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IEEE NEW SOUTH WALES SECTION
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Editorial

Australian Engineering Week (AEW) is nearly upon us, with events commencing 30 July 2010. IEEE NSW Section is a proud supporter and sponsor of AEW. We encourage members and their family and friends to participate in the events and site visits (which run from 2 to 5 August). For further information please visit www.makeitso.org.au. If you would like to give up some of your time to assist with the running of any of the events, please contact either Kim Chin (vsigma@optushome.com.au) or Eddie Fong (eddiefong@ieee.org).

If you have been thinking about joining the IEEE NSW Committee, why not come along to our next monthly meeting. The next meeting is scheduled for 2 August 2010 and will be held at the offices of Griffith Hack in North Sydney (Level 29, 100 Miller Street), commencing 7pm. Committee members are invited to an informal dinner following the meeting in the North Sydney area - venue TBA. For more information please contact me.



Mark O'Mally mark.omally@ieee.org
 Editor, Circuit Newsletter, NSW Section

1. Message from the Chair**IEEE ISCAS to meet in Melbourne**

Melbourne has won its bid to host the International Symposium on Circuits and Systems (IEEE ISCAS) in 2014. The conference is expected to attract 1,000 delegates, injecting more than \$4 million into the local economy. The Symposium will be held at the Melbourne Convention and Exhibition Centre.

Request from the Consulate General of the Russian Federation

We have received a request from the Consulate General of the Russian Federation in Sydney. The city of Vladivostok is looking for expertise from Australian companies in the areas of city planning and water treatment. Please let us know if you or your company is interested.

Undergraduate Scholarships

A total of 30 undergraduate scholarships in the area of Computer Science are being offered by IBM and several government agencies to first and second year undergraduate students. The value of each scholarship is \$30,000, which includes cash payment, on job training and 12 months work experience. Please contact the Chair of Graduate Placement, IEEE NSW, Errol Chopping (echopping@csu.edu.au) for details.

Call for Interest

IEEE NSW has received an invitation to send delegates to the following events:

(1) IEEE Region 8 Section Chairs Meeting, which will be held in Prague, Czech Republic between October 8 and 10, 2010.

(2) IEEE Sections Congress 2011 will be held 19-22 August 2011, in San Francisco, California, USA.

IEEE Data Mining Competition on City Traffic

ENBIS members are invited to join the data mining competition affiliated with IEEE International Conference on Data Mining 2010 (ICDM), Sydney, Australia, December 14-17. The task is to predict city traffic based on simulated historical measurements or real-time stream of notifications sent by individual drivers from their GPS navigators. Prizes worth \$5,000 will be awarded to the winners. Please consult the competition website <http://tunedit.org/challenge/IEEE-ICDM-2010> for submission and deadline details (submitted by Alessandro Di Bucchianico).



Dr Kim Chin presenting at EA Auditorium

First Russia and Pacific Conference on Computer Technology and Applications:

IEEE NSW and IEEE Russia Siberian Section will jointly host a conference in September 2010 in Vladivostok. Details can be found at: <http://www.academicinternational.org/aaic/index.html>



David Tien dtien@csu.edu.au
Chair, NSW Section

2. News in Brief

2.1 GOLD

On 22 April 2010 IEEE NSW GOLD member Dr Kim Chin gave an excellent presentation to the Joint Institutions on Multicast Networking, at the Engineers Australia auditorium in Chatswood. The meeting was chaired by Amal Hanna (FIEAust CPEng) and was well attended.

The lecture explained the limitations of current predominantly unicasting Internet Technology for emerging applications such as Internet TV, Video Conferencing and the issues preventing the widespread use of Multicasting in the current environment. A thorough history of unicasting and multicasting was presented as well as the various models and technologies being developed.

Dr Kim Chin is currently working for Vsigma Capital Ltd conducting research. She has 15 years research and academic experience (UNSW, UTS and The Australian Catholic University).

