching, people are laughing, everyone is having a thoroughly good time.

At fuelling stations, water and tiny pellets of coal are being carefully taken on board. Fires are being stoked. Axles and crossheads and bearings are being oiled. For the technically minded, the railway engineers are explaining the intricacies of Walschaerts valve gear, boiler construction, superheated steam, outside and inside admission, etc., etc.

The locomotives are scale models and range from ones so small that they can barely pull two people at a time, seated in tandem, to quite imposing machines easily pulling twelve or more people in a train of wagons.

Again, after all too short a visit, a very satisfying lunch at a beautiful rural inn. A presentation, even, of a special gift of thanks to a long-standing member who has done so much for the Branch over very many years..

How can such an event be beaten for Fun and Learn?

Some of the highlights of the events programme in the period January to December 2008 were the lecture and plant tour at Baylis Medical on various issues in Medicine and Engineering; the lecture on aspects of Climate Change in February; the March lecture on energy conservation potential by utilizing landfill gas; the May lecture and

plant visit at Goodrich; the September fun-cum-technical event at Richmond Hill miniature railway; the October lecture on building with renewables; and the Christmas Dinner lecture on design approaches for making buildings able to withstand hurricanes.

Our portable public address system proved very handy at the IET student awards event.

In addition, there was again the sumptuous Chinese New Year's banquet collaboratively with BCS, followed by a lecture on systems audit methodology.

The curious thing is that CCB members do not appear to respond to the high value these events represent, not just for learning and keeping current professionally, but also for networking among peers and experts.

Many professional associations are active in Ontario, but for most of their events there is a *charge* for attendance. Here at CCB we have a full calendar of *absolutely free* regular events to which so few members come.

It is hard to see why a member would be reluctant to come out about one evening a month to a comfortable hotel, with the promise of a good lecture, camaraderie and solid networking potential with fellow IMechE members and other professionals. Where else can such an opportunity for mental stimulation, professional development and social interaction be found? To top it all off, there is always a good selection of food, plus free parking, and the event is invariably at a venue which is easily accessed.

For plant tours, both day and evening visits are organized. It is difficult to imagine how to do even better, but if something has been missed, *why are there no alternative suggestions?*

