

## PUMP STATION RECEIVES HERITAGE AWARD

**Pioneering irrigation system of Mildura  
formally recognised by IMechE.**

On Sunday 10th June, the Oceania Region was proud and privileged to be able to present an IMechE Heritage award to the Psyche Bend Pumping station in Mildura, Victoria. The presentation attracted over 100 participants and coverage in the local news and media.

Our institution was represented by the Immediate past Oceania Chair, Ian Mash, by the current Australian Chair Andrew Lezala, by past Australian Chair, Brian Carter, and by our News Bulletin Editor, Nic Coulthard. The magnificent sight and smell of a steam machine operating greeted all who made the trip.

Psyche Bend Pump station is listed on the Victorian Heritage Register and is the oldest artefact of its kind in the world. It was built in 1891 by the Chaffey brothers to meet the needs of Mildura as an irrigation settlement.

The Chaffey brothers arrived in Melbourne in 1886 after previously working on irrigation colonies in California. They chose Mildura as a site for an irrigation development because of its proximity to two major rivers and hospitable environment. The need to raise water from the Murray River to land approximately 28 metres above river level challenged George Chaffey to design his 'Billabong System', which used lifts from the Murray River into Kings Billabong.

George Chaffey's solution was to design a triple-expansion steam engine coupled to centrifugal pumps. The system supplied an area of approximately 20,000

hectares and was the first stage of a grand scheme to irrigate over 100,000 hectares around Mildura.

Tangyes of Birmingham manufactured the engine on the proviso that the name plate fixed to the engine read: "Chaffey's improved Pumping Engine made by Tangyes for Mildura Irrigation Colony". This was in case the engine failed and they were deemed liable for the failure.

Despite a series of modifications to rectify fatigue cracking and shaft imbalance, the system operated until 1959, when electric pumps were installed nearby and the pumping station was decommissioned. The original pump house still stands today, but two boiler houses and other above-ground assets, were moved and the boilers sold for scrap.

In 1983 the Committee of Management of the Psyche Bend Pumping Station decided to restore the system. Five years later, they enlisted the assistance of a number



*The Steam Engine at Psyche Bend Pump Station*

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of groups and individuals- primarily the Sunraysia Steam Preservation Society- and restored the pumps over seven years. Meanwhile, an unused N-Class locomotive boiler manufactured by the Victorian Railways in 1951 was donated by the Mildura Lions club. The Psyche Bend engine and pumps were re-commissioned on 11 October 1995, powered by steam from the boiler.

The Heritage Award was gratefully received by the Sunraysia Steam Society. IMechE's Brian Carter – who had played a significant part in preparing the heritage application - presented the award plaque to a member of the Sunraysia Steam Society following a speech by the local mayor.

All present enjoyed the sight of this magnificent machine doing what it was intended to do – improving this part of the world (Mildura) through engineering. Mildura is now the largest settlement in the Sunraysia region of Victoria

and is well known for its horticultural products, including grapes, citrus fruits and almonds.

John Wood, Chair of the Engineering Heritage Committee and Past President, said:

*"The Psyche Bend Pumping Station building is one of the oldest pump configurations of its type in the world and is described as being internationally significant on the Victorian Heritage Register. This award recognises both the importance of the engineering and the efforts of the Committee of Management of the Psyche Bend Pumping Station who decided to repair the historic engine and pumps, and the individuals who undertook the restoration, who were mainly members of the Sunraysia Steam Preservation Society."*

Established in 1984, the IMechE's Engineering Heritage Awards recognise pioneering engineering artefacts, locations, collections and landmarks. Previous winners of Engineering Heritage Awards include Alan Turing's Bombe at Bletchley Park, the E-Type Jaguar and Concorde supersonic airliner. The Psyche Bend Pump Station is the 119th recipient of the award.

Brian Carter & Ian Mash

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Top: Attendees at the Heritage Award Presentation. Bottom: Brian (L) presents the Award to the Sunraysia Steam Society

## IMPORTANT COMMUNICATIONS UPDATE



**Check you are not missing out on local news and information.**

As of 25th May 2018, the introduction of the General Data Protection Regulation (GDPR) means that the IMechE needs consent of members in order to send emails and post.

The GDPR governs data protection and privacy for all individuals within the European Union (EU) and the European Economic Area (EEA). It also addresses the export of personal data outside the EU and EEA areas. Because the IMechE manages all our membership data from London, it has implications for all of us in Oceania.

A recent review of our member database shows that many individuals are not 'opted in' to receiving communications. This now means they could miss out on emails from their local panel and not receive a posted copy of this News Bulletin. Both are important communication tools. So please take a couple of minutes to review the settings on your online portal using the following process:

- 1) Visit <https://www.imeche.org/my-account/my-profile> and log in. Select the 'Your Profile' option.
- 2) Under the 'Personal' and 'Email' tabs, check that all details are up to date.
- 3) Select the "Mailing Preferences" tab to see what we are allowed to send you. As a minimum, we recommend:
  - Select "Yes" to "News & IMechE updates" under the post column.
  - Select "Yes" to "Updates from Member Networks Near You" under the email column.

