Design Thinking

Conference Program

Friday 20 & Saturday 21 June 2014
Swinburne University of Technology
Advanced Manufacturing & Design Centre (AMDC)
DID YOU KNOW THAT FOR ONLY $1 PER DAY - ALL OF YOUR STUDENT OH&S TRAINING Needs – ARE TOTALLY COVERED?

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WELCOME

DATTA Vic welcomes you to our Annual Design Thinking Conference and to Swinburne University of Technology.

Design Thinking is an exciting opportunity for delegates to explore best practice in new technologies, new approaches to teaching and learning and to prepare for the New Technologies Curriculum through a range of practical and seminar style workshops.

This conference takes centre stage in the brand new Advanced Manufacturing & Design Centre (AMDC) at Swinburne University’s Hawthorn Campus.

CONFERENCE SCHEDULE FRIDAY AND SATURDAY

8:00am - 9:00am  Registration, trade exhibition, tea and coffee
9:00am - 9:25am  Welcome from DATTA Vic President
9:30am - 10:30am  Keynote
10:30am - 11:00am  Morning tea and trade exhibition
11:00am - 1:00pm  Workshops/presentations
1:00pm - 2:00pm  Lunch and trade exhibitions
2:00pm - 4:00pm  Workshops
4:00pm  Close
# Workshop Overview

**Friday 20 June 2014**

<table>
<thead>
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<th>Time</th>
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<td>Morning tea and trade exhibitions</td>
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## Workshops and Presentations - session 1

<table>
<thead>
<tr>
<th>Workshop 1a</th>
<th>Photoshop and CAD</th>
<th>Jarrod Carter</th>
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<tbody>
<tr>
<td>11:00am - 12:00pm</td>
<td>Room: AMDC 601</td>
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<tr>
<td>Workshop 1b</td>
<td>Innovation and creativity</td>
<td>Soullis Tavrou</td>
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<tr>
<td>Workshop 2a</td>
<td>Room: AGSE 203</td>
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<tr>
<td>Workshop 2b</td>
<td>Room: AGSE 204</td>
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<tr>
<td>Workshop 5</td>
<td>Room: to be advised</td>
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**Workshop 6**  
11:00am - 1:00pm  
Room: AMDC 602  
Creative book builder  
Suzanne Arnott  

**Workshop 7**  
11:00am - 1:00pm  
Room: AGSE 213  
Product drawing and rendering  
Adem Foster  

**Workshop 8**  
11:00am - 1:00pm  
Room: AGSE 104  
Make it Modern - NGV  
Ingrid Wood & Grace Di Muzio  

**Workshop 9**  
11:00am - 1:00pm  
Room: AMDC 603  
Folio website construction  
Wayne Young  

**Workshop 10**  
11:00am - 1:00pm  
Room: AMDC 207  
Vliseofix/Bondaweb beyond appliqué  
Larissa Murdock  

## Workshops and Presentations - session 2

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<thead>
<tr>
<th>Workshop 11</th>
<th>3D printing</th>
<th>Soullis Tavrou</th>
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<tr>
<td>2:00pm - 4:00pm</td>
<td>Room: ATC 601a</td>
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<tr>
<td>Workshop 12</td>
<td>Design in Sketch Up</td>
<td>Luke Dicker</td>
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<td>2:00pm - 4:00pm</td>
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<td>Workshop 13</td>
<td>Organza appliqué</td>
<td>Cathy Sofarnos</td>
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<td>2:00pm - 4:00pm</td>
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<tr>
<td>Workshop 14</td>
<td>Build a model solar boat</td>
<td>Wayne Young</td>
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<tr>
<td>Workshop 15</td>
<td>Construct 3x3x3 LED Cube</td>
<td>Pat McMahon</td>
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<td>2:00pm - 4:00pm</td>
<td>Room: TBA</td>
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<tr>
<td>Workshop 16</td>
<td>Questacon's design process</td>
<td>Anna Paull</td>
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<tr>
<td>2:00pm - 4:00pm</td>
<td>Room: AGSE 202</td>
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<td>Workshop 17</td>
<td>Manipulating textiles</td>
<td>Patricia Hynes</td>
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<td>2:00pm - 4:00pm</td>
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<td>Workshop 18</td>
<td>Eco yarn, plarn and tarn</td>
<td>Suzanne Arnott</td>
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<td>Workshop 20</td>
<td>Mobile phone stand</td>
<td>Paul Escreet</td>
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<td>2:00pm - 4:00pm</td>
<td>Room: TB Workshop area 2</td>
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1:00pm - 2:00pm  
Lunch and trade exhibition  

