New committee elected at ASHET annual general meeting on Thursday 15 April

ASHET's constitution provides that a new management committee will be elected at each annual general meeting. This year's agm was held on 15 April and the following members were elected to serve on the management committee until the next agm in 2011.

President: Ian Jack
Senior vice-president: Robert Renew
Vice-president: David Craddock
Secretary: Ian Arthur
Treasurer: John Roberts
Ordinary committee members:
Felicity Barry
Mari Metzke
Neil McDonald

The only new committee member is Dr. Neil McDonald, who replaces Ian Bowie who did not seek re-election to the committee. Prior to his retirement Neil was with ANSTO, the Australian Nuclear Science and Technology Organisation, and for several years represented Australia at the International Atomic energy Agency in Vienna.

Neil McDonald

Dethridge water meter in Victoria

joined the Victorian Department of Public Works as an inspector in 1888, and passed the water suppy examinations that qualified him for a professional position in 1997. He was appointed executive engineer for the Goulburn River works 1903. In 1911 he was appointed one of three commissioners of the newly formed state rivers and water supply commission. He represented Victoria on the interstate conference that led to the formation of the river Murray commission in 1917, and became the Victorian representative.

Dethridge's talents as an engineer were valuable in a period of rapid increase in irrigation. He designed the Eildon Weir, now submerged under he larger Eildon Dam, and several other Victorian water supply dams. He also designed two River Murray weirs at Torumbary and Midura which were innovative, consisting of a set of steel trestles on wheels, that could be dragged out of the stream during floods. They are still in service.

The author of Dethridge's entry in the *Australian Dictionary of Biography,* Ronald McNicoll, records that 'he was admired and liked even by the most junior members of his staff—which was a rarity in those days'. He died in 1926.

The Dethridge Wheel

100 years ago, John Dethridge invented the water meter that bears his name. He was at the time deputy chief engineer with the Victorian Department of Public Works. He had developed the design over several years.

Dethridge declined to patent the design. Simple, robust and relatively inexpensive, it was adopted almost universally by irrigation authorities in Australia, and was also used in America, Israel and South Africa. There were at one time over 40,000 in use in Australia and Goulburn-Murray Water still has over 20,000 in service.

The meter's accuracy, of the order of ±10 per cent, does not meet the standards currently being implemented in Australia, and Dethridge meters are being superseded by more accurate, but more expensive, meters of quite different design. Goulburn-Murray Water estimates its costs for replacement will be over $200,000, so the Dethridge meters are unlikely to disappear any time soon, though with water prices to irrigators steadily rising, the supply authorities have an opportunity to increase revenue significantly if they replace them with more accurate meters.

John Dethridge, the inventor, was born in South Yarra in 1865. He

ASHET events

Saturday 31 July 2010
Visit to Sydney Trades Hall

Sydney Trades Hall was established by the developing trade union movement in NSW. The building was first begun in 1888 with the final meeting hall finished in 1917. A large scale refurbishment was completed in 2007.

Trades Hall has been home to many unions over the years. In the late 1940s there were 88 separaate offices in the building. It houses a large collection of items, including banners, badges, photographs and items that provide links with the world-wide trade union movement.

The tour will be guided by Neale Towart, librarian and heritage officer of the Trades Hall.

> **Venue**: Trades hall, 4 Goulburn Street, Sydney
> **Time**: 10 a.m, duration apporoximately two hours.
> **Cost**: $5.00 for ASHET members, $10 for others. Pay on the day.
> **Bookings**: phone ASHET secretary Ian Arthur at 9958 8397 or email sec@ashet.org.au

Tuesday 3 August 2010
Talk by Ann Moyal
The Telegraph revisited

To a nation the size of Australia, the telegraph was the most important technological innovation of the nineteenth century. Ann Moyal, author of C*lear across Australia: a history of telecommunications*, will speak of the way the telegraph ransformed human society, business, transport, trade, the media, scientific communication, and all the processes of the economy in Australia and begat the information age.

This is a joint activity of ASHET and the Royal Australian Historical Society (RAHS).

