EMERITUS

Vol.8 No.5

The Australian National University Emeritus Faculty e-magazine

June 2017

Australian National University

Meetings venue: Molony Room

24 Balmain Crescent

Acton

Postal Address:

ANU Emeritus Faculty Building 1c, 24 Balmain Crescent The Australian National University ACT 2601 Australia

Phone: 02 6125 5300 **Fax:** 02 6125 5262 **Website:** *http://www.anu.edu.au/emeritus/*

Editor Ian Mathews

Location maphttp://www.anu.edu.au/emeritus/anuef_location_map.html

The budget and its ramifications

In a recent blog, the Vice Chancellor, Professor Brian Schmidt, AC, commented on the recent federal budget. He said, in part, "Most students will already be aware that the Government will be increasing fees by 1.8 per cent per year, cumulating in a 7.5 per cent increase by 2021. Students will continue to be able to defer payment of their fees using the HECS/HELP system, but will now begin paying fees back when earning \$42,000 rather than the current \$55,874.

"Even if income-contingent loans help soften the blow, I don't think that it's fair to ask students to pay more when the University sector has already contributed \$3.9 billion since 2011 to budget repair.

"An efficiency dividend will be applied to all Australian universities in 2018 and 2019. We expect, but are yet to confirm, that this will reduce the University's budget by up to \$5 million over this period. This cut will have a real impact on ANU.

"As someone who moved to Australia to pursue a career in academia, I have been especially concerned about the changes to skilled migration visas and the impact it will have on our current staff.

"The current state of play has so many issues that I won't detail them here. My goal is to ensure that we have the ability to bring outstanding international academic and professional staff to ANU in much the same way that we do now. We seem to have been unintended collateral damage, and I feel a great deal of good will in the Parliament to help us fix this

issue. It would have devastating consequences for the University if we were not able to resolve it.

"The Budget also revealed that employers of skilled migrants will be charged for doing so. Whilst the financial cost to ANU is not yet clear, as an organisation with over 200 staff on skilled visas the cost will not be insignificant. Rest assured, employing staff from overseas is vital to the success of ANU and these measures will not deter us from recruiting the best researchers in every field.

"Finally, ANU welcomes the \$26.1 million Budget commitment enabling the Australian astronomy community to gain access to telescopes in Chile through the European Southern Observatory (ESO). This will maintain Australia's optical astronomical research that helps to advance humanity's understanding of the Universe. The commitment also includes ongoing average funding of \$12 million a year until 2027-28. It is also worth noting that a new Research Infrastructure Investment Plan which will be informed by the 2016 National Research Infrastructure Roadmap.

"We are still figuring out the full impact of the 2017 Budget. As more comes to light I'll make sure you are kept informed. If you have any concerns, don't hesitate to get in contact at vc@anu.edu.au. There is more information about the Budget on the Department of Education's website."

More opposing university cuts

Nine universities serving some of the nation's most disadvantaged and regional communities have added their voices to the growing chorus of strong opposition to university cuts. This comes alongside a further statement from the Group of Eight universities calling on the Senate to block the Government's proposed higher education legislation.

The latest moves follow the statement by Universities Australia Chair Professor Margaret Gardner, declaring the sector's unanimous opposition to the proposed university funding cuts and student fee increases, and majority opposition to the Bill as a whole, after Vice-Chancellors met on May 16.

In the weeks since, universities have been doing further analysis of how hard the cuts would bite at an institutional level. Universities Australia Chief Executive Belinda Robinson said that careful analysis had confirmed how deeply the funding cuts would force universities to cut staff jobs and student support services.

"The grim reality is that if these cuts are passed, most institutions do not have the capacity to absorb them. At every university, students would pay more to get less," she said.

Professor Gardner said: "Cuts to university funding would be cuts to jobs – including in hardhit regional and disadvantaged communities – and they would be cuts to vital support services for students under stress. University leaders are deeply concerned about the harm these cuts would inflict on their students and local communities."

The proposed cuts in the 2017 Budget would come on top of the \$3.9 billion that universities and students have already contributed to Budget repair since 2011.

The Government also plans to strip \$3.7 billion from universities by closing the Education Investment Fund, the last source of funds to build and maintain university facilities including classrooms, research labs and student hubs.

"Enough is enough," Ms Robinson said. "Universities and their students have already done more than their fair share for Budget repair. The simple truth is this: the very last thing we should be doing to prepare for this high-tech, innovation-driven era of rapid change is to cut funding to university education and research. We can't be any clearer than this: uni cuts aren't clever."

The Budget proposals would also shift the relative average contributions made by taxpayers and students from a 58/42 per cent split to 54/46 per cent. The Government estimated this would amount to an increase in student contributions, on average, of between \$2,000 and \$3,600 for a four-year degree by 2021.

However, the proposals also include a number of positive initiatives on access and equity that will be welcomed by the sector. Ms Robinson said, "We are pleased the Government has not cut the Higher Education Participation and Partnerships Program (HEPPP) and allocated \$985 for each student from a financially disadvantaged background. This payment will help universities continue to support those students who most need a little extra help to go to university and to complete a degree. Universities Australia has strongly advocated for HEPPP funding to be maintained – and protected through legislation from future savings-driven budget raids. We also strongly support the decision to expand the demand-driven system to university diplomas and advanced diplomas, subject to conditions."

Universities Australia also commends a proposed new payment for work-integrated learning (WIL) placements that ensure students are as well prepared as possible for jobs after graduation. This will help to implement the WIL strategy developed jointly by Universities Australia, the Australian Industry Group, the Australian Chamber of Commerce and Industry, the Business Council of Australia and the Australian Collaborative Education Network.

In other measures, the package also includes a proposal to tie 7.5 per cent of university funding for student places to university 'accountability' and 'performance'. "Universities are already highly accountable for their performance and heavily invested in the success of their students and alumni," Ms Robinson said. "We have very high student retention and completion rates by global standards. This is a complex area that will need to be handled with great care so as to avoid unintended consequences and perverse outcomes. This is particularly true for universities that serve the most disadvantaged students and communities.

"UA has long argued that HECS/HELP is a cornerstone policy that ensures the long-term sustainability, integrity and equity of Australia's higher education system. We will consult experts on the proposed changes to ensure they do not undermine the intent of the scheme."