2:00pm - 4:00pm  
Workshops and presentations - session 2  

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*Workshop 1a: Photoshop and CAD*  
*Workshop 1b: Innovation and creativity*  
*Workshop 2a: D&T leads to a design profession*  
*Workshop 2b: Design-led innovation cultures*  
*Workshop 3: VCE systems engineering*  
*Workshop 4: VCE PD&T*  
*Workshop 5: Build an infra-red Picaxe14M2 microcontroller*  
*Workshop 6: Creative book builder*  
*Workshop 7: Product drawing and rendering*  
*Workshop 8: Make it Modern - NGV*  
*Workshop 9: Folio website construction*  
*Workshop 10: Vliseofix/Bondaweb beyond appliqué*  
*Workshop 11: 3D printing*  
*Workshop 12: Design in Sketch Up*  
*Workshop 13: Organza appliqué*  
*Workshop 14: Build a model solar boat*  
*Workshop 15: Construct 3x3x3 LED Cube*  
*Workshop 16: Questacon's design process*  
*Workshop 17: Manipulating textiles*  
*Workshop 18: Eco yarn, plarn and tarn*  
*Workshop 20: Mobile phone stand*
# Workshop Overview
## Saturday 21 June 2014

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<td>Jacinta O’Leary</td>
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Keynote Address

Friday 20 June 2014
Tim Collins

Tim Collins completed his studies at RMIT in 2001. His work, spanning furniture to product and industrial design, has allowed him to consider new possibilities in experimental design. He enjoys designing and making objects at completely different scales from jewellery, caravans and everything in between.

A common thread throughout his work is a focus on morphing familiar objects into exciting and practical design innovations. A highlight of his career was designing and project managing the torch and cauldron for the 2006 Deaflympic Games. Another project of note was designing and project managing a giant soccer ball for the 2010 World Cup, which doubled as a mini apartment where one lucky winner lived for the duration of the cup.

Website: www.timcollinsdesign.com
LinkedIn: au.linkedin.com/pub/tim-collins/12/b60/243

Saturday 21 June 2014
Andrew Douch

Andrew Douch is a teacher with 22 years classroom experience. He has held leading teacher positions including Head of Science and Director of ICT Innovations. He has received numerous awards for his work with emerging technologies in education, including: The Victorian Education Excellence Award (for Curriculum Innovation), an Australian Government Quality Schooling Award, and the Microsoft Worldwide Innovative Teacher of the Year Award.

Now a full-time education consultant and keynote presenter, his presentations on 21st century learning, educational change, and transformative use of technology have made Andrew a highly sought-after conference presenter. He inspires teachers to think differently about their role in the classroom and to be more innovative in their approach to teaching. He loves working with educators, sharing simple ideas and readily-available technologies that make it easier for them to inspire and prepare students for their future.

Website: www.andrewdouch.com.au
Twitter: @andrewdouch
LinkedIn: linkedin.com/in/andrewdouch
At BERNINA Australia, our passion is simple....

we want everyone to experience pure sewing pleasure when they sew with one of our exceptional sewing machines, embroidery machines or overlockers. And why wouldn’t they?

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So You Think You Can Design

Make sure you check out the final of our state design competition, So You Think You Can Design. The competitors have been selected from their schools after competing in day long design event earlier this year.

During the conference the students will work in pairs to create mood boards, sketches, CAD models and prototypes. The students will be competing for the grand prize of 2 iPad minis.

The students will also be looking for willing judges during your workshop breaks so head on over and cast your vote!

**SYTYCD Challenge Program**

**Friday 20 June 2014**
- 9.00 - 10.20 - Mood Boards
- 10.20 - 11.00 - Judging (Mood Boards)
- 11.00 - 1.00 - Concept Sketching
- 1.00 - 2.00 - Judging (Concept Sketching)
- 2.00 - 4.00 - Computer Aided Design

**Saturday 21 June 2014**
- 9.00 - 10.20 - Prototyping Start
- 10.20-11.00 - Judging (Computer Aided Design)
- 11.00 - 1.00 - Prototyping Continued
- 1.00 - 1.30 - Judging (Prototyping)
- 1.30 - Prize Giving
THE SAFE AND EASY WAY TO TEACH METALWORK.

