

The Scientists



Jess Andrewartha

What interested you in science as a child?

I have always been fascinated by the big questions – like what is the world made up of (I was surprised to know that it is tiny little atoms), and how and why things work! I had some great teachers at Ogilvie High School who really got me interested – the extended science program involved chemistry, biology, physics, ecology the list goes on!! At Elizabeth College I studied practically every science and maths subject that was offered (along with a bit of history, english and music to balance things out).

What did you study at university?

When it came time to enrol at uni, I wasn't really sure what to choose. In the end I chose engineering because it takes the fundamentals of maths and science and applies them to solve real world problems. I majored in civil engineering which covers everything from structural engineering (design of buildings, bridges, grandstands, car parks etc) and transportation to hydraulics (water) and geotechnical engineering (stability of the soil). My honours project, which I completed for Hydro Tasmania, investigated a hydro-electric canal and how to restore the original flow carrying capacity. I also got to work for Hydro for a couple of months as part of my degree – the highlight was spending 3 days in the field inspecting dams to make sure they met the safety requirements.

What is your current research about?

I'm currently doing my PhD at the School of Engineering in Hobart investigating ways to make hydro-electricity generation (renewable energy) more efficient. By reducing the friction between the water and the concrete canals that deliver the water from the dams to the power stations, we can deliver more water at a faster rate to the turbines. I get to work both out in the field and in a high-tech laboratory and spend a lot of time investigating how algae flaps around in flowing water!

What are your future aspirations?

There is just so much that I want to do! Engineering is a hugely diverse field and the opportunities are endless. I really enjoy research, particularly in the renewable energy industry, so whatever I do will most likely be in that area. I would also love to travel and work overseas for a couple of years.

What do you love about science?

The best thing about science is that it solves problems. Engineering and science are the reasons why we can turn on a tap and have clean drinking water, hop in a car and drive to school or work, and communicate with the world using mobile phones and the internet as just a few examples. With a degree in science or engineering you can be assured of career with something new and exciting always just around the corner.