Other Budget measures include:

- A proposed change to the repayment thresholds for HECS/HELP loans;
- A \$1394 loading for government funding of vet science and dentistry places;
- Replacing subsidies for New Zealand permanent residents with access to FEE/HELP loans for all permanent residents;
- Teaching awards will be transferred to Universities Australia to administer;
- The creation of another six regional study hubs (in addition to the two existing hubs at Cooma and Geraldton);
- Reducing the number of post-graduate places in line with demand and the introduction of post-graduate scholarships from 2019;
- Enabling courses to be capped with a review on matching places to students needs to be undertaken every three years; and
- Replacing the \$3,271 "enabling course loading" with the ability for universities to charge the same as a fee to be covered by HECS/HELP.

Statement on Higher Education proposals

The leaders of Australia's universities met on May 16 to consider the Federal Government's proposed changes to higher education funding and legislation, focussing on the impact of the proposals on students. There was unanimous opposition to the proposals to cut university funding and lift student fees.

Vice-Chancellors expressed deep concern about the impact of cuts to public investment in universities and fee rises on their students, particularly those from disadvantaged backgrounds. They were also concerned about the impact of the proposals over time on the broader viability of Australia's university system – and the cost of that risk to Australia's future growth and prosperity.

Universities Australia Chair Professor Margaret Gardner said the package proposed a "double whammy" on students – both by lifting fees and eroding funding for courses, student learning and student support. "Students and graduates will be carrying higher levels of debt into an increasingly uncertain future," she said.

There was support for positive elements of the package, including legislative protection for the student equity program HEPPP, and expanding the demand-driven system to associate degrees. These have been the subject of longstanding advocacy by the sector.

Beyond the proposed cuts and fee increases, there are other elements of the proposals that are cause for concern. The legislation tabled in Parliament on May 11 also proposes moving to a voucher system for allocating postgraduate places and withholding 'performance' funding at Ministerial discretion, without any clarity about the 'problem' to be solved. The legislation would also hard-wire continuing cuts into university funding in perpetuity.

"These are far-reaching changes that would fundamentally alter the nature of the university system."

An overwhelming majority of Vice-Chancellors agreed they could not recommend that the Senate crossbench pass the legislative package. Cuts to universities are not in Australia's interests, nor in the interests of Australia's students.

International student numbers still rising

The number of international students choosing to study in Australia grew by 15 per cent in the first quarter of 2017, building further on the record growth of the past few years, says Universities Australia.

A 2016 survey by the Australian Government found the top two reasons cited by international students as to why they chose to study here were the reputation of the qualification and the reputation of the Australian education system.

"Quality is our drawcard," said Universities Australia Chief Executive Belinda Robinson. "We must guard it wisely.

"We know that international students are attracted to Australia by the excellent quality of the education we provide and the calibre of both teaching and research here," she said. "That's why proposed cuts to university funding have to be considered so carefully by the Parliament. Any erosion in the quality of our higher education sector would diminish the education of Australian students and jeopardise this enormously important export sector."

There were 480,092 international students in Australia in March 2017 – with 30 per cent of them from China, 11 per cent from India, and 4 per cent each from Malaysia, Vietnam and Nepal. The education of international students generates \$22.4 billion in income for Australia each year, with Australia's world-class universities attracting \$15 billion of that income into the national economy.

Data from 2016 also confirms the enormous contribution made by international students to the economies of each State and Territory across Australia. International education contributes \$8 billion to New South Wales, \$7 billion to Victoria, \$3.2 billion for Queensland, \$1.5 billion to Western Australia and \$1.1 billion to South Australia. It also added \$579 million to the ACT economy, \$236 million to Tasmania and \$81 million to the Northern Territory.

University equity program gathers support

More than 310,000 people have benefitted from Australia's flagship equity program aimed at expanding access to university for those from disadvantaged backgrounds, a Government report has found. An evaluation of the Higher Education Participation and Partnerships Program (HEPPP) has provided "a ringing endorsement of the program noting that since HEPPP was created, the share of university students from disadvantaged backgrounds had risen from 14.8 per cent to 16.1 per cent," according to Universities Australia.

"We now have more than 40,000 extra students from low socio-economic backgrounds going to university who wouldn't have gone before," Universities Australia Chief Executive Belinda Robinson said. "A world-class university education should be available to all those with the ability, regardless of background, postcode, or financial status. HEPPP helps to ensure that this is the case."

The report made clear that the program – and its effectiveness – is strongly supported by university staff, the students in the programs, and the schools involved.

In congratulating the government, Ms Robinson went on, "There is a deep desire to safeguard this program because of the powerful role it plays in transforming lives through higher education and creating opportunity. You can't be what you can't see. This program – through its outreach component - helps plant the seed of aspiration in those who may not otherwise have contemplated a university education.

"It also helps to support those students once they enrol with the extra help they may need to succeed in their studies."

Since the program was established in 2010, there have been nearly 2,700 HEPPP projects across 37 universities. More than 40 per cent of these projects have helped low SES students to study and complete university. A further 40 per cent were outreach projects, mainly through schools, to increase the number of applications and university offers from low SES students. In one program cited in the report, more than 90 per cent of participating students went on to study a degree.

New ARC appointment welcomed

The appointment of Professor Sue Thomas as the new head of the Australian Research Council will ensure balance between fundamental and applied research in Australia's innovation agenda, says Universities Australia's Deputy Chief Executive Catriona Jackson. Professor Thomas will formally begin the role in July this year.

"Professor Thomas has a long and distinguished career as a microbiologist and senior university leader. She brings significant expertise to a role that is central to Australian research," Ms Jackson said. "It's clear that Professor Thomas recognises that fundamental research is a powerful driver of innovation. Without basic research, innovation breakthroughs simply don't happen. Universities Australia supports efforts to maintain a balance between research with immediate commercial applications and curiosity-led research which often leads to innovation in the long run."

Professor Thomas's professional career began with appointments at Princeton University in the USA and the Medical Research Council in the UK. She has held senior leadership positions at the Charles Sturt University, University of Canberra, Flinders University, and most recently as a Provost and Senior Deputy-Vice Chancellor at the University of New England.

The ARC Chief Executive position was formerly held by Professor Aidan Byrne, who is now Provost at the University of Queensland.

\$25 million for Australian universities to work with top US counterparts

The Minister for Defence Industry, Christopher Pyne, has announced a \$25 million investment program inviting Australian universities to collaborate with some of the top universities in the United States.

"Defence will invest up to \$25 million over nine years for Australian universities to leverage the existing US Multidisciplinary University Research Initiative (MURI) grant program, which is administered by the US Department of Defense," Mr Pyne said.

This was a part of the government's \$1.6 billion investment in Defence innovation to build the innovation capabilities of Australian industry and research organisations, and to deliver innovative solutions for Defence capability.

Mr Pyne went on, "The new Defence innovation system, encompassing the Next Generation Technologies Fund and the Defence Innovation Hub, supports an agile, transparent approach to innovation, ensuring Australian industry is prepared to meet Defence's future capability needs."

