

The DATTA Vic Newsletter Term 3 2017



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Welcome from the President

What is Design and Technology education?

This is the question posed to us by our first ever national **Design and Technology Week**, following on from the successful pilot in Victoria last year.

What do we want people to know about our learning area? What preconceptions do students, parents and colleagues have about what we do and our value to education and society?

I would strongly urge all of you to take action by <u>registering</u> your school's participation in Design and Technology Week and make your best case for the value and relevance of your efforts in your school.

Do you want your school to know about the complex and challenging work your student undertake? Then this is a great opportunity for you to display their products and portfolios somewhere prominent.



Do you want parents to know about the exciting career paths and opportunities for further study in the creative fields? Then organise an information evening and use the info and tips available on the website. What about your colleagues in other faculties - would you like to expose them to the power of creative problem solving? Then use the design activities that have been developed for Science, Maths, Humanities and English lessons. There are lots of resources online to help you and your team plan, promote and implement a fun and perception-changing week so have a good look at the website. Do you think there is something that you could contribute? Then please let us know!



The future of Australia, and indeed the planet depends on schools developing creative problem solvers and informed and ethical citizens. I can think of no other learning area that has more opportunity to make an impact in these areas than Design and Technologies, so let's start getting loud about it!

I am very pleased to announce three new ways that DATTA Vic has been working to promote our learning area and support our members recently. After discussion with Monash, RMIT and Swinburne Universities, it appears that they are all moving towards giving bonus ATAR points to

folio subjects such as VCE Product Design and Technology. This follows on from the agreement we previously secured for VCE Systems students applying for Engineering subjects. Each institution will have its own conditions and timeline for implementation so please encourage students and their parents to seek out this information for courses they are interested in. This is a very powerful move that helps to combat the negative affect of scaling on our subjects.

Also, in consultation with DATTA Vic, the *Premier's Design Awards* have now included a schools category for the first time, ensuring support for young, up and coming designers. This prestigious design award will help to communicate to businesses and the community beyond the school gates the value that design education has in our society. It will be open to all secondary school students and entries open on 31st July at www.premiersdesignawards.com.au.

DATTA Vic has also been asked to be part of the Tech Schools Learning Programs Advisory Panel by the Department of Education and Training, which is a fantastic opportunity. This is recognition of the valuable work we do as teachers and as an association, as the Department has invested heavily in this new initiative and are seeking expert guidance to ensure its success.



And we're also looking forward to our regular December *Makerspace* conference, demonstrating our role as a key deliverer of "Applied STEM" education. STEM isn't just Science and Maths subjects - In fact, in Design & Technologies, we have been always been teaching applied STEM and we are best placed in schools to deliver proper project based learning, a key element of good STEM education.

DATTA Vic is doing everything we can to support, promote and elevate Design and Technology education, it's now up to you and your school to join us this October for Design and Technology Week. We can't wait to hear what you get up to. Have fun and be disruptive!



News from the VCAA

VCE Systems Engineering

Thank you to everyone who contributed feedback to the consultation draft for VCE Systems Engineering. The study design is currently undergoing a minor review, with the new study design to be implemented in 2019.

F-10 Curriculum – Indicative progress

The VCAA will progressively release Indicative Progress examples for all the curriculum areas within the Victorian Curriculum F–10. Indicative Progress examples have been conceptualised as part of the curriculum planning process, and are intended to better support schools in relation to both curriculum planning, and designing teaching and learning programs, in two-year cycles. The examples are designed to act as stimulus material only. They will reflect how indicative progress could be articulated within a specific context but will not cover the entire achievement standard. These examples aim to support teachers to develop their own descriptions of progress relevant to their particular teaching and learning program.

Blank Indicative Progress templates, plus an annotated example, are currently available in the 'Curriculum planning and assessment' section in each curriculum area advice. For Design and Technologies, click **HERE**

Royal Melbourne Show Arts, Craft and Cookery Schedule 2017

The Exhibition schedule for the Art, Craft and Cookery is now available online. Entries close on Tuesday 1
August



Design & Technology Week 2017



Thanks to all of the schools throughout Victoria - and beyond - who have signed up for <u>Design & Technology Week 2017</u>. There are already over 25,000 students participating in registered schools throughout Australia - and we even have a school in Jamaica taking part!



Over the coming months, new resources and a range of events taking place in Victoria will be added to the website.

So make sure your school is <u>registered</u>, and check in regularly to find out what is happening. Once you submit your form, we'll send you a D&T Week poster to drum up interest amongst colleagues and students!

