

## Welcome Message from Section Chair

Dear Members,

The Western Australia Section and its Technical Chapters, Affinity Groups and Student Branches are as active as ever. Undoubtedly, 2007 will be another busy year for all IEEE volunteers in WA. Our chapters have lined up a host of interesting technical events. These will be complemented by a series of social, professional development and other non-technical events organised by our Graduate of the Last Decade (GOLD) Affinity Group. You can also expect a string of exciting activities from our Student Branches and our Women in Engineering Affinity Group.

We welcome Theng Wei back to the WA Section. He has the important task of keeping all of us entertained and informed as the 2007 newsletter editor.

We hope you will enjoy reading this issue and we look forward to seeing you at one of the upcoming IEEE events.

Douglas Chai  
*IEEE WA Section Chair*

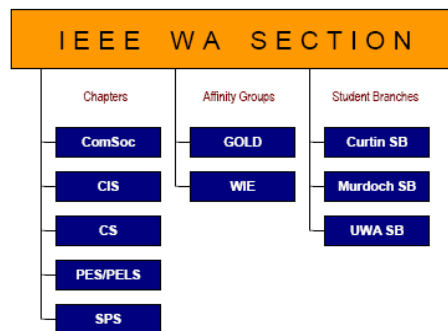
## In this Issue...

- Power Engineering/Power Electronics Chapter
- IEEE GOLD 2007 Event Forecast
- UWA Student Branch
- Are you a Money Master or Money Disaster?
- 2007 IEEE President Elect's visit to Perth
- Region 10 Executive Committee Meeting in Perth
- Telecom Evolution Towards the 4th Generation (4G)

## Senior Member Elevation

Congratulations to Defeng Huang, Adrian Keating and Samuel Susilo Matair who was promoted to the IEEE senior member grade in the last 2 months.

**IEEE WA Section Organisational Structure**



## 2007 IEEE WA Section Committee

Chair	Douglas Chai
Vice Chair	Kevin Wong
Treasurer	Hong Xie
MD, JEEP	Lance Fung
Industry Liaison	Valerie Maxville
Newsletter Editor	Theng-Wei Loke
Webmaster	Alex Chong
E-notice/Web	Shri Rai
SAMIEEE	Farid Boussaid

## Technical Chapters

Computational Intelligence (CIS) Chapter Chair	Philip Hingston
Communications (ComSoc) Chapter Chair	Daryoush Habibi
Computer (CS) Chapter Chair	Lance Fung
Power Engineering/Power Electronics (PES/PELS) Chapter Chair	Harry McDonald
Signal Processing (SPS) Chapter Chair	Farid Boussaid

## Affinity Groups

Graduates Of the Last Decade (GOLD) Group Chair	David Lim
Women In Engineering (WIE) Group Chair	Valerie Maxville

## Student Branches

Curtin SB Chair	Cavita Raj
Murdoch SB Chair	Eric Li
UWA SB Chair	Timothy Wong

## Power Engineering/Power Electronics Chapter

2007 got off to a relatively slow start and had one administrative meeting at the end of February. This meeting was concerned with introducing new members to the chapter and welcoming back another who had taken some time off.

Amish Sheth and Robert Lee, both committee members from last year have indicated ongoing commitment. Two energetic committee members from last year Vi Nguyen and Karyne Wong have both stepped aside for personal reasons this year but may return again in the future.

The two new members are Dean Sharafi and Sam Matair. Both are very experienced and talented Western Power Engineers, Dean's main interest is in power system testing & commissioning, and Sam's main interest is Power Quality. We also welcomed back Thom Fox from Water Corporation and his main interest is SCADA.

This year's main goal is to revitalise technical activities. Our target for 2007 is at least two technical activities in each area of power engineering and power electronics.

There have also been expressions of interest in two possible overseas distinguished lecture tours coming to Perth. One will be on photovoltaic topic and the other is on energy efficiency topic. The Singapore chapter has initiated this and would be supported by WA chapter.

The chapter also sponsors a student prize at UWA and for the first year in 2007, Curtin University.