The funding is being provided under the Next Generation Technologies Fund. The Australian program, called AUSMURI, will provide grants to support multi-disciplinary teams of Australian university researchers who collaborate with US academic colleagues on high priority projects for future Defence capabilities.

Until recently, Australian universities could collaborate on US MURI projects but were not eligible for grant funds. Eligible universities that are successful in a collaborative US MURI submission will receive an AUSMURI grant of up to A\$1 million per year for three years to support their research in Australia. At the end of the three years, the AUSMURI grant may be extended for a further two years based on performance and prospects, with an additional budget of up to A\$1 million per year.

For further details about AUSMURI, program guidelines, visit http://www.business.gov.au/ausmuri

http://www.business.gov.au/ausmuri

Costs study no excuse for further cuts: Universities Australia

New data on university teaching costs cannot be compared with a 2011 analysis nor be used to draw conclusions about growth over time – a report by Deloitte commissioned by Government has cautioned.

Fears that the Government could use a report from Deloitte Access Economics on the *Cost of Delivery in Higher Education* to justify further funding cuts to universities, have been countered in the report which specifically states:

"These figures cannot be compared as direct growth or decline in costs relative to funding over the five years to 2015, given the differences in the sample, and differences in cost collection approaches."

The report only examines the costs of teaching and does not take account of the costs on universities to meet their other legislative obligations to conduct research, maintain buildings and support their local communities.

"As the authors themselves caution, the report cannot be used to compare costs over time," said Universities Australia Chief Executive Belinda Robinson. "It cannot be used to justify further major cuts to public investment in universities. Base funding to universities needs to do more heavy lifting than ever because of a decline in other sources of funding for university infrastructure and equity programs over the past six years. Universities and students have already contributed \$3.9 billion to Budget repair since 2011."

Media reports have also suggested the Government could argue universities are posting ample operating surpluses and can afford to absorb further cuts.

"Universities are not-for-profit, – but they shouldn't be for loss either," Ms Robinson said. "Universities have regulatory requirements to maintain surpluses as a buffer against external shocks and to ensure they can maintain their facilities and assets. Published surpluses also include funds that are tied to multi-year research and building projects.

"Remaining funds are reinvested into educating Australians for skilled jobs in our changing economy, doing research that leads to new jobs and industries, and growing Australia's prosperity by sustaining Australia's third largest export – international education – worth \$22 billion a year.

"It's hard to envisage the Government unveiling severe cuts to public investment in universities which would be at odds with its innovation, jobs, skills and home-grown talent agenda," she said.

Red tape cut for medical research grants

Universities Australia call for a more flexible and less burdensome grant application process has been adopted by the National Health and Medical Research Council (NHMRC) which has made changes to its funding grants. NHMRC says these will promote creativity and innovation in medical research, while minimising the burden of grant applications.

Universities Australia's Chief Executive Belinda Robinson said the plan should help to reduce the time researchers spend writing applications, allowing them to spend more time on research. "Increasing the time that our best and brightest minds can spend developing cures for disease and conducting vital medical research is a worthy goal. We are also pleased to see an emphasis on encouraging big ideas that help push the boundaries of knowledge and save lives." Ms Robinson said.

Under the changes, there will be limits on the number of grant applications and a new "Ideas" grant category will be available to all researchers, including those at the early stages of their careers. The announcement follows the NHMRC's Structural Review of its grant program. As part of the consultation, Universities Australia <u>called</u> for a more flexible and less complex funding system.

Ms Robinson said the changes were a significant overhaul of how the NHMRC allocated its \$800 million annual budget for health and medical research on which many university research programs rely. "In such a substantial revamp, it will be crucial to examine the detail of the changes to ensure there are no unintended consequences and the transition to the new system is as smooth as possible," Ms Robinson said.

Transitional arrangements will begin in 2018 and grants that are currently held by researchers at the time of implementation will be continued under their existing

arrangements.

Further detail on the announcement is available here: www.nhmrc.gov.au/restructure

**

Brexit prompts university cooperation

Australian and British university leaders have held talks in London on expanded cooperation between the two nations as Brexit gets underway, according to Universities Australia. The strategic dialogue was attended by Australia's High Commissioner to the United Kingdom Alexander Downer, senior UK Government officials, Vice Chancellors of nine leading universities, and three sector peak bodies – Universities Australia, Universities UK, and Universities Scotland.

The delegates examined how to deepen bilateral ties through the exchange of academic and research talent, university research collaborations, reciprocal access to data and infrastructure, and the prospect of establishing a special reciprocal visa for academic talent. The group also examined the feasibility of establishing a new bilateral research fund to take joint research to a new level of collaboration.

"We see enormous potential to expand the depth and breadth of the bilateral relationship through our respective university sectors," said Universities Australia Chief Executive Belinda Robinson.

High Commissioner Alexander Downer said: "Australia and the UK are old friends, and we hope the friendship will become even closer as the UK makes its preparations to leave the EU. I am encouraged to see that higher education institutions have taken the initiative and started to think about the benefits of greater collaboration between our two countries, particularly in the field of academic research."

In light of the UK's decision to exit the European Union, Universities Australia and Universities UK decided to establish an Expert Advisory Group to maximise new bilateral opportunities. The group convened the talks to begin exploring how prospective future UK-Australia bilateral relations could expand to include joint initiatives in higher education, research and innovation.

University of Wollongong Vice-Chancellor Professor Paul Wellings, who was instrumental in the establishment of the dialogue, said it was an historic opportunity that would benefit both nations.

Staff and student successes

The Vice Chancellor, Professor Brian Schmidt, AC, has congratulated ANU staff members and students on their recent successes. He notes:

- ANU Centre for Social Research and Methods researchers Jill Sheppard and Ben Phillips conducted a very timely ANU poll into Housing Affordability which is well worth reading.
- Professor Ken Freeman from the Research School of Astronomy and Astrophysics has been elected a Foreign Associate to the National Academy of Sciences, USA for his distinguished and continuing achievements in astronomy.
- Dr John Giacon has won the Patji-Dawes award, Australia's premier award for language teaching.
- Plant scientist Professor Susanne von Caemmerer from the ANU Research School of Biology has been elected a Fellow of the Royal Society in the UK, the longest standing scientific academy in the world.

New national research areas identified

Nine national research infrastructure focus areas announced in the wake of the Federal Budget will help to prioritise and develop Australia's research excellence, say Australia's universities.

The Government's announcement of a national roadmap for research infrastructure will help Australia to prioritise new facilities in areas like advanced manufacturing, biosecurity and medical therapies.