If you have any questions on how the GDPR affects our communications, contact your local IMechE panel using the details on their webpage.



## ON THE PAST & PRESENT OF OUR REGION.

**Leslie Yeow has taken over from Ian Mash as Chair of the Oceania region. In this article, the two leaders muse on a turbulent period at HQ and how clarity has emerged.**

### Leslie's address

"There has been a change of guard for the Region. In the recent May elections, Elliot Powell took over from Amy Lezala as the Oceania Region Young Member Representative and I took over from Ian Mash as the Chair for the Oceania Region. Our thanks go to both Amy and Ian for their hard work and contributions over the past three years.

As you are no doubt aware, there have been and continue to be a few issues happening at HQ. There was a Special Meeting convened at Birdcage Walk to question the Trustee Board and Executives about issues relating to governance, finances and confidence in the ability of the President and CEO of the Institution to perform their duties. The newly elected President stood down after only a few weeks into his tenure and the CEO resigned soon thereafter. The events over the past few months have never happened in the history of the Institution. Dr Colin Brown, the previous Director of Engineering, has been appointed as interim CEO to guide the review of the finances and re-formalise the governance structures for the running of the Institution.

An extraordinary Council Meeting was convened at HQ on the 1st of August to elect a new President and to discuss issues and guide the new CEO and Trustee Board in the way forward from the results of the Special Meeting held in June. Tony Roche, the President of the Institution from 2001/02, was elected President for the remainder of 2018/19.



*Tony Roche - our new President (photo by IMechE)*

At a local level, the Regional Team met in Brisbane in August to discuss amongst other things, the Regional Business Plan. This document formalises our initiatives and its alignment to core objectives set out by the Institution in London. The documentation of our plans allows the Regional Team to focus its efforts where required when making decisions while spending Institution funds wisely. This Business Plan also provides a formal document on which to base our request for funds with which to carry out the Region's activities for the coming year. These funds are of course made up, in part, from all of the membership fees that we pay to the Institution.

Well done to the University of Technology (Unitech) in Lae, Papua New Guinea on successfully creating a Student Chapter, the first in our Region. We wish them well and look forward to assisting them with achieving their initiatives.

Notwithstanding the fact that there are issues happening in London, we in the Region have an active team keen to achieve the initiatives we set out to do. As it is your membership fees we are using, why not play a more active role in deciding how the funds are spent? Why not join your local Panel to see what contributions you can make?

One of the issues discussed at the extraordinary meeting was poor communication from the Institution. While the recent implementation of the GDPR (General Data Protection Regulation) initiative prevents us from contacting members who appear to not wish to be contacted, there is nothing wrong with inviting fellow members to social gatherings and spreading the news that way as well. Get them involved. Show them what they are missing. Many of us have volunteered our time for many years. We must be having fun or we wouldn't still be doing it would we?"

## **Ian's address**

"Fellow Engineers,

I write this sitting in a hotel room in Melbourne. Room service delivered and consumed, and nothing on the tele! This consulting life is not for everyone....

As a (very) Ordinary Elected Member of Council, I thought I'd share with you some views on the recent upheaval and change at our Institution, and perhaps update you on the recent events and the outcomes of both the Special Meeting and Council meeting in May, and the extraordinary Council meeting in August.

But first: who is Council and where do they fit in? Council is a body of about 80 members who provide guidance and advice to the Trustee Board on matters related to strategy, the Institution's membership and other relevant issues. Council is made up of various chairs (like Leslie for Oceania), and some elected members (like me!). The Trustees can be likened to the Board of a Not for Profit organisation (which from a legal perspective – they are!)

Now the CEO is a direct report to the Trustees. As you will have read, the previous CEO Stephen Tetlow has resigned, and has been superseded by Colin Brown in the short term - as the interim CEO. Colin did a very good job at setting an inclusive and cooperative tone in Council when we met in August. Our president is Chair of the Trustees, and you will also have read that Geoff Baker who took the role in May, has since stood down, and has been superseded by a past president Tony Roche (President in 2002). Tony was the sole candidate for Interim President (all those eligible had got together before hand and worked it through).

For information, Tony Roche was the President who set up the current Council & Trustee structure back in 2002 – and commented almost straight away that his observations of recent years was that the system had gotten a little out of whack – the tail wagging the dog and all that.