SUCCESSFULLY USED BY THE TEACHING PROFESSION IN SCHOOLS, COLLEGES AND REHABILITATION CENTRES WORLDWIDE.

- **SAFE** – no heating of the metal or electricity needed.
- **COST EFFECTIVE** – spend less on gas or forging fuel.
- **UNIFORMITY** – results easier and faster to repeat when the steel is not heated.
- **RIVETING** – some projects can be made with no welding when using the riveting feature.
- **WIDELY USED** – by over 1400 Australian schools/colleges.

*metalcraft* tools from Britain are a top quality range of hand powered tools for cold forming of steel. Students of all ages can now work with metal more safely and produce projects of professional quality.

The resulting steelwork can be decorative or structural and is easy to combine with other materials for design and technology tasks. Projects in materials like wood, ceramics or textiles can be enhanced by adding some steel to them.

Schools have used the gear in other ways to beautify school grounds with tree guards, signs and murals, to make props for theatrical performances or to produce marketable products for enterprise assignments.

WITH THESE TOOLS YOU CAN

- Cut steel accurately to length
- Bend and repeat angles
- Twist flat and square bar
- Form decorative scrolls
- Roll circles and curves almost any size
- Punch holes and Rivet projects together without welding

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www.chevingtonmetaltools.com

Schools Representative
Greg Cowie
Mobile 0419 388 463
Phone 03 5435 3902
Fax 03 5435 3405
Email: chev.tools@bigpond.com
Program Overview
Friday 20 June 2014

Workshop 1a
11:00am - 12:00pm
Room: AMDC 601

Audience VCE/VET/VCAL, All

Photoshop and CAD: How to effectively produce presentation drawings

This tutorial will cover a basic introduction on how to successfully import CAD images to Photoshop to create industry quality folios. This tutorial is focused on VCE product design and technology teachers who would like basic computer skills in folio production.

Jarrod Carter is a design and technology teacher at Mercy Regional College in Camperdown. His background is in industrial design and he has worked in industry for over ten years including six years for Cochlear (creators of the first bionic ear).

Workshop 1b
12:00pm - 1:00pm
Room: AGSE 202

Audience Secondary, WMP and Systems

Innovation and Creativity

Dr Blair Kuys will provide an insight into ways to be more creative and will explain the importance of innovation in Australia’s design and manufacturing industries.

Dr Blair Kuys is Department Chair (Head) of Interior Architecture and Industrial Design within the Faculty of Health, Arts and Design at Swinburne University of Technology. He is an active researcher and has been instrumental in working alongside scientists, manufacturers and engineers to promote the benefits of industrial design for new product developments.

Workshop 2a
11:00am - 12:00pm
Room: AGSE 203

Audience Secondary, WMP and Systems

How design and technology can lead to a design profession

This presentation focuses on the career opportunities design and technology offers to high school students. It shows how students who chose the subject because they would like to be creative can use it as a pre-cursor to be creative throughout their professional career.

Soullis Tavrou is the course coordinator of the product design engineering course at Swinburne University. She teaches of product design, computer aided design and design for manufacture.

Workshop 2b
12:00pm - 1:00pm
Room: AGSE 204

Audience Secondary, WMP and Systems

Cultures for design-led innovation

The workshop will be delivered in two parts: Firstly, there is a presentation of the Swinburne Design Factory (SDF) model where the physical space and culture supports design-led innovation. The second part will be a hands-on workshop activity, exemplifying SDF’s learning-by-doing approach.

Carl Turner’s desire for exploration was sparked as a boy by the epic voyages of Sinbad the sailor. Today, he helps people sail the mysterious seas of design and innovation projects. He weaves industrial design, engineering, business and sustainability together in professional and academic contexts. His interests in design and innovation include: strategies for user-led and tech-led innovation, conceptual thinking for creating understanding and knowledge, and integration of physical space and language.
Workshop 3
11:00am - 1:00pm
Room: AGSE 210

Audience VCE, Systems

VCE Systems Engineering

This workshop will cover the VCE Systems Engineering exam requirements. It will provide details of material that is potentially assessed and also address common mistakes and misunderstandings of student responses to exam questions.