"Bunsen burners are no longer the principal tools in modern science and research. This roadmap sets out a plan for the kinds of infrastructure that researchers will need to cure disease, improve food security, and develop new technology," said Universities Australia Chief Executive Belinda Robinson. "While this plan is an important step in setting the priorities for Australia's research infrastructure, how it will be funded remains unclear. Universities Australia continues to be concerned that the proposed closure of the \$3.7 billion Education Investment Fund (EIF) would mean a lack of long-term funding for the vision set out today.

"It's great to have a map, but you also need petrol in the tank to reach your destination," she said.

In the Federal Budget the Government announced it will develop a Research Infrastructure Investment Plan, which will "assess future research infrastructure projects against emerging Government priorities".

Over 35,000 Australian researchers rely on major Australian research facilities, which include those funded under the National Collaborative Research Infrastructure Strategy (NCRIS), the Australian Synchrotron, and large-scale international collaborations such as the Square Kilometre Array.

The roadmap was developed by the Chief Scientist, Dr Alan Finkel, and an expert working group who directly consulted with more than 580 stakeholders. Universities Australia made its own submission during the consultation period.

Have your say

Disability Support Pension risk management recommended

The Joint Committee of Public Accounts and Audit has tabled a report on risk-management, efficiency and accountability with regard to the administration of the Disability Support Pension. The Committee's report is based on the Auditor-General's report on Qualifying for the Disability Support Pension.

Approximately 118,000 Disability Support Pension recipients are expected to be reviewed over six years. The Committee noted that the assessment and review processes audited by the Australian National Audit Office were found to be in keeping with legislation, policy and guidance.

However, taking into account new processes introduced since the audit and evidence submitted to the inquiry, the Committee concluded there is further scope for administrative and risk-management improvements to the Disability Support Pension program.

The report makes nine recommendations, six of which relate to performance monitoring and reporting, including that the Auditor-General consider a follow-up audit. The Committee also recommends:

- improving data matching across government to exclude certain recipients, such as those in residential care, from review of their pension;
- increasing the 21-day period recipients being medically reviewed have to provide documented evidence: and
- examining whether people with chromosomal disorders, such as Down syndrome, should be granted the pension on diagnosis alone, without having to establish prognosis.

For more background contact Committee Secretariat on (02) 6277 4615 or email jcpaa@aph.gov.au

Welfare agreement across the Tasman

The Joint Standing Committee on Treaties has tabled its 170th report, approving the text of four separate agreements, including a social security agreement with New Zealand. The social security agreement with New Zealand will provide continued access to specified income-support payments for people who live between Australia and New Zealand. It incorporates revisions to an existing agreement which better align the Agreement with domestic legislation in both countries.

The Chair of the Committee, Stuart Robert MP, said Australia had a long history of social security agreements with New Zealand, the first signed in 1944, and it was great to enhance the existing relations between the countries. "The Agreement overcomes barriers to welfare payments including the Disability Support Pension, which Australians would otherwise be ineligible to access," Mr Robert said.

The Committee's report concludes the Agreement is in the national interest and affirms the important role freedom of movement and labour has between Australia and New Zealand in the development of closer economic relations.

Report 170 reviewed three other treaties including:

- Nuclear Research Co-operation Agreement, which facilitates Australian cooperation with 21 regional countries on nuclear research and technology.
- Loan Agreement International Monetary Fund, which aims to provide the International Monetary Fund (IMF) with an extra revenue stream through a loan of up to \$8.3 billion from Australia, if the IMF's reserves fall below a specified amount and several other conditions are met.
- Harmonisation of Wheeled Vehicles Revision, which provides a streamlined framework for countries to accept and adopt UN regulations that establish international safety standards for wheeled vehicles.

The Committee's report (Report 170) is available online.

For background contact: Joint Standing Committee on Treaties (02) 6277 4002 jsct@aph.gov.au

CSIRO launches new "fasting diet"

CSIRO has launched a new diet that includes intermittent fasting three days a week. The weight-loss program is based on research carried out by CSIRO scientists who found that fasting can be an effective way to lose weight and stay healthy.

Participants in the 16-week trial lost an average of 11kg and saw improvements in cholesterol, insulin, glucose and blood pressure.

"This was the largest study exploring the effects of an intermittent fasting style of diet on weight loss, health and nutrient status," CSIRO Research Dietician Dr Jane Bowen said. "In addition to improvement in weight loss and overall health, we also observed psychological improvements, with participants indicating better control over eating habits."

Intermittent fasting (and the similar style – alternate day fasting) has recently gained scientific and consumer interest. The research combined intermittent fasting with meal replacement shakes and a 'Flexi' day where participants had one day a week to enjoy the food or drinks they love. Traditional diets rely on energy being restricted every day in order to achieve weight loss, which can be difficult for people to maintain long term.

A number of relatively short studies have shown that intermittent fasting results in equivalent weight-loss and metabolic improvements, including loss of fat mass, blood pressure, glycemic control and markers of cardiovascular disease risk.

Few studies have compared the effects of intermittent fasting and continuous energy restriction longer term. The CSIRO study took a novel look at using meal replacements as part of an intermittent fasting regimen to measure the effects of intermittent fasting for weight loss on nutritional status.

The Flexi program is available now in pharmacies. For more information about the program, visit www.impromy.com/flexi-by-impromy

Forgotten your password? Just walk

Researchers from CSIRO's Data61 have developed new technology which uses the way a person walks, their gait, to power wearable devices. The technology also has the potential to be used as a new authentication method, which could replace passwords, pins or fingerprints.

Rather than looking at an individual's unique movements as a form of authentication, researchers at CSIRO's Data61 have developed a prototype wearable device to capture how an individual's unique energy generation pattern can be used as a form of authentication. Small sensors called accelerometers can currently be used to capture an individual's gait in terms of motion and velocity. However, this reduces the battery life of wearable devices and has prevented gait authentication from becoming more widely adopted. Researchers from CSIRO's Data61 have overcome this by combining gait recognition with a technique called kinetic energy harvesting (KEH), which translates a person's motion into electrical energy and improves battery life.

"By applying both techniques we have developed a way to achieve two goals at once - powering devices and the ability to verify a person's identity using a wearable device by capturing the energy generated from the way they walk," researcher at Data61 Sara Khalifa said.

To test how secure KEH gait authentication is, the researchers conducted a trial on 20 users. Data was collected from each user using two different settings from various environments. Users walked in several environments including indoor on carpet and outdoor on grass and asphalt terrains to capture the natural gait changes over time and surfaces. The trial showed that KEH-Gait can achieve an authentication accuracy of 95 per cent and reduce energy consumption by 78 per cent, compared to conventional accelerometer-based authentication techniques.