> **Venue**: History House, 133 Macquarie Street, Sydney
> **Time**: 5.30 for 6 pm
> **Cost**: $7.00 Includes light refreshments on arrival
> **Bookings**: phone RAHS on (02) 9247 8001 or email history@rahs.org.au.

No Darling Downs tour this year

Following the very successful two week tour in 2009 to Outback NSW, ASHET and the Royal Australian Historical Society planned a similar tour to the Darling Downs for August this year. Because we needed a minimum number of participants to share the cost of coach hire, we advertised among our members and members of RAHS for expressions of interest, before making firm commitments. Unfortunately the response fell well short of the minimum number of participants we needed, so we are unable to proceed with the tour.

We are still hopeful that we will find a way of running the tour in 2011.

History of SydneyTrades Hall

A grant of land was made for the Trades Hall site on October 13, 1885, to the trustees: Henry Copeland (MLA)of Newtown, Jacob Garrard (MLA) of Balmain, William Ferrier of Balmain (a stonemason), John Edward West of Woolloomooloo (a plumber and gasfitter), John Richard Talbot of Sydney (iron moulder), John Atkinson of Balmain (a boilermaker), Thomas Candy of Surry Hills (a draper), and Richard Mooney of Woolloomooloo (a Journeyman Tailor).

The trustees were required to "hold and use or allow the said land hereby granted and the buildings to be erected thereon to be at all times hereafter maintained and used as and for a Trades Hall and Literary Institute for the use of the Artificers and Operatives of Sydney aforesaid and others under and in accordance with such Regulations as shall from time to time be made by the Governor".

In 1888 Lord Carrington, as State Governor (also Grand Master Freemason of the United Grand Lodge in NSW), laid the foundation stone of Sydney's Trades Hall. Due to lack of funds, it took several years for the building to be erected. Finally, the opening ceremony was performed on January 26, 1895. According to Mr McIntyre, president of the Builders and Contractors Association, "every man employed had been a unionist, and had received the full rate of pay ordered by the associated trades."

John Duigan flight celebration in July 2010

First aircraft designed and built in Australia

On 10 July , 1910, John Duigan made a seven metre 'hop' in an aircraft that he had designed himself and built with the help of his brother Reg. The centenary of this event will be celebrated at a ceremony in Mia Mia, near Kyneton, Victoria where the first flight took place. At the ceremony there will be a recently built flying replica of the original plane.

On 7 October, 1910, Duigan made his first sustained flight of 178 metres at a height of around three metres. It was the first Australian designed and built aircraft to achieve controlled and sustained flight, and
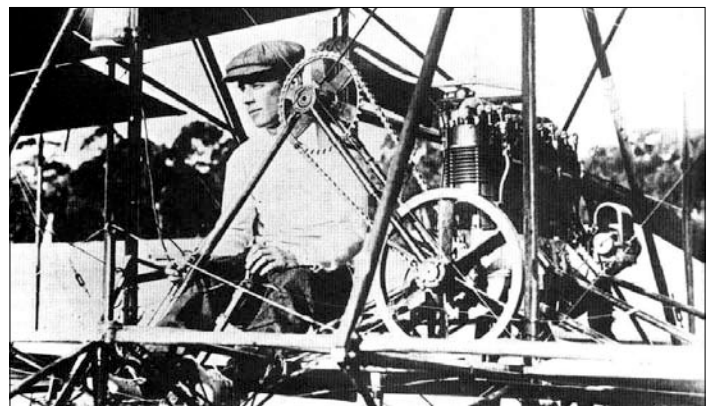
John Duigan at the contrrols

this was only seven years after Wright had made his historic first flight in Ohio.

John Duigan continued to fly the aircraft locally and made around sixty flights of up to two kilometres and altitudes of up to 18 metres, before the end of its active life in May 1911. Shortly after that Duigan and his brother left for England. There he purchased one of the first Avro biplanes, and did development work on it at the A.V. Roe works, managing to substantially improve its performance. He soon sold the aircraft and the brothers returned to Australia with an engine which John installed in a new aircraft that he built in Melbourne in 1912. It was based on tahe A.V. Roe design. Duigan piloted it on its maiden flight in 1912, when it crashed and left him seriously bruised. The aircraft was never rebuilt.

