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IEEE NEW SOUTH WALES SECTION
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Contents

Item		Page
	<i>Editorial</i>	1
1.	<i>Message from the Past Chair</i>	1
2.	<i>News In Brief</i>	2
3.	<i>Chapter News</i>	5
4.	<i>Technical Meetings & Conferences</i>	7
5.	<i>Continue to Receive CIRCUIT by Post</i>	8

1. Message from the Past Chair

All the best to the incoming committee in generating interesting events and initiatives to the NSW members. My involvement moving forward through 2009 will be on two fronts, firstly the 2009 Gadget Summit planned over the joint Engineering Week. This is a major challenge that extends far beyond simply booking a venue and finding a speaker, as it also impacts intellectual property, patent disclosure and even business alliances. The intent is to engage either the ABC or SBS to leverage off their Inventors program, and possibly offer them some interesting program material in the same breath. Any contacts or assistance in this space would be most appreciated, as I know taking this challenge on will be significant. It is entirely possible to turn this into an annual event, and may be even some award recognition too.

The other IEEE role I have accepted is with the "History Committee". This is a global role, not only restricted to Region 10 or Oceania. Within this portfolio are initiatives in a History Conference in August 2009 in Philadelphia, as well as an initiative to ramp up the historical and personal contributions from all sections and regions, known as the Global History Network (GHN).

Did you know that you can write about your career at the IEEE GHN? See <http://www.ieeeghn.org/wiki> While it is interesting to see that the NSW Section history at the GHN is being as a pilot leader example, it is also evident that there is so much of our history sitting in dusty boxes, old hard drives and other places. Could I implore you to drop me a line, email or letter and I will make sure to pick up any historical material you have. To be specific, we need ANY newsletter, minutes and photos from the 1980's and 1990's at least. If you have some stories, that would be fantastic too.

On a related quest, I'm also after old electrical engineering textbooks pre-1960. You can feel comfortable these will have a good home to go to. Please get in touch!

Editorial

About 50 members and their partners attended the IEEE NSW Section AGM and Dinner held on 28 November 2008 at Crowne Plaza, Parramatta. Feedback from members confirmed that all who attended had a wonderful and memorable time. However, many members missed this major event and I encourage you to keep 27 November 2009 free so that you can join us for the next AGM and Dinner.

2009 will be an exciting and busy year for me. I am honoured to serve as Vice-Chair of the IEEE NSW Section, Chair of the Professional Activity Services, and also the Joint Institutions Committee Chair for 2009 to 2010. These roles will keep me very involved and busy for the year. This year marks IEEE's 125th Anniversary and we are planning a celebration in Sydney on 13 May 2009. So keep that evening free as well.

I am pleased to announce that Mark O' Mally has volunteered to take on the role of Editor for Circuit newsletter from the July 2009 edition. Thank you for your support during my term and I would like to extend my best wishes to Mark as he takes on the role.



Eddie Fong eddiefong@ieee.org

Outgoing Editor, Circuit Newsletter, NSW Section



David Burger k3hz@ieee.org
Past Chair, NSW Section

2. News in Brief

2.1 Newsletter Editor

The NSW Section Committee welcomes Mark O'Mally to the fray in 2009. Mark will be taking over the reins as Editor of Circuit Newsletter from Eddie Fong, who has done a terrific job over the past few years.

Mark is a qualified Australian patent attorney specialising in ICT technology. Mark also has a degree in Electronics and Telecommunications Engineering from the University of Canberra.

If you would like to make a contribution to Circuit from now on, you can get in touch with **Mark O'Mally** at markomally@hotmail.com



Mark O'Mally markomally@hotmail.com
Incoming Editor, NSW Section

2.2 IEEE 125th Anniversary Media Roundtable Webcast to Address Emerging Technologies Enhancing Human/Technology Interactions

On 10 March, in conjunction with IEEE's 125th Anniversary, a live Web broadcast will give viewers an exclusive look at how IEEE members are engineering the future.

A panel of top minds in emerging technologies including biomedical engineering, biometrics, computing, robotics, telecommunications and wireless power will discuss the global impact their work will have on the way humans interact with each other and with technology.

The event, being held at the New Yorker Hotel in New York City, NY, USA, will include the following speakers:

- o Miguel Nicolelis, Co-Director, Center for Neuroengineering, Duke University Medical Center
- o Roy Want, Senior Principal Engineer, Intel Corporation
- o Krishna Palem, Professor, George Brown School of Engineering, Rice University
- o Katie Hall, Chief Technology Officer, WiTricity
- o Rangachar Kasturi, Professor, University of South Florida
- o Dharmendra Modha, Manager, Cognitive Computing, IBM Almaden Research Center
- o K.J. Ray Liu, Professor, University of Maryland, College Park

The IEEE 125th Anniversary Media Event media roundtable will take place on 10 March from 10:30 a.m. to noon EST. Pre-register for the Webcast at <http://www.ieee125.org/engineering-the-future/media-roundtable.html>.

