

# LABCON 2008

Hemisphere Conference Centre  
488 South Road, Moorabbin

**3 - 5 December 2008**

**Bringing Excellence to Science Education.  
The Conference specifically for Laboratory Technicians**



**Registration closes 12 November 2008**



**Laboratory Technicians'  
Association of Victoria**

## Comments from the surveys last year

*VSSEC – must stay on program if at all possible. Sue Henderson – Dandenong High School.*

*Great to have the opportunity to establish network, have contact with the suppliers and to attend the conference dinner. Era Gonzales – Killester College.*

*Excellent venue, format, technical support and facilities. Richard Greenwood – Chemwatch.*

*Location, food and programme all good. Yumana Rodrigo – Bayswater Secondary College.*

*Keynote speakers, fun sessions and new and interesting displays. Keryn Yuill – Portland Secondary College.*

*I enjoyed the conference dinner, keynote speakers and am pleased we have become “incorporated” as an independent Association. Val Bookless – Woodleigh School.*

*Sessions, food, access and parking at the venue is great. Especially thought the name tags were better this year. Leanne Baxter - The Hamilton and Alexandra College.*

*Excellent choice of sessions, tight efficient running and good trade interaction. William Hardman – Newstead College.*

*Where do I start? John Thorn, Harvey Stern, Carl Ahlers, the food, dinner, networking and seeing friends. Judy Hasse – Sunbury College.*

*Like the new ID system, more professional each year. Well done. Social aspect, EPA session, keynote speakers, well run conference. Trish Dixon – Catholic College Sale.*

*The highlight for me was the trip to the Victorian Space Centre, very good. Lunch was also good. Di Duncan - Emmaus College 7-10 Campus.*

*I saw many new faces at LABCON 2007, great atmosphere. Dianne Hounslow – Mooroolbark College.*

## Thanks for your feedback last year

- Workshops were very good.
- Keynote speakers were too short, but given circumstances, absolutely commendable.
- The session duration was right (80 minutes).
- The exhibition was considered a good part of the educational experience.
- The networking and sharing of ideas is one of the main reasons for attendance.
- Catering was fantastic, thoroughly enjoyed the dinner, well worth attending.
- Registration Booklet, Handbook and CD's were acceptable.
- Registration procedure was smooth, liked the new ID system.
- Venue once again was fantastic.
- Parking was easy.
- Start and finish times are fine for “locals” but later starts are more suitable for travellers.

The surveys are very useful for us to help improve LABCON and many of your suggestions can be incorporated without “hurting” the budget. LABCON is run to be cost neutral and some of your suggestions (especially catering) would substantially increase Registration Fees, a situation we wish to avoid.

Thank you from the Committee for your suggestions and complimentary comments.

# Invitation to Attend LABCON 2008

LABCON will be held this year as always, but this year will be over two and a half days, from Wednesday the 3<sup>rd</sup> of December to Friday the 5<sup>th</sup>, and is still the most significant professional development opportunity for laboratory technicians working in education, and this year will be bigger and better than ever before

We are making some changes this year in response to feedback we have received. This year the sessions will be on the Wednesday and Thursday and will run as they have in previous years but, in addition, this year the tours will all be held on the morning of the Friday so that those who go on the tours will not be deprived of the opportunity of attending the workshops.

Dr Rachel Caruso, opening keynote speaker for LABCON this year will be presenting on "Breaking the Carbon Bond: Energy for All. In the battle against global warming, how can chemistry help?" Our keynote speaker on day two is Dr Clare Westhorpe from the Macfarlane Burnet Institute for Public Health and Medical Research and her topic is "Technological developments in cell biology. New tools in cell isolation and imaging".

The AGM will be held on the morning of Thursday the 4<sup>th</sup> of December and notices of the agenda will be sent out closer to the date as required by the Incorporated Associations Act.

The conference dinner, incorporating the presentation of awards, will be held on the evening of Wednesday the 3<sup>rd</sup>. The venue will be the same as last year, at the Hemisphere Centre at the Moorabbin campus of Holmesglen TAFE, in South Road Moorabbin, and this has proved to be popular with both our members and with exhibitors.

