



Honeywell Engineering Summer School

2-7 December 2018

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ENGINEERS
AUSTRALIA

Welcome

The Honeywell Engineering Summer School (HESS) is an initiative sponsored by Honeywell, Engineers Australia - Sydney, NSW universities, engineering companies and participating Rotary clubs. HESS is in its twentieth year and the aim of the summer school is to give NSW and ACT high school students a better understanding of what engineering is and how it works in every day life.

HESS 2018 will run from Sunday 2 to Friday 7 December. HESS brings together 100 students from across NSW and ACT who are about to enter their final year of high school (Year 12).

Successful applicants will spend 5 days living at International House (I.H.) at Sydney University.

During HESS, students will attend lectures/ demonstrations at five of the following Universities: New South Wales (UNSW), Sydney (USYD), University of Technology (UTS), Wollongong (UoW) and Macquarie.

Students will meet and interact with professional engineers employed by government, private companies, researchers and academics in a wide range of engineering disciplines. They will gain valuable insight into career opportunities available to men and women in engineering.

Visits to industry will provide a valuable opportunity to gain first hand experience in the role of professional engineers in a wide range of activities, including the management of major projects.

Participants will learn about the role of professional engineers in society and different disciplines within engineering, including:

Aeronautical/Aerospace Engineering: Design, construction and operation of aircraft, aerospace vehicles and propulsion systems.

Biomedical Engineering: Application of engineering methods to find solutions to problems in the area of medicine and other life sciences.

Chemical Engineering: Design, development and management of chemical processes in such industries as petrochemical, plastics, oil refining, food processing, industrial chemicals, water treatment and waste treatment.

Civil Engineering: Design and construction of roads, bridges, building structures, harbour works, water and sewage treatment facilities, coastal protection, and the implementation of construction and management practices.

Environmental Engineering: Assessment of the impact of society's activities on the environment and determination of strategies which safeguard the integrity of the environment.

Electrical Engineering: Design, development and management of systems and devices in the fields of communications, computing and electric power.

Computer Engineering: Application, design and construction of computer-based systems for information processing, communications or control.

Mechanical Engineering: Design, operation and maintenance of machines, manufacturing processes, heating and air conditioning and bulk materials handling.

Mining Engineering: Application of engineering principles to underground and above ground mining including materials handling and treatment.

Mechatronic Engineering: Create products such as robotic lawn mowers and robot floor cleaners. Mechatronic engineers must be familiar with mechanical engineering, computing, electronics.

Program

HESS 2018 will convene at 4pm on the afternoon of Sunday, 2 December 2018. Students are required to make their own travel arrangements to and from Sydney. A coach will run during the afternoon between the Domestic Airport and Central Station.

The group will be picked up each morning by coach and will visit one University and one Engineering site per day.

House Supervisors

A team of house supervisors will look after the participants for the week. The house supervisors are a mix of undergraduate students, Engineers Australia staff, volunteers and agency staff.

Expressions of Interest to Attend:

WEB: www.engineersaustralia.org.au/About-Us/Divisions/Sydney

Enquiries:

Email: Sydney@engineersaustralia.org.au

Accommodation

Participants will be accommodated at International House. I.H. is located at Sydney University and the students will be staying in single locked rooms with common areas.

Rules

There will be a STRICT BAN on drugs, alcohol and smoking from all students participating.

Students' health and safety is EA's priority. It is therefore a requirement that students agree to stay with the group from drop off on Sunday 2 until afternoon pick up on Friday 7 December.

Cost

The cost to attend HESS 2018 will be priced at \$825 (inc. GST). If selected to attend, this amount will need to be paid prior to the commencement of the school. This cost covers all meals, accommodation and transport while attending HESS 2018.

Travel expenses from home to Sydney and return are the responsibility of the student. Country students unable to obtain transportation home on Friday, 2 December 2018 are welcome to stay overnight at I.H. for an additional cost of \$95 per person.

Restrictions

Due to demand: Registrations are limited to 4 Students per school.

Requirements

You need to be studying Advanced Maths (or more) and 2 Units of Science (Physics, Chemistry, Biology) at school. If you are not studying these subjects you will not be permitted to attend the program.

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