

## Celebrating Twenty Years of Indigenous Australian Engineering Summer Schools

*Engineering Aid Australia (EAA) is a non-profit organisation which focuses on encouraging Indigenous young people who are entering Secondary School Years 10, 11 and 12 to consider tertiary studies and a possible career in Engineering. To this end, EAA conducts two week-long summer school programs each January, one in Sydney and another in Perth, with approximately 20 Indigenous students from around Australia attending each Summer School at no cost to themselves.*



Jeff Dobell 1939 – 2010

### How it all Began

Engineering Aid Australia (EAA) was the brainchild of the late Jeff Dobell, whose vision inspired the blueprint for university based Summer Schools for Indigenous students.

As a retired engineer, Jeff became aware of the need for Indigenous engineers to undertake assignments within Indigenous communities, to attempt to repair the damage that had resulted from decades of neglect. To fill this need, Jeff created Engineering Aid in 1995. He initially envisaged that the not-for-profit organisation would send volunteer engineers to remote areas to address the problem.

However, when he approached the Faculty of Engineering at Sydney University, to source potential volunteers, he was astounded to learn that (as far as they knew), only one Indigenous engineer had graduated during the entire 85-year history of the Faculty.

Further research revealed that, in the whole of Australia, there was just a handful of Indigenous engineers who were equipped to tackle leaking sewage systems, flood control, the upgrading of water/ energy supplies and the repair of thousands of decaying and substandard houses.

When, in response to this situation, Jeff proposed the concept of a Summer School, the University readily agreed to host it, subject to Engineering Aid raising the necessary funding. With the assistance of some of Australia's leading engineering corporations and others, the necessary funds were raised and in January 1998, the first Indigenous Australian Engineering Summer School (IAESS) was launched.

As the success of the program and the achievements of the students became apparent, additional sponsors came forward to the degree that Engineering Aid could not only fund the Summer School, but also offer scholarships as well as other support, to enable students to complete Year 12 and go on to university to study Engineering.

Over the years, the organisation has partnered with universities in Sydney, Perth and Newcastle - and the achievements of the more

than 500 students who have participated in the Summer Schools, bear witness to the success of the program.

The EAA Board and the many people who support the activities of EAA, continue the work that Jeff started over 20 years ago. As EAA Patron and former Prime Minister of Australia, the Hon Bob Hawke AC points out, the value of Jeff's contribution is both immeasurable and enduring; "In my 50 years of public service, Jeff would have to be one of the finest men I have met. His legacy to the Indigenous communities will be a compounding one which will never be forgotten".

### Milestones

- 1995** Jeff Dobell forms Engineering Aid (EA). The concept of a Summer School is discussed with Sydney University and fund raising begins
- 1998** The first Summer School is held in January at Sydney University
- 1999** Former Prime Minister of Australia The Hon Bob Hawke AC becomes the patron of EA
- 2006** The first female student (Courtney Ryder nee Thompson) graduates as a Biomedical Engineer
- 2007** The first IAESS class to produce eight graduate engineers as well as one Associate Diploma Engineering
- 2008** Engineering Aid was incorporated and became Engineering Aid Australia (EAA)
- 2009** Continuing School scholarships were introduced
- 2010** The first Summer School in WA is held at Curtin University
- 2011** The Jeff Dobell Memorial University Scholarships were introduced for students on enrolment.
- 2013** EAA started assisting former students to find work experience with sponsoring companies
- 2014** A record total nineteen girls participated in the two IAESS programs
- 2015** Annabel Castledine becomes the first female Engineer to join the EAA Board
- 2015** Former IAESS student Ben Lange joins the EAA Board
- 2016** Thirteen students who had attended the Summer School enrol in engineering degree courses across Australia. More than 500 students have attended the Summer School program and 42 EAA students are currently studying Engineering at universities throughout Australia.

Through the years there have been so many individuals and sponsors who have contributed to the success of EAA (either financially, or by giving of their time or their contacts) that it would be impossible to list them all here. On behalf of the over 500 students who have benefitted from this program, the Board would like to take this opportunity to convey our heartfelt thanks to all of them.

