

**Kia tika, kia pono, kia aroha** - doing what is right with integrity and empathy

# Centre for Ecological Technology Solutions

Ecological Engineering/ Pūhanga rauropi solves problems for societies and for the environment by designing solutions based on the interdependency of people and their ecosystems. www.celts.org.nz

#### **OUR VISION**

Our implemented design solutions make a measurable and sustained impact in reversing water quality pollution within a generation.

## Research

# Expertise

CELTS focuses on creating design solutions that are holistic, valorise waste resources and are regenerative so align to a circular economy. Most research projects centre around Clean Water Technologies (CWT).

#### **THEMES INCLUDE:**



3D Printing Waste Materials for Novel Wastewater Treatment Media



Fish Passages and Built Barriers



Green Roof and Green Wall Systems



Nutrient Treatment using Waste Seashells



Stormwater Modelling



Storminator™ Technology



Lifecycle Assessment Modelling



**Engineering Education** 





## 2024 Research Members

CELTS was founded by Associate Professor Aisling (Ash) O'Sullivan in 2006 to fill the research gap in Ecological Engineering within Aotearoa New Zealand, CELTS is part of the Department of Civil and **Natural Resources Engineering** / Pūhanga Metarahi me te Rawa Taiao at the University of Canterbury (UC). We collaborate with industry, iwi and councils in designing and implementing our research ventures.





Jakub Maculewicz

**ADJUNCT** RESEARCHER



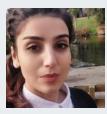
**Dr David Painter** 

RESEARCH **ASSISTANT** 



**Connor Moss** 

#### **PHD** CANDIDATES



Sepideh Ansari



**Honor Columbus** 



Moeen Gholami



Jéssika Souza de Carvalho



Iman Arezi

#### **MASTERS** CANDIDATE



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