

monitor

news 1

ITEE neville thiele award 6

calendar 7

new products 8

ISSN 1448-7195

VOLUME 32 ISSUE 6 DECEMBER 2007



At the presentation of the Institution of Engineering and Technology's (IET) Software in Design award in the UK are (l-r) a representative from the MathWorks; Leah Kennedy, sales manager Europe of I&E Systems accepting the award; and Johnny Ball of the IET.

Perth company wins UK award

Perth-based software engineering firm I&E Systems has won an international award for its dynamic asset documentation (DAD) technology which is an integrated design tool to manage design data for instrumentation and process control systems in the hydrocarbons industry.

The company was the winner in this year's Innovation in Engineering Awards presented by the Institution of Engineering and Technology in the UK, taking out the Software In Design category. Managing director Dermot Kennedy travelled to London to attend the ceremony while the award was accepted by Leah Kennedy, sales manager

for Europe. The technology was a finalist in last year's Engineering Excellence Awards of Engineers Australia's WA Division.

The company's entry demonstrated the use of a software object model to produce the design documentation for a plant control system. Initially developed for Woodside's Onshore LNG facility, DAD was created for the oil and gas industry. The company developed the technology by applying lessons learned in a live-systems environment. Major clients and recent installations using DAD include Woodside, Esso, Rio Tinto and Amcom.

The award invited submissions from ap-

plications of innovative software methods and tools as part of the development of an engineering product in areas of modelling – gaining insight into the product and/or its operational environment by the use of models; simulation – enabling detailed design and performance analysis of the product within a software environment prior to the creation of a physical prototype; data analysis – optimising the product design through the innovative use of data capture and analysis tools; and automated testing – use of software tools to actively explore the operational characteristics of a product.

EDITOR
Justin Liew

MANAGING EDITOR
Dietrich Georg

ADVERTISING
Maria Mamone
phone (02) 9438 1533
fax (02) 9438 5934
email mmamone@engineersmedia.com.au

All editorial contributions should be sent to:
The Editor
Monitor
Engineers Media
PO Box 588, Crows Nest NSW 1585
phone (02) 9438 1533
fax (02) 9438 5934
email jliew@engineersmedia.com.au

**INFORMATION,
TELECOMMUNICATIONS
AND ELECTRONICS
ENGINEERING COLLEGE**

CHAIR – A McPhail
IMMEDIATE PAST CHAIR – D Edwards
OTHER BOARD MEMBERS
B Broadway, D Burger, R Dixon-Hughes,
S Finlayson, J Gordon, D Habibi,
A Hanna, P Hitchiner, F Novacco,
K Power, G Sizer, G Thomas, J Walsh

ITEEC ADMINISTRATION
Pamela Manning
phone (02) 6270 6530
fax (02) 6273 2358
email pmanning@engineersaustralia.org.au
www.engineersaustralia.org.au/learned-groups/colleges/iteec-college/about-us

MONITOR is produced for Engineers Australia's Information, Telecommunications and Electronics Engineering College (ITEEC) by Engineers Media. The statements made or opinions expressed in this magazine do not necessarily reflect the views of the ITEEC. By accepting advertising in the magazine, the College is neither endorsing, nor is it responsible for the delivery of, the products or services offered.



ENGINEERS
AUSTRALIA

ICT association welcomes new federal government

The Australian Information Industry Association (AIIA) has welcomed the newly-elected Labor government in what they see as a critical juncture for the information, communication and technology industry in Australia.

"We look forward to working with the new government during a period in time that will be pivotal for the ICT industry and its role in Australia's future," AIIA CEO Sheryle Moon said.

"The leadership and policy delivered to the industry over the next three to five years will to a large degree define our future stake in the international information

governments will take time. We hope too the government understands that business at all levels, and the ICT industry in particular, needs this information as soon as possible if Australia is to successfully compete in a globalised marketplace."

In other areas, the AIIA said that the government has presented strong policies addressing a number of significant industry concerns. "In particular, we look forward to working with the new government to address ICT workforce pressures and reinvigorate the R&D sector," Moon said.

According to the organisation, more

"The top priority is to provide clear plans for the rollout of a national broadband infrastructure"

economy as well as our ability to successfully meet Australia's most pressing domestic issues."

The organisation believes primary focus of the government in this area must be on the direct implementation of the policy platforms delivered during the recent election campaign.

"The top priority is to provide industry and the wider community with clear plans and a concrete timetable for the rollout of a national broadband infrastructure," Moon said.

"We understand that the transition of

will be required if ICT is to maintain a viable contribution to the economy and wider issues affecting Australia.

"The ALP's Innovation Future for Australian Industry recognises many of the imperatives that must be addressed if the ICT industry is to maintain a vibrant contribution to Australia and its interests, and that is a great outcome," Moon said.