*The Main Lecture Theatre at IMechE Headquarters, One Birdcage Walk (photo by IMechE)*

Tony's initial address after the formality of the vote was to say – "Ours is a membership led organisation – we need to remember that. Constructive dialogue is required. Differences of opinion are good – if expressed respectfully. The team needs to unite and move forward". Sage words given the angst and divisive tone taken by some before, during and after each 'side' in the recent Special Meeting. Resulting from the Special meeting, it was pleasing to hear that:

- The Financial Review is to proceed – Terms of Reference are being developed and will be subject to Council agreement. This process will be led by a working group including Council members.
- The Governance Review is to proceed – Terms of Reference are being developed and will be subject to Council agreement. This process will be led by a working group including Council members.

So, much has changed, but much (and the best bits) remains the same. Same institution, with the same aim – to promote the development of mechanical engineering. Locally in Oceania we remain very active, with Leslie (who succeeded me as Chair and is already kicking goals) and his team delivering value to our membership here way in excess of the budget received. For my part, as an Elected Member of Council, my new role is to consider and take cognisance of the views of the institution's membership (through active engagement with business colleagues, attendance at regional / international events, personal networking, etc). So that I can do that to the best of my ability, I'd love to hear from you.

Call me on 0417686142 if you'd like a chat, or email me at [ian.mash@snclavalin.com](mailto:ian.mash@snclavalin.com). Happy to chat to anyone on all things IMechE....always better than another lonely night with room service! Stay Safe."

# PANEL UPDATES

## Young Members

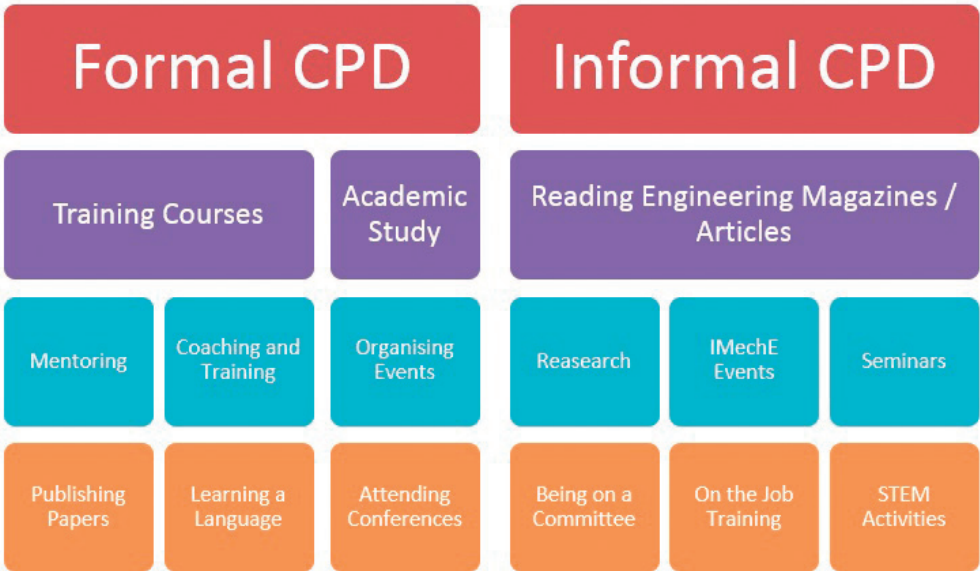
### The Importance of CPD

You may or may not know it, but whether you are Chartered or not, working on your professional development is a mandatory requirement. In fact, as of January 2019, all of IMechE's professionally registered and active engineers will need to maintain CPD records and may be audited.

Regardless of this fact, it is a great thing that we should all be doing to improve the way we do things, learn from each other, learn from other industries, and learn from incidents/investigations. So, who needs CPD? The IMechE says:

*"All registered EngTech, IEng and CEng Members make a commitment to maintain their CPD upon registration as part of the Institution's Code of Conduct. CPD should be appropriate to their work respectively, and recording in Career Developer is encouraged."*

Our approach to CPD is about learning outcomes achieved, rather than time spent on an activity. CPD activities will vary depending on where you are in your career and what you are aiming to achieve; they are individual to each engineer, so no quantitative measures (i.e. hours spent, points based system) are required. Anything related to professional development counts and should be measured in terms of how much you, the individual, learn from it.



As shown in this table, there are various forms of CPD

There are many forms of learning: In terms of keeping track of your CPD, it is easy to use the online tools provided as part of your professional membership with IMechE. Alternatively, you can simply keep a record of your CPD activities on a spreadsheet.

Under the Engineering Council CPD policy, the IMechE now carries out an annual CPD audit on a sample representation of its registered Members and Fellows. These new requirements are intended to help you map and direct your CPD by asking you to tell us how you have recorded your CPD over the previous 12 months. If you ever want any advice on this, please feel free to ask a fellow IMechE member. Ultimately, the learning never stops!