In 1916 Duigan enlisted in the A.I.F. and joined the Australian Flying Corps in which he was commissioned a Lieutenant. He served in France and was awarded the Military Cross for bravery.

After the war he moved to Yarrawonga and ran a motor engineering business until World War II, when he sold the business and returned to Melbourne where he worked at Fisherman's Bend with the Quality Control Branch of the RAAF. He retired after the war and died in 1951, aged 69.

John Duigan

Duigan's early life

John Robertson Duigan was born in Terang, Victoria, in 1882. He was educated at Brighton Grammar School, and at the Working Men's College, which became the Melbourne Technical College. He went to London and attended technical colleges there, gaining diplomas in electrical and motor engineering. He returned to Melbourne in 1907 to work for G. Weymouth Pty. Ltd., an engineering firm, for a short period before returning to his parents' property at Mia Mia. It was there that he developed an interest in aviation that seems to have been sparked by letters from a friend in England who wrote about Wilbur Wright's flights in France.

Duigan's aircraft

Duigan built first a glider and then a powered aircraft, with some help from his brother Reginald, who was managing the family farm. Duigan prepared his own plans and specification, based on the French Farman biplane. He made many of his own parts and constructed the frame from red pine and mountain ash. The J. E. Tilley Company of Melbourne supplied the engine. Following is a brief specification:

> Overall Wing Span: 10.5 m
> Engine: Tilley 4-cylinder air, water cooled, 18.6 kW (25 hp) at 1800 rpm
> Fuel tank capacity: 4.55 L
> Max speed: 64 km/h.
> Take off run approximately 91m in 6 km/h wind.

The plane was built in a shed on the farm and dragged to a field suitable for a flight of up to 800 metres. It was here that it became airborne on 16 July 1910.

Duigan applied for the prize of £5,000 offered by the Defence Department to a builder of a suitable military aircraft, but his application was rejected because the closing date for entries was March 1910. The prize was never awarded. However the Defence Department did request a demonstration of the plane in May 1911.
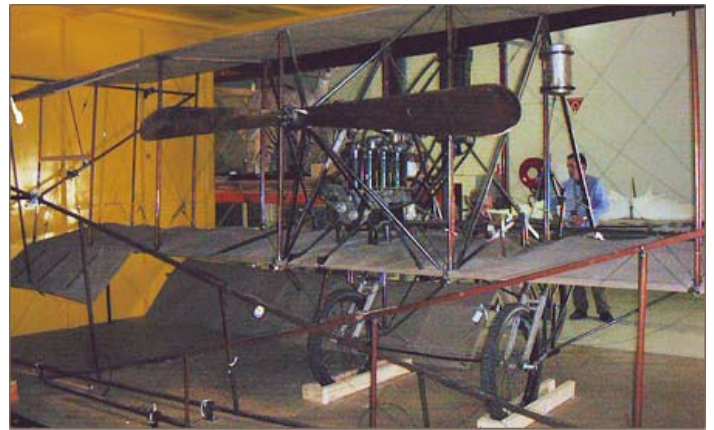

Duigan's plane at Mia Mia

The original plane and replicas

In 1920 Duigan donated the plane to the Industrial and Technological Museum of Victoria. It went on display, suspended from the ceiling of the gallery. It was taken down and repaired in time for a display to celebrate its 50th anniversary in 1960. Afterwards it was removed from the museum and sent to the Government Aircraft Factory at Avalon, and on the way was seriously damaged. After repairs it was briefly displayed at the ScienceWorks Museum at Spotswood. It is now in storage in the museum warehouse.

In the 1980s Ron Lewis, an engineer, made a flying replica of the Duigan aircraft, but he died shortly before it was ready to fly. His family donated it to the Victorian Museum in 2001 and it is now on display in the Melbourne Museum.

Terry Egan and a group of volunteers, with support from the Australian National Aviation Museum, have been making another flying replica of the Duigan aircraft, to be completed in time for the centenary in July 2010.