You will notice that there is a substantial discount for financial members of LTAV and this is entirely fitting, as it is the financial members who have supported the organization throughout the year. This practice will be continued in future years. For those who have not yet paid their membership fee it is not too late. The discount will still apply so long as the membership fee is paid as well.

Geoff Gleadall  
President, LTAV (inc)  
Formerly known as LTB-STAV

## WHY YOU SHOULD ATTEND

We have a wide range of sessions available and the conference offers the chance to:

- Meet with your colleagues to discuss all the issues that are an everyday part of our profession
- Select from the wide range of sessions available
- Multiple off site tours available on the Friday
- See displays from suppliers of chemicals and equipment
- Speak face to face with representatives of your trade unions
- Enjoy the chance to socialise with your colleagues over morning or afternoon tea or at lunch
- Attend the conference dinner on Thursday evening

This conference is the major professional development opportunity available to our profession and is a "must attend" event for most of us.

## Visit the Exhibition

We would encourage you to visit the Exhibition whilst at LABCON 2008 Conference on either day.



# Registration, Help Line, Accommodation, Social Events

## Registration Information

Registrations will not be processed until payment is received and **your session preferences** will be allocated **in order of receipt**.

Confirmation of your session preferences will be forwarded upon receipt of payment.

Presenters' conference papers, as received, will be made available post conference to attendees.

A Conference Program and Handbook, including Abstracts and space for your own notes will be provided at registration.

### Cancellation Policy

All cancellations must be made in writing to the Conference Secretariat. Cancellations received prior to the registration deadline of 12 November 2008 will receive a refund less an administration fee of \$100. No refund will be given after this date, however an alternative delegate name may be submitted. You may wish to take out **insurance** to cover forced cancellation.

**Registration Payments** can be made by money order or cheque made payable to: **LTAV** and mailed to **PO Box 5739, Cranbourne Vic 3977**.

Alternatively, you can pay by Direct Debit into the LTAV Account: Bank – Commonwealth Bank of Australia, Warragul BSB: 063532 Account Number: 10401068 Account Name: Laboratory Technicians Association of Victoria Inc. **Important that you fax your EFT advice to 03 5995 4733 to enable us to identify your payment.**

Please check your mailing address on your computer systems to ensure the above address is correct.

**Registrations close on 12 November 2008.**

## Accommodation

We are pleased to advise that accommodation is available on site at Hemisphere Conference Centre & Hotel. To book, please complete the appropriate section on the registration form. Space is limited therefore we encourage you to book early.

Payment for all of your accommodation booking must be paid on the registration form in advance.

### Hemisphere Conference Centre & Hotel

Rates: \$140.00 single per room per night  
\$155.00 twin/double per room per night  
\$15 pp – continental breakfast (must be pre booked)  
\$19 pp – full breakfast (must be pre booked)

## Help Line

Marg Scarlett  
Conference Organising Group

Tel: 03 5995 4599 Fax: 03 5995 4733

Email: [register@cogroup.com.au](mailto:register@cogroup.com.au)

PO Box 5739, Cranbourne, Victoria 3977

This is the address of the LABCON Conference Managers and **not the normal correspondence address** for LTAV.

REGISTRATIONS may be lodged online  
[www.ltav.org.au/labtech.html](http://www.ltav.org.au/labtech.html)

MAIL: LABCON  
P O Box 5739  
Cranbourne Victoria 3977

**IMPORTANT:** Check your database to ensure you have the correct address for LTAV registrations: Please ensure that your Registration Form and Payment are **sent to this address** or receipt of your registration and preferences will be delayed.

## Reception & Conference Dinner - Wednesday

A reception will be held in the Exhibition at 3.20pm followed by a quiz (4.15 – 5.15pm) hosted by our LTAV Quizmaster - prizes, wine and snacks.

The Conference Dinner will again be held at the Hemisphere Conference Centre. Share the fun and enjoy a wine from 6.00pm.

Bookings must be made before the conference via the registration form.

## How to find us and where to park

The Main Entrance is off South Road, Moorabbin. All day open air free parking is available onsite. The

Registration Desk and Exhibition are located on the ground floor of the main building. The Registration Desk will be open from 7.45am Wednesday and Thursday. (tea & coffee on arrival). A registration staff member will be onsite on Friday morning to supervise tour departures.

