

The DATTA Vic Newsletter Term 3 2018



Pictured: Introduction to Welding Workshop at our PERSONAL LOCAL GLOBAL Creative Problem Solving Conference

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For all of our members - our 2018 ***Technotes*** journal will be hitting your inboxes on the 19th July! Packed with in-depth articles, interviews and resources, this is an invaluable publication for Technologies teachers. Plus this year, it also comes with a supplementary Unit of Work exploring 3D Printing for Year 8. Members will receive the links directly, but you can also access them, along with past editions, by logging on to the DATTA Vic website and visiting our **Members Resource Pages**.



Welcome from the President

Now we've reached the end of semester 1 and reporting is done, hopefully you all enjoyed some well-deserved downtime over the mid-year break before we leap into semester 2.

In the coming months DATTA Vic is offering many opportunities for students and teachers to participate in a range of events.

One workshop in particular is worth mentioning. Occupational Health & Safety in the workshop is always a concern for every Technologies teacher, so on July 30, the DET's Senior OH&S Policy Advisor Gary Nolan will be working with us to run a day-long workshop on safe practice in the Technology Classroom.

Design & Technologies Week will take place throughout Australia from October 15 to 21. This event is growing each year, and we're looking forward to working with our partners - Monash University MADA, and Central Innovation - in 2018.



You'll find more details later in this newsletter, but do visit the website as it provides a range of resources and extra-curricular material to help you prepare - whether you are running activities at your school or attending external events. We're already delighted to have events programmed by Deakin University and Motorclassica, so sign up now and GET YOUR STUDENTS INVOLVED!

You can also participate in *So You Think You Can Design* - the student design competition that has been taking place in Victoria since 2014. SYTYCD sets contemporary design challenges and encourages the use of prototyping and new technologies. And with thanks to our generous sponsors 3D Printing Systems and Picokit there are a fantastic range of 3D printers to be won by students *and* schools.



Join DATTA Australia at their biennial national conference on December 6-8 - proudly hosted by DATTA Vic and Swinburne University's Centre for Design Innovation.

You'll have the opportunity to listen to internationally renowned keynote presenters and attend hands-on workshops running at Swinburne's Advanced Manufacturing & Design Centre and Swinburne Senior Secondary College. Information on registering for the event can be found on the DATTA Aus website. If you register before July 31 you will pay a discounted price.

Joanne Heide, President, Design and Technology Teachers' Association Victoria



News from the VCAA

Advice for Teachers

The VCE Systems Engineering Study Design 2019–2023 [Advice for Teachers](#) has been published online, which provides teaching and learning advice for Units 1 to 4 and assessment advice for school-based assessment in Units 3 and 4.

Victorian Curriculum F-10 Resources for STEM Education

There are [two learning sequences](#) written for STEM education now available online. In addition, there are a range of [external resources](#) and reading published online to support teachers.



Leanne Compton, VCAA Curriculum Manager, Design and Technologies

Design & Technologies Week 2018



We're counting down to [National Design and Technologies Week](#), 15-21 October! Over the week schools throughout Australia will be celebrating the engaging and challenging work that our students undertake in our learning area every day of the school year.

We already have 20,000 students registered through their schools, and organisations joining us to deliver some fantastic events! [Sign up](#) for free today, and get your school community involved - you can download the A3 poster [HERE](#).

The [D&T Week Website](#) is filled with lesson plans, activity guides and resources that you can adapt for your own classes. We'll be adding more as we get closer, so keep checking in!



There are also events listed by our partners, many of which are free, including an [Engineering Discovery Day](#) at Deakin University and an exciting [Schools Program](#) from Motorclassica. Again, keep an eye on the website as more of these fantastic activities come on line!

And to celebrate Design & Technologies Week, **Motorclassica** (on at the Royal Exhibition Building 12-14 October) are even offering discounted tickets to DATTA Vic members - thank you Motorclassica!! Contact Laura for your promo code and book [HERE](#).



DATTA Vic and our state partners are excited to welcome **Monash University** as the major sponsor of Design & Technologies Week 2018.



"Monash University is proud to be supporting the upcoming DATTA Design and Technology week. Hopefully we will see you and your students at some of our D&T Week events at the Caulfield campus."

Details are coming soon! We also have a range of events for students and teachers coming up in terms 3 & 4.