Bruce Eager has been both an exam assessor and reviewer for the VCAA for several decades. In recent years, as the state reviewer he has run workshops and implementation sessions for both the VCAA and DATTA Vic. He was the principal writer of the revised Systems Engineering Study Design (2013-2017).

Workshop 4
11:00am - 1:00pm
Room: AGSE 211

Audience VCE, PD&T

VCE Product Design and Technology

This session will focus on the school assessed task: stages 1 and 2 of the product design process that should be completed at this stage; student examples demonstrating different assessment criteria; related exam questions that teachers can be reinforcing throughout the SAT; and will include stages 3 and 4 of the product design process if time permits.

Jacinta O'Leary has been a board member of DATTA Vic since 2007. She has been teaching VCE product design and technology at the Distance Education Centre Victoria for many years. Jacinta was an active member of the review panel for VCE design and technology in 2010. She co-authored the textbook VCE Product Design and Technology Units 1-4 and the associated workbooks.

Workshop 5
11:00am - 1:00pm
Room: TB Workshop Area 1

Audience Secondary, Systems

Build an infrared Picaxe14M2 microcontroller run from a universal remote supplied

Participants will build Pat's Infrared Picaxe14M2 Microcontroller and learn how to program and run it by a Universal remote. Participants can attach it to run their 3x3x3 LED Cube, or use it to run their own application of their choice later.

Pat McMahon has run workshops for over 450 DATTA Vic participants over the last nine years. He has received five Australian, State and Territory, Regional Innovative Teacher and various Teacher of the Year Awards.

Workshop 6
11:00am - 1:00pm
Room: AMDC 602

Audience All, General

Creative book builder

Use this amazing app to create ‘texts’ and handbooks for your students. Participants will learn techniques to complete exciting and engaging learning materials, and also how to share these with students who use iPads.

Suzanne Arnott has been a teacher of technology subject for over 20 years in textiles and digital technologies. She is passionate about her classes, as well as embracing new technologies to motivate and engage students.
Workshop 7
11:00am - 1:00pm
Room: AGSE 213

Audience Secondary/VCE/VET/VCAL, Systems

Product drawing and rendering

Participants will be guided through fundamentals of freehand wire-frame pencil drawing, refinement processes, shadow plotting and rendering with mixed media.

Adem Foster is head of design and technology at Trinity Grammar School in Kew. He teaches design and technology from year 7 -12.

Workshop 8
11:00am - 1:00pm
Room: AGSE 104

Audience Secondary, WMP

Make it Modern - Collaborative Design at the NGV

This workshop presentation explores the design elements, new materials and production techniques that characterised the modern look of Australian furniture of the 1950s and 1960s. Inspired by the Mid-Century Modern: Australian Furniture Design exhibition at the National Gallery of Victoria, teachers will work and design within a team. In response to a design brief, they will create a large scale furniture maquette. Session includes a brief introduction to the exhibition followed by workshop.

Grace DiMuzio and Ingrid Wood are NGV educators.

Workshop 9
11:00am - 1:00pm
Room: AMDC 603

Audience Secondary, All

Quick and easy website construction for folios

With no experience in making websites, by the end of this workshop you will have completed a fully functional and professional website for your classes and be able to teach your students to make websites to document their production process.

Wayne Young has been a member the Victorian and Australian International Model Solar Vehicle Committees for over a decade and has conducted hands on workshops with students all over the state. He currently teaches technology and science at Billanook College in Melbourne.

Workshop 10
11:00am - 1:00pm
Room: AMDC 207

Audience Secondary/VCE/VCAL, Textiles

Vliseofix/Bondaweb beyond appliqué

Explore the limitations of Vliseofix/Bondaweb beyond the traditional use in appliqué. Push the boundaries of Vliseofix/Bondaweb by adding paint, texture, paper and thread. This practical workshop will result is several usable samples, skills and ideas on how this can be applied in the classroom. Open new avenues for students to develop beyond the norm.