The KEH-Gait system was also tested against 'attackers' who attempted to imitate an individual's motions. The analysis found only 13 out of 100 imposter trials were wrongfully accepted by the system as genuine trials.

Group Leader of the Networks Research Group at Data61 Professor Dali Kafaar said there were benefits to the KEH-Gait approach compared to passwords, pins, signatures and finger prints. "Firstly, it is convenient because as we walk around each day our gait can be sampled continuously and verified without us having to manually adjust anything," Professor Kafaar said. "Secondly, it's more secure than passwords because the way we walk is difficult to mimic. Since the KEH-gait keeps authenticating the user continuously, it collects a significant amount of information about our movements, making it difficult to imitate or hack, unlike guessing passwords or pin codes."

Wearable technology presents an opportunity to explore new authentication methods based on our movements.

"With many of us already tracking our health using wearable devices, there is a great opportunity to explore new authentication methods based on our movements," Professor Kafaar said.

The market for wearable devices is booming. According to a recent report, about 55 per cent of Australians own one and the global market for personable wearable devices is expected to reach US\$150-billion by 2026.

Alongside KEH-Gait sampling, CSIRO's Data61's privacy and authentication research team is exploring other more secure and implicit continuous authentication techniques such as unique breathing patterns and distinctive ways users interact with their devices.

Studying Southern hemisphere oceans with China - in Hobart

A new research centre focussed on the role of the Southern Hemisphere oceans in the global climate has been opened in Hobart, bringing \$20 million dollars of funding over five years. The Centre for Southern Hemisphere Oceans Research (CSHOR) is a collaboration between CSIRO, China's Qingdao National Laboratory for Marine Science and Technology (QNLM), with support from the University of Tasmania and the University of New South Wales.

Appearing at the launch via video, the Minister for Industry, Innovation and Science, Arthur Sinodinos said the centre would play a vital role in climate science in the future. "The Centre for Southern Hemisphere Oceans Research represents a significant commitment to improving our understanding of the current and future role of southern hemisphere oceans in the climate of Australia, China, and the world," Senator Sinodinos said.

CSIRO Chief Executive Dr Larry Marshall said CSHOR would study the oceans from the tropics to Antarctica, and would tackle fundamental questions about the future climate of Australia, China and the rest of the world. "CSHOR will complement climate research within CSIRO and will sit within our recently announced Climate Science Centre," he said. "It is also an exciting opportunity to work with China's leading marine science and technology organisation, and cultivate our close research relationship with China, which has been going strong for more than 40 years.

"Often in answering some of science's biggest questions, you need to take a global approach, and that's why as part of our Strategy 2020, CSIRO is working towards becoming a hub for more global collaboration like this."

Qingdao National Laboratory for Marine Science and Technology Director Professor Lixin Wu said China, just like Australia, was exposed to risks from the changing climate, including future sea-level rise. "Although China and Australia aren't close geographically, many of the southern oceans' processes that influence Australia's climate also influence China's climate," Professor Wu said.

"Importantly, CSHOR will also look at the impact that melting Antarctic ice shelves will have on global sea-level rise. Since climate change is a great challenge to the whole world, we have to rise to it hand in hand in collaboration. QNLM is committed to bringing benefits to our community and people through advancing science and has been focused on its strategy of strengthening coordination and cooperation with scientists around the globe.

"Since both QNLM and CSIRO are two of the world's leading climate-research agencies, QNLM expects to work together with CSIRO, in helping China, Australia and the rest of the world to better tackle and adjust to climate changes."

CSHOR will also investigate climate phenomena including El Niño, the Southern Oscillation (ENSO) and the Indian Ocean Dipole (IOD), which have a strong influence on the climate of both Australia and China.

CSIRO in \$35m research program with Boeing

CSIRO has signed a new, \$A35 million research agreement with the world's largest aerospace company, Boeing. Over the next five years the organisations will work together on a broad range of areas of mutual interest including space sciences, advanced materials and manufacturing.

CSIRO Chief Executive Larry Marshall announced the new funding agreement at the American Chamber of Commerce in Australia's *G'day to Aussie* innovation event in Sydney recently.

"Boeing celebrates 90 years in Australia this year, and for nearly a third of that time, we've partnered with CSIRO on advanced technologies that have made a real difference to the aerospace industry," President of Boeing Australia, New Zealand and South Pacific, Maureen Dougherty said.

Over the years the organisations have invested more than \$AUD170 million on 190 joint research projects into everything from new manufacturing processes, to fire retardants, biofuels and software. CSIRO's "Paintbond" technology, for instance, has been applied to more than a thousand Boeing aircraft saving millions of dollars in maintenance costs

Membrane for hydrogen fuel cells

.CSIRO research will fill a gap in the global energy technology chain to supply fuel cell vehicles with low-emissions hydrogen sourced from Australia. The two-year project will build on CSIRO's expertise in separating pure hydrogen from mixed gas streams, in this case converting ammonia to high-purity hydrogen for use in fuel cell vehicles (FCVs).

Currently, the transportation and storage of hydrogen is complex and relatively expensive, making export commercially challenging. The membrane will allow hydrogen to be transported in the form of ammonia (which is already being traded globally), and then reconverted back to hydrogen at the point of use. The thin metal membrane allows hydrogen to pass, while blocking all other gases. In the final stages of development, the device is being further refined, ready for commercial deployment.

Recent advances in solar and electrochemical technologies mean renewable hydrogen production is expected to become competitive with fossil fuel-based production, providing an opportunity to decarbonise both the energy and transport sectors while creating new export opportunities.

The membrane reactor technology will fill the gap between hydrogen production, distribution and delivery in the form a modular unit that can be used at, or near, a refuelling station. The project recently received \$1.7 million from the Science and Industry Endowment Fund (SIEF), which will be matched by CSIRO. The research has also been welcomed by industry

and is supported by BOC, Hyundai, Toyota and Renewable Hydrogen Pty Ltd. While Australia is a relatively small hydrogen market, the fuel can be distributed to emerging markets in Japan, South Korea and Europe using existing infrastructure.

In addition to its membrane technology, CSIRO will apply its expertise to all stages of the technology chain (including solar photovoltaics, solar thermal, grid management, water electrolysis, ammonia synthesis, direct ammonia utilisation via combustion and/or fuel cells, as well as hydrogen production).

Seeking a good home

ANUEF member Mike Rickard has asked, "Could you please advertise the following in the Emeritus News letter. -- I have a set of London PhD robes [gown, hood and hat] that I am prepared to donate to anyone entitled to wear them."

