

Vijay K. Sood, Hydro-Québec

**C**e numéro de la revue canadienne débute avec le rapport d'introduction de Bill Kennedy (à la page 5), en tant que nouveau directeur de la région 7. Je tiens à remercier Mo El-Hawary pour ses contributions à titre de directeur de la région au cours des deux dernières années.

Ce numéro de la revue canadienne innove, encore une fois, avec deux articles en français. Je suis très satisfait de voir nos efforts dans cette direction être récompensés. Je vois déjà une tendance très saine, et nous aurons un autre article en français dans l'édition estivale. Soit dit en passant, le prochain numéro est déjà complet! Avoir des articles en banque est très positif et rend ma tâche d'autant plus facile. Je pourrais facilement commencer le prochain numéro et l'expédier avant sa date prévue de publication, sauf que notre trésorier ne serait peut-être pas très content.

Un des problèmes qui demande encore du travail a trait aux revenus de publicité et de commandite. C'est probablement la prochaine barrière à franchir avant de devenir un journal d'une certaine envergure. Pour que ça se réalise, vous, les membres, pouvez aider. Sil vous plaît, informez vos collègues et collaborateurs en entreprises qu'une publicité dans la revue canadienne atteint près de 15 000 lecteurs, lecteurs avec un haut niveau de connaissances technologiques et scientifiques et très influents dans ce qu'ils consomment. Pour ceux d'entre vous qui sont dans les divisions de marketing de corporations, vous pouvez certainement transmettre ce message.

Finalement, la conférence CCGEI 2004 se déroulera à Niagara Falls au mois de mai (voir pages 31 et 32). On m'a dit qu'il y a eu un nombre record d'inscriptions. J'ai hâte d'y assister.



### Opinion

I am 55+ years old and some years ago, following my generation's dream of retiring at 55, I decided to take the envied plunge. Things were getting tiring at work, and my employment was becoming a real pain in the you-know-what. So I decided that travel, tending after the garden, and wining-and-dining would occupy happily the rest of my remaining life. These would be the fun activities that I missed so much and, if the good spouse would permit, I could even go to a Bridge session once in a while.

Things have not turned out as expected. First, the retirement package that was invested heavily in the stock market plunged thanks to the telecoms bust. Second, the youngsters who had departed to make their fortunes elsewhere (far far away), discovered that they could not cope with the fast life and decided to return home. And third, the travel became too rich for the pocket and the wining-and-dining became too rich for the stomach.

So, as it turns out, I need to get back. For those of you who wrote me off, look carefully, ...very carefully behind you. For those of you who missed me, ...smile, 'cause we shall have those "Happy Days are here again" sing-alongs soon. And for those of you who don't care, ...fret not, 'cause you are the chosen ones.

So, in the words of the famous governor: I'll be back. Watch me.

Baby Boomer

### Cover picture / Photo de couverture

Teams of unmanned aerial vehicles (UAVs), such as these Boeing UCAV X-45s, are likely to be deployed much more often in the future by both the military and civilian airspace communities. Cooperative control systems are needed to reduce computing costs and to make the team more robust. For electrical and hardware/software engineers, the challenge is to keep the communications and computing demands achievable within the limits of communications bandwidth and computing power that is feasible on such vehicles.

This issue of the CR46 commences with the introductory report from Bill Kennedy (on page 5), as the new Director of Region 7. Mo El-Hawary now moves on to being past Director of the Region and I wish to thank him for his contributions of the past two years.

This issue of the CR is breaking new ground, once again, as we have two articles submitted in French. I am personally very satisfied to see that our efforts in this direction have finally borne fruit. I already see a very healthy trend, and we will have another French article in the following summer edition CR47. By the way, the next issue is already full! This trend for having articles in the bank, so to speak, is very positive and makes my task that much easier. I could easily start the next issue and ship it out ahead of schedule, except that our Treasurer may not be too happy about that.

One of the problems still needing some work has been with the advertising and sponsorship revenues. This can be the next target hurdle to overcome before we can truly become a journal of some calibre. For this to happen, you the membership can help. Please inform your contacts in the commercial environment that advertising in the CR reaches some 15,000 potential readers who are very knowledgeable and can be quite influential in what they consume. Those of you who are in the marketing divisions of corporations can certainly take this message forward.

Finally, the CCECE 2004 conference is in Niagara Falls in May (see pages 31-32). I am told that a new registration record has been set. I look forward to being there.

### Contents / Sommaire

	Page
<b>News / Nouvelles</b>	
Canadian Newslog / Coupures de Presse Canadienne .....	4
by Alexandre Abecassis, Ogilvy Renault, Montréal, QC	
Director's Report / Rapport du Président .....	5
<b>Telecommunications / Télécommunications</b>	
Information & Communication Technology Usage Behavior.....	6
by Jozée Lapierre and Roxane G. Medeiros, École Polytechnic de Montréal, Montréal, QC	
<b>Telecommunications / Télécommunications</b>	
Approches heuristique pour l'affection de cellules aux .....	9
par Samuel Pierre, Alejandro Quintero & Agnès de Montgolfier, École Polytechnique de Montréal, Montréal, QC	
<b>Industry / Industrielles</b>	
On the Cooperative Control of Multiple Unmanned Aerial Vehicles.....	15
by C.A. Rabbath <sup>1,2</sup> , E. Gagnon <sup>1,3</sup> and Lauzon <sup>1</sup>	
<sup>1</sup> Defence R & D Canada - Valcartier, QC, <sup>2</sup> McGill University, Montreal, QC, <sup>3</sup> Université Laval, Québec, QC	
CRM Package Implementation in a Multi-National Bank.....	20
by Karim K. Hirji, AGF Management Ltd., Toronto, ON	
<b>Telecommunications / Télécommunications</b>	
HSDPA: An Overview.....	22
by Ryan Caldwell and Alagan Anpalagan, Ryerson University, Toronto, ON	
<b>Communications / Communications</b>	
Effects optiques des structures périodiques.....	25
par F. Benkabou et H. Hamam, Université de Moncton, NB	
<b>News / Nouvelles</b>	
Engineering Institute of Canada Awards, 2004 .....	29
New Fellows of the IEEE 2004.....	30
CCGEI'2004 - Appel Aux Communications.....	31
CCECE'2004 - Call For Papers .....	32