Larissa Murdock has been teaching textiles for over 17 years. During her career she has participated in several group and solo exhibitions, most recently in Bahrain. Last year she won the Recycled Section of the Australian Wool Fashion Awards and presented at the Home Economics Association Conference.
**Workshop 11**
2:00pm - 4:00pm  
Room: ATC 601a  

**Audience Secondary/VCE/VCAL/VET, WMP and Systems**

**3D Printing**

Participants will be introduced to SolidWorks computer program to create a product and then guided through the process of making a three dimensional print at Swinburne University facilities.

**Soullis Tavrou** is the course coordinator of the product design engineering course at Swinburne University. Her studies include a PhD on ultrasonic testing of structural adhesive bonds. She teaches in the areas of product design, computer aided design and design for manufacture.

**Workshop 12**
2:00pm - 4:00pm  
Room: AMDC 604  

**Audience Secondary/VCE/VCAL, Systems**

**Design in Sketch Up**

Choose this workshop to learn how SketchUp improves students’ designs and increases their understanding of classroom projects from years 7 to 12. I will use examples from woodwork and metalwork but the skills apply to many other areas.

**Luke Dicker** is a design technology, metal and wood teacher for years 7-12 from Marist-Sion Warragul. He focuses on improving and designing better tool racks, jigs and machines for the classroom, with an emphasis on safety and better results.

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**Workshop 13**
2:00pm - 4:00pm  
Room: AGSE 104  

**Audience 10/11/VCE, Textiles**

**Organza Appliqué**

Learn the art of appliqué using an array of beautiful organza and satin fabrics. The method is a combination of techniques including machine embroidery and sequence embellishment. This technique is ideal for senior school textile students who are looking for new and exciting ways of embellishing a garment or wish to create their own unique piece of fabric.

**Cathy Sofarnos** is a sales and training consultant for Bernina Australia. This conference gives her the opportunity to inform teachers of the latest product information and sewing techniques that can very easily be brought into the classroom environment.

**Workshop 14**
2:00pm - 4:00pm  
Room: To be advised  

**Audience Primary/Secondary, WMP**

**Building a model solar boat for competition**

This workshop enables teachers to help their students to construct or improve model solar powered boats. These boats could be used at school and/or entered into the term 4 state competition at Scienceworks. Construction involves the use of available materials and the boats are simple and cheap to construct. Students learn about friction, propeller choice, aerodynamics, simple circuits and solar electricity. You will work in groups to construct a model solar boat in the session.

**Wayne Young**
Workshop 15
2:00pm - 4:00pm
Room: To be advised

Audience Secondary, Systems

Construct and solder a 3x3x3 LED Cube

Construct and solder a 3x3x3 LED Cube only and mount it on a 3 ply base, ready to be run by a Picaxe 14M2 Microcontroller later.

Pat McMahon

Workshop 17
2:00pm - 4:00pm
Room: AMDC 207

Audience VCE/VCAL/VET, Textiles

Manipulating textiles

This workshop covers the wonderful world of manipulating textiles. These techniques can be used at all levels. First looking at the fibre and fabrics that lend themselves to manipulation, the participants learn that some fibres and fabrics are better than others. Several manipulations will be completed in the two hours.

Patricia Hynes has been teaching design and technology since the early 70s. She was awarded the National Design and Technology Leadership Award in 2006. She loves the creative capacity of different fabrics.

Workshop 16
2:00pm - 4:00pm
Room: AGSE 202

Audience Secondary, All

From ideation to implementation: Questacon’s exhibit design process

Questacon exhibits start as an idea and finish as an object subjected to almost 1 million hands each year. Anna Paull will explain Questacon’s exhibit design process as an example of industrial design practice and show how this process has been adapted to deliver design thinking workshops for high school students. She will also lead a workshop which explores how simple materials can be utilised to demonstrate STEM principles and encourage students to build skills in creativity, inquiry and problem solving.

Anna Paull is the education coordinator at the Questacon Technology Learning Centre and has led the development and delivery of all school and public programs at the new centre. She has a bachelor in Applied Science and Communication and over six years’ experience working with children and adults in informal learning environments and designing hands-on, inquiry based programs.