2.2 NSW IEEE AGM and Dinner

While a venue is still being settled, the date has now been locked in – 26 November 2010. Further details will follow, but be sure to save the date. We look forward to seeing you there

2.3 Life Members

We didn't have a very strong response to our suggestion to organise a subsidised special luncheon at a City venue for all life members and their partners mid July or August. This was disappointing but we need to have at least 2 meetings a year to continue with the development of the IEEE New South Wales Life Members Affinity Group. We have recently been advised by George F McClure, Chair of the IEEE Ltd Members Committee, our Group of 54 Life Members has been included on the 2009 list of Outstanding LMA. It is hoped this recognition will lead to an increase in the following areas:

- Satisfaction of IEEE Life Members with their involvement
- Recognition of the contributions of Life Members to IEEE activities
- Number of Life Members Affinity Groups
- Life Members engagement in IEEE activities
- Donations to the Life Members Fund

Please let me know if any Life member is planning to change their address before the end of the year. Toni Karbowski and his wife Grace have sold their house in Artarmon and moved to St Lukes Retirement Village, Little Bay. They will now be closer to their daughter who lives in Hurstville. As of 20 June we have 53 Life Members resident in NSW.

I look forward to receiving your comments and suggestions by email to jl.robinson@ieee.org. I will be returning from an overseas trip to the USA early August and hope by then to have lots of Life Member emails in my pigeon hole.



John L. Robinson jl.robinson@ieee.org
Chair, Life Members Affinity Group

2.4 Engineering Colloquia Update

Macquarie Engineering Colloquia (MQEC), sponsored by IEEE NSW, is aimed at attracting speakers and participants from diverse fields in engineering and research. It was initiated in 2010 with the first colloquia held in February.

So far, eleven colloquia (listed below) have been organised.

1. Promising Low Power Reusable Solutions - Application Specific Instruction-set Processors: Professor Myung Woo Sunwoo, Ajou University, Korea.
2. Multi-user Systems and Wireless Sensor Networks: Dr. Stevan Berber, University of Auckland, New Zealand.
3. Compound Semiconductor Technologies for Wireless Backhaul: Anthony Fattorini, Mimix Broadband Inc., U.S.A
4. Applications of Wideband Semiconductors for Microwave PAs: Francesco Fornetti, Bristol University, U.K.
5. A Holistic Approach to Patent Protection: Martin Friedgut, Spruson & Ferguson
6. Cooperative and Cognitive Radio Technologies: Dr. Sithamparanathan Kandeepan, Create-Net, Italy.
7. Wireless Medical Implant Technologies: Dr. Peter Bradley, Zarlink Semiconductor, U.S.A.
8. Fundamentals of Earth and Lightning for Engineers: Don Tissa Wijayasinghe, Integral Energy, Australia.
9. Review of Study Leave Activities on Quantum Dots, Polymer Waveguides, Solar Cells: Professor Graham Town, Macquarie University.
10. Theoretical Considerations in the Design of Microwave Chaotic Signal Generators: Dr. Venkata Gutta, Macquarie University.

11. Capturing, Radiating and Guiding Waves in the Modern Wireless World - A highly simplified presentation to the non-expert: Professor Karu Esselle, Macquarie University.

Upcoming colloquia include:

1. Phase Noise in Heterojunction Bipolar Transistors: Oya Sevemli, Macquarie University.
2. Differentially-Encoded Multilevel Block-Coded MPSK: Dr. Charles Lee
3. ESD Protection Solutions: Professor Juin J. Liou, University of Central Florida

For information on abstracts, speaker biographies, venue and schedule of future talks, please refer to www.engineering.mq.edu.au/colloquia.

Anyone interested in presenting a colloquia should contact Professor Karu Esselle (karu.esselle@mq.edu.au) or Dr. Venkata Gutta (venkata.gutta@mq.edu.au).



