

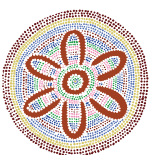


Curtin University

# 3RD INDIGENOUS AUSTRALIAN ENGINEERING SUMMER SCHOOL (IAESS)

8-14 January 2012 in Perth

[engineering.curtin.edu.au](http://engineering.curtin.edu.au)



an initiative of

**EngineeringAid** Australia  
*Building futures*





# ABOUT IAESS 2012

WESTERN AUSTRALIA HAS A RICH ECONOMY THAT IS STRONGLY SUPPORTED BY THE MINERALS AND RESOURCES INDUSTRY. OF THE REGIONS WHICH CONTRIBUTE MOST TO OUR GROWTH IN THIS AREA, MANY HAVE SIGNIFICANT INDIGENOUS POPULATIONS. UNFORTUNATELY, NOT ALL ARE PARTICIPATING EQUITABLY IN THE WEALTH CREATED BY OUR RESOURCES BOOM.

THERE ARE BENEFITS AND OPPORTUNITIES FOR INDIGENOUS PEOPLE TO PARTICIPATE IN THE LOCAL WORKFORCE, BUT THIS IS OFTEN AT A BLUE-COLLAR LEVEL. LEADING FIGURES IN THE ENGINEERING INDUSTRIES HAVE EXPRESSED A STRONG DESIRE TO SEE MORE INDIGENOUS STUDENTS EDUCATED AT A UNIVERSITY LEVEL.

## WHAT IS ENGINEERING?

The work of engineers is all around us. A power supply that enables us to have electricity in our homes, dams and pipelines which supply us with fresh clean water, life-saving medical equipment, robots and aeroplanes, even our mobile phones and gaming consoles are products of engineering. Engineering is the application of maths and science to design, create and improve things to shape and change the world we live in. Without engineering, there would be no improvement to our lifestyles. Engineers solve problems and improve the way things work. They have leadership, lateral thinking and communication skills. Engineering graduates are in high demand, often employed on starting salaries well above the national average.

## INDIGENOUS REPRESENTATION IN ENGINEERING?

Indigenous Australians are underrepresented in the engineering profession. This is unfortunate, because engineering is the only original wealth creating profession. Remote communities and outback Australia are areas most in need of infrastructure development, a process that can only be undertaken ultimately with the contribution of engineering professionals, educated in our universities. Engineers design and advise on drinking water, roads, hospitals, schools, radio, television, communication networks and all the fabric of modern society. Wealth creation through irrigation schemes, electricity generation, mining and agriculture will be undertaken in country areas, preferably with the guidance and participation of those living there. Engineers may be the most valuable resource such communities can have.

## IS ENGINEERING FOR ME?

If you ...

- Want to make a difference to the lives of individuals and society as a whole,
  - are good at maths and science
  - like to tackle a challenging problem
  - enjoy working as part of a team
- then a career in engineering may be just what you're looking for!

## INTERESTED?


If any of the above qualities sound like you, apply to the Curtin Indigenous Australian Engineering Summer School (IAESS) and discover the benefits of the engineering profession. It is open to students entering years 11 and 12 in 2012 and will be held at Curtin University's Bentley campus, Western Australia.

## WHAT IS THE IAESS?

The Indigenous Australian Engineering Summer School (IAESS) is a five day live-in program established by Engineering Aid Australia 15 years ago and Curtin University will now host the IAESS in WA for the third consecutive year. This is a fantastic opportunity for Indigenous students currently in years 10 and 11 who have demonstrated the interest and academic potential to pursue a career in engineering. With the support and recommendation of their teachers, chosen students will be fully financially supported to participate in the IAESS in Perth. They will participate in classes, labs and field trips to give them a hands-on experience of engineering and related sciences. As well as this, they will have the chance to form a social network to encourage each other, and others, to follow a career in engineering.

## WHAT WILL IT BE LIKE?

The objective of IAESS is to provide a challenging environment for Indigenous students to discover the benefits of the engineering profession, to provide a forum for students to meet engineering role models and to gain insights into the excitement and opportunities engineering can provide to our communities. During IAESS you will meet engineers, participate in design work and other hands-on activities that will test your newly acquired engineering skills, visit engineering projects and gain an understanding of the job opportunities that are available within the profession. For the duration of the IAESS, you will receive support from the Centre for Aboriginal Studies, the Faculty of Science and Engineering, and engineering role models.



"I'd like to invite you to attend the Summer School. Past students have told me how it was a life changing experience for them. It will show you the exciting and varied career opportunities that are available to young men and women in the engineering profession. Engineering has an exciting future as Australia increasingly develops and applies its technological skills to improving the quality of life for all its people. You will learn about the various fields of engineering, visit engineering projects and meet with indigenous role models and young people presently studying engineering. I'm sure you will enjoy the experience and return home with a new and expanded vision of your future."

THE HON BOB HAWKE AC,  
IAESS PATRON



## COST?

There is no fee for participating in the 2012 IAESS. Travel to and from Perth, as well as meals and accommodation for the duration of the program, are provided without charge to all participants. Your only financial need will be a bit of spending money while travelling, and during your stay in Perth.