Workshop 18
2:00pm - 4:00pm
Room: AGSE 203

Audience Secondary, Textiles

Eco yarn, plarn and tarn

Millions of plastic bags being thrown into landfill. Millions of kilos of old clothes also going to landfill. Let’s think outside the box and really make a difference. Plarn is yarn made from plastic bags. Tarn is yarn made from old t-shirts (you know, the ones that can’t even go to the opp shop because of stains etc). We will explore the process of creating yarn from sustainable sources, then creating simple designs to knit and create, blending old skills with new techniques.

Suzanne Arnott
Workshop 20
2:00pm - 4:00pm
Room: TB Workshop Area 2

Audience 7/8/Secondary, Plastics

Mobile Phone Stand

This is a hands-on workshop on how to produce an acrylic phone holder, with an added design element. This project is aimed at year levels 7 and 8.

Paul Escreet is a technology teacher at Wonthaggi Secondary College. He teaches mechanisms, robotics, jewellery making and materials. He currently leads the Tech KLD.
Workshop 1
11:00am - 1:00pm
Room: Trade Area

Audience Secondary/VCE/VET/VCAL, WMP/PD

Electronics learning - a new complete resource from basis to Arduino

This talk will demonstrate a complete package for teaching electronics. It will provide software for simulation and design of circuits, a new machine for making circuits and a complete set of lesson plans, assessment sheets and projects. These have been trialled and cover basic electronics, logic, and microcontrollers in several stages.

Tony Pugatschew and Intellecta Technologies have been involved in many developments in Australian education. Tony supports a number of resources based around cad/cam - laser cutters, milling machines, 3D printing, and electronics.

Workshop 2
11:00am - 1:00pm
Room: AGSE 202

Audience Secondary, WMP and Systems

Design sketching

Experienced staff from Swinburne University School of Design will present sketching demonstrations and teach how to take the ideas from your head onto a page.

This workshop will be conducted by experienced staff at Swinburne School of Design who have vast experience in the automotive industry. Automotive stylists from Mercedes, KIA and GM Holden will provide useful skills in ideation sketching to help communicate the ideas from your head to a page.

Workshop 3
11:00am - 1:00pm
Room: AGSE 203

Audience VCE, PD&T

Creating a sample folio for VCE PD&T Units 3 & 4

Teachers of Units 3 and 4 often ask for a sample folio, which can be difficult to lay your hands on. In this session, you will go through the process of creating a digital folio, which can be used digitally or printed and displayed in the classroom. You will use past Top Designs catalogues, your own students’ work, plus your own input.

Jacinta O’Leary

Workshop 4
11:00am - 1:00pm
Room: AMDC 601

Audience Secondary, General

How to explain everything

Explain Everything is a useful app both for you to create learning tools, and for students to show their level of process understanding. It creates more than just your average presentation!

Suzanne Arnott
Workshop 5  
11:00am - 1:00pm  
Room: AGSE 204

**Audience** All, General

**Design thinking workshop**

With a focus on play, collaboration and innovation, this fun hands-on workshop applies design thinking principles and processes to design challenges.

**Dr Samantha Edwards-Vandenhoek** is Academic Director for External Engagement in the School of Design, Swinburne University of Technology. She has extensive industry experience, working as a brand strategist for two of Sydney’s leading design consultancies. She aims to inspire and empower students to produce authentic, innovative and socially conscious design outcomes.

Workshop 6  
11:00am - 1:00pm  
Room: AMDC 207

**Audience Secondary/VCE/VET/VCAL, Textiles**

**Manipulating textiles**

Repeat of Workshop 17, Friday 20 June.

**Patricia Hynes**

Workshop 7  
11:00am - 1:00pm  
Room: AGSE 104

**Audience 10/11/VCE, Textiles**

**Organza Appliqué**

Repeat of Workshop 13, Friday 20 June.

**Cathy Sofarnos**

Workshop 8  
11:00am - 1:00pm  
Room: TB Workshop Area 1

**Audience Secondary/7-9, Plastics**

**Working with Plastics**

For this session teachers will design and make two plastics products suitable for students in years 7-9. One will be a jewellery stand and the other a stand for an iPhone.

