



IET NSW Newsletter

1. Future events

1.1. The IET Faraday Lecture Program

Faraday 2007: Winning Formula - Technology in the Fast Lane

It's race day. Imagine the excitement, the thrill of the race and the roar of the engines as the cars or bikes power round the track at breakneck speeds to the final checkered flag. The winning driver steps on to the podium to celebrate the victory and the cheers of the crowd.

But what is the real story that lies behind the champagne, the glory and the glamour?

The exact dates for the broadcasts of this exciting lecture, on SBS TV during Engineering Week 18th to 26th August, will be advised nearer to those times."

– Bob Rawkins

1.2. Joint institutions lecture series-2007

The "Joint Institutions Lecture Series in our old "IEE Branch" days, used to be called "Electrical Engineering Division", but it isn't really restricted to Electrical Engineering, and the key to it is that is run as an annual single series of lectures, by the three Institutions acting together, a remarkable bit of co-operation between the EA (Engineers Australia), the IEEE, and the IET (was IEE).

So we have switched to the name above to emphasise the co-operative nature of the service. It may not be widely known that there is a "Tri-Partite" agreement of Australia, signed by the three institutions at top level, which broadly seeks to extend the range of co-operative activities of the three bodies, to the general advancement of Engineering, whilst retaining the freedom of the separate entities to provide services of their own.

Thus "Engineers Week" is a successful initiative of EA, but with a co-operative programme involving IET and IEEE. The Joint Lecture Series is similar. The ATPP is solely an IET activity, forming part of the world-wide student prize. (This is a tough annual competition, won last year by our own NSW and Australian Prize Winner Kelly Poole).

The Joint Lecture Series seeks to provide around 15 events per year, in the form of Lectures, Seminars, and Workshops etc, given by people prominent in their field, on Engineering or Scientific Topics.

The aim is to provide professional level lectures, which are nevertheless of general interest and thus appeal to any Institution member, or indeed interested members of the public.

A small committee (an IET "cell activity"), meets regularly to plan the meetings and find the speakers. This in itself is an interesting activity, and one of the few where members from the three institutions get to know each other, and enjoy the company.

This year there is a focus on the Energy issue, given the world wide attention at last beginning to be given to it. But other subjects are brought in to avoid a feeling of monotony in the subjects.

It is hoped the latest programme will be found in this newsletter.

– John Englefield

2. Membership

International Professional Registration Advisor (IPRA)

The membership of a prestigious institution and recognition of your capabilities with a Chartered Engineer status is an obvious reflection of your standing as an engineer. The role in the committee related to "membership" is much reduced in coverage from that once covered by the International Council Representative. The shortfall will now be covered by the new position of Regional Development Manager (when appointed) supported by the UK Membership & Regions Dept., Regional Co-ordinator and to some extent by the NSW Local Network Committee.

Forms and guides are now available on line and related enquiries are usually directed to the website.

In the Advisory role the IPRA will:

- * Provide advice on registration to local and overseas candidates.
- * Direct enquiries related to forms and guides.
- * Be a point of contact for members wishing to know about applying for Fellowship or Registration.
- * Co-ordinate the use of and give appropriate training to Professional Interviewers for Professional Review Interviews in regard to Registration.

– Bob Rawkins

3. The IET committees for 2007

MORE SCOPE FOR NEW ACTIVITY

In common with most voluntary organisations, getting sufficient support to run current activities and develop new ones is not easy. Everyone these days is busy-very busy. However this year it is great news to be able to welcome a number of new faces to our committee, which has enabled us to re-organise how we do things, and we all have high hopes of progressively performing additional activities, in which more members will participate, and some of you may be interested in assisting.

We have two committees: "The Young Members" (YM), and "The Executive Committee" (Exec). The Exec Committee comprises officers and members. Both are participants in the regular, roughly bi-monthly, Exec committee meetings. However only officers have to attend, or appoint a nominee. Thus other members can devote their time and energy to their particular 'cells' of activity, without



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feeling tied down with committee meetings. All IET members are invited to contact a committee member if they wish to join in and be involved in an activity, or would like to start a new one. The more help we have, the more the IET can provide interesting and worthwhile functions and services. The Exec Committee for 2007 is:

3.1. Officers:

John Englefield

Chairman and Joint Institutions Lecture Series*

Nick Baines

Vice Chairman and Australian Forum* Rep.

Kaniyur Sundareswaran (Sundar)

Hon. Treasurer

David Bruce-Steer

Hon. Secretary Website, and Deputy Australian Forum*Rep

Seiki Payne

YM Committee Chairman

3.2. Committee Members, showing their "Cell" Activities

Dr. Eliathamby Ambikairajah (Ambi)

(University Liaison/Joint Conference Planned Event)*

Dr Trevor Blackburn

(Joint Conference Planned Event/ Interface to Other Institutions)

Pat Jenkins

(CSIRO/ATPP Student Prize-Liaison)

Deon Rowley

(Newsletter assistance/Joint Conference Event Assistance, Joint Institutions Lecture Series Assistance)

Graeme Gwilliam

(IEEE Global Liaison)

Ramesh Ekanayake

(Newsletter Editor)

Raymond Chan

(Industry Liaison and Partnerships)

Mark de Kock

(Industry Liaison and Partnerships)

Reg Caldwell

(Assistance with Joint Institutions Lecture Series)

Graham Lee

(Manufacturing Div Lecture Series)

Upali Mahaliyana

(Joint Institutions Lecture Series)

Bob Rawkins

(Membership and Faraday Lecture)

Ian Noble

(ACT Representative)

If you are interested in contacting any committee member, or to inquire about participating in any activity, please write/email to the secretary cross referring to "cell" and committee member concerned.