#### Giving Back – The Power of Mentoring

Congratulations to those of you who have recently become Chartered and to those who continue to maintain their status through a multitude of CPD opportunities. I would encourage you to consider giving back to the Mechanical community, share and impart your knowledge, present, say 'yes' to a panel event, and help mentor younger engineers. I was fortunate enough to have a mentor who encouraged me and followed up but not all of us are fortunate enough. I encourage you to seek out those who could benefit from some guidance or advice, buy them a coffee, have a chat or simply ask them how they progressing along the route to chartered status. I believe that we could all learn a lot from each other and strongly encourage you to become a PRI interviewer, become a mentor, and simply share a cup of coffee every now and then.

#### Calling all Mechanical Engineering Student Societies

The Young Members (YM) Section is actively seeking to form closer connections with student clubs at Universities in states across Australia. We would like to understand what types of events would be of most interest to your members, and are also looking to offer sponsorship agreements on a first-come-first-served basis; the sponsorship would help financially support the running of relevant events. Please get in touch with your local YM Chair for further details.

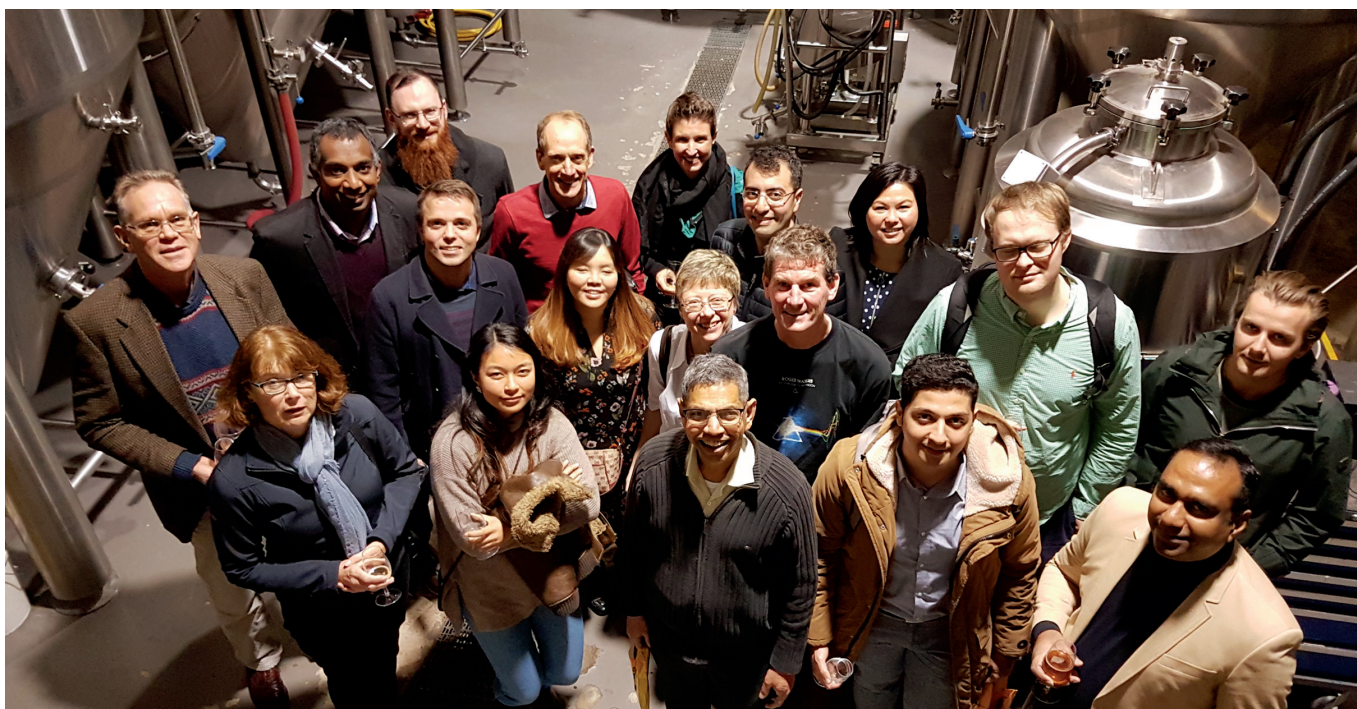
#### Remote CPD

Now, more than ever, IMechE Young Members recognizes the challenge in staying in touch with the rest of your function and peers in industry when work takes us to remote places. The YMs are working together to provide people working remotely with the opportunity to attend just as many CPD events as those working in the big cities. Watch this exciting space and keep working on your CPD.