These include our Caulfield Campus Open Day on August 5, our Monash Art Design & Architecture Experience Day on September 15 and our MADA Now Graduate Student Exhibition opening November 16..." [READ MORE](#) On behalf of our members, thank you **Monash!**



Welcome aboard also to our bronze sponsor, **Central Innovation**, who have provided design technology to a range of industries since 1990.

They support education providers throughout Australia - make sure you check out *In the Drawing Room*, a bi-monthly publication with events, tips and stories - like [What if Thomas Edison used Solidworks?](#) Thanks Central Innovation!

So You Think You Can Design 2018



Pictured - Swinburne University Researchers Create 3D Printed Foot Prosthetics for Under \$10 from 3dprint.com

One of the most exciting programs running as part of D&T Week is [So You Think You Can Design](#), the national competition that encourages our students to become creative problem solvers using new technologies.

And thanks to our generous supporters, there are some amazing prizes available for the winning students *and* their schools!



Registrations are open until the 31st October, and the winners' entries will be displayed at the [National Conference](#) in December. For more information, contact Laura at pl@datta.vic.edu.au.

Thanks to our wonderful SYTYCD sponsors:



Read a message from **3D Printing Systems** about their involvement in SYTYCD [HERE](#).



Picokit have been a supporter of SYTYCD for several years - visit their website [HERE](#).

Design Led Innovation

The DATTA Aus National Conference



Design Led Innovation

6-8 December 2018
Swinburne University of Technology &
Swinburne Senior Secondary College



Join DATTA Vic and DATTA Australia at the [biennial international conference](#), to be held in partnership with Swinburne University of Technology from the 6th - 8th December 2018.

Delegates from the primary, secondary, tertiary and community sectors will explore the future of Design & Technologies - examining its role as a vital field of learning and as a major provider of applied STEM learning, creative problem solving skills and innovative capabilities. Experience a wide variety of seminars, hands-on workshops and internationally-renowned keynote presenters throughout the three days;



Dr Eva Hartell
KTH Royal Institute of Technology



Associate Professor Kurt Seemann
Swinburne University



Maddison Miller
Heritage Victoria Archaeologist



Dr Loyla Acaroglu
UNEP Champion of the Earth



Peter Murphy
DATTA Australia President

Seeking Presenters



Do you have an idea for a workshop? We'd love to hear it! We're seeking submissions for sessions - both for hands-on activities or seminar-style presentations. It's a great experience to share your skills and knowledge with fellow educators - and remember - you'll attend for free on the day you present! Click [HERE](#) for our workshop proposal form, and be part of a very special event.

Early Bird Deals



Early Bird Specials - Register before 31 July and save!

- 1, 2 and 3 day registrations available -
- 1 day from only \$180 pp
 - 3 days for \$595 (save \$100 pp)
 - Group bookings of 3 or more for only \$560 per delegate (save \$135 pp)

Click [HERE](#) to book today

Professional Learning from DATTA Vic

DATTA Vic has a wide range of teacher professional learning opportunities throughout term 3. See a selection of our events below - click on the links for more information and to book. Full details of our professional learning calendar can be found [HERE](#). We have more workshops coming online, so make sure you check back regularly!

VCE Systems Engineering Units 2 & 4



Tuesday 24th July
Caroline Chisolm Catholic College

This workshop, led by Colin Chapman, covers all you need to know about VCE Systems Engineering Units 2 & 4. It is ideal for teachers who are new to the area and experienced educators, and is packed with hands-on activities and essential information. Register [HERE](#).

OH&S in the Technologies Classroom



Monday 30th July
Mount Waverley SC

Join DATTA Vic and Gary Nolan, the DET's Senior OH&S Policy Advisor for a day-long workshop on safe practice in the Technology Classroom. An essential PL for teachers of Wood, Metal & Plastics. Click [HERE](#) for further information and to book.

VCE PD&T Teachers' Exam Prep Workshop



Monday 13th August
The Dream Factory, Footscray

Join Jill Livett for this workshop, which will be invaluable for VCE PD&T teachers preparing their students for the end-of-year exam.

"I was extremely satisfied.... thorough and fantastic resources, detailed and concise... clear, well-paced & very informative." C.K, 2107 participant.