"The challenges it identifies are significant, however, and the clock is ticking. The opportunities we have today to keep pace with a rapidly advancing international community will be ignored at our peril."

New chair for telecommunications

The Australian Mobile Telecommunications Association has elected Louise Sexton as the new chair with Andrew Volard retaining the position as deputy chair. Sexton takes over from Holly Kramer who stepped down from the chair after two years at the helm.

Sexton has been on the AMTA board since late 2005. She is the general counsel and company secretary for Hutchison Telecommunications Australia having joined the company in 1998. She has also worked in the federal attorney-general's department and in an Australian law firm.

The meeting also acknowledged the strong leadership and management contribution of Kramer, who has held the

position since late 2005.

In delivering her chair's report to the meeting, Kramer noted AMTA's strong role in representation and advocacy on behalf of the mobile sector and the association's delivery of outcomes on key issues in areas such as law enforcement/national security policy content policy and regulation environmental management infrastructure deployment health and safety accessibility and more recently, education.

Kramer paid tribute to AMTA's network and staff, particularly noting the strong commitment and engagement of members as a key driver of AMTA's achievements on behalf of the mobile sector.



The circuit monitor helps safeguard security of data processing and industrial processing operations by determining the level at which current is drawn from individual circuits.

Monitoring technology to protect switchboards

Power monitoring technology from Schneider Electric is being used by K E Brown (KEB) Electrical Switchboards to expand energy efficiency and systems security for industries with dynamic load capacities. These include data processing, buildings with environmentally-aware design and process and control systems.

The KEB group is using Schneider's Power Logic family H704 series branch circuit monitors to measure the individual current draw of each breaker in a distribution board rather than the collective draw created by boards that may include many dozens of such breakers.

The benefit of this monitoring technology is that switchboard controllers can see how much power individual circuits are drawing, enabling them to achieve load-based cost allocation, overload protection, load management and load balancing. The PowerLogic software helps reduce energy costs, peak demand charges, power factor penalties and downtime.

The H704 solid-core Modbus RTU branch circuit monitor updates power usage data about once a second. This helps safeguard security of data processing and industrial processing operations by determining the level at which current is drawn from individual circuits. This provides alerts to operators on when they should

close down an operation to prevent damage. "The technology enables users to accurately bill clients according to exact usage of power in their subcircuit," said KEB operations manager Peter Silsby. Individual sub-circuits can represent clients in data processing applications, building or factory functions in an intelligent building. This helps operations managers target problems and prevent energy waste.

"You could sit at home and monitor outputs on the internet," Silsby said. "You can drill down into the system for power usage information. In some cases, major data processors can have as many as 84 circuits on the one board. Using this monitoring technology, information about exactly what is going on in each individual circuit on that board can be known, which provides both billing accuracy and overload protection.

"The protection is reassuring to the system operator and system user, because integrity of supply is critical in data processing, building and industrial situations".

Schneider's customer service engineer Robert Christensen said the technology was conceived when an international computer group drew on KEB's engineering expertise to find a way to monitor critical final sub-circuits in their datacenters with-

out the need, complexity and expense of using one meter per circuit.

"Instead of using a power meter per circuit, the PowerLogic Branch Current Monitor was selected to monitor 42 critical circuits in real time and to communicate selected load and alarm setpoints via Modbus RTU," he said.

As the rows of H704s monitor the current draw of each breaker, the accumulated information can be transmitted to a modbus host and/or viewed on an RS485 network. As a circuit approaches capacity, warning and alarm bells can be triggered.

Additional capacity can then be added, or loads balanced, to prevent costly downtime from overloaded circuitry and unexpected breaker trips.

Up to 42 breakers can be installed in two rows on the one H704-42E branch current monitor. The H704-42, as employed by KEB, consists of a data acquisition board and two 21-unit current sensor strips mounted each side of the distribution board along the termination points of each breaker.

The conductor passes through the appropriate current sensor before terminating at the breaker. Each strip transmits the current data to the data acquisition board through a snap-on ribbon cable.

Software used to design racing boat

The CATIA design software from Concentric Engineering Services was used to design an Australian 16-foot racing catamaran which came third recently in the F16 Global Challenge in Zandvoort, Holland.

The Viper F16 is the creation of Victoria-based Australian High Performance Catamarans (AHPC) and the race was the boat's debut. Earlier in the year, the company had entered an 18-foot boat which came fourth at the European F18 Championships this year.

According to managing director Greg Goodall, this win prompted the company to try to replicate their success in the F-16 category.

"With so much interest coming from the 16-footer community we were persuaded to speed up our production plans for a full-blown F16, meeting the requirements of lighter crew weights between 120kg and 150kg in an equally demanding limited development class."