## WHAT WILL PARTICIPANTS DO?

The summer school normally involves hands on and challenging group work with one of Curtin's engineering schools each morning, with each afternoon spent on a site visit to engineering companies and major projects. The summer school promotes teamwork and communication skills, with several competitions to motivate and inspire both individual and group involvement. At the graduation dinner, you will have the opportunity to mix with numerous engineers and university staff. You will stay in campus accommodation within Curtin's grounds and get a taste of university life and a better understanding of engineering as a university course and career. All participants in the IAESS will be covered by insurance during the summer school. Curtin has public liability cover and a risk management office specialising in all insurance matters.

## THE IAESS PATHWAY INTO ENGINEERING

Participants of the Curtin IAESS automatically become eligible for assistance in gaining entry into Curtin's Bachelor of Engineering degree program through a number of pre-engineering pathways, should they not meet the requirements for direct entry upon completing year 12. Curtin has dedicated staff to help IAESS Alumni determine which of these pathways is the most suitable, depending on year 12 subjects taken and results.

## THE FACULTY OF SCIENCE AND ENGINEERING AT CURTIN

Curtin's Faculty of Science and Engineering has an international reputation for the quality of its graduates and research achievements. It is at the forefront of technological and scientific innovation that encompasses the areas of Engineering, Science, Computing, Mathematics, Agriculture, Environmental Sciences, Mining and Resources.

## THE CENTRE FOR ABORIGINAL STUDIES AT CURTIN

The Centre for Aboriginal Studies (CAS) is an Aboriginal-managed academic school established at Curtin University in Western Australia in 1983.

CAS promotes the participation of Aboriginal and Torres Strait Islander people in tertiary studies, and aims to create new ways of learning and working that are culturally appropriate, for the benefit all people. Courses run through CAS focus on the skills and abilities needed when working within both the Indigenous and non-Indigenous community. The Centre is committed to increasing the participation of Aboriginal and Islander students in higher education. CAS supports over 450 Aboriginal and Islander students who are enrolled in various courses at Curtin, the highest number of Indigenous students of any university in Australia.

## ENGINEERING AID AUSTRALIA

Engineering Aid Australia is a philanthropic organisation that provides engineers and related services to assist disadvantaged communities both in Australia and overseas. The Indigenous Australian Engineering Summer School is their principal program on behalf of Indigenous Young Australians.

## APPLICATIONS

Applicants will be selected for the IAESS on the basis of their interest in engineering related subjects (such as mathematics and science) and personal initiative and outlook, as expressed in the attached application form, and supported by those who know them. If you wish to apply for the Indigenous Australian Engineering Summer School please complete the application form and submit documents as indicated on the application form. Applications close on **Thursday 27th October, 2011**. Incomplete applications can not be accepted.

# IAESS 2012

“ One of the greatest pleasures I have had in public life has been in meeting the students attending The Indigenous Australian Engineering Summer School annually. Without exception they have been young men and women of intelligence, capacity and determination and I always felt certain that the wisdom and leadership skills they gained from attending such a practical and well designed program of engineering activities would stand them in good stead.

I therefore ask that Indigenous communities across the country support the Summer School by nominating deserving candidates, and I strongly encourage the business, industry and university sectors to contribute generously in providing the essential financial, accommodation and mentoring support.

I look forward to seeing the Summer School go from strength to strength as it surely deserves to do. ”

**MAJOR GENERAL MICHAEL JEFFERY,  
AC, AO(MIL), CVO, MC (RETD)  
VICE PATRON**



Ziana Poelina-Johnson (Broome, WA) receiving the EAA Leadership Award from EAA Vice Patron and former Governor General Major General Michael Jeffery, with the Dean of Engineering, Professor Moses Tade, at the 2011 IAESS Graduation Dinner.

## WHAT PAST CURTIN IAESS PARTICIPANTS HAVE SAID...

“ It was an invaluable experience and I will never forget the activities I did, the friends I made and the amazing amount of opportunities that it has opened up for me”

“When I first came to IAESS I had a very limited understanding of engineering but the IAESS has opened my eyes to a new career path that I am highly considering undertaking”

The Curtin IAESS experience was more than I could have asked for. I learnt a lot of things that I would have never discovered in school. It was the best Summer School I have been to!!

“It was the best experience I have had in engineering. I had discussions with important people I never would have met without attending IAESS and it has opened my eyes to different types of engineering I never thought about participating in before”

“The summer school has motivated me to become an engineer as soon as tomorrow!”

**Curtin**novation

For further information:

Information in this publication is correct at the time of printing and is valid for 2011, but may be subject to change. In particular, the University reserves the right to change the content and/or method of assessment, to change or alter tuition fees of any unit of study, to withdraw any unit of study or program which it offers, to impose limitations or enrolment in any unit or program, and/or to vary arrangements for any program.

**For more information about IAESS and the application process please contact:**

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