Click [HERE](#) to register

Build your own Remote- controlled STEaM Project



Wednesday 15th August
Hoppers Crossing SC

Pat McMahon will lead this hands-on workshop, where participants will learn how to construct, test, program and take away a Picaxe 14M2 Infrared Remote Controlled Model of their own choice - a Recyclobot, a 5x5x5 LED Cube or a 25 LED Addressable Light Bar. Click [HERE](#) for further details and to book your spot.

Student Exam Prep Sessions



It's not just teachers who can benefit from DATTA Vic's exam prep sessions - we are also running workshops for PD&T students. We're currently finalising all the details, but we do have a few dates locked in already!



We'll be at:

Dandenong High School - 28th August

Swinburne University - 22nd September

There will also be a session running **via Polycom** for rural and regional schools on the 10th September, and we're looking at visiting other regional venues in term 4.

We'll be updating the **Events Page** of our website as we finalise more dates and locations.

A Partnership between DATTA Vic & Engineers without Borders FREE STEM PL for Members in Bendigo and Footscray



Pictured: EWB with community partner Cambodia Rural Development Team during community interviews.

Join DATTA Vic and Engineers Without Borders Australia (EWB) for a day-long teacher professional development workshop, that is **FREE** for DATTA Vic members. The workshop will explore Vic Curriculum, project-based STEM resources developed with one of EWB's community partners in Cambodia. This session is targeted at Years 7-10 teachers.

This workshop will cover:

- Incorporating innovative approaches to integrated STEM learning.
- Using project based learning to inspire students to engage with STEM as a community-centred industry with social impact
- How to implement real-world & community centred engineering lessons in your classrooms.
- Pathways to STEM jobs.
- EWB's Vic Curriculum resources.

Our first workshop will take place on the **24th August** at **Discovery Science & Technology Centre** in Bendigo, and participants will also get the chance to learn more about their STEM programs on offer to schools.

On the **28th August**, the session will be repeated at the Dream Factory in Footscray



For further information and to book, just click on the links below. Remember - these sessions are **FREE** for DATTA Vic members -(non members \$50), but **registrations are essential**.

About EWB's other school based programs

EWB runs a School Outreach program which consists of curriculum-linked, hands-on, real world based humanitarian science, technology, engineering and maths (STEM) workshops. These workshops aim to connect students with the idea that technical skills can be related to a deeper purpose -making the world a better place. Learn more about EWB and its other school outreach programs **HERE**

DATTA Vic in Regional Victoria



Term 2 was a really busy one for DATTA Vic's rural and regional program, particularly in the North East region! On the 15th June, Michael Rogers ran a **VEX Robotics & STEM** workshop in Wodonga (pictured above). *"This was an excellent intro to the capabilities of VEX - very useful resources and local connections for assistance and activities."* D.E

The **North East Region D&T group** had a visit to the **Regional STEM Centre** in Wodonga on May 31, where director Michael Rosenbrock introduced them to their fantastic programs. Their next meeting will be at the **GOTAFE Innovation Hub** on the 18th September, so **register now** for this great opportunity to develop new skills and network with local colleagues



Teachers in the Warrnambool area also joined DATTA Vic for several events. Brian Murphy delivered a workshop on Fusion 360 at Brauer College on June 25, and then the **South West D&T Group** had a quick catch up afterwards - thanks to Brauer's Delia Jenkins for sharing information on their STEM and Maker programs. A new South West meet-up will be arranged soon, so watch this space!



And thanks to all the fantastic teachers who joined us at the National Wool Museum in Geelong on June 21 for ***The Big Wool Day Out - Science & Sustainability in Textiles***. The **Institute for Frontier Materials**' Chris Hurren explored the world of STEM in future fabrics. Ex Top-Designs exhibitor Sophia Loughrey discussed her sustainable, dual-purpose VCE project, and Lincraft's Zowie Mosselen gave a wealth of ideas for up-cycling projects.



After a visit to the **Scarf Festival Exhibition**, we then got to explore the amazing story of ***Spidergoat and the Insect Electro*** in Kathy Holowko's exhibition (pictured above). And FYI, there IS a real Spidergoat, and her name is Freckles!! For more on this mind-bending story, click **HERE**!

And just another reminder that DATTA Vic will be running a VCE PD&T Student Exam Prep workshop especially for rural and regional schools via Polycom on the **10th September**.