Please contact Mike Rickard at 62620427 or email at mikejanrickard@bigpond.com

Book Shelf

China Story Yearbook 2016: Control

Edited by: Jane Golley, Linda Jaivin, Luigi Tomba

ISBN (print -rrp \$45.00): 9781760461195 ISBN (online): 9781760461201

ANU Press. DOI: http://dx.doi.org/10.22459/CSY.06.2017

Series: China Story Yearbook

Co publisher: Australian Centre on China in the World

'More cosmopolitan, more lively, more global' is how the *China Daily* summed up the year 2016 in China. It was also a year of more control. The Chinese Communist Party laid down strict new rules of conduct for its members, continued to assert its dominance over everything from the Internet to the South China Sea and announced a new Five-Year Plan that Greenpeace called 'quite possibly the most important document in the world in setting the pace of acting on climate change'.

The *China Story Yearbook 2016: Control* surveys the year in China's economy, population planning, law enforcement and reform, environment, Internet, medicine, religion, education, historiography, foreign affairs, and culture, as well as developments in Taiwan and Hong Kong.

The Histories of Raphael Samuel: A portrait of a people's historian

by: Sophie Scott-Brown

ISBN (print - rrp \$50.00): 9781760460365 ISBN (online): 9781760460372

ANU Press DOI: http://dx.doi.org/10.22459/HRS.05.2017

Series: ANU Lives Series in Biography

In the first integrated biographical study of his work, this book situates British historian Raphael Samuel (1934–1996) in relation to his distinctive form of activist politics as they developed from youthful Cold War communism to the first British New Left, 1960s radicalism to the 1980s history wars.

As the catalyst behind the History Workshop movement, Samuel championed the democratisation of history-making and practised an eclectic form of people's history in his own work. His unique approach was controversial, drawing impassioned responses from across the ideological spectrum, the most sustained critique often coming from his left-wing contemporaries. It is argued here that this compelling figure has been unjustly neglected and that he continues to offer important insights into the politics of history-making in a post-Marxist world.

Navigating the Future: An Ethnography of Change in Papua New Guinea

By Monica Minnegal and Peter D. Dwyer

ISBN (print - rrp \$55.00): 9781760461232 ISBN (online): 9781760461249

Notes: Asia-Pacific Environment Monograph 11

ANU Press, DOI: http://dx.doi.org/10.22459/NTF.06.2017

Series: Asia-Pacific Environment Monographs

Navigating the Future draws on long-term ethnographic fieldwork with Kubo people and their neighbours, in a remote area of Papua New Guinea, to explore how worlds are reconfigured as people become increasingly conscious of, and seek to draw into their own lives, wealth and power that had previously lain beyond their horizons. In the context of a major resource extraction project—the Papua New Guinea Liquefied Natural Gas (PNG LNG) Project-taking shape in the mountains to the north, the people in this area are actively reimagining their social world. This book describes changes in practice that result, tracing shifts in the ways people relate to the land, to each other and to outsiders, and the histories of engagement that frame those changes. Inequalities are emerging between individuals in access to paid work, between groups in potential for claiming future royalties, and between generations in access to information. As people at the village of Suabi strive to make themselves visible to the state and to petroleum companies, as legal entities entitled to receive benefits from the PNG LNG Project, they are drawing new boundaries around sets of people and around land and declaring hierarchical relationships between groups that did not exist before. They are struggling to make sense of a bureaucracy that is foreign to them, in a place where the state currently has minimal presence. A primary concern of Navigating the Future is with the processes through which these changes have emerged, as people seek to imagine—and work to bring about—a radically different future for themselves while simultaneously reimagining their own past in ways that validate those endeavours.

Dictionary of World Biography, Fourth edition

By Barry Jones

ISBN (print): 9781760461256 ISBN (online): 9781760461263 ANU Press. DOI: http://dx.doi.org/10.22459/DWB.05.2017

Series: ANU Lives Series in Biography

CV updates sought from ANUEF members

Dear Colleagues,

The Emeritus Faculty Website is currently being redesigned. I am told that it is an "antique" among the University's websites.

The process will take time and I think we can assume some glitches along the way.

I am writing to you on just one aspect of this process.

Many of you have your CVs lodged in association with your name on the Emeritus Faculty membership list. It is probable that most of these CVs are now out-of-date.

The changes being done to the website provide an opportunity to update and reload new CVs to the site.

If you are interested in updating your CV on the membership list, please send the new CV to secretary.emeritus@anu.edu.au before the 1st of July. We will upload these new CVs as a batch before the new membership page comes online.

If you are also located on another site in the ANU web network, you can also provide us a link to that other site and we will try to provide an appropriate link on our site.

James J. Fox Chair, Emeritus Faculty

Of possible interest

Department of Health - Investing \$5.9 million to tackle antimicrobial resistance

http://www.health.gov.au/internet/ministers/publishing.nsf/Content/health-mediarel-yr2017-hunt054.htm

The Australian Government will invest \$5.9 million from the Medical Research Future Fund (MRFF) to help tackle the threat of microorganisms such as bacteria, viruses or parasites becoming resistant to standard medical treatments.

\$4.4m to mobilise Australia's citizen scientists

http://minister.industry.gov.au/ministers/sinodinos/media-releases/44m-mobilise-australia%E2%80%99s-citizen-scientists

\$4.4 million in grants will mobilise a league of enthusiastic 'citizen scientists' to assist Australia's leading universities and scientific organisations with their research.

\$33 million to help fund the next medical breakthrough

http://www.health.gov.au/internet/ministers/publishing.nsf/Content/health-mediarel-yr2017-hunt050.htm

The Australian Government will provide \$33 million to fund world-leading medical research trials and fellowships, supporting doctors and scientists to uncover the next breakthrough and improve the health of all Australians

\$10 million to defeat improvised threats

https://www.minister.defence.gov.au/minister/christopher-pyne/media-releases/10-million-defeat-improvised-threats

The Minister for Defence Industry, Christopher Pyne, has announced a \$10 million investment program inviting researchers to develop innovative solutions to defeat improvised threats. Mr Pyne said the widespread availability of low-cost, sophisticated technology is enabling our adversaries to deploy a diverse and ever-evolving range of improvised threats. "Defeating improvised threats without casualties is a complex and tough problem that can only be solved through a collaborative effort involving multi-disciplinary research," he said.

Department of Health making \$310 million of new vital drugs available

http://www.health.gov.au/internet/ministers/publishing.nsf/Content/health-mediarel-yr2017-hunt040.htm

The Australian Government is continuing to subsidise more life-changing and life-saving drugs on the Pharmaceutical Benefits Scheme (PBS) as part of a commitment to ensuring that Australians have access to vital medicines when they need them.