"We have followed traditional design procedures in the past but this time chose to use the CATIA design software. "It wasn't that Concentric were boating experts but because they understood good design, had a reliable 3D CAD package and could back it up with the inbuilt CAE properties," Goodall said.

Concentric Engineering Services started off the project by going to the AHPC workshop at Mulgrave, Victoria, and scanning an existing F18 boat to create the initial CAD data. They also had a reverse engineering team with a portable tripod-mounted laser scanner.

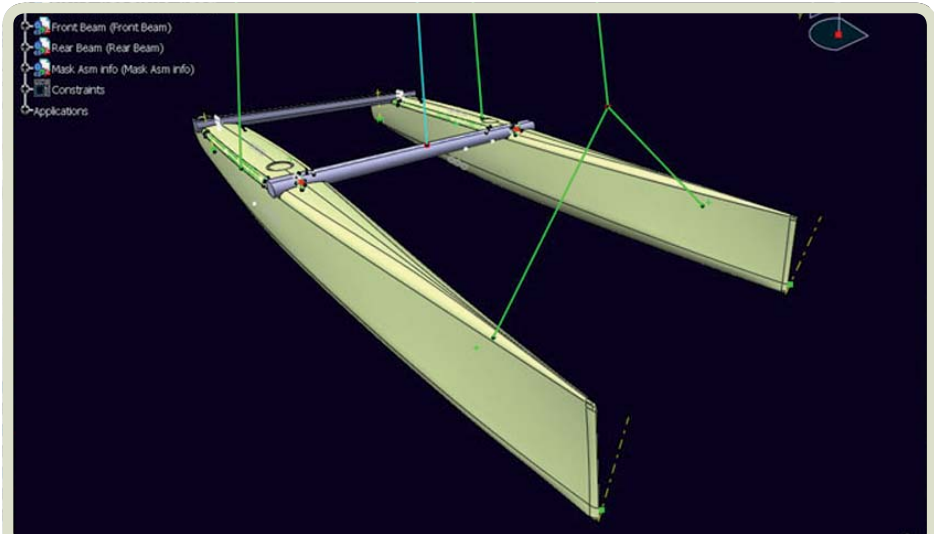
"The scanning showed straight away that the hull wasn't symmetrical," said Goodall. Concentric Engineering Services took this data and scaled it down to meet F16 regulations. The engineers were able to create a design that was perfectly symmetrical and accurate to within half a millimetre.

In CATIA, Goodall was able to view how the Viper hull would eventually sit in the water and this contributed to the improved design.

"Accuracy was a driving force in this project. All of a sudden we had the ability to make the boat exact to very fine tolerances. This accuracy also meant that making parts was that much better."

"The hulls and foils were developed with CATIA so that the plugs and moulds can be accurately CNC machined. When we took the half-mould out we knew that it would fit the other side."

AHPC intends to take the Viper F16 data and scale it up to make an even more successful 18-footer.



A computer model of the racing catamaran in the CATIA software.



The hull of the completed boat was accurate to within half a millimetre.

Test your gaming connection online

Indian software company Aspire Softech has launched broadbandbenchmark.com, a free service that enables internet users to test the latency or time delay of their internet connection to selected major online game sites.

The site works by running a test on the connection between a user's PC and the selected sites in a number of categories. The results of the tests are stored enabling Aspire Softech to provide a comparison of the user's internet connection against others in the same country. The company says it does not store personal information.

The site uses an ActiveX application

under Windows and a certificate provided by Thawte. At present the gaming sites available for testing are: Eve Online, Everquest, GameServers Chicago, GameServers Frankfurt, Second Life, World of Warcraft Europe, World of Warcraft USA. Currently, the program will only run on Internet Explorer

The service is free to use. Aspire Softech says: "Our goal is to build up a picture of the quality of network connectivity offered by different ISPs which we believe will be valuable to the ISPs and to website owners who want to ensure they have good connectivity to their customers."

SOURCE: ITWIRE

Dealing with the data deluge

CSIRO has a new research program aimed at helping science and business cope with masses of data from areas like astronomy, gene sequencing, surveillance, image analysis and climate modelling.

The research program, which began this year, is called Terabyte Science and is named for the data sets that start at terabytes (thousands of gigabytes) in size, which are now commonplace.

"CSIRO recognises that, for its science to be internationally competitive, the organisation needs to be able to analyse large volumes of complex, even intermittently available, data from a broad range of scientific fields," said program leader Dr John Taylor, from CSIRO Mathematical and Information Sciences.

Most computer users already have a few gigabytes of information stored on their home PCs. In the future of DNA sequencing, scientists will be mining possibly hundreds of thousands of personal human genome databases, each 50GB.

It is a computing challenge to handle such large amounts of data. One problem is that methods applicable with small data sets don't necessarily work with large ones.