Duigan's aircraft in Museum wardhouse

Sources and further reading

This article is based mainly on the information from three websites listed below. The third of these contains information on the celebrations planned for July at Mia Mia.

http://www.ctie.monash.edu.au/hargrave/duigan_bio.html

http://www.australiancentenaryofpoweredflight.com.au/

http://www.duigancentenaryofflight.org.au/replica-project-2010.html

The University of New South Wales and its Engineering School: the early years

NSW was the first state in Australia to have a second university. If Sydney engineer Norman Selfe had his way that would have happened 70 years earlier. In 1887 Selfe had become acting president of the NSW board of technical education that administered the recently established Sydney Technical College. One of his first duties was to deliver the address at the annual prize-giving attended by the minister for public instruction. Selfe had recently returned from a visit to America where he had been greatly impressed by with its industrial development, which he hoped to see replicated in Australia. In his address he set out his grand scheme for technical eduction, which would be at three levels: general manual training for children in primary schools under properly trained teachers; scientific and technical training in a technical college with a strong emphasis on manual training; an industrial university which emphasised the practical and useful rather than the literary and theoretical. Technical eduction needed to be freed from control by the officials of the department of public instruction. The response from the minister, James Inglis, who was present, was that he had never heard such a one-sided speech in his life.

By the next year there was a new minister and a new under-secretary for public instruction, Edwin Johnson. Johnson had visited America and showed some sympathy for Selfe's ideas, but it was clear the technical college would come under his department and that the board of technical education would be dissolved. With an engineering school recently established at the University of Sydney, there was no thought of a second universtiy in NSW. One of Selfe's last acts as acting president was to acquire the Ultimo site for the technical college.

The Sydney Technical College

The technical college steadily increased the standard of its courses over the years, and took a major step forward after the appointment of James Nangle as director of technical education in 1913. He established diploma courses, with a high entrance standard, that combined evening classes with employment in the relevant industry during the day, Under Dr. R.K.Murphy, the courses in chemical engineering, which he pioneered in Australia, reached a high level, and the diplomates agitated to have their diplomas upgraded to a degree. Nangle opposed the idea of the technical college being transformed into a university granting degrees, because he believed that for many years its degrees would be seen as inferior and its graduates would suffer for this. However diplomas from the college were held in increasingly high regard by industry and the professional institutions, and the agitation for the college to grant degrees continued.

William McKell became Premier in a new Labor government in 1941. He was dedicated to improvements in education and particularly technical education, which he saw as essential to advancing the industrial development of the state. By 1944 he had a minister for education, Robert Heffron, an energetic and capable former trade union leader, who shared his vision. In a speech to parliament in 1945 Heffron floated the idea of converting the technical college into an institute of technology granting degrees. In 1946 Heffron met Dr Karl Compton, president of the Massachusetts Institute of Technology, who was visiting Sydney, and later expressed his indebtedness to Compton for crystallising his ideas on the sort of university they should establish.

The Institute of Technology

In July 1946 the government agreed in principle to form a developmental council to make recommendations for an institute of technology. The council had its first meeting in August 1947 and was authorised it to take immediate control of the institute once it was established. A key task was to draft legislation for its incorporation. The council, with 19 members, was representative of government and industry. Heffron was the chairman, and his deputy was Wallace Wurth, chairman of the public service board.

Wurth was a powerful force. He had been federal director of manpower priorities during the war and this had heightened his appreciation of the shortage of scientists and engineers and the importance of technical professions to Australia. He had long cherished a vision of a technical university, and here was a chance to bring it to reality. Also on the council was Arthur Denning, deputy superintendent of technical education, who would become the acting director of the new university until 1952. Dr Harold Brown was recruited from CSIRO in 1947 to assist the council, with the title of co-ordinator of technical planning and research. During the war he had been a part-time lecturer at the Sydney Technical College. He relished the opportunity to establish an institute of technology along the lines of MIT and CalTech.