The **conference opening** begins promptly at 8.30am in the Lecture Theatre (Centera) adjacent to the exhibitors.

# Tours

## TOURS - Friday 5<sup>th</sup> December 2008

Coaches depart from outside Hemisphere Conference Centre & Hotel promptly at advertised time on Friday. Returning back to Hemisphere Conference Centre.

### **Wildlife of Gondwana Exhibition - Friday** **Professor Patricia Rich – Monash University**

#### **FT1 Depart Hemisphere 8.30am return 11.00am**

This exhibition will provide a "world first" display of the fossil record from Australian and South American sources and will describe the Wildlife of the Great Southern Super continent – Gondwana, from 3.8 billion years ago to the present. The exhibition offers a collection of fauna and flora that have not travelled outside their home institutions before and will showcase the research work by some of the worlds leading palaeontologists.

The exhibition uses a time line context that illuminates the major changes which have occurred in the Earth's history over 3.8 billion years. The unique nature of the Gondwana Supercontinent and the complex interplay of environmental and climatic changes over geological history provides an engaging context for exhibition visitors.

The exhibition includes information panels, fossil and rock specimens (originals and casts) including full skeletons (mounted in dynamic poses), and art works reconstructing the past. This exhibition is supported by Visions of Australia, an Australian Government Program supporting touring exhibitions by providing funding assistance for the development and touring of cultural material across Australia.

New Tour.

### **Victorian Space Science Education Centre (VSSEC) - Friday** **Naomi Mathers**

#### **FT2 Depart Hemisphere 9.00am return 1.30pm**

The Victorian Space Science Education Centre (VSSEC) promotes the teaching of science, mathematics and technology from year 7 – VCE through hands on scenario based programs. VSSEC's Laboratory Technicians are critical to the successful execution of a comprehensive range of scientific investigations. Laboratory Technicians visiting VSSEC will be introduced to the scientific component of a range of programs and equipment used.

Repeat of last year.

### **Science Works Tour – Friday** **Patricia Christie**

#### **FT3 Depart Hemisphere 9.00am return 3.30pm**

Excursion to Scienceworks

Don't miss the opportunity to visit Scienceworks, Melbourne's award winning hands-on science and technology museum. Scienceworks offers a wide variety of learning experiences for students. You will have the opportunity to view the Electricity, Magnets and Movement show in the Lightning Room. This show explores the relationship between Electricity, Magnets and Movement in such devices as generators, electromagnets and motors. You will see that some of these devices are so simple, they could be made back at school. There will also be an opportunity to view the Simple Machines show and exhibitions such as Imagination Factory, House Secrets and Sportworks.

Update from last year.

LABCON 2008

# Keynotes Speakers

## Keynote Speakers

### **WEDNESDAY 3<sup>rd</sup> December 2008** **8.45am-9.30am** **"Breaking the Carbon Bond: Energy for All. In the battle against global warming, how can chemistry help?"**

#### **Dr Rachel Caruso**



Rachel is an ARC Australian Research Fellow at the School of Chemistry, The University of Melbourne. Her achievements include the Victorian Tall Poppy Science Award, 2006, and a Bright Sparks Award, 2007. Her current research focuses on enhancing the activity of electrodes in solar cells, as well as developing porous materials that can absorb light to break down toxins in industrial waste water. Rachel is committed to inspiring young people and is always willing to take time from her hectic research schedule to work with secondary teachers and students.

### **THURSDAY 4<sup>th</sup> December 2008** **9.10am-9.40am** **Technological developments in cell biology: new tools in cell isolation and imaging.**

#### **Dr Clare Westhorpe**



Macfarlane Burnet Institute for Public Health and Medical Research.

Technology in the medical research laboratory continues to develop rapidly. This talk will highlight three new techniques for cell analysis, from molecular to whole-cell and tissue analyses. Flow cytometry and fluorescence-activated cell sorting (FACS) are a means for analysing and separating multiple sub-populations of cells from complex preparations such as blood samples. We can now separate up to four different cell populations using seven different fluorescent tags simultaneously at very high speed. Deconvolution microscopy is a relatively new technology in which ordinary whole-field epifluorescence images of cells and tissues are 'cleaned up' using complex algorithms. This produces highly refined images particularly for low-intensity and sub-micrometre fluorescent staining. Finally, laser-capture microdissection is a tool that extracts individual cells or parts of cells from tissue sections for further analysis using a laser to 'cut' the cells out. We have successfully amplified DNA and RNA from these purified populations of cells for analysis. These technologies are just a few of the new developments that scientists are now using in the field of cell biology.