Karu Esselle esselle@ics.mq.edu.au

2.5 Bits and Pieces

myIEEE Adds myDesktop Personalization Options and Secure Messaging

Two new features that provide advanced customization and communication options have been added to myIEEE.

myDesktop: Allows IEEE members to organize their favorite myIEEE content how they want it, much like a personal myYahoo or iGoogle page. Options include:

- Customizable selection of all myIEEE “gadgets” (or modules related to membership, *IEEE Spectrum*, *The Institute*, conferences or IEEE Xplore® Digital Library, for example);
- Multiple layout options with drag-and-drop gadget placement;
- Choice of several technology-based backgrounds (e.g., aerospace, biomedical, communications, computing and more); and
- RSS tools to import feeds from IEEE or content sources outside of IEEE.

Members can log in to [myIEEE](#), select the “Customize” tab and begin personalizing their myDesktop page.

2.6 Membership Development

Our free student membership offer ended on 30 June 2010. It was great to see a number of students, especially postgraduate students, took advantage of the free membership offer.

I take this opportunity to urge all members who are currently eligible for senior membership to be proactive and take steps to upgrade. Upgrading is not difficult and helps to increase the status of our Section. To upgrade to senior member you will require three referees. However, if you are being nominated by the Section, you only require two referees.

The IEEE Job Site Career Alert is now available and is being sent to members via email. The Alert is a bi-weekly report on jobs, education, management and the engineering workplace, sent from the editors of IEEE Spectrum. This report becomes an additional benefit to members for updated news which may have impact on their career, education & workplace.



Bruce Poon adsphere@optusnet.com.au
Membership Development Chairman, IEEE NSW Section

2.7 Welcome to our New and Upgraded Members

From March to June 2010, we have the following new and upgraded members:

Life Senior Member Grade

P W Dulhunty

Senior Member Grade

Ashok Manglick
 Steven R Meikle
 Mark D Pelusi
 Ping Yu
 Dadong Wang
 Stuart G Hay

2.7 Welcome to our New and Upgraded Members (cont.)

Member Grade

Nicholas D Lochrin
 Socrates Dokos
 Mary Kaikati Hakeem
 Iain F Macgill
 Philip Q Madigan
 Stephen Bignucolo
 V M Tohadze
 Teddy S Jayadiwangsa
 Sri Parameswaran
 Tirthankar Raychaudhuri
 Michal J Tordon
 Teik C Lee
 Camillo Pavan
 Edward Maitoga
 Andrew J Hunt
 David A Coward
 Raoul Golan
 C I Blake
 Barry F Finlay
 Golam M Sorwar
 Jason C Yip
 Kannan Balakrishnan
 Chee M Chong
 Fred Fetherston
 Gregg J Suaning
 Jason A Crowe
 Ahasan Shahid Anowar
 Gregor Verbic
 Jeff I Allom
 Richard Scott Morrison
 Louis Lefevre
 Simon Michael Lucey
 Greg D Strain
 Weidong Su
 Saad M Sayeef
 Bradley J Gay
 Alexander V Danilo
 Irena Koprinska
 Joseph F Winter
 Yong Dou
 Dawit Seyoum
 James M Robinson
 A Kanagasingam
 Mark V Bishop
 Peter K Thomson
 Mark T Phillips
 Phillip A Burns
 David R Mcghee

Member Grade Cont.

Jony Kwa
 Vellimalai Karuppanan
 Andrew J Fleming
 Steven Tu
 Adriel P Kind
 L Vaidyanathasamy
 Antonypillai J Francis
 Rakesh K Agrawal
 Serdar Erozan
 Barrie J Hall
 Terry J Dawson
 Lawrence Lee Chong Ong
 Jones Olatunji
 Satyanarayan Barik
 Michael J Stuckings
 Heidi B Stratti
 Irosh Fernando
 Scott N Reeves
 Robert J Weir
 Shiping Chen
 Fosso Wamba Samuel
 Wen Zhang
 Costanzo M Costa
 Peng Gong
 Kuan Yen Tan
 Abu R Ullah
 John Chun Chan
 nagesh subramaniam iyer
 Alejandro Ruiz Rivera
 John Yi-Chen Li
 Carlo Nico Romero Arceo
 Angus Murdoch Ferguson
 James Jackson
 Hirantha Amal Perera
 Jason Caruana
 Yuen Kuan Yong
 Yiwei Liu
 Gabriel Aguirre-Ollinger
 Yong Zhu
 yongchang zhang
 Oliver Ridler
 Chris J Nicol
 David Kierans
 Jin Xu
 Gengfa FANG
 David Anthony McCarron
 Peter McLean

2.9 Welcome to our New and Upgraded Members (cont.)

Member Grade Cont.