The developmental council worked quickly. On 1 March 1948 it accepted enrolments for courses in civil, electrical and mining engineering, even though the legislation to establish the new institute had not been passed. It had agreed that the courses should have a large content of practical training in industry, five months in each of the first three years of the course. Also from six to ten per cent of course time would be in non-technical subjects, English expression, scientific method, history of technology and statistical methods. The length of the full time course was four years, the same as the engineering courses at other Australian universities, and the standards were to be comparable. It was soon realised that these prescriptions would need to be modified to make the students' workload more manageable, and changes were made, particularly to the requirement for practical training. However for many years the majority of the students were part-time, so by the time they graduated most had received substantial industrial experience.
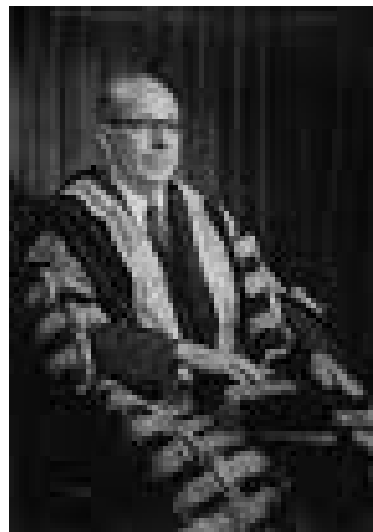
Wallace Wurth

First students enrolled

The first enrolment consisted of 46 students. 28 were sponsored cadets or government scholarship holders and seven were ex-servicemen supported by the Commonwealth reconstruction training scheme.

By the time the legislation had come to parliament in March 1949 it had been decided that the name of the new institution should be the New South Wales Institute of Technology. The legislation received royal assent on 12 May 1949 and the new university was founded on 1 July. Wurth became chancellor and Harold Brown the foundation professor and head of the department of electrical engineering. The faculty of engineering was formally established on 8 May 1950 and Brown became dean. He moved quickly to introduce postgraduate studies, including coursework for professionals, and to encourage research activities.

In the early years most of the teaching was provided by staff of the Sydney Technical College and the staff were employed by the department of technical education. Among the early appointments were Philip Baxter, professor of chemical engineering and dean of the faculty of applied science, David Phillips, professor of mining engineering and Al Willis, senior lecturer in mechanical engineering, from 1950 associate professor of mechanical engineering and from 1951 a full professor. All three of these were recruited from Britain. Their backgrounds were principally in industry and research rather than in academia.

Brown resigned in 1952 to become controller of research and development in the Commonwealth department of supply and was succeeded as dean of engineering by David Phillips. When Phillips was

appointed pro-vice-chancellor and chairman of the professorial board in 1956, Al Willis became dean of engineering.

In 1952 the four engineering schools enrolled nearly 500 first-year students. Thereafter, the number of undergraduates in engineering increased quite slowly until the 1990s when there was another period of rapid growth. The numbers enrolled in post-graduate courses and research continued to grow steadily over the years. 1952 was also the year in which the university's first graduation ceremony was held, with a total of 34 degrees being awarded in engineering and science.

A home for the new university

One of Brown's tasks for the developmental council in 1948 was to help find a site for the new university. After rejecting the ideas of resuming property in Darlington close to the University of Sydney or around the Sydney Technical College in Ultimo, the council decided on the empty site of a former racecourse at Kensington. Brown said it was not large enough, and that the university would need the adjoining golf course as well. Wurth reportedly told Brown 'You can have the racecourse. Get on to the racecourse, put up a building and I'll get you the golf course.' Building at Kensington proceeded very slowly and for years the engineering faculty used the classrooms and laboratories of the technical college. The last school to move to Kensington was civil engineering in 1966.

Independence

In its early years the university was administered as part of the department of technical education, and Arthur Denning, as director of the university as well as the department, was anxious to keep it that way. But there was soon agitation to make the university independent and in 1951 four professors produced a 'prayer to council' urging the importance of the university having a traditional form of government. In 1951 the council appointed a subcommittee on autonomy. It reported a year later recommending that as a first step the university should have a full time director. The government, with encouragement from Wurth, agreed and applications were called. There were two applicants, Arthur Denning, and Philip Baxter, who had acted as director while Denning was on a visit overseas. The council selected Baxter.