#### **Ibrahim Shahin – Young Members Chair**

#### **VICTORIA**

The Victorian Panel were privileged and delighted to award IMechE Heritage status to the Psyche Bend Pump System in June this year. The triple expansion steam



*Christmas in July - at Two Birds Brewing in Spotswood*

engine and centrifugal pumps, designed by George Chaffey and built by Tangyes of Birmingham, England, were recognised for supplying irrigation water for Mildura's irrigation settlement from 1890 until 1959. The Sunraysia Steam Preservation Society ran the pumps for the benefit of the public on the day of the presentation and over 100 people came along. The Mayor of Mildura was the guest of honour of the ceremony. A more detailed write up can be found on the front page of this bulletin.

In July we organised our main annual social event "Christmas in July". Our Panel members, who are always keen to try out new experiences, deviated from the traditional sit down meal and organised the event at Two Birds Brewing in Spotswood. We had a tour of the brewery and a short talk on the brewing process followed by beer tasting.

We are also delighted that the Monash University Motorsport Team came first in the combustion engine category motorsport race and third in the electric category race at the 2018 Formula Student competition organised by IMechE at Silverstone. Monash Motorsport saw off 130 teams from 30 other countries to gain these positions. It was the first time that the team has raced their electric car in Europe. Monash Motorsport have been competing in European competitions since 2014 and they have done extremely well considering that top European student teams are backed financially and with expertise by firms such as Mercedes and Renault.

The Victorian Panel also welcomed Farbod Rahimi to their team. Farbod is reading for a Master's Degree in Mechanical Engineering at the University of Melbourne. Farbod will be helping us navigate the world of social Media and has already set up a Victorian panel Facebook Page. Please visit our page by heading to the link below and click 'follow' to stay up to date with our panel: [facebook.com/IMechE.VIC/](https://facebook.com/IMechE.VIC/)

Roshan Dodanwela, Victorian Panel Chairman

## WESTERN AUSTRALIA

This quarter has seen a significant expansion in demand for engineers in WA. A number of new oil and gas projects have been given the go ahead in both FEED and Execute phases. There has also been positive movement in the mining sector with mine expansions slated and engineering commenced on these large projects.

The panel has been actively engaging with our members through these confused times at headquarters. Many, many questions have been asked and answered by the panel by directing our members to reference sources. Hopefully the situation has been resolved and we can

move forward with confidence in the IMechE leadership structure.

The panel are looking to engage with the members on what they want from the panel - we are a few who try to entertain the many! We plan to run a couple of technical sessions in October and December – please check your inbox for details.

Ben Witton, WA Panel

## NEW SOUTH WALES

The NSW Panel has had a busy 2018 with great support from the Committee and even more engagement with our members. In June we held a well-attended technical talk, in association with Engineers Australia, which focused on the topic of Project Controls and Scheduling in Engineering Projects. Jeremy Clarke from RailConnect NSW talked through the mechanics, benefits and challenges of planning, scheduling and implementing controls in project environments. Shortly after this event we held our Winter Social which gave us the opportunity to connect with a number of members via an informal social setting. This was a very enjoyable evening with some interesting engineering discussions and the unanimous conclusion was that the NSW IMechE Socials should become a regular fixture in the calendar. August saw the NSW leg of the Speak Out For Engineering competition with the usual high standard of competition and a lively audience posing some challenging questions for the presenters. Jerald Skuta was the eventual winner with his presentation on "Using Vector SpaceSense 'smart' sensor technology to track space utilization and provide wayfinding in an office environment" and he progresses to the regional final in October. In addition to the eagerly anticipated Spring Social, the key event for the remainder of 2018 is the NSW Panel's Annual Industry Night which will be held in September. We have a number of interesting speakers lined up from industry and are looking forward to engaging with our student members to provide some ideas and advice for making the transition from engineering degree to that first job in industry.

Neil Moriarty, Chairman, NSW Panel Committee

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## NEWS CLIPPINGS FROM NEW ZEALAND

**Courtesy of our NZ panels, and E-Torque, a joint publication between IMechE and Engineers New Zealand.**

### Canterbury student designs new 3D-printed water filter to save lives

A University of Canterbury student is developing 3D-printed water filters with potential to improve water quality in developing countries. UC Master of Engineering student Benjamin Houlton is researching how filters can be 3D-printed to remove trace metals from wastewater streams and other polluted waterways. "Further down the track the filters could be used in developing countries like Cambodia where there are high levels of arsenic in river water," he says. His main focus is using computer simulations of water flowing through filters to determine the most effective structure.

He says modern 3D-printing technologies enable the creation of finer structures, which challenge the performance of randomly ordered models of filter. With his Masters degree due for completion next year, the race is on to understand and identify the most beneficial filter structure using flow modelling simulations, and validate the models against experimental data supplied by collaboration research partners.