2.3. NSW IEEE 125th Anniversary

NSW Section is organizing an evening celebration event on 13 May 2009 to celebrate the IEEE's 125th anniversary.

Information about this will be distributed at a later date. Any enquiry please contact David Tien at dtien@csu.edu.au

2.4 Welcome to Our New Members and Upgrade Members

From October 2008 to January 2009, we have the following new members or newly upgraded members:

Life Member Grade

Duong B Hop

Fellow Member Grade

Simon B Poole

Stuart R Wenham

Senior Member Grade

Sanjay K Jha

Eddie Kui Pun Fong

Baburaj Karanayil

Colin W Anderson

Lavy Libman

Guoqiang Mao

Sanjib Biswas

Christophe Granet

Ramtin Shams

Member Grade

Jason O Irwin
 Kenneth K Kwok
 George Patapis
 Gunilla E Burrowes
 Yousri W A Mikhail
 Uppala S Narayana
 Tim A Aubrey
 Brett M Ninness
 Ramesh Nadan
 David R Goodenough
 Saad M Sayeef
 Paul L Bannerman
 Irena Koprinska
 Rowan N Molloy
 Alka R Kaushik
 Lixiang Xiong
 Gil C Castillo
 Victor Tam
 Jahan A Hassan
 Joshua Ross Wall
 Timothy J Scott
 Aaron P Chippendale
 Colin Y Tan
 Jonathan Yu
 Huaifeng Qin
 Norbert Dommel
 Zawar H Shah
 Stuart R Thorncraft
 Ganesh S Shankar
 Wibowo Hardjawana
 John C Mu
 Reji K Mathew
 Syed I Husain
 Raymond H Louie
 Geoff A Hiskens
 Christopher Escott
 Heidi B Stratti
 Xin Zhao
 Akemi T Chatfield
 Kamran Zali
 George Chi Hon Lam
 Alireza Mirhosseini
 Prabodha Paronavithana
 Ehsan Kashanchi
 Steven Woodhouse
 Costanzo M Costa
 Peng Gong
 Kumudu S Munasinghe
 Jeremy A Hallett
 Wenliang Lu
 Tran Nam Nguyen
 Erik F Biester
 Pasan Kalupahana
 Florian Verhein

Alice Kilavuz
 Shaojie Yuan
 Si Yuan WANG
 Sam Yihong Zhang
 Cameron Maxwell
 Benjamin Jason Avallone
 Boris Skapik
 Nathan Dean Lange
 Jie Gu
 Kamaljit Singh
 Hao Xiang Shen
 Michael Satrio Wisesa
 JAGINDRAN KRISHNAN
 Robert shuhdi salama
 Cyril kobamelo mothate
 Rose Faye Salazar
 Zhou Wang
 Yanqing Liu
 Michael Liu
 Roy Rui-Jie Kwan
 Justin Byrnes
 Eliza Wong
 Soo Ling Lim
 Simon Andrew Lysenko
 Gordon John Lingard
 Mark OMally
 Alex Wing
 Jeffrey Chu
 Ian James Finlay
 Deepak Grewal
 Russell James Dudley
 Pedro Thomas Harris
 Sebastien Ardon
 Mark Lloyd Espiritu
 Ryan Bradley Kirgan
 David John Robinson
 Elisabeth Klar
 Ahmad Moh'd Qasem
 David Malcolm Perkins
 Jitendra Verma
 Marcello Dominic Circosta
 Craig Ryan Meyer
 Robert Zagarella
 Errol Chopping
 Xuemin Lin
 Stuart Martin McCormack
 Suresh Kumar Panicker
 KARI KITTILA
 Shrutidevi K Kelkar
 James Arthur Riley
 Asim Saleem
 Colin James Edwards
 Ren Ping Liu
 Hirantha Amal Perera
 Steven Bignell
 Justin Mathew Mclean

Associate Grade

Robert G Gardner
 Saul S Carroll
 Sean M Williams
 Katherine E Cassidy
 Hio Nam O
 Kevin Valenzius Tanumihardja
 Matthew Thomas Fellow
 yihua Hu
 Peter L C Steele
 Cheng Luo
 Raymond King

Affiliate Grade

Manickam Arjunamani
 David H Tow
 John Fulcher
 Kevin G Suffern
 Stephen E Hocking
 Paulo Lai
 Nick Sinnis
 Paul McBryde
 David Edward Downing Walker
 Peter Cocks