Joseph Bernard
 Jerry Sawick
 William Simonsen
 Colin George Kennedy
 Michael Paul Gerber
 Mohammad Ali Noori
 Herbert F Jelinek
 Adrian George Wills
 Kishor Chintamani Kelkar
 Camille Lambert
 Janet Aisbett
 Robin Harper
 Saso Ristevski
 Gayathri Vijayakumar
 Nicolas Grange
 Susan Graham
 Norazlin Yusop
 Jay Rao

Associate Member

Bruce S Poon
 Narinder Chhabra
 Dinesh K Yadav
 Perter J Briede
 Paul Evan Lillington
 Asrul Izam Azmi

Grad. Student Member

Faizan Javed
 Liam Widdowson
 Quang L Thai
 Qestra Mulqueeny
 Dody Ismoyo
 Xiaoming Chen
 Lester Chong
 Fan Bai
 Feng Li
 Qim Yi Lee
 Yin Kia Chiam
 Bappi Barua
 Joe Zou
 Libin George
 Werayut Saesue
 Nishad R Mendis
 Guanfeng Liu
 Yang Du
 Mohammad S Haque
 Lin Wang

Grad. Stud Member Cont.

Prajyot Vishnudas Naik
 Bachar Adba
 Judith Evangelista
 Arati Amatya
 Xiang Li
 Winsy P S Dissanayake
 Mohan Kumar Upadhyaya
 Vaibhav Samadhiya
 Yiwei Yu
 Dushmantha Thalakituna
 Sayed Albahrani
 Kewei Clare Guo
 Tao Huang
 Quang Huy Pham
 Hai Ngoc Nguyen
 Pega Zarjam
 Tanbir Rahman
 Jawad Khattak
 Thinh Thanh Doan
 Christopher Le Brese

ZELIN LI
 Xiaocen Guo
 A Alam
 Anh Huy Phan
 YingYi Liu
 Malcolm Egan
 Shashika LBiyanwilage
 Ujjawal Singh
 Lili You
 Zheng Li
 Muhammad Haris Ghaus
 Sareh Mozafari
 Aresh Daruwalla
 Zhe Wang
 Christian Sutanto
 Siwei Bai
 AZLAN ISMAIL
 Alejandro Barriga Rivera
 Ruoyu Li
 Deric Dominic
 Madhuka Jayawardhana
 Geoff Bull
 Khaled Alyoubi
 Syamantak Saha
 Van Thanh Huynh
 Jinguang Han
 Victor Kuo
 Jing Liu

Grad Stud Member Cont.

Carl Eric Svensson
 Chris Townsend
 Yashodhan Moghe
 Abdulaziz M Aldukhayyil
 Raed Manna
 Akram AlSukker
 Umar Rashid

Student Member

Joshua P Toomey
 Andy Cheng
 Mohammad Choucair
 Huiyuan Zheng
 A Thevampalayam
 Mas Sahidayana Mohktar
 Sachin Tandukar
 PRAJWAL SUBEDI
 Chupendra Pun
 Prashant Giri
 Myat Kyaw Lin
 Julius Alfa Aseli
 Kaushal Rimal
 Prakash Pandey
 Rakesh Suwal
 Ram Kumar Bista
 Sunil Bhujel
 Govinda Gautam
 Dona Anne Dilini Abeyakoon
 Roumel Anorico
 Jin Lai
 SHIV BHATTARAI
 Badri Shrestha
 Ramtin Kazemi
 Fei CHEN
 Andrew Roy Figgett
 Wessam Baghdadi
 Nikhil Mathew Mathew
 Joanne Fu
 Victor Lee Kai Shen
 Si Ruo Yu
 Jianliang SHEN
 Yang Li
 Daniel Ho
 Saroj Pandeya
 Anurag Bhatnagar
 A H M Ribat Uz Zaman

Student Member Cont.