Sir Philip Baxter

On his appointment as director he immediately took steps towards achieving independence for the university. There had already been some moves in this direction. From 1951, the university had undertaken, on behalf of the department of technical education, the conduct of diploma courses that were in the same fields as the courses offered by the university, so had some administrative responsibility for a substantial lecturing staff, although all of the staff of the university were officially employees of the department.

In 1954 all of lecturing staff, around 500, were offered the opportunity to transfer from the department to the university with effect from the date that the university became independent. That date was 1 July 1954. In March 1955 the titles of president, vice-president and director were changed to chancellor, deputy chancellor and vice-chancellor.

This seems an appropriate point to end this brief account. As a footnote it might be added that in 1958, with the addition of new faculties of medicine and arts, the university's name was changed to its present one, the University of New South Wales.

In 2009 the university and the faculty of engineering celebrated their 60th anniversaries. To mark the occasion the university published *The history of the UNSW faculty of engineering 1949–2009*, which was one of the main sources for this article. It records how the faculty has grown over those sixty years to become by far the largest engineering faculty in Australia with over 5000 undergraduates enrolled and over 600 engaged in post-graduate research.

Ian Arthur

Sources and further reading

Blanche Hampton with Ben Allen and Robert Loeffel; *The History of the UNSW Faculty of Engineering.* UNSW Press: Sydney, 2009.

A. H. Willis: *The University of New South Wales: The Baxter Years.* UNSW Press: Sydney, 1983.

Patrick O'Farrell; *UNSW a Portrait.* UNSW Press: Sydney, 1999.t

Australian patents

Patents are an important source of information on the history of technology. Prior to Federation, patent systems were administered by the states. ASHET has been looking at ways of facilitating access to the infomation on these early Australian patents.

There is an excellent introduction to the topic on the website of the State Library of Victoria, compiled by the subject librarian David Yendall at http://guides.slv.vic.gov.au/content.php?pid=87344&sid=649912.

It covers briefly the history of patents and provides detailed information on how to locate and view copies of patent specifications. For Canberra residents this is comparatively easy, as IP Australia in Canberra has accessible copies of all patents from 1904, when the Commonwealth government started to grant patents. Most of the original records relating to patents granted by the states up to 1904 are held in the National Archives in Canberra. The National Archive website at http://www.naa.gov.au/ provides an online resource to assist in locating individual items. No state patents were granted after 1904, when the state patent offices closed and the Commonwealth assumed responsibility for patenting in Australia.

Victoria began to grant patents in 1954, and up to Federation granted more patents than any other state. The State Library of Victoria has a well organised set of microfiche records of Victorian patent specifications, that can be viewed and copied. The library also has holdings of patent material for other states, mostly in microfiche form.

The State Library of NSW and the Mitchell Library in Sydney have in hard copy form indexes to all the NSW patents and the registers of inventions, that were issued from 1854. It has a slightly incomplete set of specifications, in many cases accompanied by drawings, for inventions registered up to mid 1887 and for patents granted up to 1891. For patents granted after 1891, these libraries have indexes but not copies of the specifications.

We have not researched the availability of material on state patents in other states, and would welcome any information that members can share.

In 2001, the State Library of Victoria in conjunction Australian Science and Technology Heritage Centre (AUSTEHC), based at the University of Melbourne, developed a plan for a project to digitise all the Victorian patent specifications that cover the period from 1854 to 1904, a huge task. There wefe 21,000 applications lodged and the material to be digitised includes over 100,000 images. The project required sponsorship that did not eventuate. Due to advances in technology since 2001, the cost of the project would be less now than it would originally have been, and the rapid spread of broadband internet has meant that the number of people who could access such an electronic resources is now vastly greater than it would have been in 2001. So it seems timely to revisit the project to see if there is some way to bring it to completion.

1854 invention of a Perpetual Solar Watch

In 1854 the NSW government introduced a system for registering inventions and granting them protection. The third invention registered was by Lue Macé of Sydney for a Perpetual Solar Watch. Had he anticipated the development of photovoltaics?