An aim of the program is to develop completely new mathematical approaches and processes for scientists in a range of disciplines to further their research and boost Australia's position as a world science leader.

"Large and complex data is emerging almost everywhere in science and industry and it will hold back Australian research and

business if it can't be manipulated quickly and efficiently," Taylor.

Countries like the US also recognise the challenges, as Taylor has observed in his ten years of working in laboratories there.

"This will need major developments in computer infrastructure and computational tools. It involves IT people, mathematicians and statisticians, image technologists, and

other specialists from across CSIRO all working together in a very focused way," he says.

After a recent workshop, specific research areas were identified and projects are progressing in advanced manufacturing, high throughput image analysis, modelling ocean biogeochemical cycles, situation analysis and environmental modelling.

SMS messaging to stop truancy

Western Australia's public schools will have a new weapon to fight truancy in 2008, with the state government announcing a \$950,000 five-year contract to provide SMS communication software to public schools.

Education and training minister Mark McGowan said the contract with MGM Wireless was part of the government's push to get parents involved in their children's education.

He said the Department of Education and Training would work with schools throughout term four to implement the technology in 2008.

"Western Australia has one of the highest rates of mobile phone ownership in the world and it makes sense to put this technology to good use, in improving communication between parents and schools," he said.

"This new technology will inform parents when their children are absent from school, but it will also allow schools to inform parents of school projects, important events in individual classrooms,

parent-teacher nights and tips on how to help with their children's education.

"Getting parents involved in their children's education is one of the most important things we can do to improve a student's performance.

"I expect that this new system will be welcomed by parents and teachers as a quick, direct and targeted method of communication."

McGowan said the new technology would also free up teacher time spent on day-to-day follow up of absent students.

"Rather than writing and sending notes to parents, making phone calls and other administrative duties involved with truancy, teachers will be trained to use the SMS software, which will greatly reduce their workload," he said.

The minister said the technology was already being used successfully in 46 schools throughout the state.

"I expect around 400 schools, around half the state's public schools, will sign up for implementation in 2008.

Australian twist to search engine

Janelle San Juan, a 12-year-old student from the School of the Good Shepherd in Victoria, is the national winner of the Doodle 4 Google: My Australia competition.

Her design, which aimed to portray the Australian character in the logo of the Google internet search engine, will appear on the Google Australia homepage on Australia Day 2008.

The announcement was made in Sydney recently by US-based artist Dennis Hwang, who drew the original designs for the company.

The four age group winners were decided by the Australian public in an online vote over the past month and Dennis Hwang selected the overall winner from these.

In addition to the main prize, San Juan receives a Macbook computer and over \$10,000 worth of technology equipment for the School of the Good Shepherd.



The design will appear on the Google Australia homepage on Australia Day 2008.

Promoting Indian engineering in Australia

A presentation on Indian engineers in Australia was made by the president of the Indian Institute of Technology Alumni in Australia (IITAA) Davender Jain at the joint IITAA and Engineers Australia's ITEE College seminar held in Sydney last month.

The presentation, called "Global reach – IITs and IITians Association of Australia" outlined the history, structure and recent activities of the not-for-profit organisation which represents graduates of the seven Indian Institutes of Technology (IIT) in Australia and New Zealand.

The organisation aims to raise the profile of its alumni among businesses, governments and academia and provide global networking opportunities.

In one of its recent activities, the organisation invited US entrepreneur Kanwal Rekhi to Sydney for a seminar to offer his views on developments in Silicon Valley. There was a networking dinner as part of the IITAA mandate to provide global networking opportunities for IITians.

It also held a joint seminar with the NSW Department of State and Regional Development (DSRD) called "NSW government initiatives involving India." It held a seminar with guest speaker Edmond Roy, presenter of Asia-Pacific Focus, Australia Network Television, and Linda Taylor of DSRD on "Attracting Indian investment to NSW" for business leaders from India. Other events include a seminar on "Portfolio project management" and social functions.

The various IIT colleges originated in a former British prison called Hijli with the first IIT college established at Kharagpur in 1951.

Now there are seven members in the IIT family. They are Kharagpur, Bombay, Madras, Kanpur, Delhi, Guwahati, Roorkee.

According to Jain, IIT graduates are pioneers in technologies.

"Among them are V Khosla who founded Sun Microsystems, Narayan Murthy who founded InfoSys, Pradeep Sindhu who is one of the founders of Juniper Networks, N Gupta who founded Quick Eagle Networks, Umang Gupta who is the founder of Keynote Systems, and G Deshpande who founded Sycamore Networks," he said.

Other alumni include Vodafone CEO Arun Sarin, Berkshire Hathaway president Ajit Jain, and Vinod Gupta who is the chair of InfoUSA and was an adviser to former US president Bill Clinton. Two ITT alumni were in the top ten of the Forbes 2005 Midas List of venture capitalists.