### **Alfred Brash Sound house Tour – Friday** **Peter Wakefield**

#### **FT4 Depart Hemisphere 9.00am return 1.30pm**

At the Alfred Brash SoundHouse you'll experience a practical workshop that introduces you to hands-on methods for teaching the physics of sound and linking it to the world of audio recording and music production. Through discussions, demonstrations and interactive guided activities on computer workstations, you will cover concepts from basic sound principles taught in middle school science, through to the advanced concepts of the Yr. 12 detailed study - Recording and Reproducing Sound. Learn how to practically demonstrate frequency and pitch relationships, loudness and wave amplitude, different hearing ranges and the implications for recording, harmonics and the physics of different tonal colours, electromagnetic principles of dynamic microphones, electrostatic principles of condenser microphones, speaker design and frequency response and how sound is recorded for CDs. This session will provide a strong link between theory and its practical considerations, particular in the music industry

New Tour.

# Workshops – Alphabetical by Topic

## **Animal Ethics – The Care and Use of Live Animals in Science**

**Helena Skora – Department of Education & Early Childhood Development**

W14, T46

The Care & Use of Live Animals in Science

Chicken imprinting? Mice breeding? Live animals can add a lot of value to a learning experience!

Participants will learn about recent changes that have been made to ensure schools fully comply with legislation and the 'code of practice' and how these tie in with the RSPCA's 5 Freedoms and the 3R's. The session will include information about a new on-line approval system that schools need to use to apply to use a live animal in their class. The on-line system also provides activities and information (including species notes) for schools to use.

Update.

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## **A Touch of Glass**

**Dale Carroll – Geelong College**

W36, T58

Having the ability to perform some simple glass-working techniques can be a very useful skill to have in the school science laboratory. For instance, being able to repair a broken measuring cylinder is often a worthwhile cost-saving exercise. Cutting larger pieces of glass or mirror into "student size" pieces can stretch the budget further. We will only use a Bunsen burner for the heat and some basic tools and be able to cut, bend or repair many things.

This session is a hands-on session where you will be shown some simple techniques to use and encouraged to have-a-go. Other useful tips and gadgets will also be shown.

Repeat of last year.

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## **Basic Theory of Electricity and Electric Circuits**

**Michael Foster - Thornbury Darebin College**

T74

Participants will get to make simple, cheap and exciting electric circuits. The activities will also allow participants to test their circuits using various equipment. This hands on approach is very beneficial in terms of engaging students from years 7 to 12.

Repeat of last year.

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## **Beginners' 101; Introduction for New Lab Techs**

**Jason Griffiths – Glen Waverley Secondary College;**

W34, T52

Just started in a school? So you know enough chemistry to make up a 0.352M solution, enough physics to wire up a simple circuit and measure the current and voltage drop across a component, and enough biology to show yeast fermentation. But do you know how to standardize a solution of Sodium Thiosulphate? How to get that problematic 10% starch solution made? What the trick is for making PVA/c solution? This session is designed to show beginning lab-techs some of the tricks of the trade, but isn't really suitable for anyone who has been a lab-tech for very long.

Repeat of last year.

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## **Blood and Fibre Forensics**

**Peter Ball - Southern Biological**

W24, W33

Blood and fibres are often collected at a crime scene and used as evidence to track down the perpetrator, so forensic science makes an ideal context to present lessons on these topics. Whilst solving a mystery, students can gain experience with microscopes, understand the need for experimental controls and learn about the composition of blood, and the structure and properties of fibres. Participants will use luminol to find traces of blood then carry out an ABO blood typing exercise on realistic artificial blood. To complete the workshop, various natural and synthetic fibres will be examined to determine their source. Can we identify the guilty party?

Repeat of last year.