Hopefully also, some of you, the ordinary members, for which the committee exists, will find it attractive to join in and help.

– John Englefield

4. Australian IET New Website

The NSW branch has revamped the website following our change of name. You are most welcome to visit

www.theiet.org.au

and then select **State Networks – NSW**

This will give you details of forthcoming events in the NSW region. Any comments and suggestions regarding this site can be sent to

David Bruce-Steer

dbrucesteer@iee.org

– David Bruce-Steer

5. Dematic Manufacturing Event Report.

By Graham Lee, B.Eng(Hons) MBA(Exec) AGSM C.Eng MIET

Visit Date: 5 September 2006

Dematic is a world leading supplier of integrated logistics and material handling solutions and the IET was treated to a feast of new technology within this area of manufacturing. Logistics for many businesses is a source of competitive advantage. Throughout Asia Pacific, and Dematic has assisted many organisations to adopt innovative approaches to improving supply chain performance.

Tracing batches with the intelligent warehouse - Dematic implements solutions for the food industry. The introduction of transponders means that for the first time detailed, variable information can be linked directly to goods, enabling their origin to be quickly verified. This may save lives when food "accidents" occur, as companies can then identify and take harmful products off the market in the shortest possible time.



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Dematic is offering companies various packages tailor-made for many different types of requirements, including both a cost-effective entry-level solution and a high-end solution with special features such as returned goods, stops, quarantine and range planning.

Solutions with new transponder technology

The introduction of the transponder links the physical material flow to the data flow at the lowest possible level. This means that for the first time goods bear detailed, variable information. The individual unit can be regarded as an autonomous system, containing all the important information about that product, embedded in the material flow.



Transponder technology enables the loading unit and the items it contains to be registered simultaneously. A suitable selection of reading stations enables the items and loading units to be continuously traced throughout the entire distribution center (DC) and beyond. Whereas stationary antennas are frequently used inside the DC, the goods can also be traced to the end customer with the aid of mobile reading units.

If there is a continuous recording system from the DC to the end customer (retail dealer), the use of transponder technology will enable a precisely targeted recall action, allowing the company affected to achieve a high degree of damage limitation.

Further development of barcode technology

In order to maximize the chances of tracing individual products and batches, Dematic uses not only transponder technology but also new developments in "conventional" bar codes, which are particularly attractive as an entry-level solution. Bar codes (ring codes) are attached to the goods. Applying ring codes to the top of the package (top label) enables the bar codes to be read in by cameras instead of the scanners that had previously been required. This eliminates the manual scanning process.



– Graham Lee

6. The heavens through Hubble's eyes ...

Some pictures from the **Hubble space telescope**:



Description: The Ant Nebula, a cloud of dust and gas whose technical name is Mz3, resembles an ant when observed using ground-based telescopes. The nebula lies within our galaxy between 3,000 and 6,000 light years from Earth.

– Bob Rawkins

7. IET Activities in London

As discussed in the last Newsletter, the concept of a global community of engineers and technologists is gradually taking shape. At the meeting in Feb of the non-UK Board members (GSG), the subject was thrashed around vigorously. It was agreed that the fastest way to improve the knowledge and services available to all our members was to form partnerships with other professional organizations around the world.

However, there is no group or committee within IET who can implement this strategy so a motion was put to Council that a Global Development Board should be formed with the prime task of 'developing meaningful collaborations with other Institutions'. This motion was approved by Council and now goes to the Board of Trustees.

Meantime I am part of a small group of members who are developing the process by which this strategy can be implemented. Since IET has members in 70 countries but limited resources, we are looking at ways of identifying those countries, which offer the best opportunities and least barriers in order to 'get some quick runs on the board'.

Planning for the Active Members Conference in April is underway and will be focussing on how best to expand the Knowledge Network. It will also showcase some of the newer services such as IETtv and the latest web portal. We hope to welcome a speaker from the London financial



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community to explain how they have expanded their networks globally.

Over the last many months, a twelve member Working Party has been considering the Charter and Byelaws as requested at the SGM last year. Although a lot of the reasons for the SGM have disappeared with the implementation of the new modus operandi of the Council, there is still a lot of detail to consider in the paper, which will be published in March. Two areas that concern me are the proposal that Trustees must be registered (Chartered) members. Since only half of members are chartered, this does exclude many especially non-UK members who are less likely to seek this status. The other area is that it is not clearly spelt that Trustees can be held accountable to the members. I understand that all Boards can be held accountable to all stakeholders.

A lot of effort and resources are going into the projects to improve our web portable – we are promised a world-class result by mid-year. There is a similar drive to get our new computer system working at peak performance. We are looking for a good ‘Christmas in July’.

As you may have read in other IET publications, a new office has been opened in Bangalore. We are hoping that the new Chief Executive will attend the Brisbane ATPP finals in March and give us his thoughts on a staff member for Australia.

My term as a Trustee will come to an end this year. There are still many areas with which I would like to be involved such as:

- Developing the role of Council so that all Councillors feel that they are making recognised contributions to the Strategic Direction of IET
- Encouraging students and young engineers to join
- Promoting our profession to the wider community
- Implementing an International Strategy so that IET forms partnerships with other professional bodies in which services are shared for mutual benefit
- Devising a Volunteer Strategy so that members are recognised for their contribution and work with staff in a team approach.

For these reasons, I shall be standing for one of the positions of Vice President at the next IET elections.

– Nick Baines