IIT's Global Coordination Council com-



At the ITEE College seminar in Sydney last month (l-r) were Institute of Technology Alumni in Australia president Davender Jain, Polaris' business head for Australia and New Zealand Anil Verma, former Sydney Division chair Peter Hitchiner, Sydney Division delegate Amal Hanna and Sydney Division treasurer Richard Clarke.

prises seven country presidents from the US, UK, EU, Japan, Australia, India and Singapore. As president of IITAA, Jain represents Australia on the council.

The IITAA's current strategic goals are

image and branding, creating value for members, growth, partnering and operations and governance.

For more information visit the IITAA website www.iitaa.org.au.

Canberra professor wins ITEE award

Dr Mark Craig Reed is the winner of this year's IREE Neville Thiele Award which is the most prestigious award for an individual given out by the Information Technology and Electronics Engineering College. The award was announced at Engineers Australia's Annual General Meeting in Canberra on 23 November.

Reed, who was selected among a field of three candidates, is a principal researcher with National ICT Australia and an adjunct associate professor at Australian National University (ANU).

Among his achievements are leading a team of research engineers to develop one of Australia's first 16e WiMax digital baseband transceivers for deployment in mobile wireless data terminals. The system offers high performance while reducing the number of basestations required in urban areas.

His research interests are high-performance, reduced complexity imple-

mentations of nonlinear receiver designs for communication systems including multiuser detection for DS/CDMA, turbo decoding and the application of the turbo principle, iterative detectors/decoders for ISI channels, and spatial channels, joint synchronisation and detection algorithms for various modulation formats and tracking methods for high performance communication receivers.

He is a reviewer for the ARC Discovery Grants and has reviewed journals and conferences. He currently mentors four PhD students at ANU, leads tutorials at conferences and serves on organising committees. He has published research papers and is writing two books to be published by Wiley.

He has taken part in the annual ACoRN/NICTA Wireless Winter School which aims to provide a forum for young researchers to learn about communication theory and practice.

For a more comprehensive list of engineering events, visit Engineers Australia's online events calendar at www.engineersaustralia.org.au/events

Electrical Engineering

Course: API residential school in electric power engineering (19 days) Hobart, 4 Feb.

Inquiries: email Phil Holmes mail@conventionwise.com, web www.eng.utas.edu.au/API2008/API2008.html

Conference: Turbo expo 2008 (5 days) Berlin, Germany 9 June. *Inquiries:* +1 404 847 0072, fax +1 404 847 0151, email igit@asme.org, web asmeconferences.org/te08

Energy

Workshop: Solar energy for the developing world (14 days) Fundacion Durika, Costa Rica 2 Feb. *Inquiries:* email sei@solarenergy.org, web www.solarenergy.org/workshops/workshop.php?id=42

Conference: Energising sustainable communities – options for our future (5 days) Adelaide 17 February. *Inquiries:* 08 8379 8222, fax 08 8379 8177, email events@plevin.com.au, web

www.solarcitiescongress.com.au

Conference: West coast energy management congress (2 days) 14 May Seattle, US. *Inquiries:* web www.energyevent.com

Conference: Globalcon 2008: Energy, power and facility management strategies and technologies (2 days) Texas, US 19 Mar. *Inquiries:* web www.globalconevent.com

Conference: International power summit 2008 (3 days) Barcelona, Spain 28 Feb. *Inquiries:* Renee Hynes +44 20 7915 9948, fax +44 20 7753 4247, email reneehynes@vibeevents.com, web internationalpowersummit.com

Conference: 5th international conference on information technology and applications (4 days) Cairns 23 Jun. *Inquiries:* email icita@ieee.org, web www.icita.org

Electronics Engineering

Conference: Printed electronics Europe 08 (2 days) Dresden, Germany 8 Apr. *Inquiries:*

27 Feb, Melbourne 20 Feb, Perth 12 Mar, Sydney 13 Feb; **Project management** (2 days) Brisbane 28 Feb, Melbourne 21 Feb, Perth 13 Mar, Sydney 14 Feb; **Risk and liability management** (2 days) Sydney 12 Mar; **Stormwater management** (2 days) Sydney 13 Mar; **Strategic leadership and service excellence: Driving engineering business success** (4 days) Melbourne 9 Mar; **Understanding electrical practice for the nonelectrical manager** (2 days) Perth 31 Mar; **Writing winning technical documents** (2 days) Hobart 13 Mar, Melbourne 6 Mar, Perth 11 Mar, Sydney 27 Feb. *Inquiries:* Ann Ellis, general manager, Engineering Education Australia 03 9326 9777, fax 03 9326 9888, email ann@eeast.com.au, web www.eeast.com.au