Other points of interest for the chapter in 2007 will be striving for 10% membership growth. This year Power Engineering Society has a competition which will reward full member growth in both small chapter and large chapter categories. WA would fit in the small chapter category of less than 100 members.

Please keep a lookout for flyers and future reports in the newsletter.

Harry McDonald  
*Power Engineering/ Power Electronics  
Chapter Chair*

## IEEE GOLD 2007 Event Forecast

2007 is the Year of the Pig in the Chinese Lunar Calendar and the year will certainly be full of promises and expectations, as the GOLD committee is graced with new faces including myself at the helm.

2006 was capped off with GOLD being the recipient of a number of international awards for its contributions. Congratulations to Helene Fung, past chair and current Vice Chairperson, for her leadership. These recognitions, no doubt, will give the committee extra incentive to repeat not only same feat but continue to strive for improvement.

The conclusion of our first general meeting for IEEE GOLD committee captured a list of potential function ideas that may tantalise your taste buds. This year's theme will revolve around money, career and health, plus some events with an intellectual/technical flavour.

### Financial Planning

Young working professionals who have been in the workforce for a number of years would be keen to find out how they could develop a financial road map in realising their goals, eg buying your first property, retirement plans, starting your own business or funding a year long overseas travel. Within this calendar, GOLD plans to set up a number of interactive workshops allowing all participants to share their knowledge and research within the presence of a certified financial planner. The first one is about the behaviours of wealth creation and was held on 21<sup>st</sup> March at Innovation Centre, Enterprise Unit 3, 11 Brodie Hall Drive, Technology Park.

### Self Defence Classes

Introductory self defence classes are aimed at personal fitness and personal security. It is likely that these classes will be jointly coordinated with the Women in Engineering (WIE) group.

### Quiz Night/Sundowner

The ever popular sundowner will be undergoing some experimentation this year with the inclusion of a quiz night. This mix of trivial pursuit, casual drinks and door prizes is aimed at attracting a more diverse crowd to the quiz night.

### Railway Tunnel visit

The highly anticipated Perth to Mandurah railway project has made much progress. We hope to contact Metro Rail for a tour of its facilities to better grasp such a monumental project in Perth's history.

### Police Communication Centre

The computer based telephony system opened in Midland, 2002. This centre contains telecommunication equipment for the metropolitan area's 000 emergency calls. Western Australia police website recently announced the rollout of

police's digital radio network in the early quarter of 2007.

### Wine Tasting/Sundowner

A social event is planned, possibly with the youth branch of the WA Chinese Chamber of Commerce, to co-host a wine sampling night. This will allow patrons to pick up a few pointers about wine selection, or simply a sundowner to mingle over drinks.

### Planetarium Visit

The newly refurbished Scitech now houses a fully functional planetarium in the same premises Perth residents came to know as Omni Theatre. Similar to its predecessor, the audience sits comfortably on armchairs situated on a 45 degree slope. The balance between science, the latest sound and multimedia equipment comes together to deliver fantastic exploration stories as human beings strive to understand the world around them.

### Nutrition and Healthy Eating

The constraint of long working hours, deadlines and restricted lunch rooms has made it all too tempting to grab fast food for nourishment - often with unhealthy consequences. GOLD aims to bring together a workshop from a nutrition expert on the preparation of easy and healthy meals and to better explain the benefits of particular foods that reduce stress, fatigue and boost energy and well being.

### Central Park Traffic Control

The building familiar to most Perth residents as the Bank West tower houses the control unit for all metropolitan traffic. For those who regularly view the traffic report on Channel 7's The Morning Show, you would have seen the electronic board displaying various CCTV feeds from cameras across Perth showing the traffic flow.

### University Exhibits/Projects

GOLD, with the aid of the Student Branches, will be on the lookout for interesting university projects and exhibitions to bring to the attention of our members.

### Fremantle Harbour Master Control

The harbour town of Fremantle is constantly bustling with shipping activities. A visit to the Master Control station will showcase how the people and sophisticated equipment manage these shipping activities.

