ELECTRICAL ENGINEERING SCHOOL

Experience the power, control your future at Curtin University

Supported by the School Pathways Program

10 - 13 April 2017 engineering.curtin.edu.au
ELECTRICAL ENGINEERING SCHOOL

Engineering is not just about building bridges and buildings. If you are curious about climate change and renewable energy or if you have an interest in telecommunication gadgets, circuits or computers and robotics, Curtin’s Electrical Engineering School can give you some answers.

APPLICATION PROCESS

The EES is open to students in Years 11 and 12 in 2017. If you are interested in this opportunity you will be required to submit:

1) a completed application form,
2) your most recent school results and
3) a personal statement to tell us a bit about yourself, your achievements and goals, and what interests you about a career in engineering.

Application forms are available online at www.scieng.curtin.edu.au/about-us/outreach/electrical-engineering-school/

Please note: Participant academic results will need to be emailed to EES Program Manager gabrielle.migliore@curtin.edu.au to complete the application process

Applications to be received by Friday, 31st March 2017

COST

Students successful in the application process are provided with School Pathway Program scholarships to attend, supported by the Department of Education WA and the Federal Department of Defence.

A few places are available for science teachers and/or career advisors to participate on a first come, first served basis. Please contact the Program Manager, for more information on 9266 7884.

CAREER OPPORTUNITIES

One third of all engineers will retire in the next 10 years. There is a global shortage. Electrical, Electronic, Communication and Computer engineers make up more than 80% of all engineers across the world in a wide range of areas including:

- Mining and Resources
- Aviation
- Energy
- Radio Astronomy
- Medicine
- Telecommunications
- Manufacturing
- Entertainment

and many more.

This four day Electrical Engineering School aims to provide students entering Years 11 and 12 with an opportunity to discover the benefits and scope of a career in engineering, with a combination of hands-on engineering lab activities, site visits and guest speakers. The program will take place at Curtin University Bentley campus, Western Australia.

PROGRAM OUTLINE

EES is a hands-on camp exposing students to the different streams within Electrical and Software Engineering. Participants will feel challenged as they learn programming, prototyping, electrical circuits and soldering. Additionally, participants will work with student-engineers to gain an insight into the university life for an engineering student.

Activities during the week will cover the following areas of Electrical Engineering:

Engineering in Radio Astronomy

Discover the advancing field of Cosmology and Radio Astronomy. Meet key scientists and engineers who are involved in designing the world’s most advanced scientific instruments to understand how our Universe came about. Experience the electronics and communication instruments used for this special field of science and engineering. Participants of the EES will be introduced to the most advanced Square Kilometer Array project that is taking place in Western Australia.

Power and Renewable Energy

Students will be learning about electronic component recognition and basic electronics. They will be soldering electronic components, testing the devices they have constructed and modifying them to carry out tasks. By the end of the EES you will understand basic circuit theory and be able to prototype your own simple circuits. As part of the program, participants will experience a Supervisory Control and Data Acquisition (SCADA) application program used in remotely controlling electrical distribution and mining systems across the world.

Robotics

Students will be learning about the use of robotics in Biomedical Engineering & Assistive Technology. Following a hands-on tutorial about robotics research, students will be able to make their own prosthetic hand and program it to music. Participants will experience Arduinos, Raspberry Pie and Lego Mindstorm Robotics.

Have you ever wanted to create your own remote controlled car? Students will be given the project of creating a 4WD car from scratch to master difficult challenges set by the student engineers.

Lunch

Students will be required to bring their own lunch to the Electrical Engineering School. Light refreshments will be available and participants are welcome to purchase from the various food vendors across the Curtin campus.
WHAT PARTICIPANTS HAVE SAID ABOUT THE EES

“Overall it has been a great experience. I enjoyed the hands-on activities more than anything else”

“I thoroughly enjoyed myself, met new people and would have liked it to go on longer. Thank you for a great experience, it will surely influence me in my future decision making”

“Make it a year-long club as well as a summer school!!!”

“It was an awesome experience. I learned a lot of new things, realised what engineering actually is and also made a lot of new friends.”

“Greatly enjoyed meeting and speaking with the staff at Horizon Power during lunch, greatly enjoyed the program.”

“The staff were really generous and here to help. I was really happy with it - so glad I came.”

For further information:

For more information about EES and the application process please contact:

EES Program Manager
Faculty of Science and Engineering
Tel: 08 9266 7884
Email: engineeringoutreach@curtin.edu.au
Visit: engineering.curtin.edu.au/outreach