One great way to get your students involved in D&T Week is though <u>So You Think You Can</u> <u>Design</u> - going national for the first time this year...

So You Think You Can Design



Photo credit: Johns Hopkins University Applied Physics Laboratory

DATTA Australia is inviting schools throughout the country to participate in **So You Think You Can Design** - the student competition that demonstrates the creative, innovative and challenging work taking place in the Design & Technologies learning area.

This year, your students will have a design challenge to complete in school during D&T Week from the 16th - 22nd October. The brief is simple –

To design a product that attempts to solve a personal, local or global problem.



The output is a digital poster (A2), along with an optional CAD model suitable for printing.

Submit your best student's work to Hannah at admin@datta.vic.edu.au by Monday 23rd October. A panel of teachers from throughout the country will select finalists from each state, and their work will be shown at the DATTA Vic Makerspace 2017 conference in December.

Register your school for So You Think You Can Design **HERE**The overall winner will receive an iPad mini.



Thanks to our sponsors for their generous support for this program:

So You Think You Can Design - Textiles will be back next year, and we'll have the live finals at our May 2018 conference - watch this space for details!

Makerspace Conference 2017 – Applied STEM in Design & Technologies



DATTA Vic's 2017 <u>Makerspace</u> conference will take place on the 1st of December at the Northern College of the Arts & Technology, Preston. This year, our focus will be on Applied STEM in Design & Technologies.

So save the date, and join us to explore STEM learning, new technologies, creative problem solving and design thinking - and the joy of making too! Registrations will open next term.



Do you have an idea for a conference workshop?

Click <u>HERE</u> to submit your proposal, and be part of a very special day! Plus you'll receive free entry to the

Makerpspace conference - along with our endless gratitude!

Upcoming Professional Learning from DATTA Vic

DATTA Vic has a wide range of exciting professional learning opportunities coming up for teachers throughout the rest of 2017. Here are details of just a few of them - you'll find our full PL program on our website **HERE**.

Ideas to Innovation Design & Technologies in Regional Victoria





FREE FOR DATTA VIC MEMBERS

FOR TEACHERS IN THE BENDIGO & WODONGA REGIONS DATES IN SEPTEMBER & OCTOBER

DATTA Vic and La Trobe University have teamed up to bring this great opportunity for Design & Technologies teachers in rural and regional Victoria. We'll be running two programs - one in Albury Wodonga and one in Bendigo - helping 7-10 D&T teachers to equip their students with the skills they'll need for a global, technology-driven and flexible future.



The first part of the program will be delivered via YouTube broadcasts on 2 dates after school in September, which will introduce the required prior knowledge, the new technologies you'll be using and a plan for new classroom projects.

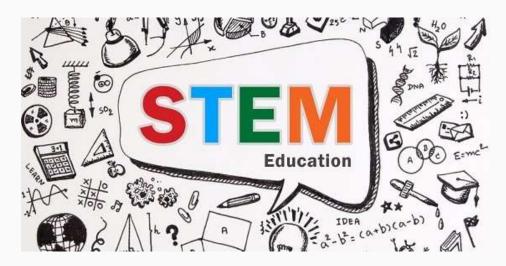
At the boot camps (*Wodonga, October 11, Bendigo, October 12*), you'll work with academics from La Trobe University's <u>School of Mathematical & Engineering Sciences</u> to develop skills in using new technologies and on innovation programs that can be delivered with your students.

Following the boot camp, La Trobe University student ambassadors will provide continued support via their web portal to bring your Innovation programs to life. For more information and to register, click HERE

Thanks to the Google CS4HS fund for their generous support for this program



STEM & Makerspace Education in the New Design & Technologies Curriculum



21st August 2017 Catholic College Bendigo

DATTA Vic and Catholic College Bendigo are running a day's workshop focusing on successful STEM initiatives and makerspace programs in schools. Join us for an innovative day of PL where you'll discover examples of excellence in STEM education and develop your own ideas for creative classroom projects.

For more information and to register, click **HERE**

OH&S in the Technology Classroom

















28th July 2017 Mill Park Secondary College

Join DATTA Vic, the Department of Education and Training and Mill Park Secondary College at our annual workshop covering safe practice in the Technology class. An essential PL for teachers of Wood, Metal & Plastics. Click HERE for further details and to register

VCE Systems Engineering - Units 1-4

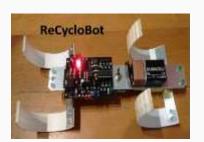


26th July Caroline Chisolm CC

Join State reviewer Colin Chapman for a day's workshop on ideas, strategies and essential knowledge for teaching VCE Systems Engineering. You'll also get the latest information on assessment criteria, and complete an simple instrumentation project.

