

Master of Engineering (Mechatronics)

Development of automated, highspeed salmon de-gilling machine

Details

- Duration: 12 – 18 months
- Scholarship: \$25K includes registration fees for 1 year
- Benefits: Occasional, paid part-time employment and industrial experience
- Location: Nelson
- Participants: University of Canterbury, NZ King Salmon, Trinder Engineers



Project description

New Zealand King Salmon have a well-established track record for farming, processing and exporting premium King Salmon – with export of 6 to 7 thousand tonnes/year reaching 15 countries worldwide. The company is now set to scale up significantly, with an offshore farm planned alongside a new factory and processing facilities. To meet the new levels of production, specialised machinery must be developed which hereto does not exist within New Zealand or the wider international marketplace.

Though there are no blueprints for the design solutions of the special purpose processing machine, it is anticipated that the following technologies may feature in the research, development and evolution:

- Digital camera imaging
- Custom AI powered, image feature recognition, extraction and delineation
- Adaptive mechatronic automation
- Highspeed manipulation of soft tissue structures (salmon)
- High-speed, precision snipping and cutting

The project is highly suited to a Mechatronic Engineering graduate with R&D interests, strong practical skills, proven industrial experience, and a solid academic record (notably in machine automation). A generous scholarship is offered, including university registration fees for one year. Additional remuneration will be available occasionally by way of small, professional engineering tasks, undertaken within the Trinder Engineering design team.

This postgraduate study provides you with the opportunity to gain your ME, great career launch and considerable CV 'currency' whilst working within a large, well-respected engineering firm. There's also the opportunity to live in one of the most desired corners of New Zealand - Nelson. Much of the project duration will be spent at Trinders and NZ King Salmon's facilities, with plenty of scope to work at the University of Canterbury.

New Zealand aquaculture is projected to become a \$3bn industry by 2035 and will require extensive expertise in all forms to achieve this goal. This project is a vital component of New Zealand King Salmon's major business expansion – why not help make it happen!

Michael Robertson

BE(Hons), ME(Mgmt)

Mechanical Design Manager

Email: michael@trinder.co.nz

Mobile: +64 21 143 2738

Dr David Aitchison

BEng(Hons), MEng, PhD, CEng, MIMechE

Research and Innovation Manager

Email: david@trinder.co.nz

Mobile: +64 21 181 6852