Tech School Update

Casey Tech School



Tech Schools are part of the Victorian Government's commitment to create the Education State, preparing Victoria's young people with skills that industry needs and knowledge to build careers and create jobs. DATTA Vic is delighted to be involved in the Tech Schools Learning Advisory Panel, and is excited to work with our partners to develop professional learning opportunities for teachers.

Hopefully you'll have seen updates from the Ballarat, Banyule & Nillumbik and Whittlesea Tech Schools in previous newsletters. This term, we're delighted to turn the spotlight on [Casey Tech School](#).

Casey Tech School staff have been busy preparing for their opening in Term 3, preparing and testing curriculum in co-design workshops with students and teachers from local partner schools.



Their core offering will be their three-day Year 9-10 Enterprise Program, where students will work in cross-school teams to select and learn about a local industry or community problem, brainstorm solutions, attend masterclasses, design a prototype of their chosen solution, and pitch the prototype to industry representatives. This Project Based Learning approach will give students the opportunity to use STEAM and Enterprise skills, high-tech equipment, and advice from industry mentors to solve authentic real-world problems and have meaningful, rewarding outcomes. Casey Tech School staff are looking forward further testing the curriculum with the full suite of equipment when the new building opens in Term 3.

Click [HERE](#) to download the school's newsletters.

Events for Technologies Teachers

Game Changers and Change Makers STEM Festival



St Margaret's School and Berwick Grammar School are hosting a STEM Festival on August 17 & 18. Open to both schools and the wider community, it offers activities exploring Sustainability, AI, Robotics, VR and much more. Click [HERE](#) to download a flyer with further details.

All About Design



Thursday 9 August
NGV International

DATTA Vic members are invited to a free briefing on the National Gallery of Victoria's upcoming design exhibitions and programs on August 9. Hear from curators Ewan McEoin and Simone LeAmon about the many upcoming exhibitions, initiatives and opportunities for teachers and students of design. Download the flyer [HERE](#).

Early Learning Coding PD



Wednesday 29 August
Discovery Science & Technology Centre

This workshop will help teachers explore computational thinking, coding and robotics in the early years. Don't have screens in your classroom? Not a problem, as the session will make use of everyday items as well as a range of floor robots. Visit [Discovery's website](#) for more information and to book.

A Victorian Silhouette Professional Development Day

Wednesday 29 August, Gold Museum Sovereign Hill



At this fantastic PD event, Textiles teachers will get a tour of the exhibition, [A Victorian Silhouette](#) with the curatorial team. Participants will also go behind the scenes and explore the extensive costume collection, and the afternoon will be devoted to making a nineteenth century *reticule* with the costume team.

For more information and to book, download the [event flyer](#).

Exploring Indigenous Design

**INDIGENOUS DESIGN – PAST | PRESENT | FUTURE
18-21 July, University of Melbourne**



Go Back to Where You Came From: Indigenous Design – Past | Present | Future, is the inaugural Symposium of the Faculty of Architecture, Building and Planning (ABP) at the University of Melbourne. Convened by Jefa Greenaway (keynote presenter at our May 2017 conference ***60,000 Years of Australian Design & Technologies***) this event will explore the role of Indigenous design, showcase a range of established local and international First Nations design practitioners across a diversity of disciplines and offer an opportunity to reveal design approaches, which straddle interconnected themes of culture, Country and identity. For the full program and to register, click **HERE**.