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## **Bump, Beep & Squeak: A Taste of RoboCup**

**Ian Maudy – RoboCup Junior**

W6, W16, T51, T70, T79

Robotic equipment sitting on the shelves? Need a great way to involve students? Can you work in an environment where enthusiastic students often lead the way? The focus of this workshop is hands-on activity: you'll learn how simple it can be to produce robotic 'cockroaches,' find how to run a snail race, perform a short dance, follow a rescue line, or play robotic soccer! Visit [www.robocupjunior.org.au](http://www.robocupjunior.org.au) for more information.

New session.

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## **Chemical Management in the School Laboratory**

**Michael Pola – Envirochem Technologies**

W3, W20

How school laboratories can comply with dangerous goods and hazardous substances requirements. Advice and tips on general good management practices for laboratories. Topics covered include safe storage, waste disposal, spills, misconceptions, good practice and responsibilities.

Repeat of last year.

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## **CHEMISTRY A Reference Manual for Laboratory Technicians**

**Geoff Gleadall – Brighton Grammar School**

W11, T83

This is the new edition of LTAV's chemistry manual. The first edition has been out of print for a long time and this manual takes a new approach, focussed on helping all technicians but especially those who are new to chemistry. A practical guide to running laboratories for the teachers of chemistry.

New session.

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## **Chemwatch Discussion Forum**

**Arthur Stabolidis – Chemwatch**

T69

Question and answer session on product.

Update on last year

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**Climate Change**  
**Dr Jo McCubbin – DCSI**  
T49

This workshop is based on the AI Gore Leadership Program on Climate Change and will include my personal slides together with slides from the Australian Conservation Foundation.  
New session.

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**Don't be Frightened...It's only a Microscope**  
**Karen McCoy – Camberwell Grammar School**  
W13, W23, T55, T63

Many of us are worried about the use and care of the optical microscope. This session is to demystify the workings of this important piece of laboratory equipment. Participants will be given the insiders guide on how to set the microscope up, obtain clear images and trouble shoot problems. The cleaning and maintenance of the microscope will be covered as well as some basic slide preparation techniques. A brief overview of microscopy techniques other than bright field will also be covered.  
New session.

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**Enhancing Biology Teaching with Technology**  
**Phil Jones – The Logical Interface**  
W4, T54

In this workshop I examine a number of technologies for teaching biology, including

- Digital imaging and microscopy using digital eyepieces, microscopes and digital microscopes to expand microscopy into new experiences such as forensic science.
- Using time lapse photography to capture seeds germinating, metamorphosis etc
- New developments in data loggers, which make data logging easier and more accessible including using Ultra Mobile PCs to make data logging in the field simple and practical
- Incorporating Interactive Whiteboards into science teaching.

New session.

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**Enhancing Physics Teaching with Technology**  
**Phil Jones – The Logical Interface**  
W28, T61

In this workshop I examine a number of technologies for teaching senior physics, including

- Video analysis and TLI Motion video analysis software - ideal for analysing motion in one and two dimensions to produce position vs time graphs etc.
- Interactive Physics: a superb tool for creating simulations in physics - from Kepler's Laws through to Electromagnetic simulations
- Using data loggers effectively including basic and more advanced experiments such as force on current carrying wire, electromagnetic induction, apparent mass and electronic ticker timer.
- Simulation software - ideal for demonstrating experiments that are impractical in the secondary science lab and
- Incorporating Interactive Whiteboards into science teaching.

New session.

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**Enhancing Primary Science Teaching with Technology**  
**Phil Jones – The Logical Interface**  
W30, T73

The science technology used by industry, universities and secondary schools is now simple enough and inexpensive enough to be used in primary science  
In this workshop I examine a number of such technologies including

- Digital imaging and microscopy using digital eyepieces, microscopes and digital microscopes to expand microscopy into new experiences such as forensic science.
- Using time lapse photography to capture seeds germinating, metamorphosis etc
- Inexpensive data loggers, which make data logging easier and more accessible to primary science
- Incorporating Interactive Whiteboards and other Interactive technologies into science teaching.

New session.

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**Edutainment Science 1: Guaranteed Engagement in Chemistry**

**Carl Ahlers - Prof Bunsen Science**  
W25, W31

Globally students show less interest in the physical sciences due to a lack of engagement, relevance and connection with their interests. So this is the challenge science education faces!