Engineering Education Australia

Courses: Asset management and maintenance (2 days) Darwin 11 Mar; **Contract management** (2 days) Melbourne 18 Feb, Perth 10 Mar, Sydney 11 Feb, Brisbane 25 Feb; **Earned value methodology** (1 day) Adelaide 11 Mar, Perth 12 Mar; **Earthworks** (2 days) Brisbane 13 Mar, Townsville 28 Feb; **Electrical engineering practice module 1 – power systems design planning stage** (2 days) Perth 5 Mar; **Enterprise availability modeling** (1 day) Sydney 14 Mar; **Financial management** (2 days) Sydney 10 Mar; **Managing self and others** (2 days) Melbourne 4 Mar, Sydney 6 Mar; **Mentoring** (1 day) Adelaide 11 Mar, Brisbane 4 Mar, Melbourne 12 Feb, Perth 26 Feb, Sydney 19 Feb; **Personal time management** (1 day) Brisbane

Chris Clare + 44 1223 813703, fax +44 1223 812400, email c.clare@idtechex.com, web printedelectronics.idtechex.com/printedelectronicseurope08

Information & Communications Technology

Conference: linux.conf.au 2008 (6 days) Melbourne 28 Jan. *Inquiries:* 03 9235 5454, fax 03 9235 5454, email contact@melbourne.org, web linux.conf.au

Conference: Mobile world congress (4 days) Barcelona, Spain 11 Feb. *Inquiries:* +44 208 879 2422, web mobileworldcongress.com

Conference: ICT Africa 2008 (3 days) Addis Ababa, Ethiopia 13 Feb. *Inquiries:* email cdhliwayo@nepadcouncil.org, web ictafrica.nepadcouncil.org

Conference: RFID smart labels USA 2008 (2 days) Boston, US 20 Feb. *Inquiries:* +44 208 879 2422, web mobileworldcongress.com

Conference: 19th Australian software engineering conference (3 days) Perth 26 March. *Inquiries:* Dr Pornpit Wongthongtham, Curtin University of Technology 08 9266 1835, fax 08 9266 7548, email aswec2008@curtin.edu.au, web www.ceebe.curtin.edu.au/ASWEC2008

Conference: Australian broadcasting summit 2008 (2 days) Sydney 26 Mar. *Inquiries:* 02 8908 8555, fax 02 8908 8556, email anthony@acevents.com.au, web www.acevents.com.au/broadcasting2008

Conference: International multiconference of engineers and computer scientists 2008 (3 days) Hong Kong 19 Mar. *Inquiries:* email imecs@iaeng.org, web www.iaeng.org/IMECS2008

Conference: 11th international conference on business information systems (3 days) Innsbruck, Austria 5 May. *Inquiries:* email w.rutkowski@kie.ae.poznan.pl, web bis.kie.ae.poznan.pl

Conference: 3rd annual web services security conference and expo (3 days) Maryland, US 12 May. *Inquiries:* +1 301 583 4629, fax +1 301 772 8540, email wssc@unatek.com, web unatekconference.com

Conference: 20th international conference on advanced information systems engineering (5 days) Montpellier, France 16 Jun. *Inquiries:* email bella@lirmm.fr, web www.lirmm.fr/caise08

Miscellaneous

Conference: 7th international Heinz Nixdorf symposium – self-optimising mechatronic systems (2 days) Paderborn, Germany 20 Feb. *Inquiries:* email kloeppe@hni.upb.de, web www.hni.uni-paderborn.de/en/symposium2008

Conference: International Commission for Optics congress 2008 (5 days) Sydney 7 Jul. *Inquiries:* 02 9368 1200, fax 02 9368 1500, email info@iceaustralia.com, web www.iceaustralia.com

Conference: OECC/ACOFT 2008 conference incorporating the Australian conference on optical fibre technology, and the opto-electronics and communications conference (3 days) Sydney 8 Jul. *Inquiries:* email: oecc_acoft2008@iceaustralia.com, web www.iceaustralia.com/oecc_acoft2008

CALL FOR PAPERS

Electronics Engineering

Conference: International conference on electronic materials (5 days) Sydney 28 Jul. *Inquiries:* Helen Woodall 03 9326 7266, fax 03 9326 7272, email helen@materialsaustralia.com.au, web www.aumrs.com.au/ICEM-08

Abstracts due: 15 Feb

Information & Communications Technology

Conference: 2008 international conference of signal and image engineering (3 days) London, UK 2 Jul. *Inquiries:* email wce@iaeng.org, webwww.iaeng.org/WCE2008/ICSIE2008.html

Abstracts due: 6 Mar

Conference: World congress on engineering and computer science 2008 (3 days) San Francisco, US 22 Oct. *Inquiries:* email wcecs@iaeng.org, web www.iaeng.org/WCECS2008

Abstracts due: 2 Jul

Hybrid PC saves space

NEC Computers has launched the Powermate P5010 hybrid PC into Australian and New Zealand.