The preceding sample of events is what GOLD hopes to bring to its members this year. This is no simple feat and we couldn't do it without the time and effort of our volunteers. For those interested in volunteering, please contact any of our committee members to learn what is involved with and the benefits of becoming a volunteer. Likewise, we welcome all suggestions for events that IEEE members would like to see GOLD organise this year.

A feature that we would also like to introduce is the cross promotion of GOLD functions with the R10 Asian Pacific region, including Affinity groups based in Hong Kong, India, Malaysia and Singapore just to name a few. Members travelling in the region can take advantage of their trip to contact GOLD for social or industry related networking purposes. After all, IEEE's motto is *networking the world!*

### IEEE GOLD Sundowner December 2006

IEEE GOLD ended last year with a rendition of one of its most popular events - the after work Friday sundowner. What better way to end the working week than with a casual drink at the local bar, getting reacquainted with old friends or meeting someone new.

The sundowner was truly a success, being held at the Grape Skin wine bar in Northbridge. The offer of a free drink to members and circulation of tasty food platters made the event quite enticing to attend. People started gathering from 6pm onwards, resulting in a good sized crowd of at least thirty patrons. The diversity of the audience was profound with a mix of working professionals, students and academics.

Another distinction that IEEE GOLD continues to emphasise, when compared to its counterparts, is extending the sundowner invitation to both IEEE members and non-members; thus attracting a mixture of professionals instead of predominantly engineers. This event was attended by accountants, software developers, IT professionals, engineers, business consultants, students, university academics and retail specialists. As Perth is a relatively small city, it won't be too long before working engineers become acquainted with their peers in the industry within a short period of time. Simply said Perth is just too small.

For professionals in Perth there is no doubt about the importance of having a network of acquaintances from different industries, whether this is for potential business opportunities, friendship and/or professional development. After all, it is common for one to hear the phrase "it isn't what you know, it's who you know".

The GOLD committee members have always taken upon themselves to make all our guests feel welcome. For first timers we used this opportunity to introduce them to our committee members, attending patrons, what GOLD represents and events we plan to be hosting throughout the year - another selfless promotion on our part no doubt. For regulars to our events, GOLD has paid attention to any suggestions for new venues and themes to improve our events. We'd like to take this opportunity to thank all our volunteers for making this sundowner a success, and as well as

to our guests. We couldn't have accomplished such a feat without your assistance in helping us to promote it and most importantly thank you for your attendance.



David Lim  
*GOLD Group Chair*

## UWA Student Branch

2006 has proven once again to be a highly successful year for the UWA IEEE Student Branch. Among our significant achievements and improvements, we successfully expanded our membership base and opportunities for students, increased the level of participation in the IEEE Networking forum by approximately 50% and made a significant improvement to our branch's website to improve communication between our branch and students. The year began with successful lecture notes sales during the first week of semester for the School of Electrical, Electronic and Computer Engineering (EECE). The fortnightly membership drive BBQ's were successful with a healthy number of signups from students.

Our site visit to the Main Roads Western Australia (MRWA) traffic operations centre was held on Wednesday, 10th May. Students had the opportunity to gain an insight on the daily running of Perth's traffic network which is the product of careful planning and engineering. This event was popular among students and as a result of this success we will be expanding our variety of site visits to cater for a wider audience.

On Tuesday, 23rd May, a seminar which promoted the IEEE, IET and Engineers Australia (EA) was held at 1pm in the Blakers Lecture Theatre. The speakers Valerie Maxville (IEEE), Ryan Jenner

(IET) and Kaye De Pardo (EA) gave informative presentations on how students can benefit from being a part of and being active members of these organisations.

Prior to the IEEE Student Networking Forum on Tuesday 15th August, we were fortunate to have David Beards from industry who also resides in the IEEE Gold committee provide a presentation on 'how to network' at the Weatherburn lecture theatre. This provided an excellent opportunity for students to sharpen their networking capabilities and skill before attending the IEEE Student Networking forum on the next day.