In this session we will cover simple, practical chemical activities and demonstrations that will engage and connect! Guaranteed. Learn how to incorporate everyday used items into the classroom and experience:

Turmeric powder's greatest secret, Cola - Mentos eruptions (all the secrets revealed), cotton wads that go bang, dust explosions in confectionary stores, hydrogen gas prepared in the kitchen, accelerated corrosion in soft drink cans & more. There'll be lots of practical tips from Carl who has focused on these activities for over 20 years and has brought excitement to thousands of students.

Repeat of last year.

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**Edutainment Science 2: Guaranteed Engagement in Physics**

**Carl Ahlers - Prof Bunsen Science**  
T65, T80

Globally students show less interest in the physical sciences due to a lack of engagement, relevance and connection with their interests. In this session we will cover simple, practical physics activities and demonstrations that will engage and connect! Guaranteed. And it is sustainable as most items can be found around the lab or home. Learn how to set-up and prepare:

Ketchup bag divers, a simple pinhole camera, a rail 'gun', a really simple 3 part electrical motor, a super sized spectrum on a white board; a cheap laser DIY show, luminescence and more surprises. There'll be lots of practical tips from Carl who has focused on these activities for over 20 years and has brought excitement to thousands of students.

Repeat of last year.

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### **First Aid in Laboratories**

**Tony Smith – Brighton Grammar School**

W40, T56

Is there a need for a Specialised First Aid Course in relation to Laboratories?

First Aid Providers specialise only in general workplace first aid.

Do laboratory workplaces require special needs in regard to first aid training?

Maybe there is a need to elaborate to focus on thermal / corrosive burns, eye injuries, poisoning by absorption / ingestion / injection / inhalation and other injuries pertinent to laboratories.

New session.

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### **Fun Physics – Newtons 1<sup>st</sup> Law of Motion**

**Ralph Sinclair- Monash Science Centre**

W26, W39, T44, T59

This session is designed as an orientation activity for Primary students, but may be of use to junior science at Secondary level. Newton's 1<sup>st</sup> Law of Motion is demonstrated with hands-on student activities – including the manufacture of one's own "Mexican Jumping Bean". All materials are supplied (including take home packaging). This lesson never fails to entertain teachers, students and parents and is certain to be a fun activity.

Repeat of last year.

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### **Great Ideas in the Teaching of Science**

**Peter Razos – Trinity College**

W27, W37, T50

If you seek ways of introducing interesting and exciting science to your students then this session is a must. Participants will be introduced to activities such as Put-put boats, Hydraulic models, exothermic reactions, density toys, model rocket, stick insects with a clear explanation of how such activities can be used to bring to life scientific concepts. This session will surely build your repertoire of demonstrations, Science Week activities and classroom resources.

Repeat of last year.

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### **Ignite Your Imagination – Build and Launch a Rocket**

**Peter Dallimore – St. Anbridge's Hobbies**

W5, T72

So you want to help your students "Ignite their Imaginations" - Model Rockets **will** help!

In this workshop you will build a model rocket in the classroom, take a short walk to the local park and then launch the rocket you have just made. You will then see how easy it is to "Ignite their Imaginations".

You will also be given copious information on a FREE CD that you can use back at your school that will give you all the information you need to get your students equally excited.

The CD covers a large range of topics, covering subjects on flight, aviation, – how a wing works, Newtons Laws of Motion and much more.

Repeat of last year.

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### **Introduction - using ChemGoldII**

**Arthur Stabolidis & Gwen Briscoe – Chemwatch**

T47

This presentation details the features of the Chemgold II program and its role in meeting your legislative requirements. It will cover how the system works, how to obtain and review MSDSs, how to print and make adjustments to labels, and it will also include an overview of the Manifest module.

Update on last year.

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### **Inventory and Risk Assessment Record-Keeping**

**Geoff Gleadall – President LTB-STAV**

W17, T77

There are 3 modules on the CD: Risk Assessment, Inventory and Lab tech notes. The Advantage of using relational databases is that they can be on an intranet and accessed from any location that has access to the files. Each database is a shell only. You can conveniently record, store and retrieve data that you enter. The databases do not automatically generate content for you, although they do have containers for specified information and drop down menus for various items. You can modify and customize each data base to better suit your circumstances if necessary. The database is for keeping track of your safety assessments, your equipment and chemical inventory.

