



Institution of Engineering and Technology

IET Ottawa

January 2007 Newsletter

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Secretary: Martyn Delbridge,

January Technical Meeting:

“Barcodes, RFID and handheld computers - how to track anything”

John Rivenell - sagedATA, Ottawa

Courtside A Room, RA Centre, 2451 Riverside Drive

Wednesday 18 Jan. 2007, 6.00 for optional dinner - 8.00 pm for the meeting

Radio Frequency Identity (RFID) Tags are changing the way we do things. Over 90% of what you have read about RFID is nonsense. But the 10% that is true is going to have a huge impact on you. Find out how and why.

John Rivenell says: The Barcode has become a part of our lives - at the supermarket, and in the supply chains that provide us with the essentials (and the luxuries) that we need to live. The increased use of the barcode has led on naturally to increased use of handheld computers for collecting information, and for directing workers in their day to day tasks. One of the few weaknesses of the barcode is that it must be visible to the reader. For situations where this is not practical or not easy to achieve, the barcode can be replaced by a new and different kind of tag, the Radio Frequency Identification (RFID) tag. A lot has been written in the popular press about this technology and (in our view) sadly, much of this is incorrect.

This presentation will take you for a walk through the world of Auto ID (automatic identification). We will take you from the origins of the barcode, explain some of its mysteries, and take a little detour into the anatomy of a barcode - how it works. We will introduce you to the current capabilities of a hand held computer, and explain some of the uses (and potential abuses) of the system. From there, we will introduce RFID, and explain away some of the myths. It is our view that 90% of the information available in the popular press is misleading. But that the 10% that is true is more than impressive enough, without any need for exaggeration. We will banish some of the monsters under the bed - questions around privacy and big brother. We will introduce you to

the zombie, explain why the barcode is not always magical, show why you don't want to use a barcode in a rubber dinghy, and show you how to recognise a bar code with the naked eye. We will show you how we could put a unique RFID tag on every hair on every head of every human on this planet. But then, we could do that with barcodes too. It is not really that difficult. We will share our vision of the future, as affected by these technologies. We will have plenty of toys for you to play with - they will be on display from 6 pm. We also hope to have representatives from the industry there to answer your questions.

The presentation is hosted jointly by the Ottawa Branch of the Institute of Engineering and Technology and the IEEE AESS Ottawa Chapter. The presenter, John Rivenell, C.Eng. MIEE. MIQA. MIAM has considerable experience in the field.

The presentation is open to all. Please reserve (state if dinner is required) by contacting Hugh Reekie max-com@allstream.net or phone 613-728-5343.

Social hour in Courtside A 6 pm; Dinner 6.30 pm in the Field House Restaurant, presentation in Courtside A at 8 pm. Bar available.

Park in the East lot of the RA Centre and enter by the corner door. Dinner reservations appreciated by 15 January, but walk-in dinners without reservations are acceptable.

How to get there:

The RA Centre is located near Bronson and Riverside Drive.

Preliminary 2007 Program:

February 15th. 2007 Visit to RBR Ltd., who specialise in Precision Oceanographic Instrumentation
Mar 15th. 2007 To be determined

Report on the November 2006 Annual Dinner "The Canadian Space Agency in Action Today"

by Rolf Mamen - prepared by Edwin Morton, Ottawa Branch

Despite the blustery weather, we had an excellent turnout for the 2006 Annual Dinner Meeting. I am always impressed by both the number of familiar faces that I see at the dinner and the number of new ones that join us for the event every few years or so. It was held at the Britannia Yacht Club and at least 60 engineers, spouses and guests enjoyed the excellent roast beef with all the trimmings. When we had all eaten enough to satisfy our appetites, we were informed and entertained by a presentation from Rolf Mamen, the Director General, Space Operations with the Canadian Space Agency. Rolf provided an excellent overview of Canadian contributions to space exploration, research and exploration.

The presentation focused on RADARSAT-1 with an emphasis on its operational missions RADARSAT-1, RADARSAT-2, SciSat, Canadarm-1, Canadarm 2 and the work carried out at the David Florida Lab (DFL). Several aspects of the work of our Canadian Astronauts were also covered. It was interesting to learn about the new features associated with Canadarm-2 and its ability to "walk" between fixed anchor points and to support a range of detachable, modular appendages. The presentation was followed by a healthy Question and Answer period with excellent audience participation.

Monikers, Messages, and Means - update from the Chair

Let's start with **Monikers** - or logos, to be more precise. There were many older IEE lion logos on display at the Branch Annual Dinner, which was well attended. I had my IEE lion tie on, as did many others. I wish to thank to John Vines for arranging a fine evening; he attended to many details; for example, he brought along his miniature IEE lion flag, which has a place of importance on his household fridge for most of the year; it adorned the Dinner Head Table, which had a strong space-engineering representation.

And now the **Messages** - Colin Billowes is continuing in his capacity as a member of the IET "Reformation Committee" headed by Colin Davidson. Expect a proposal for new IET Bylaws to be distributed soon; then, after discussion, they are expected to be put to a second Extraordinary General Meeting, likely in May 2007.

Another message - John Vines is now an active member of the new RRC - a Regional Representation Committee, with representatives from all over the world. IET HQ seem in a rush to get on with things, to try to correct many anomalies which frustrate overseas members, this will probably do no harm; but one wonders if much of the committee's proposals may become redundant when the new bylaws come into force, as they surely will.

A **third, important**, message is that a selection of interesting monthly presentations is in the planning process. In addition to the January gathering headed by John Rivenell, the February talk is being organized by Frank Johnson; it will

be on the subject of Temperatures and Currents in the North Atlantic - we now know that the sea water flows in different directions at varying depths. Frank's company, RBR, is a world leader in sophisticated water gauges, used for salinity and temperature measurement, for example. There may be a chance of visiting his small manufacturing location in the Glebe, too, on another evening.

Another message: many of you responded to the short survey during the Annual Dinner; thank you. If non-attendees want to participate, please contact your Chair. The summary response was: quite a number of Branch members don't know much of what your executive is trying to do; also, some wish to have longer notification time for IET local meetings. Your Exec is trying to address both these issues. I hope this information column helps.

The **means** by which this activity gets done is your hard-working Executive Committee, which meets monthly. The December gathering, which included some Holiday Fare, proposed some new ideas. It is hoped that the plan for adding some technical value to our monthly meetings, headed by Bhagvat Joshi, will come to fruition soon; also Ernie Fanthome wants the IET Ottawa Branch to get back into supporting a school Engineering/Science competition of some kind. If you wish to assist, or find out more about these new initiatives - please get hold of a member of the executive; contact information is provided at the end of this Newsletter.

- - - Hugh Reekie Chair

YOUR EMAIL ADDRESS

For some time we have been sending notices to members by Email. This is to save the cost of paper and postage, but also provide updates and reminders that you would not receive in time from Canada Post. We send at least one paper mailing to all Ottawa Branch members each year.

You are receiving this paper copy of the newsletter because we do not have your Email address or the address that we do have does not work. If you wish to receive notices and newsletters by Email, please send your Email address to jvines@iee.org and the address will be placed on the list. Thanks

Note: If you change your home address, telephone number or Email address, please inform the IET in London. The change may be made by letter or sending an Email to membership@iee.org, or by entering the change directly via the IET WEB page. Notification to jvines@iee.org will also help locally.

The 2006/2007 Ottawa Branch Committee consists of:

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