The annual IEEE Student Networking forum was held at the Technology Park function centre on Wednesday, 16<sup>th</sup> August. It was well attended by over 300 students and 29 companies and organisations in the fields of Computer Science, Electrical, Electronics, Software and Computer Engineering. This event is by far the largest event that the IEEE student branch runs each year and its continued success is a result of hardworking and dedicated committee members from UWA, Curtin and Murdoch University's IEEE Student Branches as well as our financial sponsors.

Engineering week was held in mid-August with the cooperation of the UWA Young Engineers (UWAYE). We participated in this event by holding events which promote engineering. Our soldering workshop proved to be very popular and as a result a subsequent session was held.

We highly value the contributions that our committee members make and always seek ways to reward their hard work and help them develop valuable professional skills. In early August a career skills workshop was held by staff from the UWA Careers Centre to assist committee members sell the skills learnt from being in IEEE to potential employers. This event was well received and will be repeated in future. Team rapport is promoted through our weekly meetings and gatherings at events such as the BBQ and an end of semester dinner to award the efforts of our committee members.

In 2007 we hope to expand our services and events to provide further value our members. This includes increased site visit opportunities, an improvement in social events for EECE and Computer Science students, a stronger working relationship with the Computer Science Student club and exciting new workshops.

I would like to take this opportunity to thank our student branch committee members and our branch counsellor Dr Jasmine Henry for their hard work, dedication and support to our ongoing events and day to day running.



UWA Student Branch meeting



IEEE Student Networking Forum

Timothy Wong  
*UWA Student Branch Chair*

## Are you a Money Master or Money Disaster?

A wealth creation seminar was held on 21st March, and seminar was organised by IEEE GOLD and IEEE Women in Engineering. Members on IEEE's email list would have received notice of the seminar held at the Innovation Centre in Technology Park, Bentley. The following excerpt is an introduction of the seminar by the seminar speaker.

Would you like to be rich?  
Do you like the sound of living your lifestyle dreams?  
Can you see yourself living a life of luxury?

"Yes, yes and yes"? Well, I have some great news; IEEE have organised an exciting program to help you achieve your lifestyle dreams. More about that later, but first let me relate a story to you and as you read see if you recognise any elements in your life.

I wasn't always a Financial Planner. In fact, my first career was as an engineer working in the oil and gas industry. Perhaps typical of us in our 20s I started work very green and naive but full of enthusiastic dreams. Surely it was only a matter of a few years before I was the boss, living in a mega-mansion in Dalkeith, holidaying at least three months of the year.

That vision didn't quite work out and some soul-searching led me to studying to be a Financial Planner. And that was



when it hit me: "Struth, unless I change my habits my future is not going to be anything close to my dreams." That was a situation I was not willing to contemplate; I wanted to achieve my dream lifestyle.

Later, I met many retiring clients who openly shared that their situation was not as comfortable as they'd hoped it would be when they retired. Often they said "I should've done things differently. If only I'd known this 20 to 30 years ago."

Sadly, this situation is the norm rather than an exception. Government statistics show that 69 percent of people over age 65 rely on the Age Pension as their primary source of income. This is far from a luxurious lifestyle since the full Age Pension for a couple is just over \$20,000 per year. And the situation is not going to get much better for future generations. Numerous research, including that published by the Government, projects that if people rely solely on compulsory superannuation their lifestyle will drop by around 25 percent upon retirement.

Rather than dwell on the tragedy of broken dreams I was inspired to spread the wisdom of retirees to help prevent disappointment for our generation. Blending the wisdom of retirees with my financial planning expertise I have identified several foundations of creating wealth, plus behaviours and strategies that place you on the path to your dreams.

Now back to the great news. IEEE wants to help you achieve your lifestyle dreams. So on March 21st I'll be presenting at your meeting to help you take the path to those dreams.

In Harvard language, we'll be talking about financial literacy. In my language, I call it becoming a Money Master, rather than being a Money Disaster like I was when I started my engineering career. Often we've all got a bit of both in us already, so being a Money Disaster or Master is a continuum rather than one or the other. The ideas will be practical and useful to you, your partner and children. Bring a sense of playfulness to the sessions as it won't be a lecture.

I look forward to meeting you very soon.