## Turning Dreams into Realities



Frank Pearce, seen here with his wife, Fay, has provided EAA with invaluable advice and assistance for many years.

Much like Martin Luther King had a dream of a better life for African Americans; Jeff Dobell had a dream of a better life for Aboriginal Australians. It has been my honour and privilege to walk the path of that dream with him.

Jeff walked the talk of Reconciliation more by what he did than what he said. His journey wasn't easy and he had to overcome many obstacles along the way, but he never faltered and Engineering Aid Australia is his lasting gift to us all. It was never about Jeff but about those with whose care we are all entrusted - the children.

His partner Anne was at his side always through the good times and bad and she carries on Jeff's legacy with great professionalism, but more importantly, with great empathy, care and love.

As an Aboriginal person who attended schools in the bad old days, I am a very hard marker of Aboriginal programs and the people running them. In my eyes, the Engineering Aid Australia program is second to none, as are all the people at the heart of it, who work tirelessly and selflessly to keep its motor running.

Every year for the past twenty years, a large group of young Aboriginal people come to Sydney from all points of the compass. In the beginning, they are very shy and reserved, but the care shown to them during their stay soon turns them into very confident, competent and caring young adults.

If you want to know how good this program is, ask the children who have been through it. The smiles on their faces and the look in their eyes when they talk about the program will give you an education money can't buy. This program changes young people forever. They now dare to dream.

Being Aboriginal is a reason to succeed not an excuse to fail.

### Uncle Frank Pearce



Seen here making a presentation at the 2016 IAESS Dinner, The Hon Bob Hawke AC who accepted Jeff Dobell's invitation to become the Patron of the program in 1999 and has remained keenly involved ever since.

A Research Fellow at UNSW, Dr Tim Hesketh was responsible for the administrative side of EAA in its early days. Jeff Dobell referred to him as an Engineering Aid "Fellow".



Pictured here with IAESS Alumni Grant and Elle, former NSW Governor Professor Dame Marie Bashir AD, CVO, became a passionate supporter of the EAA program after hosting visiting students.

## Courtney Ryder – Class of 1998



*Courtney pictured in Canada where she travelled as part of her Fellowship.*

*Courtney Ryder came to the first IAESS in 1998. Listing all of her many achievements would require much more space than we have available. Take the time to read the full story on our website -it's inspiring!*

As a 15 year old Nunga kid from Southern South Australia, I had no idea what I wanted to do when I finished school. So, when the opportunity arose to attend the first Indigenous Australian Engineering Summer School (IAESS) in 1998, I thought: 'why not and what do engineers do anyway?'

Little did I know that this would be a transformative experience in shaping my career aspirations. The journey included so many firsts; I hadn't been on an aeroplane before, travelled to Sydney or been to a university. Throughout that week at Sydney University, I participated in a range of activities such as; designing aerodynamic helmets, powering motors with solar panels, creating my own web page and visiting Homebush in the lead up to the Sydney Olympics. I left with a new- found passion and drive to become an engineer.

In 2001, I was accepted to study biomedical engineering at Flinders University. Over the next five years, I studied hard to pursue my career

aspirations and in March 2006, I graduated with honours - becoming the first Aboriginal biomedical engineer and the first Aboriginal female from the IAESS to graduate from engineering.

Since graduating from biomedical engineering, I have focused my career academically, with a research interest in Aboriginal medical education, rehabilitation and injury. For the past seven years, I have worked at Flinders University as an Aboriginal lecturer in the Faculty of Medicine, Nursing and Health Sciences, where the work that I did, in terms of educational innovation in Aboriginal health, was recognised internationally. In 2015, I received the LIMELight award for leading innovation in Indigenous health curriculum implementation.

I recently, completed a Churchill Fellowship from the Winston Churchill Memorial Trust to facilitate the development of a curriculum framework for best practice simulation teaching in Indigenous Health.

This year I will start the next chapter in my career journey, returning to Sydney University where I have been accepted to undertake my postdoctoral studies. I have been successful in securing two prestigious scholarships to assist me with my studies.