Evidence of the earliest occupation of the coasts of Australia from Barrow Island, Northwest Australia - ANSTO

http://www.ansto.gov.au/AboutANSTO/MediaCentre/News/ACS134033

An archaeological study has found evidence of the earliest occupation of the Australian coast from Barrow Island, Northwest Australia.

Successful synthesis of nanomaterial that improves catalytic converter efficiency - ANSTO

http://www.ansto.gov.au/AboutANSTO/MediaCentre/News/ACS134276

A large international collaboration, which included ANSTO, has successfully synthesised highly porous rhodium nanoparticles that could be used as a more effective catalytic converter for vehicles

Minister Launches SAAB/UniSA Defence Institute

https://www.minister.defence.gov.au/minister/christopher-pyne/media-releases/minister-launches-saabunisa-defence-institute

The Minister for Defence Industry, Christopher Pyne MP, has welcomed the establishment of a new academic institution aimed at developing and skilling Australia's workforce to meet future Defence project needs.

Department of Health opens consultation on the Aged Care Diversity Framework

http://www.health.gov.au/internet/ministers/publishing.nsf/Content/health-mediarel-yr2017-wyatt033.htm

The Diversity Framework will be relevant for all older people and will focus on acknowledging an individual's diverse needs

Additional support for national collecting institutions

http://www.minister.communications.gov.au/mitch_fifield/news/additional_support_for_our_national_collecting_institutions

The Federal Government will provide \$48.5 million over three years in the 2017-18 Budget to support Australia's national cultural collections.

Change of Chairs for Copyright in Cultural Institutions (CICI)

https://www.nfsa.gov.au/change-chairs-copyright-cultural-institutions-cici

The National Film and Sound Archive of Australia (NFSA) announces the resignation of Adam Flynn from the position of Chair of Copyright in Cultural Institutions (CICI) after over 5 years leading the group that serves Australian collecting institutions facing common issues with content regulation.

Classic documentaries digitally restored for Sydney Film Festival premiere

https://www.nfsa.gov.au/coming-age-classic-and-ground-breaking-documentaries-digitally-restored-nfsa-sydney-film-festival

The National Film and Sound Archive of Australia has digitally restored the documentaries Rocking the Foundations and My Survival as an Aboriginal.

More funds for Great Barrier Reef research

http://www.aims.gov.au/docs/media/latest-releases/-/asset_publisher/8Kfw/content/solar-powered-great-barrier-reef-research-at-aims

Research into the workings and wellbeing of Australia's tropical marine environments has received a boost with the announcement of \$1.8 million for the installation of renewable energy infrastructure at the Australian Institute of Marine Science (AIMS)

Revealing Reading: A Survey of Australian Reading Habits | Australia Council

http://www.australiacouncil.gov.au/news/media-centre/media-releases/revealing-reading-asurvey-of-australian-reading-habits/

Diary Dates

ANUEF inquiries; Adrian Gibbs adrian_j_gibbs@hotmail.com

ANU Events 02 6125 4144 E: events@anu.edu.au

Tuesday, 13 June from 6:00 pm to 7:00 pm Llewellyn Hall, School of Music

The future of Australia's American alliance

In an era of global uncertainty, debate has deepened in Australia about the alliance with the United States. Join former U.S. Director of National Intelligence James R. Clapper and former Australian Ambassador to the United States Kim Beazley AC as they hold a frank and open discussion of the challenges, successes and the future of the alliance. This is a rare opportunity to hear their exceptional insights into how Washington and Canberra view this critical security relationship and how it can adapt to cope with emerging risks globally and in the Indo-Pacific.

The Honourable James R Clapper, AO, is a retired lieutenant general in the United States Air Force. From 2010 to January 2017, he was the Director of National Intelligence, the Cabinet-level official in charge of the US intelligence community; this was his last position in a career spanning more than fifty years in US intelligence. He is visiting Australia as a guest of the National Security College at the Australian National University, where he holds the title of Vice Chancellor's Distinguished Professor.

The Honourable Kim Beazley, AC was elected to the Federal Parliament in 1980, in 1993 became a Minister in the Hawke and Keating Labor Governments holding, at various times, the portfolios of Defence, Finance, Transport and Communications, Employment Education and Training, Aviation, and Special Minister of State. He was Deputy Prime Minister (1995-96) and Leader of the Australian Labor Party and Leader of the Opposition (1996-01 and 2005-06). Since returning to Australia, Mr Beazley has been appointed as President of the Australian Institute for International Affairs, Co-Chairman of the Australian American Leadership Dialogue and Distinguished Fellow at both the Australian Strategic Policy Institute and the Perth USAsia Centre. In 2009, Mr Beazley was awarded the Companion of the Order of Australia for service to the Parliament of Australia.

Friday, 16 June from 5.30-6.30pm, **Senator Patrick Dodson** will deliver this year's 2017 ANU Mabo Commemoration Oration at University House. The Mabo Commemoration Oration is being held to recognise the 25th anniversary of the Mabo ruling. Register here:

https://www.eventbrite.com.au/e/anu-mabo-commemoration-oration-delivered-by-senator-patrick-dodson-tickets-34842671368

Sunday, 18 June from 3-4.30pm, **Former New Zealand Prime Minister Ms Helen Clark** will deliver this year's J.G. Crawford Oration at Llewellyn Hall on *The leadership we need-sustainable development challenges*.

Register at: https://www.eventbrite.com.au/e/the-leadership-we-need-sustainable-development-challenges-tickets-34741451617

Wednesday, June 21 ANUEF Projects Symposium. 9.15am - 3.20pm, Molony Room, Fellows Lane Cottage - Building 3T, ANU. A sandwich lunch will be provided, and tea/coffee and biscuits for morning and afternoon tea.

Program

- 9.15 Welcome
- 9.30 10.00 Malcolm White "Rio Olympic Medals in relation to Population and Affluence."
- 10.00 10.30 Debbie Argue "Homo floresiensis the surprise from Flores but what is it and where does it fit on the human evolutionary tree?"

Morning coffee

- 11.00 11.30 Adrian Gibbs "Tobamoviruses are aboriginal."
- 11.30 12.00 Ian Keen "Variation in Aboriginal systems of land tenure."

Lunch

- 1.00 1.30 Campbell Macknight "FD McCarthy's diary, 1937-8."
- 1.30 2.00 Alan Roberts "Writing the life of a convict woman (Esther Julian/Johnston) with ambiguous data."