### F:SAE:47 June Update

From Tuesday the 1st to Thursday the 3rd of May, the team appeared as exhibitors at the EMEX trade show at ASB showgrounds. EMEX is a trade show aimed at engineering, machinery, electronics and technology industries, which allowed us to show off what we do to the greater engineering community. The sponsorship from XPO exhibits allowed us to mix and mingle with the engineering community in a way that we would otherwise not be able to.

We spent the days talking to sponsors, engineers and tradespeople in industry, and even a few younger future engineers! There was plenty of very interesting and exciting technology on display, and it might have even given some team members a few ideas! Overall the team had a great time at EMEX, and we hope to return to the next event in 2020!

### UC research aims to make rocket launches faster, cheaper, better

University of Canterbury research is using mathematical algorithms to help to prevent the effects of fuel slosh in rockets by predicting movement and adjusting the flight movement before fuel slosh becomes a problem. Fuel movement inside the fuel tanks affect the trajectory of rockets through resonance. Baffles inside the tanks dampen the slosh of the fuel and the effect on flight trajectory.

Observations have been made using the university's vertical wind tunnel and real-life launches conducted in partnership with Rocket Lab. Real-life launches will be used to gather data and compare how findings to prove the effectiveness of the algorithm.

### Formula SAE team opens its doors on Tech Night

On Wednesday 18 July at the University of Auckland, the Faculty of Engineering's Formula SAE team opened up its workshop doors to offer an update on the build progress for this year's car. The annual Tech Night was attended by industry representatives, faculty staff and past team members as well as family and friends of the current group. Everyone had a chance to wander through the workshops and – with the help of the many team members – get to understand some of the processes involved in building a car from the ground up each year. Another 19 students have devoted their time this year, with nine of those joining the electrical subgroup, which is important since the team switched from internal combustion engines to electric powertrains in 2016.

### Digitally Engineering Our Future Via BIM

From Edward Ward, Co-Chair Wellington Branch MEG

On the 31st of July the Wellington Branch held a presentation on 'Digitally Engineering Our Future Via BIM' at the WSP Opus Wellington office and it was our most popular event held to date. We could have had two or three times the number of attendees but there was a cap at our venue and we sold out in just a couple of days with very little marketing.

BIM (Building Information Modelling) is a hot topic in the Wellington construction industry and the audience was packed with Contractors, Design Consultants, Local Government members, Building Owners, Property Managers and local students. Presenters on the night were:

- Daniel Jurgens – WSP Opus Technical Director of Digital Engineering
- Hugh Evans – WSP Opus Team Leader Buildings Mechanical

Daniel Jurgens presented on the challenges of establishing the use of BIM on a construction project and the challenges facing New Zealand with the adoption of BIM. Daniel took us through the process of how BIM systems were used on a recent New Zealand Defence Force project, from setting and agreeing the brief based on several different international standards, through to the implementation of information management systems and finally the different design stages.

Hugh Evans presented on a local project at Te Papa museum where BIM and 3D Laser Point Cloud scanning was used to record the existing As-Built conditions in different areas of the museum ahead of future refurbishment projects.

Both presentations raised a number of discussion points as BIM has been talked about a lot in the local market but not many projects have fully committed to the use of BIM even though most can see that there will be a real benefit. The event was such a success that a follow up presentation is planned for later in the year to showcase how a local BIM project was successful implemented and delivered.

## **SPEAK OUT FOR ENGINEERING – WELLINGTON HEAT**

### **Competition on South island attracts wide range of technical presentations**

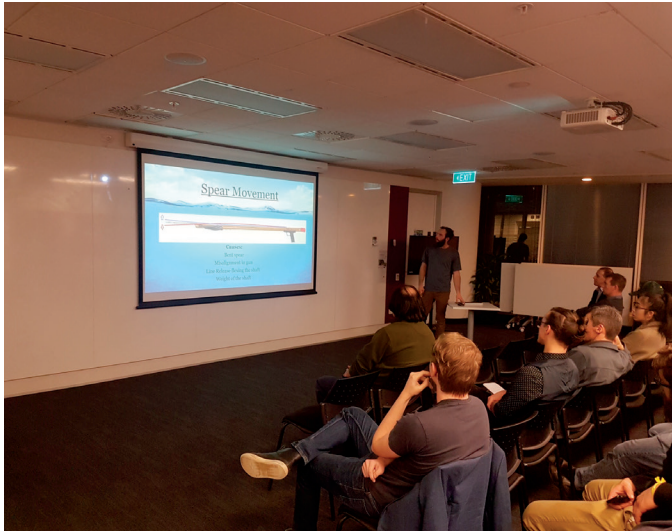
The Wellington Heat of SOFE (Speak Out for Engineering) was held on the 16th of August at the WSP Opus Wellington Office to coincide with Engineering New Zealand Week of Engineering. This was the first year we held the Wellington heat on our own as the IMechE, the 2017 heat was a joint event with the Wellington Branch of the IET.