Repeat of last year.

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### **Laboratory Arts & Recipes**

**Peter Ellis – Bendigo Senior Secondary College**

W7, T62

This presentation will commence with some hints on simple things, like making a cork fit in a test tube, is a rubber stopper a better alternative, removing stubborn chemical residues, utilising old glass stoppered reagent bottles, when are plastic storage bottles better, freeing seized glass joints. Making test loops and agar salt bridges will be described and re-capped in 'A Touch of Glass'. It is hoped those attending will bring their own arts and recipe ideas to debate and share.

Repeat of last year.

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### **LABTECH Working in the UK**

**Dale Carroll –Geelong College**

W21, T82

Working in the UK - my experiences and ideas about how to find positions.

Having worked as a lab tech in the UK for 7 months I would like to share some of my experiences and a little about how I came about the position and possibly how to look for a similar experience for yourself.

New session.

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### **Making Science Engaging. A Team Approach to Lab Technicians and Teachers**

**Mary L. Jones Willie – Keilor Downs College**

W19, T53

This workshop will look at ways that laboratory technicians can help in making science engaging for students at various year levels and where their role can lie, if there is time and a good team environment within the school. Looking at what Keilor Downs College's science department has done and undertaken as a team to getting and keeping students interested in science from educational games to technology to Quantum Club, our science club.

Repeat of last year.

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### **Model Rocketry in the Science Classroom**

**Peter Razos – Trinity Grammar**

W9, T64, T76

Participants will be encouraged to construct and launch their own model rocket. We will investigate ways in which the unit of work meets VELS. Participants will also discuss uses in the classroom during topics such as energy conversion, forces, flight and chemical reactions.

Repeat of last year.

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### **Radiation Protection and Awareness in Australia**

**Keith Dessent, John Javorniczky, Ken Karipidis, Kevin Rafferty – ARPANSA**

T71

#### **Radiation Sources in Schools**

The Code of Practice and how it is applied in order to work safely with radiation in the secondary school environment. The Code also covers the acquisition and disposal of radioactive sources and other equipment that produces radiation.

Mr Keith Dessent

#### **ARPANSA and UV Radiation**

Australia has high levels of solar UV radiation and high incidence of skin cancer. There are various personal UVR protective measures such as clothing, hats, sunscreen, sunglasses and shade structures to provide UVR protection.

What programs and services does ARPANSA provide?

Dr John Javorniczky

#### **Electricity and Health**

The widespread use of electricity means that people are exposed to 50 Hz electric and magnetic fields (EMF) in the home, in the environment and in the workplace from powerlines, electrical wiring and common appliances and equipment. Is there any evidence that EMF exposure poses a risk to human health?

Mr Ken Karipidis.

Repeat of last year.

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### **Risk Assessment in Science**

**Rod Williams**

W1, W15, W29, T43, T57

This session will discuss different methods and programs that could be used to increase the use of risk assessments in the science area. It will cover the basics of risk assessments – the why, how and when to do. It will also cover possible techniques to get staff and students on board and what programs/systems are around to assist in the completion and implementation of risk assessments. Presented by an experienced science teacher and 2005 OHS representative of the year finalist.

Repeat of last year.

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### **Rocks, Rocks and more Rocks**

**Peter Nisbet - Fairhills High School**

W18, W38

Discover the beauty of our rocks and minerals. Samples of the minerals from which metals are obtained and a few surprise minerals will also be viewed. It's not hard to identify common rocks and minerals if you have the right identification tables and knowledge. This is a hands-on session in which you will be given samples of rocks and minerals to identify after learning the features of the three main rock types and the characteristics of the most common rocks. Bring along some of those unknown rocks from school to be identified.

Repeat of last year.

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### **SciList Workshop**

**Glenda Carswell**

W41

We will present SciList – the revolutionary equipment management, stocktaking and re-ordering system. Take the pain out of stocktaking, and have purchase orders automatically produced for you! Use SciList to list all equipment and consumables with descriptions, stock levels, and locations. Know where everything is, down to the smallest item! Generate lists eg all items in one location, or, items for a specific purpose such as 'prepared slides used by year 12 biology'. Special features include keyword searching, category searching and purchase and stocktaking histories.

Repeat of last year.