I cannot thank EAA enough for having the IAESS vision, they have assisted me on this journey and I will be forever grateful.

**Courtney Ryder, BSc BEng(Biomed)(Hons) PhDc**

## James Curran – Class of 2000



*James fills us in on his long and determined transition from young student in Rockhampton to owner of a successful pipeline construction business*

I was attending school in Rockhampton when I heard about the Engineering Aid Australia Summer School. Up until then, I hadn't really thought about engineering or engineers, but going

to a Summer School at Newcastle Uni seemed like a good opportunity for me to travel to somewhere else and see something different.

When I got there, I found that the program really helped to open my eyes to university and engineering opportunities. It solidified my choice of engineering as a profession so, when I left school, I did an Associate's

Degree in Civil Engineering.

I recently completed a degree in Civil Engineering and Environment Management at Queensland University of Technology. It's been a long road and it took me a couple of goes to finish it - mainly because my work as an engineer kept getting in the way of studying. My longer - term jobs, in both the public and private sectors, included working with an Indigenous construction company, a cadetship with the Queensland Department of Main Roads and the position of full-time project engineer for a company that built pipelines to carry coal seam gas.

While studying full-time at QUT this year, I started a small pipeline construction company with a friend and it has been quite successful so far. In fact it's been so successful, that from now on, I am going to be devoting my working life full-time to my company MOEC Pty Ltd, which is one of the first Indigenous civil/pipeline construction contractors in Australia.

**James Curran**

## Jemila Darr – Class of 2011



I am currently completing a Bachelor of Environmental Engineering at Griffith University, and hopefully, by the time you read this, will have graduated in December 2016.

My family originate from McKay in North Queensland and I participated in the Indigenous Australian Engineering Summer School (IAESS) in 2011. This inspired me to pursue my goal of becoming an Environmental Engineer.

With the support and guidance of Engineering Aid Australia, I was able to advance my professional career by gaining industry experience with various

companies associated with this not- for- profit organisation, including Parsons Brinckerhoff, Energy Developments, Arrow Energy, Arup and GHD.

Last year, in order to inspire and empower others to pursue their careers and achieve their aspirations, I featured as a speaker at the Black Bold and Beautiful International Women's Day Luncheon in Brisbane, where I networked with Indigenous women and young people in various industries.

In addition, I completed my Final Year thesis with Arup creating a "Disaster Waste Management Preparedness Guideline for Vanuatu" in response to Cyclone Pam. I also accepted a Graduate Offer in their Contamination, Remediation and Assessment Team (my preferred area) from GHD.

**Jemila Darr**

# Twenty Years of the Indigenous Australian

Sadly, our archives for the earlier years are quite sketchy and we don't have a group photograph for every class that graduated from the Summer Schools. We have selected a few of those we have and you can see the rest on our website - a good opportunity to see just how much the Summer School students have changed over the years.