Afternoon tea

- 2.20 2.50 Hugh Tyndale-Biscoe "Memories of Geoff Sharman, 1925-2015."
- 2.50 3.20 Mark O'Connor "How Shakespeare became international."

Wednesday, 21 June from 6.30-7.30pm **Anna Krien** in conversation with **Will Steffen** to discuss her new book, *Quarterly Essay 66, The Long Goodbye: Coal, Coral and Australia's Climate Deadlock.* Register at: https://www.eventbrite.com.au/e/anna-krien-in-conversation-with-will-steffen-tickets-34682414034

Tuesday, June 27 from 6.15pm-9.15pm *Eat Drink and be Literary* dinner, **Julia Baird** in conversation with **Alex Sloan** on Julia's recent acclaimed biography *Queen Victoria*. 7 PM University House Hall, 6.15 Common Room pre-signings. Two-course meal and wine. \$70 per head. Bookings at anu.edu.au/events or 6125 4144.

Register at: https://www.eventbrite.com.au/e/eat-drink-and-be-literary-with-julia-baird-alex-sloan-tickets-34186317195

Tuesday, 4 July from 6-7pm **Jamila Rizvi** in conversation with **Daryl Karp** on Jamila's new book *Not Just Lucky. Why Women Do The Work But Don't Take The Credit.* Register at: https://www.eventbrite.com.au/e/jamila-rizvi-in-conversation-with-daryl-karp-on-jamilas-new-book-not-just-lucky-tickets-34812980562

July 12, 13 and 14 The Australian National University will be conducting *Conferring of Awards* ceremonies on at <u>Llewellyn Hall</u>, School of Music. [See details below]

Wednesday, **July 5** Collegiate lunch (no invited speaker) followed by Committee meeting.

Tuesday, July 25 6-7 pm. The ANU Emeritus Faculty, in association with the Oxford University Society, ACT branch, invites you to a free public lecture by **Professor Maggie Snowling**, President of St John's College, Oxford and Professor of Psychology, University of Oxford on "*Dyslexia, Language and Learning to Read*" in the Finkel Theatre, John Curtin School of Medical Research, Garran Road. There will be a dinner with Prof Snowling and her husband, Prof Chris Hulme, afterwards in the Scarth Room, University House at 7 30pm, which will be open to members of the Emeritus Faculty and the ACT Oxford and Cambridge societies and their guests. Details for this and bookings will follow. Inquiries to colin.steele@anu.edu.au

Abstract

Professor Snowling is specifically interested in the nature and causes of children's reading difficulties and how best to ameliorate them. Without the ability to read fluently with comprehension there is a downward spiral of poor educational achievement and career prospects. Dyslexia is therefore a major problem for society and a key question is whether it is possible to intervene early to ameliorate its impact. Studies following the development of children at family-risk of dyslexia reveal that it is associated with language delays and speech difficulties in the pre-school years before reading instruction begins. Literacy outcomes for children depend not only on the risk factors that predispose to reading difficulties but also on protective factors which mitigate the risk. Together current evidence places dyslexia on a continuum with other language-learning impairments.

Adrian Gibbs adrian j gibbs@hotmail.com

Mid-winter break. As in 2016, no speakers have been organised for the collegiate lunches (first Wednesdays of the month) in June and July. However the Molony Room will be opened by noon on those days for a dose of rampant collegiality before the Committee meets.

Very many thanks to the thirty members who replied to my survey on the timing of winter meetings; several members were overseas and, unfortunately, a few unwell. Twenty were in favour of lunchtime winter meetings, one in favour of 4 pm meetings, and nine had no preference.

Adrian

Conferring of Awards

July 12, **13 and 14** The Australian National University will be conducting *Conferring of Awards* ceremonies on at Llewellyn Hall, School of Music.

Academic staff are cordially invited to participate in the academic processions for these ceremonies; please register your intent to participate via the following link:

REGISTER FOR ACADEMIC PROCESSION

Please select the ceremony (or ceremonies) you wish to attend. A schedule for each ceremony is included on the registration website; registration will close on Friday, July 7 at 5pm.

Note: If you require Academic Dress, our regalia supplier will be happy to assist. This hire service is free-of-charge. To access the service, please register your requirements at https://anu.reedgraduations.com.au/anu-academics (please note, Academic Dress is mandatory for all staff participating in the procession).

Assembly for the Academic Procession occurs near the Graduand Registration Room; there will be signs on the day providing directions. Registered participants are asked to assemble in this location at least half an hour before the commencement of the ceremony.

Please contact the Graduations Office (x59862) if you require any further information or assistance.

Please note: Deans, Directors and other members of the Chancellor's Party will be contacted separately about their participation.

For more information, please contact:

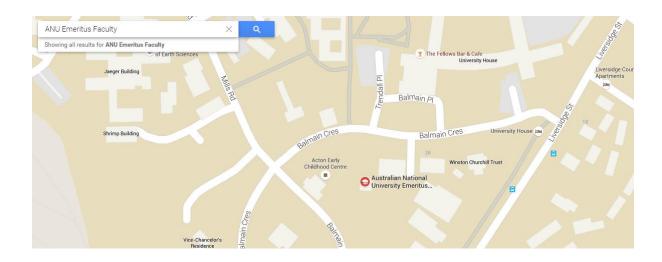
Emilia Ciampa

Senior Graduation Officer, Examinations, Graduations and Prizes Office, Division of Student Administration; Melville Hall (Building 12) I Ellery Crescent, ANU, ACT.

Finding the Molony Room

The Molony Room is on the south side of Balmain Crescent almost opposite University House. It is building 1c on http://campusmap.anu.edu.au/displaymap.asp?grid=cd32, set back between No 22 Balmain Crescent, which is the Acton Early Childhood Centre, and No 26 Balmain Crescent, which is the Academy of the Social Sciences. There are four free car parking spaces reserved for ANUEF members visiting the Molony Room in the Balmain Lane Car Park immediately south of the Molony Room. The room is marked on:

https://maps.google.com.au/maps?q=ANU+Emeritus+Faculty&hl=en&ll=-35.284925,149.117078&spn=0.003402,0.006947&sll=-31.203405,135.703125&sspn=59.04012,113.818359&t=h&hq=ANU+Emeritus+Faculty&z=1 7



Arrangements for ANUEF room bookings

Requests for booking the Molony Room should be addressed to Secretary of the ANU Emeritus Faculty Jan O'Connor at <u>jantancress@gmail.com</u> or Tel: 6247 3341

Supporters of **ANU Archives** can find updated news on the ANU website at http://www.archives.anu.edu.au/news-and-events-1

The next edition of *Emeritus*, the ANUEF Newsletter, will be published in July, 2017