Gehendra Acharya
 Adrian Bradd
 Kundan Pandey
 Lei Wang
 Anton Marinov
 Sanjay B Kanwar
 Yan Di
 Richard Stuart
 Emad Nour
 Greg Campbell
 Martin Thompson
 Jeeva Bharathi
 Clinton Peate Allison
 Tania McGregor
 Gareth Samuel
 Tien Huy Hoang

Affiliate

Micky K Tong
 T R Bossomaier
 Alan Mcnamara
 Pinaki Basu
 Shirley C Bate
 Aji Setia Gerdiman
 Donald Shearman
 Daniel Johnston
 Mark England
 James Kelly
 Cameron Martin
 Michael Anthony Kelly
 Ryan Lagerstrom

2.10 IET News

The IET Chairman, Mr Graham Lee, represented all the members of the IET-NSW committee in thanking and presenting to Mr John Englefield a framed certificate and an IET weather station, which was in recognition of his many years of service to the IET (formally the IEE) NSW committee.



Graham Lee presents John Englefield with gift

John's dedication and enthusiasm was and is much appreciated. He was one of the prime organisers of our contribution to the Joint Committee Lectures. John's hosting of and repartee at the after Lecture dinners made them so much more interesting. John's work in encouraging our younger members and developing the future generation engineers is acknowledged and very much appreciated. John also served for three years as Chairman of the committee, which is greatly appreciated. Thank you John and have a very happy (we know it will be busy) retirement.

3. Chapter News

3.1 Joint OCEANS/Signal Processing and Communications Chapter

IEEE Oceanic Engineering Society: Oceans'10 Conference 24-27 May 2010

The Oceans' 10 conference was successfully held at the Darling Harbour Bayside Convention Centre. The conference Welcome & Plenary Sessions commenced on the Tuesday morning. The Welcome started with a local aboriginal elder conducting a Smoking ceremony, which aims to cleanse the areas in which the conference took place.

The Smoking ceremony was followed by a well executed didgeridoo solo.

Dr Brian Ferguson, Conference General Chair, introduced Prof Mary O'Kane, NSW Chief Scientist & Scientific Engineer, who gave the Welcome address. The first Plenary Talk followed which was titled, *Meeting Social Challenges Using Marine Technology* and given by Craig Mclean, from the National Oceanic & Atmospheric Administration USA. For the second talk Royal Australian Commodore Bruce Kafer, AM, CSC spoke about *Understanding the Oceans – a Navy Perspective*. The third talk *Why Ocean Science Matters for Australia*, was addressed by Dr Neville Smith, Deputy Director (Research & Systems) Bureau of Meteorology, completed the session.

The Exhibition was opened after morning tea with 30 Exhibitors in 36 Booths together with 22 Student Posters.

There were 530 full registrations, 14 one day registrations and 134 registrations for the exhibition only and three Life Members. On the Monday 188 registered for the tutorials from a total of 8 tutorials. Of this group approximately 75% were from Australia and New Zealand and 25% from overseas. 20 students from a total of 67 were given support after a gruelling student paper competition earlier in the year, the standard of all papers was exceptional. The winner was Ariole Friedman, an Australian from the University of Sydney. The runners-up were François Socheleau from France and Anuj Sehgal from Germany. These students received their prizes at the Gala Function held at Luna Park on the Wednesday evening. The prizes were funded by the US Office of Naval Research, Science & Technology and presented by Dr Stefan Williams, University of Sydney Mechatronics Engineering.

The next Oceans conference will be held in Seattle, Washington USA sponsored by The Marine Technology Society USA and the IEEE Oceanic Engineering Society. Put the Conference date 20-23 September 2010 in your diary.