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### **Simple Electricity and Electronic Tips**

**Peter Hill – Penleigh and Essendon Grammar School**

W10

Some simple ideas to help your electricity and electronics topics. Making a component holder. (Permanent and Interchangeable). A series and parallel circuit board that has stood the test of time. Rechargeable batteries and connecting wires.

Repeat of last year.

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### **The Geology of Earth's Energy Resources**

**Peter Nisbet – Fairhills High School**

W8

The energy resources of Coal, Oil and Gas all produce greenhouse gases that are altering the temperature and climate of the Earth. The alternative energy resources of uranium, geothermal and solar all derive from the Earth.

This presentation explains the origins of coal, oil, gas and geothermal power, the physics behind nuclear power and the resources needed to produce solar cells.

Repeat of last year.

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### **The Intergovernmental Panel on Climate Change:**

**A synthesis of the Fourth Assessment Report (2007)**

**Harvey Stern – Bureau of Meteorology**

T81

The Intergovernmental Panel on Climate Change (IPCC) was established by the World Meteorological Organisation (WMO) and the United Nations Environment Programme (UNEP) to assess scientific, technical and socio-economic information relevant for the understanding of climate change, its potential impacts and options for adaptation and mitigation. The purpose of the presentation is to provide a synthesis of the IPCC's Fourth Assessment Report, which was released earlier in 2007.

Repeat of last year.

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### **Triple R – Regional Representatives Rage**

**Wendy Hurle – Regional Liaison Officer & Dandenong**

**Regional Representative LTAV (Inc)**

T60

Our Regional Representatives Rage is open to all current LTAV Regional Representatives, along with anyone that is interested in taking on the role. Discussions will include activities held during the past year, difficulties faced, possible solutions and any other matters of importance. All Regional Representatives are requested to bring along 18 copies of a short report to be distributed at the meeting to those present.

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## **Using Your Pasco Gear with Students and Teachers**

**Doug Bail – Cider House ICT Pty Ltd**

W2

You've got the gear – now you need to get the best out of it (despite your teachers:) This session will focus on your needs as a technician supporting PASCO equipment in the classroom.

Repeat of last year.

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## **Vernier in Action**

**Gary Bass – CP Software**

T48, T68, T78

How to encourage an active science program using Vernier. It just works! Now what to do with the data? The performance and development culture requirement of VELS demands science is far more visible.

This session will illustrate how simple experiments can be 'captured' and published.

Hands on session using vernier probes and sensors and making slideshows and pod casts.

Repeat of last year.

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## **'web2.0 for science'**

**Gary Bass – CP Software**

W12, W22, W32

How to streamline the lab and information service provided by the lab manager. Classroom is one thing, the admin, ordering and supply of how to do's and manuals is a much neglected area and is in need of revamp and attention.

This session will provide some examples and guidance on how to use Web2.0 tools to advantage in the Science Lab.

New session.

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## **Wine: Basic Tastes, Smells, and Critical Analyses**

**Ann Manning**

T67, T75

Chemically analyse grape juice and/or wine components, experience the basic tastes and some smells commonly encountered in finished wine. The chemistry component involves sugar and acid measurements (hydrometry, rapid visual identification, pH and titratable acidity) - suitable for Year 10 classes. The organoleptic component would be suitable for primary or junior secondary science classes as a component of a senses unit or could be combined with the chemistry for older students.

Repeat of last year.

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## **Working With Enzymes**

**Peter Ball Southern Biological**

T45, T84

Enzymes are nature's catalysts. They act to speed up biochemical reactions to make them useful for metabolism in living organisms. However, since they are complex polypeptides, enzymes can be denatured by shifts in temperature and pH, and this in turn can affect the way they work. Participants in this workshop will experiment with a range of enzymes including amylase, trypsin, lipase, rennin and urease to compare their reactions and discuss their suitability for student experiments. We will also look into troubleshooting enzyme reactions and using a datalogger to measure reaction rates where possible.

Update on last year.

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## **LTAV COMMITTEE**

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Position vacant

### **Geelong Region**

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### **Gippsland Region**

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### **Hume Region**

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### **Kew Region**

Position vacant

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### **Nillumbik/Banyule Region**

Position vacant

### **North Metro Region**

Position vacant

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