Register **HERE**

Build Your Own Infrared, Remote-Controlled Recyclobot...



19th August 2017 Diamond Valley College

Pat McMahon will be delivering another fantastic Picaxe 14M2 workshop for Design & Technologies teachers. This time, participants will designing and constructing a recyclobot or an LED cube - suitable for all abilities.

For more information and to register for this workshop, click <u>HERE</u>

VCE PD&T Exam Prep Sessions



The VCE PD&T exam this year is scheduled for the 13th November. DATTA Vic will be travelling throughout the state during September and October to run Exam Prep workshops for both teachers and students. To find your closest session, visit the **Professional Learning** page on our website, or contact Laura at pl@datta.vic.edu.au.

We'll also be sending out details soon on teachers' workshops on the New VCE PD&T Study Design, and VCE Systems

Engineering Exam Prep - so watch this space!



New Teacher Resources

Technotes - our Members' Journal



By now, all DATTA Vic members should have received their copy of *Technotes*. Members can log-on to the DATTA Vic website and download their own copy from the **Resources page**. (Past issues can also be accessed here.)

Featuring resources for primary and secondary teachers, stories of outstanding education programs, the work of award-winning students and teachers and forthcoming events, this is an invaluable publication for Design & Techhologies educators.

If any members have problems logging on, please contact Hannah on admin@datta.vic.edu.au.

And if you haven't joined DATTA Vic yet, but are interested, you can register **HERE**, or contact Laura for more information.

Aboriginal & Torres Strait Islander Design & Technologies



Following our 60,000 Years of Australian Design & Technologies conference in May of this year, DATTA Vic has begun developing and collating resources on Aboriginal & Torres Strait Islander design & engineering.

Click <u>HERE</u> to access these resources.

Members can also log-on to our site and access a selection of presentations from our conference <u>HERE</u>.

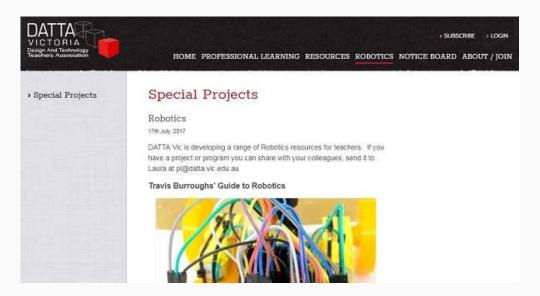
Free Resource Pack for DATTA VIc Members



At the end of last term, we sent out our latest free resource pack to all members of DATTA Vic. Featuring 4 D&T student worksheets and a teacher guide, these are written by teachers, for teachers to support you in the classroom. Just log-in to the website and visit the Members'
Resource Page.

If you have problems logging in, contact Hannah at admin@datta.vic.edu.au.

Robotics Resources from DATTA Vic



DATTA Vic are collating a range of robotics resources for our members, which you can access on our website **HERE**. You'll find teacher guides, project ideas, competitive tournaments, PL workshops, and much more. This is an on-going project, so please contact Laura at pl@datta.vic.edu.au if you have any information or resources you can share with your colleagues.

Fablearn Hackathon 2017



Educators become inventors at Hackathon, a three-day, hands-on workshop hosted by American digital fabrication expert <u>Jaymes Dec</u> and a team of mentors across making, engineering and design.

Hackathon will provide participants with the skills to conceptualise, design, prototype and engineer a range of creations utilising digital tools. Teachers will develop the confidence and skills to empower their own students to work through similar experiential learning activities.

As part of the Hackathon, participants will also hear from ANU professor **Dr Genevieve Bell** and **Roland Gesthuizen**, a STEM Method Lecturer at Monash University.

Monday 21 to Wednesday 23 August 2017

Lauriston Girls' School, Armadale, VIC, Australia

\$660 (incl. GST)

Click **HERE** to regsiter

Focus on Teaching

Robots in the Outback with Milorad Cerovac, King David School



Milorad Cerovac was awarded the DATTA Vic 2016 Secondary Teacher of the Year award for good reason! As well as his outstanding work in electronics and Systems Engineering with the King David School, he's also involved in a number of initiatives to involve under-represented groups in robotics - in particular, girls and students from Aboriginal & Torres Strait Islander communities.



