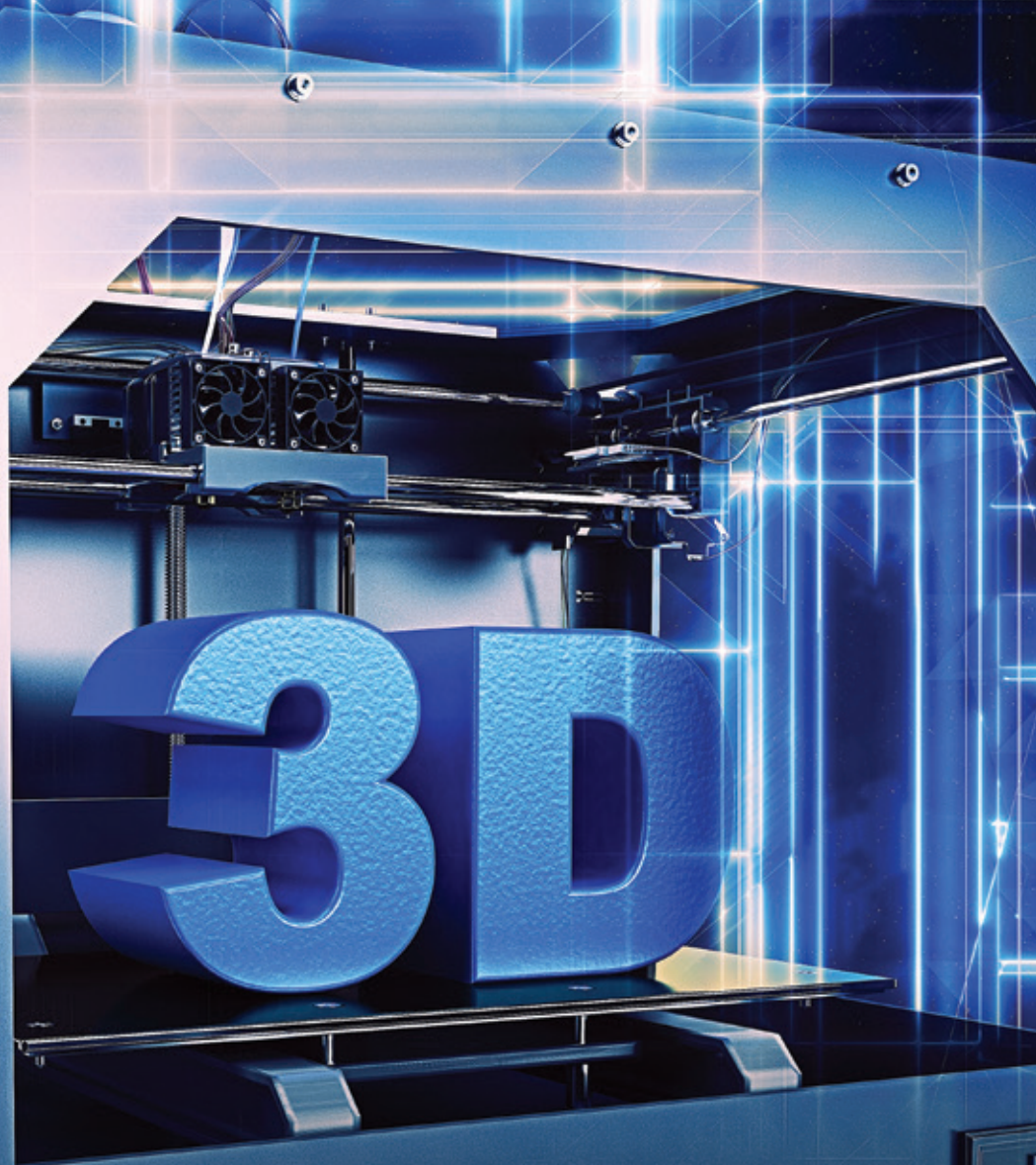




THE UNIVERSITY
of ADELAIDE



The University of Adelaide presents

Tech eChallenge Introduction to 3D Printing

MAKERS  EMPIRE

adelaide.edu.au

seek LIGHT



The Tech eChallenge- Introduction to 3D Printing course is presented as a partnership between the Entrepreneurship, Commercialisation and Innovation centre (ECIC) and Makers Empire.

The Entrepreneurship Innovation and Commercialisation Centre (ECIC)

The ECIC stimulates innovation through its entrepreneurship, commercialisation, and project management research, education, and community engagement activities. These encompass:

