WORKSHOP SESSIONS
The on-campus workshop sessions provided an introduction to various Engineering disciplines and principles.

FLOATING PLATFORM ACTIVITY
Facilitated by Engineers Without Borders (EWB), this activity was a hands-on workshop that allowed students to apply engineering and science principles about materials, buoyancy, surface tension, weight distribution, and other related concepts, to an issue faced by populations in developing countries.

REAL LIFE FLOATING PLATFORM ACTIVITY
As a real-life follow up to the EWB activity, the students were given advice on how to construct rafts using ropes, planks and drums. They then built rafts in teams in preparation for a major paddle challenge. This activity was a great team building activity aimed at encouraging a group to work together more effectively, and to apply some new learnings from the previous activity for a human-scale floating platform.
HIGHLIGHTS FROM THE IAES WEEK
CONT.

VISIT TO MUNSTER TAFE—WORKING OIL AND GAS PROCESS PLANT
ORGANISED BY HONEYWELL

The PPE induction was a meaningful reminder of the way of life of on-site engineers. The remote operator simulation involved the students actually working on the systems that would be used on offshore rigs. The control room and plant visit were not hands-on activities, but were an opportunity to see what actually happens on such plants.

IDEA GENERATION & ENTREPRENEURSHIP IN ENGINEERING — INDIGENOUS HEALTH FOCUS

This session was facilitated by Google rep Mark McDonald, Biomedical Engineering Entrepreneurship Researchers Matthew Oldakowski and Iritan Oldakowska, Health Start-up Expert Arthur Ong, Houseparent/Medical UWA student Leaha Brown.

Participants were first introduced to a range of health problems more common for Indigenous Australians by Leaha. Following this they were introduced to the concept of ideation and hackathons and guided through the process where they tackled these health problems and came up with their own solutions. After this, they pitched to the group and everyone voted on the best one.

MINE SITE REHABILITATION WITH PROFESSOR KINGSLLEY DIXON, WA SCIENTIST OF THE YEAR

Professor Dixon from the School of Molecular and Life Sciences (MLS) in the Faculty of Science and Engineering at Curtin University took the students on a bush tour to learn about mine site rehabilitation.

EVENING CULTURAL TIME WITH SHAUN NANNUP

Shaun Nannup Director at 'WISDOM in Your Life' facilitated three sessions for the students during the week.

The first was a smoking ceremony on the Sunday night before the Official opening of the IAES, the second was a Relationships and Leadership session and finally Shaun spoke to the students at the Perth Observatory with a session titled 'Dreaming stories of the Sky'.

Former IAES student and 2019 Houseparent Leasha Brown is studying Medicine at UWA. Leasha is pictured here with Jayden Foolmarrie – Counselling and Disability Services, Curtin University.

Shaun Nannup from 'WISDOM in Your Life' arranged Cultural and leadership sessions for the students.
ROCKETS

Facilitated by Angelique Waszewski – STEM Outreach Ambassador/Theoretical Physics student at Curtin.

The students learned about the basics of propulsion and rocket design, then went through a design and build process to build a water powered rocket, and launch it.

ARUP DESIGN WORKSHOP

This was an amazing opportunity, initiated by Kate Buckle from Arup. Arup have provided engineering services work pro-bono to assist a concept of an Aboriginal Healing Centre in Newman.

After an introduction about why this centre needs to be established, Kate and a number of other engineers then set out some of the practical engineering problems that would need to be overcome to make the building a reality. The participants then formed groups, brainstormed solutions and reported back to the group as a whole at the end.

EZRA JACOBS-SMITH

Mr Ezra Jacobs-Smith, IAES 2007 alumnus, engaged the students with the question: “Why should you care about engineering?”

Ezra is a Noongar man using his engineering background to facilitate change in the Wadjemup (Rottnest Island) development. He is a passionate advocate for IAES, engineering generally and his culture. Ezra is the second IAES alumnus to join the EAA Board of Directors.

PERTH QUARRY

Each day during the IAES week the students made a site visit.

The students visited a quarry to see where and how construction materials are sourced.
HIGHLIGHTS FROM THE IAES WEEK

CONT.

OTHER SITE VISITS DURING THE IAES WEEK

NEW WOODSIDE BUILDING IN PERTH

At Woodside's new building in Perth the students were given a tour and were then able to hear from Engineers about their careers.

SOFTWARE ENGINEERING—BUILD A REAL IPHONE APP

Professor David McMeekin and PhD Computer Science student Rudy Streets helped the students to create and build their own app. They learned about user design and the psychology of user experience, too. The end result was an app that works, so they could actually upload it to their phone and use it.

TINY RADIO TELESCOPES

Greg Rowbotham, PhD student at the International Centre for Radio Astronomy Research, facilitated a hands-on, construction and mathematics/physics activity in which the students built and used a small version of a radio telescope to capture information and calculate the temperature of the sun.

SKA PROJECT

Shandip Abeywickrama from Aurecon gave the students a presentation on the SKA, including the technology and human resources needed and how it impacts not just Australia but the whole world. This is a global collaboration that includes two Engineering Aid Australia Partners Aurecon and iCRAR, as well as Curtin University and many other organisations and governments around the world.

SMART CITIES

Mark Henaway, Australia’s first Indigenous Electrical Engineer (Aurecon) gave the students an inspirational talk on Smart Cities.

COMMUNITIES SESSION

Students had an opportunity to hear from practicing Engineers about projects that they have been involved in that have benefited communities and then had time to speak with the Engineers on a one on one to ask questions and share stories.
NETWORKING FUNCTION

At this careers-fair style session Engineers from EAA’s Sponsoring companies answered questions on a one-on-one basis from the students regarding Career opportunities with their companies.

VICE REGAL RECEPTION

Governor Kim Beazley and Ms Susie Annus gave the students a warm welcome at Government House and hosted a delightful Reception for them together with representatives from Engineering Aid Australia’s Partnering Companies and Academics from Curtin University.
GALA DINNER

At the conclusion of the IAES week Engineering Aid Australia celebrated the tenth anniversary of the Indigenous Australian Engineering School being held in WA and hosted by Curtin University.

With an emotional Welcome to Country from Shaun Nannup, inspirational keynote address from Jeff McMullen, speeches from IAES alumni, dance performances from Derek Nannup, and fantastic food and decorations, it was a night to remember. IAES Graduation certificates were awarded with each student also receiving a copy of Bruce Pascoe’s book “Dark Emu”. The Hon Bob Hawke Capacity for Leadership award was presented to Tristan Hunter.

THE GENEROUS SPONSORS WHO MAKE THE IAES PROGRAM POSSIBLE

The IAES program is funded by generous donations from the following Sponsors: Arcadis, Arup, Aurecon, Babcock, Baxter Charitable Foundation, BGE, Corrosion Control Engineering, EY, Google, Honeywell, ICRAR, James N Kirby Foundation, John Holland, Laing O’Rourke, Lyndsay Dyman, Minerals Council of Australia, Minter Ellison Lawyers, Mosman Rotary, My Business Hosting, Norman Disney Young, SMEC, Taylor Thomson Whitting, Transport for NSW, Veolia, Woodside, WSP and private donors including Jenny Smith and Richard and Beth Facer.