Graduate Student Grade

Oya Sevimli
 Eugene Doma
 Manal E Helal
 David J Keith
 Ido Nevat
 Jamie S Cullen
 Mudiyansele S C Herath
 Raymond K Sheh
 Kelvin K Cheng
 Yonah Azriel
 Dale A Prokopovich
 Prabath Kamalaseena
 Sobhath R Ekanayake
 Aaron M McKay
 Alan Kan
 Venkatesan Balakrishnan
 Joseph A Thomas-Kerr
 Alan T Murray
 Bryan C Lee
 Marcel Krawczyk
 Craig M Johnson
 Alister Cordiner
 Wilson Pok
 Mark D Facer
 Wencke Lehnert
 Ayman Ghoneim
 James A Howarth
 Alexander Kurusingal
 Andrew P Bradshaw

Lucky Yulius Joeng
 Sutharsan Arunthavanathan
 George Lazarou
 Carlos Alfredo Adjiman
 Nathalie Nakhle
 Samih Hijwel
 Omar AlZoubi
 Georgios Konstantinou
 Simon Timothy OCallaghan
 Syed Sohaib Ahmed
 Nan Yang
 Troy David Mackay
 A.H.M Razibul Islam
 Craig Wright

Student Grade

Van H Ho
 Robert S Pai
 Yogeshwar Ranga
 Skye Short
 James Charters
 Eric Ho Cheung Poon
 Jason Lee
 dany pradhana
 Serge Rozentsvet
 Alexander Mark Salmon

2.5 IEEE NSW Section Website

Many thanks go to David Burger and Eduardo Navarro for their efforts to develop our new look IEEE NSW Section website.

We now require feedback and generous content contributions by the committee as well as members at large. The aim of course is to evolve the website into a resource that can be embraced by all.

A website is only as good as its content and I look forward to any content that could be put forward for consideration. Please address any website related correspondence to me.



Fuat Acar fuat.acar@ieee.org
Webmaster, NSW Section

2.6 Professional Services

We have kicked off the 2009 Joint Institutions Committee meeting on 2 February 2009 to plan for the 2009 and 2010 joint lecture programs.

The Australia Engineering Week committee had the first meeting held at EA Chatswood on 12 February 2009 to plan for the Engineering Week from 2 to 8 August 2009.

Please contact me if you are would like to be involved.



Eddie Fong eddiefong@ieee.org
Chair, Professional Services & Joint Institutions

2.7 Life Members Affinity Group

We now have 50 life members in our group and we would like to see as many as possible at the 125 years Anniversary Dinner planned for 13 May 2009. You ask what is this anniversary all about? Please visit this special web site at www.ieee125.org

I also would like to hear from some LMs who would like to take on the Chair position in 2010.



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

2.8 Donna Barlow Corporate Travel

DBT HAS MOVED!

After more than 12 years in an office that was home to all the team, we've made an economical decision and vacated, moving across Epping Road to Wicks Road on 22nd December 2008. Any travel needs visit www.dbt.com.au and log in with IEEE or call 9888 5555.

DBT new office address is Unit 1, Building A, 111 Wicks Road, North Ryde.

3. Chapter News

3.1 LEOS/SSC/CAS Chapter

The committee for 2009 currently remains unchanged, however Stephen Hanham will soon be stepping down as secretary. On behalf of the members I thank Stephen very much for his support, and wish him all the best in his career post-PhD. Also, I will be on extended leave during the second half of the year, so please let me know if you are interested in taking on the role of Chapter Chair.

During 2008 the chapter held 4 technical meetings, all with lectures by IEEE Distinguished Lecturers visiting from overseas. This year I hope we may promote participation and networking amongst our approximately 90 joint chapter members with a wider range of activities, e.g. including site visits and/or social events. If you have any suggestions or requests for activities this year, please let me know at gtown@ics.mq.edu.au



Graham Town graham.town@mq.edu.au
Chair, LEOS/SSC/CAS Chapter

3.2 Antenna & Propagation / Microwave Theory & Techniques Chapter

IEEE NSW Joint Chapter on Antennas & Propagation / Microwave Theory & Techniques is preparing for a series of professional and academic activities highly beneficial to IEEE members of NSW. Some of these activities are co-sponsored by IEEE Student Branches in universities and other professional organisations such as IET and Engineers Australia.

Our activities for this calendar year was launched on 19 February, at 6:30pm in the University of Technology - Sydney, with a joint IEEE/IET/EA lecture given by Professor Tapan Sarkar, an IEEE Fellow and a distinguished researcher from Syracuse University, USA. Professor Sarkar spoke

about the great contributions JAMES CLERK MAXWELL made to several areas of Electrical Engineering and modern Physics, including communication theory and control systems. On 20 February at 11am, in Macquarie University hosted another lecture by the same speaker on WHAT IS THE APPROPRIATE PHYSICAL FORM OF CHANNEL CAPACITY TO USE FOR WIRELESS COMMUNICATION? The IEEE Student Branch in Macquarie University greatly assisted the organisation of this lecture.