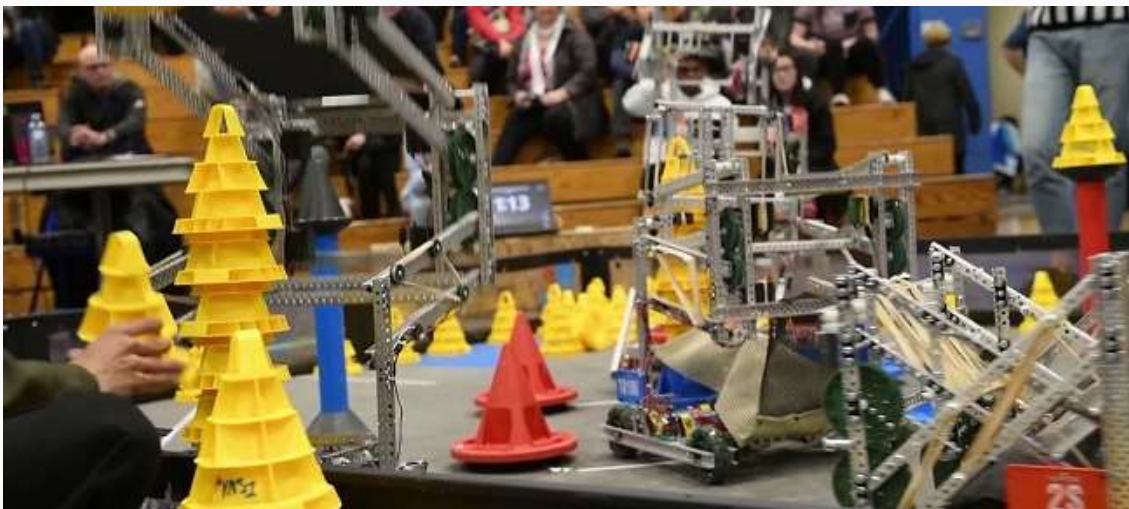
Blak Design Matters

This exhibition at the Koorie Heritage Trust from the 21 July - 30 September showcases contemporary Indigenous design projects, including fashion and product design. Click **HERE** for details.



Pictured: Marlu Collection 2015 by Nicole Monks. Photograph by Boaz Nothman

Robotics in Victoria



If you are interested in robotics, there is plenty happening in Victoria for schools over the coming months!

VEX Robotics



The VEX robotics season is kicking off this Saturday at Copperfield College in Sydenham. This will be the first Australian tournament of the season and we are really looking forward to seeing what the students come up with!

Students in years 9 -12 have been building robots for [VEX Turning Point](#). To play Turning Point teams have to build robots that can shoot balls at flags, lift objects over a meter and climb up a series of steps. Students in year 5 – 9 will be playing [VEX Next Level](#) where they must pick up cylindrical objects and stack them, as well as hang them from a 60 cm bar at the end of the match.

Upcoming Events:

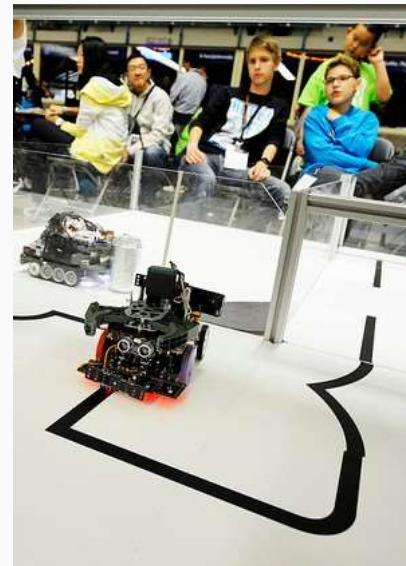
August 18th Templestowe College

September 10th Bundoora College

Visit [VEX Australia](#) for more information and to get your students involved.

Robocup Junior

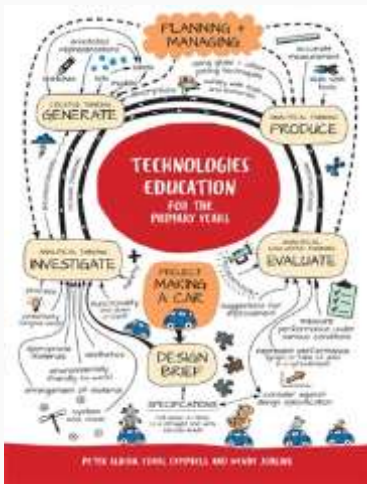
The RoboCup Junior Victoria season is in full swing with regional events being held in Warragul, Ballarat and Geelong. Each event has had either a record number of entries, or schools competing. These events are planned to give students experience in competing in robotics events in the lead up to the more serious state and national competitions. The development that students achieved on these days was quite astounding. Students learned from resident “experts” or by collaborating with peers from other schools to get their robots working at a competition level... [READ MORE](#)



Interested schools and other organisations will find full details about forthcoming programs on the [RoboCup Junior Victoria web page](#).

New Resources for Teachers

Technologies Education for the Primary Years



Hot off the press! Nelson Cengage have published *Technologies Education for the Primary Years* by Peter Albion, Coral Campbell and Wendy Jobling. The book provides the context for technologies education in the Australian curriculum, offers links with other STEM subjects and focuses on key concepts and elements in teaching technologies to primary students. You can now buy this book from the [DATTA Vic online shop](#), and don't forget - our members get generous discounts!