Matt Hern

*Matt Hern is a Certified Financial Planner and CEO of FINDRE. Matt is an authorised representative of Sentry Financial Services Pty Ltd (AFSL 286786). Visit [www.FinancialDreams.com.au](http://www.FinancialDreams.com.au) for other free articles.*

## 2007 IEEE President Elect's visit to Perth

An IEEE staff member that I've gotten to know while serving on a committee tipped me off in December 2006 that the

newly-elected 2007 President Elect, Lew Terman, would be visiting Perth on a pleasure trip with his wife Bobbi just before Christmas. So I established contact with Lew through email to see if he would like to see a friendly face from the IEEE network while in town, and whether he'd like some sight-seeing tips from a local. Lew had visited Australia's east coast previously but this was his first time in Perth.

Douglas Chai, Harry McDonald, David Lim and I met up with Lew and Bobbi for afternoon tea, over which we shared with him the way IEEE activities are organised in Perth and our perspectives on key issues IEEE should focus on as priorities.

You can find out more about Lew's election platform and vision for IEEE at <http://www.terman.org/>

Helene Fung  
*GOLD Group Vice Chair*

## Region 10 Executive Committee Meeting in Perth

Region 10 executive committee meeting was held on 5th Jan 2007, in Novotel Langley Hotel, Perth.



## Telecom Evolution Towards the 4th Generation (4G)

Dr Seo was kind enough to give a presentation on 4G after his Region 10 meeting. Interestingly enough he began his presentation with Korea's motivation to transform from a labour intensive economy to a knowledge base economy – citing an example of Korea's top 10 exports from 1961 and from 2006. His next topic was his training, and his involvement in the adoption of CDMA-IS-95 for Korea's cellular communication. He introduced 4G and the evolution of the wireless network from 2G to 4G. Wireless services in Korea increased dramatically from 1999 until 2004, whilst wired services remained stagnant over the same period. Dr Seo proposed a user-centric model approach for 4G design. Currently the two 4G concepts are:

- The concurrent 4G vision: mobile multimedia - anytime, anywhere, anyone; global mobility support; integrated wireless solution; and customised personal service.
- the linear 4G vision: public systems as the extension of 3G cellular service

Theng-Wei Loke  
*Newsletter Editor*

## Join IEEE

Know someone who would like to join??

*It's easy, just to go*  
<http://www.ieee.org/join>

## IEEE Code of Ethics

We, the members of the IEEE, in recognition of the importance of our technologies in affecting the quality of life throughout the world, and in accepting a personal obligation to our profession, its members and the communities we serve, do hereby commit ourselves to the highest ethical and professional conduct and agree:

1. to accept responsibility in making decisions consistent with the safety, health and welfare of the public, and to disclose promptly factors that might endanger the public or the environment;
2. to avoid real or perceived conflicts of interest whenever possible, and to disclose them to affected parties when they do exist;
3. to be honest and realistic in stating claims or estimates based on available data;
4. to reject bribery in all its forms;
5. to improve the understanding of technology, its appropriate application, and potential consequences;
6. to maintain and improve our technical competence and to undertake technological tasks for others only if qualified by training or experience, or after full disclosure of pertinent limitations;
7. to seek, accept, and offer honest criticism of technical work, to acknowledge and correct errors, and to credit properly the contributions of others;
8. to treat fairly all persons regardless of such factors as race, religion, gender, disability, age, or national origin;
9. to avoid injuring others, their property, reputation, or employment by false or malicious action;
10. to assist colleagues and co-workers in their professional development and to support them in following this code of ethics.

## Contributors

\* DOUGLAS CHAI \*

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## From the Editor's Desk

Thanks Douglas for welcoming me back. It's good to be back from overseas.

The year has begun with a number of interesting seminars, and I look forward to some more. Be sure to have your current email address specified in your IEEE online profile to receive email notices and newsletters.

Thanks to the contributors for their timely submission of articles and information used in this issue. Please, let's have some more contributors.

The next issue will be out in June/July. I welcome your input. Feel free to write about the seminars that you attended and aroused your interest. Next submission date for newsletter articles is 28th June.

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