In his petition Macé claimed 'that at midday with the aid of the sun, it determines the latitude, and from six in the morning till six in the evening, the longitude, at any given moment, with the utmost precision, and that it may be used in or out of doors, or anywhere that the rays of the sun can reach it, and that it possesses the advantage over the sextant that it can be used indifferently on land or sea and requires no calculations to work at the desired result, and that with its assistance the exact hour of the day may be ascertained in an instant. And moreover that it possesses the additional advantage of showing the true meridian, and thereby enabling the person to regulate at the same time both the time-piece and the compass.' No drawings or details of the device accompanied the petition for a patent.

The assessors, Messrs. Gother Mann and H. H, Browne, requested and were provided with 'models, drawings or descriptions.' They reported that they 'considered the device to be an improved arrangement of a Sun Dial, not divested of the known errors appertaining to Sun Dials, and consequently inapplicable for accurate scientific purposes. We consider, however, it may be found useful for ordinary purposes, and that there is sufficient originality in the invention (though it cannot correctly be designated a "Perpetual Solar Watch', to warrant our recommending that Letters of Registration issue in Mr. Macé's favour.'

The listing of this invention in the register has a footnote stating that 'Beyond the above explanation of the scope and aims of the invention, no details of its mechanism are set out in the specification, in lieu of which a model was depsoited at the office.'

Two historic Australian engineering journals now available online

In 2007 ASHET commenced a project to digitise the tables of contents of two engineering journals, *Minutes of proceedings of the Engineering Association of New South Wales* and the *Journal and the abstracts of proceedings of the Sydney University Engineering Society.* These are the two oldest engineering societies in Australia and their journals contain many papers that are of historic importance. They include important papers on bridges by John Bradfield and Harvey Dare, the development of refrigeration by Norman Selfe and engineering education by William Warren.

ASHET was able to demonstrate that if the tables of contents are displayed on a website, then by searching online using an application such as Google, the scarce hard copies of these papers may be readily located.

ASHET applied for and was awarded a grant under the NSW Heritage Small Grants Program 2007-8 to digitise the tables of contents of these tow journals and display them on the ASHET website.

Shortly after commencing work on the project, we were able to secure a much larger grant from the Sydney Mechanics School of Arts and a donation form one of our members, Dr. Don Fraser, that enabled us to undertake the digitisation of the complete texts of these two journals. The library of the University of Sydney agreed to participate in the project and to make the digitised tests of the journals available on its website in an easily searchable format.

The *Minutes of proceedings of the Engineering Association of New South Wales* were published in 35volumes form 1885-86 to 1920, and the *Journal and the abstract of proceedings of the Sydney University Engineering Society* in 21 volumes form 1896 to 1920. Publication of both journals ceased in 1920 when the societies were amalgamated into the Institution of Engineers Australia.

Obtaining acceptable quality scanned images of the text and particularly the large fold-out plates in many of the volumes proved difficult and the project proceeded slowly. It was finally completed successfully in April this year, with the University carrying out all the scanning in-house, and meeting the costs of doing this itself without reimbursement from ASHET. We are currently discussing how the unexpended grant money might be applied to another significant digitisation project.

The digitised texts of the journals can now be viewed online at:

http://escholarship.library.usyd.edu.au/journals/index.php/SUES

http://escholarship.library.usyd.edu.au/journals/index.php/EANSW

The online texts are presented in a convenient searchable form, and can be downloaded as pdf documents.

ASHET Yahoo group

ASHET has formed a Yahoo group as a convenient way for members and others to seek and share information on topics relevant to ASHET. We decided on a Yahoo group after looking at various other possibilities for achieving the same end. Once you register, it is easy to use. You will receive emails sent by group members to all members of the group, and be able to send such emails yourself.

All members of ASHET who have email should have received an invitation to join the group. You can also join the group by going to the website http://au.groups.yahoo.com/group/ashet/.

One of the objectives in forming the group was to share information on ASHET's Electronic History project. This project aims to assist members to make best use of the history resources now available in electronic form and to encourage the digitisation of important historical records.

There is a separate item in this issue of *ASHET News* on the now completed digitisation of two historic engineering journals. We are now looking at the possibilities for digitising other journals that contain historic material.

Patents are another source of information on the history of technology, and we are currently compiling information on the availability of material relating to Australian patents prior to Federation. This issue of *ASHET News* has an article reporting on the progress to date.