**Joanne Heide** taught design and technology in London schools for eight years after moving there in 1999. Prior to teaching she obtained a degree in visual arts from Monash University and a post graduate in sculpture from the Victorian College of the Arts. While living in the UK she completed a Master of Fine Art through Monash University. She has exhibited her art and design work both in Australia and the UK. She currently teaches design and technology and visual arts at Caroline Chisholm Catholic College.
Workshop 9
11:00am - 1:00pm
Room: AGSE 210

**Audience Secondary, All**

**Assessing Hazards and Seeking Compliance**

Gain a greater understanding and practical application of OHS and ‘Duty of Care’ in the technology workshop. Learn about the OHS/WHS Act, regulations, codes of practice and the Australian Standards. Understand how these documents form the foundation that ensure workplaces provide a safe working environment for teachers and students.

**Andrew Nicholls** is a qualified industrial designer and leading teacher of school technologies at Mill Park Secondary College. He has represented staff in a wide range of occupational health and safety issues and has assisted DATTA Vic in raising the need for greater OHS awareness in schools. He is currently undertaking a Masters in Occupational Health Safety and Environmental Management through ACU.

Workshop 11
2:00pm - 4:00pm
Room: AMDC 603

**Audience Secondary, Systems**

**Basic 3D modelling and printing**

In this workshop, you will learn about 3D printing - its opportunities and its limitations. Participants will design and create basic products in Solidworks (the leading industrial design modelling package), save the file in the appropriate format and then create the product using a 3D printer.

**Dr Gianni Renda** is the course coordinator and lecturer in the Bachelor of Industrial Design. Gianni has worked as a graphic designer, printer, exhibition and set designer. His current research focus is investigating ways that design can empower the user in the field of health, disability and ageing.

Workshop 10
11:00am - 1:00pm
Room: AGSE 211

**Audience Primary/Secondary, All**

**Tackling the Australian Technologies Curriculum head on**

Find out about the Australian Technologies curriculum in detail. This session explains strands, bands, contexts and content descriptors, and will discuss general capabilities and cross curriculum priorities. As a group we will work through subject structures and school-based units of work to identify how they might be changed to incorporate new content and approaches. Bring along a unit of work from your school to adapt to the new curriculum.

**Jill Livett** is President of DATTA Vic, President of DATTA Aus and teaches Overnewton Anglican Community College (Melbourne). She has 25 years experience in teaching D&T at middle and senior secondary level, teaching in the material areas of wood with some metal and plastics, textiles and simple systems. For the last five years, she has also taught tertiary technology methods classes in universities.

Workshop 12
11:00am - 1:00pm
Room: AGSE 202

**Audience Secondary, WMP and Systems**

**Design sketching**

Repeat of Workshop 2, Saturday 21 June.

Swinburne staff
Workshop 13
2:00pm - 4:00pm
Room: AMDC 602

Audience Secondary, Systems

The Arduino microcontroller at years 9 and 10

The Arduino is used to teach breadboarding, introductory programming and the design process. The software is open source and cross-platform. Participants will work through the materials I have used in class and design their own variations on these using an Arduino Uno.

Ray Watterson started teaching electronics at Bayswater High School in the late 1970s and has kept at it. He has also taught maths, junior science, chemistry, physics and technology. He is currently teaching technology at Waverley Christian College.

Workshop 14
2:00pm - 4:00pm
Room: AMDC 601

Audience Secondary/VCE/VET/VCAL, All

Blogs, wikis and web pages

I will show you how to use blog, wiki and web page tools simply and effectively in the classroom to support design and technology. These tools give you access to a range of assessment tools, where your students can display their understanding and knowledge of a subject, process and reflections of ongoing learning. You will explore and develop your own web page, wiki and blog. We will discuss the use of Twitter to develop your professional learning networks.

Suzanne Arnott

Workshop 15
2:00pm - 4:00pm
Room: AGSE 104

Audience Secondary, Textiles

Love to embellish

This year 7 textiles develops students’ skills in using the sewing machine and encouraging a joy of working with fabrics. The students create eight different fabric embellishment samples that are later constructed into a bag. Students design every panel through drawing ideas, research and experimenting with techniques.

Debbie Clifford is an experienced textiles teacher in a small country school. She has won regional awards for her efforts in creative textiles.