3.2 Antenna & Propagation/ Microwave Theory & Techniques Chapter

On 10 June 2010, Dr Ozgur Isik from Argus Technologies (Australia) delivered a public lecture entitled "Metamaterials in Electromagnetic and Microwave Engineering". The lecture was held at Engineers Australia (EA) Auditorium and was jointly organized by IEEE, IET and EA.

Dr Isik reviewed the history and several selected topics associated with the metamaterials. The focus was on the interaction of electromagnetic waves with these artificially structured materials. He described how this interaction could lead to interesting and unusual characteristics which are not observed in conventional

media. Potential applications of metamaterials such as the “perfect lens”, which could resolve objects smaller than the wavelength of light, and the “invisibility cloak” were presented and discussed in addition to several microwave circuit applications. The meeting was well attended by the members of IEEE, IET and EA.

The next joint IEEE/IET/EA lecture will be given by Ms Oya Sevimli of Macquarie University on 9 September 2010 from 6pm in the EA Auditorium at 8, Thomas Street, Chatswood.



Karu Esselle esselle@ics.mq.edu.au
Chair, AP-MTT Chapter

4. Technical Meetings & Conferences

All members are cordially invited to attend these joint lectures with the Engineers Australia (EA), IEEE and IET. These joint lectures will be held at 6.00 pm (with light refreshments from 5:30pm) at the EA, 8 Thomas Street, Chatswood, NSW, unless otherwise stated.

All members should check the latest updates of the Meetings & Conferences a couple of days prior to the actual date at the IEEE NSW News bulletins at: <http://www.google.com/calendar/embed?src=k3hz%40ieee.org&ctz=Australia/Sydney> and also the EA at http://www.engineersaustralia.org.au/events/events_home.cfm to prevent any potential disappointment due to last minute changes.

Date (2010)	Event/Meeting/Conference	Speaker	Host	Contact	Venue
12 Aug	Railway Earthing	David Stuart Smith (ARUP)	EA	Raymond Pau	EA Auditorium
26 Aug	Car Electric Systems	TBA	EA	Mark Edmunds	EA Auditorium
9 Sept	IF Noise Quality - Wireless Comms	Oya Sevimli	IEEE	John Robinson	EA Auditorium
23 Sept	Building Automation	Emanuel Moutos	IET	John Upali	EA Auditorium
14 Oct	Google Engineering Tools	Ken Robinson	EA	A Sangster	EA Auditorium
28 Oct	Medical implant technology	Peter Bradley	IEEE	Eddie Fong	EA Auditorium

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Please contact:

Mark O'Mally +614 11026960 or mark.omally@ieee.org

5. New South Wales Section Committee Nomination for 2011

The Nominations Committee invites members to submit nominations for appointments for the 2011 NSW Section Committee. Please complete and return the detachable form below by **30 August 2010**. The appointments for the NSW Section Executive Committee will be decided at the Annual General Meeting, to be held on 26 November 2009. The remaining Committee Members appointments will be decided in the first 2011 IEEE NSW Section Meeting on 7th February.

The available appointments within the IEEE NSW Section are:

NSW Section Executive Committee – Chair, Vice Chair, Treasurer, Secretary Newsletter Circuit Editor Fellow Search Chair Membership Development Chair Professional Activities Chair Educational Activities Chair Student Activities Chair	GOLD Chair Awards and Recognition Chair Life Member Affinity Chair Nomination Chair Historian Chair Webmaster Conference Co-ordinator Chair Committee members
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Please detach-----

2011 Committee Member Nomination Form (Complete and return by 30/8/09)

Your Nomination (Name and appointment):

Your Name:..... Signature:.....

Member No:..... Member Grade:.....

Address:..... Postcode:.....

Tel: (H).....(W).....(M).....FAX.....

Email:

Kindly Post to: IEEE Committee, C/O AUSTRALIAN PROFESSIONAL CENTRE, PO Box 576. CROWS NEST NSW 1585
Or Fax: +61 2 94318677
Or E-mail: gb.qwilliam@ieee.org (please send scanned copy of completed form)