We had a lot of local interest from our Universities, Poly Technics, consultancies and Contractors. The final four presentations selected to compete on the finals night were:

- Simplify Your Solutions
- Six Degree of Freedom Robot Design
- Spear Gun Design
- Wellington's Drinking Water



*Presenter in action at SOFE Wellington Heat*



The event was well attended with a mixture of students, young professional and experienced professionals in the audience to hear the presentations. We were also lucky to have high calibre local judges who gave their time during a busy Week of Engineering. The judges were:

- Simon Hatherill - WSP Opus General Manager Design Centre South
- Kennie Tsui - Chair of Engineering New Zealand Wellington Branch
- Hugh Evans – WSP Opus Team Leader Buildings Mechanical

The presentations were all very unique, with different topics but also different presenting styles which made them all very enjoyable and interesting to the whole audience but it also made it very difficult for the judges

to score. However, the judges had to select a First and Second place and after some deliberation the winners were decided.

Second Place went to Duncan Henderson and his presentation on Spear Gun Design. It was clear the topic was more than just a university or work project, Duncan is a keen spear gun fisherman and his passion showed in his presentation and delivery.

The big winner of the night taking First Place was Kent Stanley-Best with his presentation on Simplify Your Solutions. Kent had a great story telling style of presenting that really won the audience and the judges over as he discussed how his college project made him rethink how he, and maybe all engineers, should approach the problems presented to them.

The event was a great success and helped promote the IMechE to young engineers in the Wellington region with promotional events planned at WelTec and Massey University.

Edward Ward, Co-Chair Wellington Branch MEG



Contenders, spectators and judges at Wellington SOFE

# AUSTRALIAN BRANCH

## Dissolution of the Australian branch and its absorption into Oceania region is on track following a successful trial.

There is a saying that, the only constant is change.

During an Australian Branch Executive Committee Meeting in late 2016, a suggestion was made to reduce a layer of administration by removing the Australian Branch and operating solely as the Oceania Region. The removal of a layer would save time and costs in terms of meeting attendance and improve communications.

We adopted a new structure in May 2017 to coincide with the change in office holders at the Australian Branch level. While some positions were made redundant, the new structure includes all Panel Chairs and we welcomed two New Zealand representatives to ensure that all strategic and operational discussions involve local representation. The charts below indicate the difference between the previous and proposed structure.

What does this mean?

In News Bulletin 180 released in November 2017, Ian Mash, the previous Oceania Regional Chair and Andrew Lezala, the current Australian Branch Chair, wrote about the proposal to change the structure of the Oceania Region, the Australia Branch and the resulting benefits of the change. We adopted the new structure as a trial to ensure that the proposed system was workable and

the benefits were realised. So far, the new structure has proven to be a success.

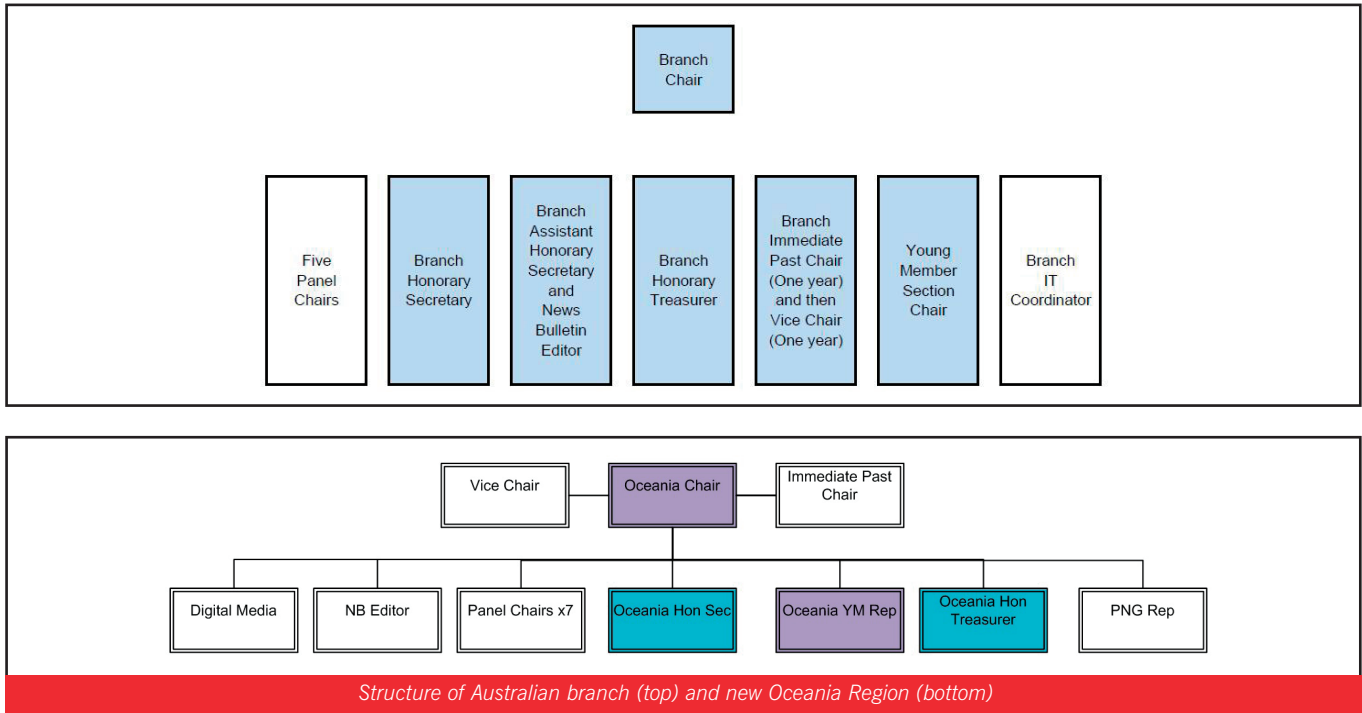
While the proposed structure has been adopted since May 2017, this has not been officially formalised by IMechE in London as the Australian Branch still exists. The proposed structure means that the Australian Branch structure and hence the Australian Branch will no longer be required in the future.