Milorad recently travelled to outback NSW with <u>FIRST</u> <u>Robotics</u> and Google's <u>Robots in the Outback</u> program to work with a group of students from Ivanhoe Central School, giving them the opportunity to design, build and program a 50kg robot using industry hardware and software.

Click <u>HERE</u> to read Milorad's account of the program, his work with other communities and discover more about the FIRST Robotics competition.

Wearable Farmyard Fashion with Shanli Perkins, Don College



This year, fashion design students at Don College in Devonport chose to test the limits of their creativity, participating in <u>Agfest's Ag Artwear</u> competition. They won 4 coveted awards in the challenge, using ordinary farm yard material to create wearable pieces of fashion. Read the full story in *Education HQ* <u>HERE</u>.

University News





Greetings from Jess Sautner, the new Outreach Coordinator in the School of Engineering at Deakin University. I'm a former teacher and scientist, and I'm looking forward to working with DATTA Vic, schools, teachers and students throughout Victoria to show them all the great things we can do with our cutting edge technology; 3D printing (especially our Titanium metal printer), fully immersive virtual reality, mechatronics, sports and medical design and more (have you seen this story on CADET?).

Keep an eye out for upcoming events, including Teacher PD's, VCE scholarships, travelling workshops, CADET special events and other on-campus opportunities. Get in touch at <u>j.sautner@deakin.edu.au</u>, 03 5227 8377 to see how we can help your school.

Sports Technology in Cricket at Swinburne



A smart ball that could revolutionise cricket has been developed by Swinburne engineering researchers. The smart ball uses first-of-its-kind technology as a tool for understanding the mechanics of spin bowling and is being used to optimise training. Click **HERE** for the full story.

Wearable Technologies fight S.A.D at Monash!



Christine Lugto, an Industrial Design graduate from Monash University has created an amazing piece of wearable tech - a light-up hood that aims to help people with Seasonal Affective Disorder. She has been selected as a finalist for the Good Design Awards in Sydney. Read more **HERE**.

The Dark Side of Fast Fashion at RMIT



<u>Fast Fashion</u> is an exhibition at RMIT which takes a critical look behind the scenes of the fashion industry and undresses the social, economic and environmental impacts of cheap fashion. It runs at the RMIT Gallery, City Campus until the 9th September, and features a *Slow Fashion Lab*, where local designers show alternative approaches to the fashion dilemma. This platform for ethical fashion labels and new approaches to design aspects such as recycling or upcycling reveals what tomorrow's ethically defensible wardrobe could look like.

What's on in Victoria

For Design & Technologies Teachers

Festival of Failure at Discovery Bendigo



Our students are taught failure is bad particularly in exams. This event will invite
students and teachers to re-think failure. It's on
the 21st July, and entry is \$2 per person. Danielle
Martin (Australian Synchotron) & Jamie Seymour
(James Cook University) are the
guest speakers. Click HERE for details.

Galaxies Scarf Festival at the National Wool Museum



Don't miss the National Wool Museum's annual Scarf Festival exhibition, which runs until the 27th August 2017. This year the theme is *Galaxies*, and the museum is running a range of demonstration markets and hands-on textiles workshops led by local artisans. Visit their website for further information.

What's on in Tasmania

Lost & Found - New Developments in Sustainable Design



Hydrowood is a boutique Tasmanian timber company salvaging rare and sought after timber species from the depths of Lake Pieman, a lake which was created by the Hydroelectricity damming of the Pieman River in 1986. Lost and Found at Design Tasmania will feature a range of Tasmanian designers working with this material, and will present the complete process of Hydrowood sourced from the wilds of Tasmania's West Coast, from raw timber through to beautifully created designs. The exhibition runs till August 20.

Other News The Ultimaker Education Challenge



<u>Ultimaker</u> has issued a challenge to educators in the Asia Pacific Region. Their new contest is encouraging innovation and hands-on learning by challenging teachers to create actionable lesson plans that incorporate 3D printing. Two winning entries in each country, will receive a 3D printer, free

3D printing materials, professional training, and the opportunity to share their ideas with teachers around the world.

Click **HERE** for the Challenge pack.



Join DATTA Vic for:

- free resources
- discounted PL & conference rates
- · reduced prices on text books
- · support with curriculum implementation
- · help with teaching STEM
- expert advice
- · networking opportunities
- · rural & regional programs
- · support with OH&S issues
- · special prices for students & CRT

Sign up today, or contact Laura at pl.datta.vic.edu.au to chat about the benefits of membership for you and your school.

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Admin

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