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| **­­­­­­­­­­­­Hands On Technology 2018 Course Descriptions:**  **GAIN VALUABLE “HANDS ON” PROFESSIONAL DEVELOPMENTTALK TO TEACHERS FROM ALL AROUND THE STATEUP-SKILL YOURSELF** |
| **Industrial Technology Multimedia #1 – Stage 5 and 6**  In this session you will learn to make a range of different projects included below that can be taught at a range of levels of ability.  **Projects include:**   * **Illustrator** - for logo design and asset creation * **Indesign** -  Used for print media such as magazines, flyers, portfolios * **Dreamweaver** - coding websites using HTML and CSS * **After effects** - Animation using Illustrator assets (come with headphones/earbuds and some characters and/or backgrounds that you may wish to animate).   Assessment tasks and projects files will also be provided for the above so that you can implement them at your school.​  **MEMBER COST: $250**  **NON – MEMBER COST: $350**  **STUDENT TEACHER (IIATE MEMBER) COST: $150**  **Maximum Participants 20** |
| **Art Metal Work - Stage 4 and 5**  This course is intended for those who have never done silver jewellery before and are looking to introduce it as a stage 4 option in Technology (mandatory). You will learn how to make a plain silver ring, a twisted ring and a pendant in sterling silver. This is taught from metalworking principles and can be taught in a metalwork room with quite basic tools.  **MEMBER COST: $350**  **NON – MEMBER: $450**  **STUDENT TEACHER (IIATE MEMBER): $150**  **Maximum Participants 15** |
| **AutoDesk Fusion 360 - CAD**  The latest in Computer Aided Design from Autodesk.  This is an introductory course to the future of CAD.  This course covers, licensing and install, basic operations, classroom management in CAD, the role of modelling in curriculum and Q and A.  Participants will leave with enough skills to model basic products such as those in Industrial Technology and Design and Technology. This course will focus on the digital technologies part of the new Technology (mandatory) Syllabus and how content can be taught with CAD and CAM tools such as 3D printers and Laser Cutters.  \* **Participants who are bringing a device with Fusion 360 installed, please email owen.telfer@det.nsw.edu.au**  **MEMBER COST: $250**  **NON – MEMBER: $350**  **STUDENT TEACHER (IIATE MEMBER): $150**  **Maximum Participants 16** |
| **Sketchup – Back to Basics**  Do you think that SketchUp is a ‘Toy’ CAD program that no professional would ever touch? Did you know that NASA use SketchUp? So do many architectural and engineering firms. This is freeware. Don’t know how to start using SketchUp? Have you played around with SketchUp but feel that you have missed some basic tips, shortcuts, page set ups?  **MEMBER COST: $250**  **NON – MEMBER: $350**  **STUDENT TEACHER (IIATE MEMBER): $150**  **Maximum Participants 20** |
| **Skateboard Construction**  In this course participants will learn how to use a vacuum bag to make a skateboard and to create and apply a marquetry design to the board. At the completion of the course you will take away on your very own skateboard deck complete with your own exotic marquetry veneer pattern on it. The additional cost covers the supply of a Thin Air Vacuum Press Kit, mould and pre cut Canadian Rock Maple veneers. This will give you a completed deck and the equipment to manufacture boards at school as well as simple but useful moulds for vacuum forming, including projects beyond the skateboard. You will also need to bring your own block plane. As this will be used in the construction of the board.  **MEMBER COST: $400**  **NON – MEMBER: $500**  **STUDENT TEACHER (IIATE MEMBER): $300**  **Maximum Participants 15**  **Onshape**  This workshop teaches fundamental CAD skills using Onshape. The skills are similar in many CAD programs, including Fusion 360, Creo, Solidworks, Inventor, etc, so you could easily take what you learn here and apply it to other CAD programs if need be.​ Onshape is a free, web based, cloud-storage, multi-user CAD program which works on any device and is therefore ideal for BYOD schools. This means there is no licencing or downloading and installing. If your computer has a web browser (preferably chrome or firefox) you’ve already got Onshape installed!  Participants can bring a device, and although Onshape does work on mobile devices such as iPads and mobile phones, it would be best to bring a laptop with a real mouse!  For those who know the lingo – the workshop will cover Extruding, Dimensioning, Basic Sketching, Round/Fillet, Chamfer, Mirroring and Linear and Circular Patterns. Once these fundamentals are covered, we will then cover more advanced methods of sketching and extruding, Lofting, Revolving, 3-point-arc, 3-point-circle, in-sketch patterning and mirroring, offset, use/project and manual constraint application.  We will create multiple parts and learn a variety of mating tools to create assemblies, and discuss exporting for 3D Printing and CNC milling.  **MEMBER COST: $250**  **NON – MEMBER: $350**  **STUDENT TEACHER (IIATE MEMBER): $150**  **Maximum Participants 20** |
| **Industrial Technology Multimedia #2 – Stage 5**  This course will incorporate using Adobe After Effects CC and Premiere Pro CC specifically using practical effects and how to incorporate this technology into new Stage 5 projects. Participants will design and create their own versions of projects, as well as being able to experiment with their own project ideas.  \* After Effects Croma Key for Double exposure  \* Practical effects using Black Screen to create Special effects  \* Adobe Premiere Pro for colour grading and video compiling.  **MEMBER COST: $250**  **NON – MEMBER: $350**  **STUDENT TEACHER (IIATE MEMBER): $150**  **Maximum Participants 20** |