Learning from the Plastic Bag Ban!



Textiles teachers - are you using the single-use plastic bag ban to discuss sustainable design? We've found some great up-cycling projects creating sustainable carriers. Lincraft have 'How to Make' videos and information sheets on creating a [calico shopping tote](#) and [a muslin produce bag](#). Or how about this [Ten Minute, No-Sew T Shirt Bag](#) from Leethal.net, or even a [recycled animal feed bag tote](#) from Instructables!

Adam Cornish on Design & Sustainability



Adam Cornish is a Melbourne-based designer whose work includes a range of design disciplines, from furniture and household innovation, to commercial and residential installations. His products have been represented by Italian Design brand Alessi. In a [recent interview with the Australian Design Review](#), Adam discusses accessible design, sustainability and Australian manufacturing - a great resource for your VCE PD&T students.

Crafting Creativity with Minecraft



The Minecraft: Education Edition is now available for all Victorian government schools, and aims to promote creativity, problem solving, critical thinking, and collaboration between students.

Teachers can also use the program to engage students, meet their learning needs and build their skills around a particular subject such as science, technology, engineering and mathematics (STEM) or coding.

For supporting resources, implementation tips or teacher PD, Click [HERE](#).

And don't forget to sign up to [Design & Technologies Week 2018](#) - we have a great Minecraft STEM resource on Armour Design, which addresses Level 7 & 8 *Earth & Space Sciences*, available for you to download for free on the website and use in the classroom!



UXDesign & Prototyping for Educators



Adobe Education Exchange are running a FREE 5 week course for teachers on UX and UI design, focussing on mobile apps. So if you want to brush up on your digital design skills, this is a great opportunity! Click [HERE](#) for further information and to register.

Network & Share with DATTA Vic



DATTA Vic has a variety of online platforms to help teachers share ideas, issues and to network with colleagues throughout the state.

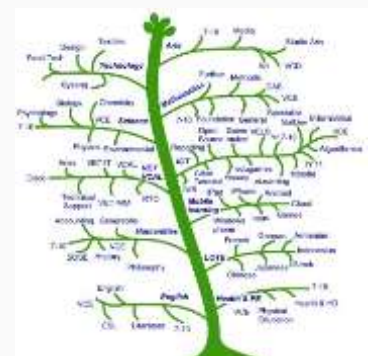
Make sure you like our [Facebook page](#) - DATTA Vic shares relevant news articles and work examples every day, so it's a great source of inspiration and a good way to keep in touch!



We also have a [Notice Board](#) on our website, which members can use to share job opportunities, post a résumé and seek or give away material and equipment.

And last, but certainly not least, DATTA Vic funds the **Edulist** online communities for Technologies teachers. If you haven't signed up, make sure you do so - they are a great way to discuss issues, seek help and share information.

There are three *Edulists* relevant for our members - *DesTech* for Design & Technologies teachers, *Textech* for Textiles teachers and *SysEng* for Systems Engineering teachers. To join, visit [Edulists](#), chose subscribe from the menu on the left, and scroll down to select which list you'd like to join. If you have any questions, contact Laura at pl@datta.vic.edu.au



DATTA Vic's Top Teacher in the News!



DATTA Vic was delighted to give Ben McKenzie from Emmanuel College Warrnambool TWO prizes at our recent conference - the *Foster Adem Award for Leadership in Technologies Education* and the *DATTA Australia National Teacher of the Year* award.

And Ben's fantastic achievements have been celebrated in [The Australian Education Reporter's](#) Term 2 publication.

Click [HERE](#) to read the whole article, which also features an interview with DATTA Aus president Peter Murphy highlighting the dynamic growth of our learning area.

News from Tasmania

Festival of Bright Ideas



Tasmania's [Festival of Bright Ideas](#) focuses on the most innovative and inspiring aspects of STEM, and explores locally-relevant STEM careers for students. It's on at Princes Wharf 1 in Hobart on the 17 & 18 August. The 17th is a special day for schools, and is currently full, but contact admin@luminousevents.com.au to be placed on the waiting list.

The [University of Tasmania](#) is running several open days for prospective students - Hobart on August 5, Inveresk & Newnham on August 11 and Burnie on August 12. Click [HERE](#) for more details and to register your interest in attending.



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.