Housed in a white chassis, it features a 17" widescreen display based on a dual lamp LCD with the company's Super Shine View Ex-2 screen coating for enhanced colour and contrast. It is powered by an AMD Turion 64 X2 dual core processor.

According to Darren Brain, marketing manager of NEC Computers Australasia, the computer originated in the Japanese marketplace as a result of demand for computers with space efficient designs and aesthetic appeal.

The unit reduces the amount of protruding cables with a single cable connecting it to a power source. It weighs 4kg and has a radio frequency wireless multimedia keyboard with a built-in joystick, allowing users to operate up to 10m away from the computer.

The combination of integrated wireless LAN and Cyberlink Soft-DMA 1.5 allows the computer to be set up anywhere in a home and still be able to access to the network and receive streamed video or music files from another PC. It has an optional portable webcam.

"Users can charge their electronic gadgets such as mobile phones, portable media players via USB without even switching on the system.

Users can retrieve DVDs or CDs from the slot drive without powering up the PC," Brain said.

The computer's full list of features are an ATI Radeon X1200 videocard, 2GB



The unit reduces the amount of protruding cables with a single cable connecting it to a power source.

DDR2 memory, a 200GB SATA hard disk, a slot-loading DVD multi drive, a 13-in1 multimedia card reader, 802.11b/g wireless LAN connection, gigabit Ethernet

LAN connection, four USB Ports, a PC Card slot, an IEEE 1394 port and Windows Vista Premium.

🔗 *More information – Qikreply 19*

Gigabit switches for large companies

Data networking company 3Com Corporation has released new managed gigabit switches for large businesses.

The Baseline Switch 2900 Plus Family and OfficeConnect managed gigabit Power over Ethernet (PoE) switch deliver voice-ready, layer 2 gigabit switching. The PoE features on some models eliminate the expense of installing electrical connections and enable remote wireless device control over the network. The switches have features for network control and flexibility and security capabilities.

The products are part of the company's secure converged networks strategy, where a single converged architecture manages all voice, video and data traffic over one secure network.

Other features include auto-voice VLAN to automatically detect and connect

any standards-based internet protocol (IP) phones, quality-of-Service prioritisation so voice calls always have sufficient bandwidth to ensure clarity,

The Switch 2900 Plus family of rack-mountable switches is available in 16-, 24- and 48-port models. A 24-port PoE version delivers data and power over the same cabling and powers devices such as IP phones, wireless access points and web cameras.

Each switch also has four dual-purpose ports configurable as SFP-based fiber or standard copper to connect to high-performance computers, servers or network backbones.

The OfficeConnect managed Gigabit PoE Switch can be used by small businesses looking to deploy voice over IP (VoIP) and wireless capabilities into their

networks.

The switch has ten PoE-enabled 10/100/1000 ports and a dual-purpose gigabit port for connecting to computers, servers or network backbones.

The switch's PoE capabilities provide power to attached devices using a single Ethernet cable.

Both switches can be deployed right out of the box. If custom configuration is needed, it can be done using the switches' web management interface.

The security features have art login requirements and access control lists that enable acceptable use policies to be enforced via the switch at each point of access to the network. All management communications have per-port HTTPS encryption.

🔗 *More information – Qikreply 23*

Taking laps out of laptops

Targus Australia has released its portable LapDesk which is a folding tray that supports a notebook computer so users can avoid placing the computer on their lap. The unit offers five angle adjustments, allowing people to adjust the angle of their notebook screens.

By placing notebooks on the tray instead of on their laps, users can avoid touching the notebook casings which emit heat after long periods of use and can be uncomfortable.

It has an adjustable foot which can raise the back edge of the computer, increasing airflow around the computer.

Manufactured in plastic in a silver finish and weighing mere 414g, the device folds to 28cm x 29cm x 1.5 cm to be carried in a standard case along with the notebook.

The company has also released a rechargeable Bluetooth mouse that uses Bluetooth wireless technology to connect



By placing notebooks on the tray instead of on their laps, users can avoid touching the notebook casings which emit heat after long periods of use.

with notebook PCs. It uses Bluetooth 2.00, which features adaptive frequency hopping to reduce the chance of interference from

other 2.4 GHz wireless devices such as Wi-Fi notebooks or cordless telephones.

[More information – Qikreply 22](#)

Embedding voices into the web

Voxalot has launched VoxConnect, a web services application programming interface (API) that integrates voice applications into online services like web sites. It has phone number verification for fixed-line, mobile and internet telephone numbers

that provides site operators with the ability to validate phone numbers entered on their site, ensuring that the person/member registering the phone number is in fact the true holder of that number.