| **Alternative Energy – Wind Turbine Model**  This workshop is aimed at encouraging the use of STEM in high schools through the making of a Wind turbine. This unit is suitable for Stage5 IT Engineering. Studying wind turbines is a great way to learn about renewable energy generation. You will build a working wind turbine model and then compare the amount of electricity produced by high and low wind speeds. You will be provided with an assessment task and program.  **MEMBER COST: $400**  **NON – MEMBER: $450**  **STUDENT TEACHER (IIATE MEMBER): $250**  **Maximum Participants 15** |
| **Novice Canoe Building Program Training**  Team up to learn the skill for Building the Bellinger Canoe from Brian Jones, the semi - retired Primary School Teacher who developed the program and the DRIVE Marine Services Team. He developed the Canoe build program at Forster / Tuncurry High School as a practical Skills project for Disengaged students or as a team building exercise.  **Skill Level:** A positive attitude. Do not need previous Wood Working Skills.  The aim is for groups of three or four (4) teachers to build a Bellinger canoe as a team over the weekend. During the two days Brian will provide an overview of how the program works. By Sunday afternoon you will have the skills necessary to take charge of a Canoe Building Program at your High School.  **MEMBER COST: $400**  **NON – MEMBER: $450**  **STUDENT TEACHER (IIATE MEMBER): $350**  **Maximum Participants 15** |
| **Illustrator + Laser Cutter**  This course will incorporate using Adobe Illustrator specifically for the laser cutter, and how to incorporate this technology into your existing Stage 4 and Stage 5 projects. Participants will design and create their own versions of projects, as well as being able to experiment with their own project ideas.  - Illustrator basics and designing for the laser cutter  - incorporating student sketching into Illustrator, as well as sourced images and creating designs in Illustrator  - Acrylic Key tags  - Veneer inlays  - Plywood cupholder  **MEMBER COST: $300**  **NON – MEMBER: $400**  **STUDENT TEACHER (IIATE MEMBER): $150**  **Maximum Participants 20** |
| **Introduction to Solid Edge**  This course, as the name suggests, is an all-round introduction to Solid Edge, its interface and the application of Solid Edge core modelling, Assembly & an introduction to Drafting. During the 2 days delegates will be given a system overview, including how to make  use of sketching and profile creation, part and assembly modelling, 2D drawing generation from 3D model. The course makes extensive use of hands-on exercises with supporting documentation.  **MEMBER COST: $250**  **NON – MEMBER: $350**  **STUDENT TEACHER (IIATE MEMBER): $150**  **Maximum Participants 20** |
| **Introduction to Scratch and Makey-Makey**  Scratch is a good way to learn the basics of computer science. The environment allows students to safely experiment with different aspects of coding whilst having fun. During this course you will learn; about the Scratch interface, to code using the blocky code whilst learning about some fundamentals of programming, create a simple game and use a Makey Makey to control the game.  The first day will be completing small challenges and create a simple day. The second day will be to create a game you can use back at school for your department. We will look at storyboarding, scripting and using the Makey Makey. All participants will receive a Makey-Makey controller to take back to their school.  **MEMBER COST: $350**  **NON – MEMBER: $400**  **STUDENT TEACHER (IIATE MEMBER): $200**  **Maximum Participants 20** |
| **STEM: Coding, Electronics and the Arduino – Stage 5**  This workshop gives participants an introduction to the Arduino, <http://www.arduino.cc/> and a chance to mix up skills and technologies including soldering, coding, digital control, RC vehicles, recycling, communicating, collaborating and responding to a challenge. You will be introduced to the stage 4 units of work that are a prerequisite to the arduino unit, so you will have a good idea of how to include the technology in your own teaching.   What you get: You will leave the workshop with an Arduino, an introductory experimenter's kit, a Scorpio Technology Robobug, your RC car and enough ideas to run the unit at your school. The Deliverable: An RC car that is controlled by an Arduino.   Participants are encouraged to bring a laptop/device that is capable of running the arduino software. <https://www.arduino.cc/en/Main/Software>  **MEMBER COST: $350**  **NON – MEMBER: $450**  **STUDENT TEACHER (IIATE MEMBER): $200**  **Maximum Participants 20** |
| **STEM: Introduction to E-Textiles**  This is a STEM activity, during which you will be that introduced to basic concepts of electronics and apply them to some skill development textiles projects.  This workshop is a basic introduction to the fun world of e-Textiles. The workshop will include a kit of components that contains enough components for you to experiment with during and after the workshop.  This workshop is designed to help the absolute beginner get going with e-textiles.  NOTE that the eTextiles circuits and coding opportunity can apply to projects as diverse as timber storage, furniture, Acrylic lamps etc.  **MEMBER COST: $300**  **NON – MEMBER: $400**  **STUDENT TEACHER (IIATE MEMBER): $150**  **Maximum Participants 20** |