The formalisation process for the dissolution of the Australian Branch will require a vote from locally based members with the voting system being handled from London in much the same way as we vote for our Council representatives. However, as there is a lot happening now in London with Special Meetings, the appointment of an interim CEO, a new President and the associated financial and governance reviews, we have decided to run with the proposed trial structure for another year.

Nominations for Australian Branch office bearers for 2019 will still be requested at the end of the year to comply with existing Branch requirements.

The proposal to dissolve the Australian Branch will be put to a vote sometime in 2019. In the meantime, we will continue to advise you of progress and successes in the new structure. This is also a good time to let me know your views about the new structure.

Leslie Yeow  
Oceania Region Chair



# ULTRA LONG HAUL -SHRINKING THE WORLD

**The viability of marathon flights depends not just on technology, but also comfort.**

When Qantas launched a daily flight between Perth and London earlier this year, using the Boeing 787 Dreamliner, it wasn't just a triumph of aircraft efficiency. It was also sign that non-stop flights between opposite ends of the earth were at last economically viable.

The first flight directly linking Australia and the UK actually took place in August 1989, using a modified Qantas Boeing 747-400. To achieve the 17,000km trip without refuelling, the aircraft had had been stripped of non-essential equipment, used a custom made high-density jet fuel and was crewed by several flight experts who carefully selected route and altitude to minimise fuel burn. There was also the small matter of no fee-paying passengers on board.

Figures from the British Civil Aviation Authority show that the Perth to London flights have been taking off with 75-78% of seats filled, just shy of the 80% that is used as the industry benchmark for success. Building on this, Qantas has now announced an intention to connect London to Melbourne and Sydney by 2022. Dubbed 'Project Sunrise', a journey to the UK from any major city in Australia could soon be possible in as little as 20 hours.

Travellers are divided in opinion when it comes to ultra long range (ULR) flights. Some want to get to their destination in one go, saving the need for unnecessary waiting time and additional security checks. Others

regard a layover as a vital chance to recover from the discomfort of flying.

Given that aircraft speeds are not going to increase any time soon, the key to increasing the appetite for ULR is to make it a more comfortable experience. Without doubt, seat room is among the best ways of doing this. There is strong research- both scientifically and anecdotally- to suggest seat pitch and width have declined over the years. New, slimmer seat materials seen on the 787 and A350 have enabled allow some of that to be clawed back, but airlines are often tempted to fill the extra space with even more seats. Improvements to air conditioning, on board Wi-Fi and advances in the understanding of sleeping and eating patterns can also help airlines maintain passenger health during a long journey. There are even plans to install sleeping births in the cargo hold, although these wouldn't be occupied during take-off or landing.

Qantas is working closely with the two big aircraft manufacturers to discuss contenders for Project Sunrise: the Airbus A350-900ULR (or a stretched derivative called the 1000 ULR) and the Boeing 777-8X (still in development). Qantas CEO Alan Joyce commented that the technical evaluation should be finished this year, with Requests for Proposal issued in 2019. Whatever your view on ULR travel, many of us in Australia with ties in the UK will be watching Project Sunrise with considerable interest.

Nic Coulthard - Editor

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*The A350-1000 at this year's Farnborough Air Show. Next stop - Melbourne?*

## Exec Committee:

Andrew Lezala, Leslie Yeow,  
Ken Tushingham, Nic Coulthard,  
Ibrahim Shahin.

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