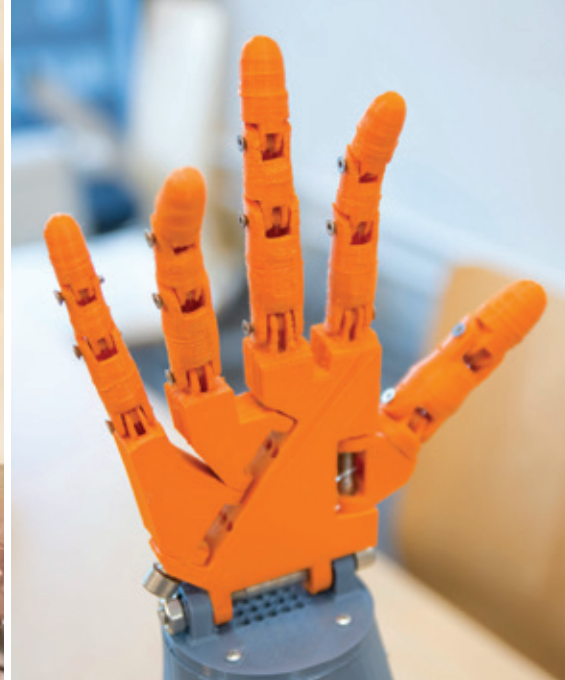
- > Postgraduate coursework programs in innovation and entrepreneurship (including social entrepreneurship) and project management
- > Postgraduate research programs (MPhil and PhD) in the areas of entrepreneurship, innovation and project management.

- > Undergraduate programs in innovation and entrepreneurship
- > ThinkLab Innovation Hub – with Hubs in Adelaide, Singapore and Chalons-en-champagne (France)
- > Industry-focused seminars and workshops
- > Australian eChallenge Program- Australia's premier Venture Accelerator program, run in Australia, France, Italy and Singapore.

The ECIC both promotes and fosters entrepreneurship in Adelaide and internationally.

Makers Empire is a global educational technology company, headquartered in South Australia, and have supported thousands of K-8 educators to successfully integrate 3D design and printing into their schools.

Makers Empire advocates the use of 3D printing and design as an everyday teaching tool for helping students to develop the skills and dispositions they need to thrive as 21st century learners, innovators and leaders. Makers Empire is passionate about empowering young people as critical, creative and design thinkers who are well equipped to identify needs, opportunities and solutions for creating preferred futures.



Background

As a partnership between the ECIC and Makers Empire, the Introduction to 3D Printing course is an opportunity to share expertise and experience and to explore the potential of 3D design and printing as tools to support innovation, creative projects and entrepreneurial ideas.

Audience

This hands-on course is aimed at people with little or no experience with 3D design and printing who are interested in finding out

more. The course is especially for people who are curious about the potential of 3D technology and are wondering how it all works and how their own ideas and projects might benefit from it.

Goals

Participants in this course will:

- > Gain knowledge and understanding about the current and projected applications of 3D printing across diverse fields.
- > Become familiar with the range of 3D printing hardware, software and materials currently available.

- > Work through an entry level design project, from conceptualising an idea through to producing a 3D printed prototype.
- > Identify goals and plans for incorporating 3D design and printing into their personal contexts.

Format

Over a two-day introductory course, participants will engage the following modules:

Day One

Module 1: Introduction

Current and emerging applications of 3D printing:

- > Manufacturing
- > Design
- > Medical
- > Engineering
- > Education
- > Consumers

Identifying personal goals and project ideas

Module 2: 3D Printing

Current and projected 3D printing technology:

- > How do 3D printers work?
- > Different types of 3D printing hardware available
- > 3D printable materials
- > Capabilities and limitations of 3D printing
- > Future projections

Module 3: 3D Design

3D Design Software:

- > Range of design software available
- > Terminology and design concepts
- > Makers Empire 3D: working with entry level design software

Module 4: First Project Printing

All participants will take home their first 3D printed design:

- > Tips for successfully printing projects
- > Safe operating procedures
- > 3D printers in action

Day Two

Module 5: Planning a Mini Design Project

Participants will create individual 'mini' project plans:

- > Identifying needs and opportunities
- > Visualising and generating ideas
- > Planning and developing 3D design solutions

- > Evaluating process and products
- > Collaboration and project management

Module 6: 3D Design Software Options

More about 3D design software:

- > Introduction to Tinkercad
- > Introduction to Inventor
- > Tips for selecting 3D design software

Module 7: Project design and printing

Hands-on session:

- > Support with 3D design
- > Designing and printing a prototype for mini design project

Module 8: 3D Printing at the University of Adelaide

3D printing tour:

- > How are 3D printers being used at the University of Adelaide?
- > Where are they being used and by whom?
- > Current and future use of 3D printers at the university.

For further enquiries

Zrinka Tokic — Australian eChallenge and ThinkLab
International Manager
Entrepreneurship, Commercialisation and Innovation Centre
The University of Adelaide
SA 5005 Australia

Telephone: +61 8 8313 7131

Email: echallenge@adelaide.edu.au

 www.adelaide.edu.au/echallenge

 facebook.com/uniofadelaide

 twitter.com/uniofadelaide

 youtube.com/universityofadelaide

DISCLAIMER: The information in this publication is current as at the date of printing and is subject to change. You can find updated information on our website at adelaide.edu.au. With the aim of continual improvement the University of Adelaide is committed to regular reviews of the degrees, diplomas, certificates and courses on offer. As a result the specific programs and courses available will change from time to time. Please refer to adelaide.edu.au for the most up to date information or contact us on 1800 061 459. The University of Adelaide assumes no responsibility for the accuracy of information provided by third parties.

CRICOS 00123M © The University of Adelaide. Published September 2017