Class of 2004 - Newcastle



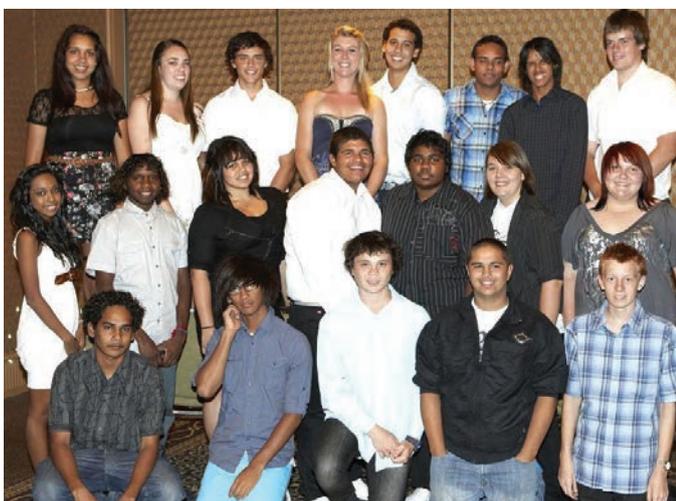
Class of 2011 - Sydney



Class of 2007 - Sydney



Class of 2013 - Sydney



Class of 2011 - Perth



Class of 2013 - Perth

# in Engineering Summer School in Pictures



# *Twenty Years of the Indigenous Australian*



# in Engineering Summer School in Pictures



# Summer Schools Program Comes Full Circle as Ben Lange Joins EAA Board



*Ben Lange BE Electrical Engineering, UNSW*

When as a young and enthusiastic teenager I travelled from the Northern Beaches of Cairns in 1999 to attend a week- long Indigenous Australia Engineering Summer School (IAESS) in Sydney, little did I realise that I was taking the first steps in a journey that was to have a profound effect on my life and future.

I found the Summer School - which was organised and funded by Engineering

Aid Australia and held at the University of NSW – to be a highly informative, enjoyable and eye-opening experience. It gave me the drive and confidence to do well in my Higher School Certificate and to set the goal of returning to Sydney to study electrical engineering.

It took me five years to achieve that goal and in 2004, I graduated from the University of NSW as an Electrical Engineer - the first Indigenous Engineering Student to do so at that institution.

I currently hold the position of Incident Response Manager with the Ausgrid System Control Team and when, in 2014, I accepted a seat on the Board of EAA alongside CEO of Arcadis Australia Pacific and EAA Board Chairman, Greg Steele, John Carter, Jeff McMullen, Annabel Killen, Larissa Andrews, Peter Berry, John McKillop, Catherine Pooley and Anne Vans - Colina, I felt that I had come full circle.

I regard the EAA program as an awesome opportunity for Indigenous youth to witness and find out more about what options are available to them at university in terms of engineering and the program only gets better every year. I'd love to see more Indigenous students forge careers in the field of engineering, with the ultimate objective of being able to take control of infrastructure works that are taking place in our communities.

As an alumnus, I believe that I can best contribute to the EAA program by mentoring the Indigenous students that are now coming through it. My intention is to play a role in fostering communications between IAESS graduates and the EAA Board.

## Message from our Patron

*The 40 young students who have attended the 2017 Summer Schools at Sydney and Curtin University in Perth, should recognise that this could be one of the most important and defining weeks of their lives. They have been exposed to many facets of engineering and I hope that the events of the week will help them to recognise the very real need for them to extend their studies beyond Year 12 and that they are inspired to follow in the footsteps of the over 500 students who have walked this path before them, aided and supported by EAA.*



*Education is the cornerstone of the foundation of any future career, as well as your ability to continue to contribute to your communities. – **The Hon R.J.L. Hawke AC***

## Message From Chairman of EAA Board

*Research has shown that Indigenous communities are still under represented in the engineering profession, but there is clear evidence that the EAA program is slowly making a difference. Although we see doors opening in the industry for Indigenous graduate engineers, we believe that it is essential that EAA continues to provide the necessary pathways for young Indigenous people to achieve their potential" - **Greg Steele***



## Members of the EAA Board



**Front Row:** Annabel Castledine, John McKillop, Larissa Andrews, Anne Vans-Colina, Greg Steel (Chairman), Peter Berry, Catherine Pooley.

**Back Row:** Jeff McMullen, Ben Lange and John Carter

## The Generous Sponsors who make the IAESS Program Possible

The IAESS program is funded with generous donations from the Baxter Charitable Foundation; the James N Kirby Foundation; Arcadis; Arup; Aurecon; BridgeClimb; Broadspectrum; BG&E; Ernst & Young; Honeywell, ICRA (International Centre for Radio Astronomy Research); John Holland; Lyndsay&Dyanan; Minerals Council of Australia; Minter Ellison Lawyers; Mosman Rotary; Santos; Transport for NSW; Transurban; WSP Parsons Brinckerhoff; Woodside; Veolia; Karlangu Aboriginal Art Centre; and private donors; Anne Vans-Colina, Henry Johnston, Alan and Jenny Smith and Jacqueline Longhurst.