Workshop 16
11:00am - 1:00pm
Room: AMDC 207

Audience Secondary/VCE/VCAL, Textiles

An exploration of the design process to create textile art works

The visual presentation and artists talk documents the design process and the stages the artist went through in making a major textile art piece titled ‘Mood Lines’. Participants will learn to use monotype techniques and textile inks to print on various fabrics as the basis for hand stitching fine art textiles. This is the process the artist used to create the art work ‘Mood Lines’.

Dawna Richardson-Hyde is a former TAFE and university teacher in design and textiles, now practising full time as an artist using monotype and print techniques on textiles and paper. She has given workshops, masterclasses and residencies across Australia and internationally.
Workshop 17
2:00pm - 4:00pm
Room: Trade Area

Audience Secondary, Metal

Hands-on Metalcraft

A hands-on workshop focusing on the Metalcraft range of metalworking tools. These tools enable students of most ages to safely make worthwhile metals and design and technology projects. Learn to use these tools and also make a metals project to take for use with your students. All work is hand powered, requires no heating of the metal and some projects can be punched and riveted together weld-free - ideal for new or small schools, or for young classes not ready for welding. Extensive design photos will be available for project ideas for your students.

Greg Cowie of Chevington Tools has been involved with the Metalcraft range of tools from England since 1997. The tools are used in over 1500 Australian schools by students of most ages. They enable quality projects to be made without electricity or the need to heat the metal which makes it safe and cost effective. For new or small schools, they are the easiest way to get metals up and running - their unique punching and riveting feature means even primary kids can make their first jobs weld-free.

Workshop 18
2:00pm - 4:00pm
Room: TB Workshop Area 2

Audience Secondary, Systems

Designing analytic circuits- running through a semester

This session will include a brief summary of designing a single sided PCB (Printer Circuit Board), and importing it from Eagle to SketchUp. One analytic PCB will be provided that will incorporate four different circuits. We will assemble the PCB and perform analysis by changing various components. Documents will be provided to record the cause and effect. The session will be interactive and cater to teachers’ needs.

Divinderjit Singh Chattrath has been working in the electronics field since 1984 and has been part of the development of electronics from vacuum-valve-tubes up to the currently used SMDs. He works at Nossal High School where he started the electronics program. He enjoys sharing knowledge with colleagues that will benefit their teaching and learning process.
Datta Vic would like to acknowledge the following supporters:

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**Conference Information**

**Workshop Sessions**
Workshop sessions are limited to 15 persons. All participants must bring their own materials specified in the workshop. Workshop descriptions and further information for workshops will be found at www.datta.vic.edu.au.

**Venue Details**
DATTA Vic 2014 Design Thinking Conference is held at Swinburne University of Technology in the Advance Manufacturing and Design Centre (AMDC), Swinburne University of Technology, John Street, Hawthorn VIC.

**Public Transport**
The conference venue is approximately a one minute walk from Glenferrie station. Belgrave, Lilydale and Alamein train lines from the city travel to Glenferrie station in 10 minutes. Tram No.16 Kew to St Kilda Beach stops on Glenferrie Road, where ATMs are also located. Bus No. 624 Kew-Chadstone – Oakleigh (via Carnegie), travels along Auburn Rd about a 10 minute walk to Campus.

**Parking**
Free street parking is available around the university campus. Fee parking ($6.50 all day) is available at Swinburne University Multideck carpark, Wakefield St, Hawthorn.

**Catering**
The conference is fully catered by James Ray & Co The Caterers, with continuous tea and coffee facilities. If you have indicated special dietary requirements on your form, your lunch will have your name on it.

**Trade Exhibitors**
Trade exhibitors are located in the trade and catering area, allowing delegates to browse a range of curriculum resources at their leisure. Registration, morning tea and lunch will be in the surrounds of the Trade Show.

**Pricing**
Registration includes: keynote address, conference sessions, conference satchel, coffee and tea on arrival, morning tea and lunch.

**Cancellations**
There is no refund if less than one week’s notice is given to the DATTA Vic office.

**Disclaimer**
DATTA Vic will not accept liability for damage or loss of any nature sustained by participants, suppliers, agents, contractors, consultants or their accompanying persons, to their property as a result of the DATTA Vic Design Thinking Conference, Trade Show or any related events. Program is correct at the time of distribution and is subject to change without notice. Please accept our apologies for any inconvenience caused. Notification of any cancelled sessions will be circulated as soon as practical to registered delegates.

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