The API allows web site operators,

widget creators and application developers to embed voice 2.0 calling features into their online services and applications. It gives enterprises use of all of the Voxalot core telephony functions that are currently available to consumers. It requires basic knowledge of telephony for developers, and no special telecom equipment for end-users.

By leveraging Voxalot's telephony functions within their online applications, site operators can customise different telephony applications for their members. Examples include anonymous calling for dating and social networking sites, click-to-call yellow-page directories, voice mail, as well as user-configured find-me/follow-me settings, which direct calls to reach members wherever they are.

Other embeddable VoxConnect services include telephone number validation via PIN for fixed line, mobile and Internet phone numbers; inbound call routing which routes calls by time-of-day, by caller and other parameters; voice mail and call-history information.

"Using our API, developers can produce voice-enabled web sites," said company CEO Tony Mascarenhas. "Social networking and online dating sites, for example, are naturals for voice integration. With embedded telephony capabilities, site members can upgrade their interaction from IM chat to spoken conversation, without giving their phone numbers away to as-yet unknown people."

[More information – Qikreply 16](#)



The station allows users to listen to their iPod as it recharges.

Docking station for music player

Teac Australia has released a docking station for iPods, the SRL2Xi iPod HiFi Radio. This allows users to listen to their iPod as it recharges in the station, or listen to the built-in FM radio. The station also has a

video out jack.

Sound is delivered through built-in speakers and the unit can stand alone or be mounted on a wall.

[More information – Qikreply 21](#)

Infrared camera for detecting insulation failures

Specifically designed in conjunction with professional thermographers, the newly released ThermoCAM P640 infrared camera from Flir Systems is the result of collaboration between the industry and the company.

The unit is the one of the first hand-held infrared cameras with an uncooled infrared detector producing images for a 640 x 480 array.

“Effectively, it means you can be twice as far away from the subject – for added safety – and still measure with complete accuracy.

“The camera also has the advantage of seeing an image four times greater compared to a 320 x 240 array camera,” said Roger Christiansz, managing director of Flir Systems Australia. More pixels equal greater temperature measurement accuracy.

It can be used by infrared consultants, thermography consultants at a utility provider or in the manufacturing industry, building industry or in research and development.

It can be used for detecting loose connections, spotting overheated cable connections, detecting heat from faulty cables, oxidising high voltage switches, or detecting badly secured connections, defective insulators, overheated motors or overheated electrical circuitry.

The camera can record full radiometric video sequences for inspecting moving targets such as motors or conveyor belts. In-camera play-back allows for an on-site review without the need for a PC.



The unit is one of the first handheld infrared cameras with an uncooled infrared detector producing images for a 640 x 480 array.

The new camera also includes an interchangeable 1.3 megapixel visual camera and a three-hour battery. Other features include a hot spot marker on the visual image, manual and autofocus, up to 8x

digital zoom with pan, storage of infrared video clips, simultaneous on-screen live and reference image, text and voice annotations and wireless communication.

📄 *More information – Qikreply 20*

Terminal blocks with screw flanges

NSW-based Farnell is distributing Camden Electronics' new range of plug-in terminal blocks. These feature screw flanges enabling male and female connectors to be clamped together to create ultra-reliable connections in all applications including high vibration.

Besides anti-vibration applications, the pluggable terminal blocks are also ideal for use where a heavy cable on the female part could break the connection with the printed circuit board (PCB) mounted male component.

Two sizes are available, offering 5mm and 5.08mm pitch with 0.2 mm² to 0.4mm² cable entry.

The flanged pluggable terminal blocks are available in solid blocks from two to 22 poles and can be supplied in vertical and horizontal orientations for both the male

PCB header and the female connector.

The captive screws in the flange of the female part ensure the connection is reliable in hostile and high vibration applications.

Moulded from green UL94V0 flame retardant PA66, additional features include professional rising clamp terminals, anti-solder wicking and polarised mouldings. Guided pin alignment ensures a better fit for the male header into the drilled holes on the PCB.

Specifications include 16A rating, dielectric strength of 2000V AC, insulation resistance $\geq 2M\Omega$ and a working temperature from -40°C to 105°C.

Pins and terminals are made from tinned phosphor bronze while rising clamp terminals are nickel plated brass. Captive terminal screws are zinc-plated.

The flanged pluggable terminal blocks can be used for machinery control, lift control, hoists and anything that moves or is liable to mechanical shock.

📄 *More information – Qikreply 17*

For more information on any of these products, send an email to kharrison@engineersmedia.com.au with the subject headline “Monitor Qikreply”. Your contact details and the Qikreply number of the product should be included in the body of the email.