Later in the year we plan to host a lecture by an IEEE Distinguished Lecturer Professor Christos Chistodoulou from USA. Stay tuned for a wonderful 2009.



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

3.3 Power & Energy Chapter

The average age of PES members worldwide continues to increase and we desperately need to help to improve this unsatisfactory situation by attracting more young electrical engineers into our Chapter. We are looking for one of our PES NSW members to join the PES Chapter's Executive Committee and run the GOLD program. This program is focused on increasing the number of young electrical engineers, who have graduated during the past ten years. If

anyone is interested please contact me at jl.robinson@ieee.org.

Professor Vassilios Agelidis has recently returned to Australia after a three month VESTAS visiting research Professorship at Aalborg University, Denmark. He holds the *Energy Australia* Chair of Power Engineering at the University of Sydney. His research activities are in the field of power electronic energy conversion. He will be speaking at the Joint Lecture meeting on the 12 March. The topic will be *Flexible alternating current transmission systems (FACTS) the Foundation of Future Intelligent Transmission Networks*. Technology developments are advancing rapidly which will improve the efficiency and intelligence in the control of power transmission networks.

In this presentation the recent advances in the area of technology developments with respect to FACTS will be explained on how such technologies can assist utilities to achieve a more efficient, intelligent automated control and operation of a transmission network. Other technologies to be included are advanced voltage-source converter based static compensators (STATCOMs) including the Unified Power Flow Controller (UPFC) and other advanced equipment. I hope all members will support this very interesting lecture. I look forward to meeting you for refreshments prior to the meeting from 5:30pm at Engineers Australia, 8 Thomas Street alongside the Chatswood railway Station.



John L. Robinson jl.robinson@ieee.org
Chair, Power & Energy 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://sydney.ieaust.org.au/weekevents.html> to prevent any potential disappointment due to last minute changes.

DATE	EVENT	SPEAKER & Instruction	Organisation	Co-ordinator	Location	Time
12/02/2009	SCADA / HMI	CITECT / Bhupendra Mistry	IET	Upali Mahaliyana	EA Auditorium	
19/02/2009	Maxwell/Wireless History	Prof Tapan K Sarkar, Dept of Electrical Engineering and Computer Science, University Syracuse, NY	IEEE	Eddie Fong / Karu Esselle	UTC, Building 4, Rm 04.03.27	6:30pm refreshment. 7pm Lecture start
26/02/2009	IPv6	IPv6 mike@thebibers.com	EA	A Sangster	EA Auditorium	
12/03/2009	Flexible AC Transmission Systems Technologies (FACTS)	Prof Vassilios Agelidis Sydney Uni	IEEE	John Robinson	EA Auditorium	
26/03/2009	Design of Lightning Protection Systems to newly updated AS1768.	Phillip Tompson, FIEAust, CPEng Managing Director of Novaris	IET	Upali Mahaliyana	EA Auditorium	
31/03/2009	Hazardous Area's Standards Update	\$60 for members & 75 for non-members	EA	Amal	EA Auditorium	11.30 am to 4.30 pm
16/04/2009	IEEE Optus NOC Site Visit	Optus Network Operations Centre North Ryde	IEEE	Eddie Fong	Optus	2pm refreshment. 2:30pm Visit start
16/04/2009	Insulation Co-ordination	Insulation Co-ordination with Inverter Power Supplies	EA	Mark Edmunds	EA Auditorium	
7/05/2009	Expert Witness 2	Dr Phil Watts, Clinical and Forensic Psychologist	IEEE	Eddie Fong / David Burger	TBA	TBA
14/05/2009	Meeting Energy Efficiency regulations in transformer and motor design	TBA	IET	Upali Mahaliyana	EA Auditorium	
28/05/2009	Smart Lighting (Maybe site visit)	TBA	EA	Peter Hitchiner	EA Auditorium	
11/06/2009	--Suggestion --	Nuclear Power (Date & possibility to be confirmed)	EA	A Sangster / G Fox	EA Auditorium	
25/06/2009	Gadget Seminar	Gadget Seminar	IEEE	Eddie Fong / David Burger	EA Auditorium	

5. Continue to Receive Circuit by Post

Circuit is currently provided electronically from the IEEE NSW Section Website <http://ewh.ieee.org/r10/nsw>. Members will be notified by email when a new issue is posted on the Website. A printed copy of **Circuit** will only be sent on request by members and for those without an email address.

If you require a printed copy of **Circuit** mailed to you, please complete the form below:

Note: If you have previously returned this form, there is no need to send it again.

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