

STAFF

School Resources Manager
Judith Huppatz, BA Liverpool,
GradDipProfAcctg Canberra, CPA

Executive Assistant to the Director
Martina Landsmann (until October)
Laura Walmsley (from October)

Policy and Public Relations
Tim Wetherell, BSc PhD St Andrews

Special Projects Officer
Martina Landsmann (from October)

Administrator; Staff & Students
Gayle Samuel

Assistant Administrator; Staff & Resources
Julia Peric

Assistant Administrator; Staff & Students
Gillian Harman
Amber Hayden (until May)

Receptionist
Susie Radovanovic

Manager Finance; Purchasing & Stores
Maree Kearns, BCom UNSW, DipEd UNE
(from February)

Assistant Finance Officer
Abby Chin (from August)
Purchasing & Stores Manager
Mark Harris (from March)

Purchasing Officers
Marianna Ng (from September)
Hanna Spanning

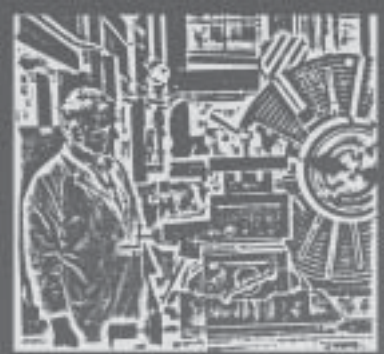
Stock Ordering Clerk
Lyndell Paseka

Head Storeman
Ken Staples

Stores Staff
Richard Adamow
Goran Radovanovic (part-time)

School Librarian
Annette Styles

Technical Support



School Services

The School Services comprises five groups: Electronics, Electricians, Joinery, Mechanical Workshop and the School Computer Unit.

The outstanding success of ensuring that all areas of the School receive first class attention is totally due to the dedication and the willingness of each staff member to contribute beyond what is expected. The individual reports below highlight the year's work.

Electronics Unit

The Electronics Unit is a team of multi-skilled staff servicing researchers' needs by developing and maintaining experimental electronic equipment used in the School's research program. Much of the work involves adapting current and emerging technologies into prototype electronic equipment. Fault diagnosis and repair of the School's diverse research equipment is a key aspect of the Unit's role. The Unit also loans general-purpose electronic instrumentation and advises on equipment purchases, measurement/control techniques and new technologies.

Kevin Lonsdale has proved to be an excellent School Facilities and Services Manager providing guidance and support to help this Group achieve their goals.

2002 was a year dominated with numerous smaller tasks to consolidate previous projects and assist researchers to enhance experimental apparatus. Some examples of these were:

- Modify and commission the remote control of the ex-Radio Australia transmitter used to heat plasma in the Helic experiment;
- Develop and install control equipment for positioning targets in the Nuclear Physics' Solitaire fusion products experiment;
- Rapid design and delivery of a device to control a high voltage piezo crystal to solve an urgent experimental need;
- Design and build an 80 MHz bandpass filter for Laser Spectroscopy;
- Install and commission the newly designed control electronics and software to upgrade the Secondary Ion Mass Spectrometer (SIMS) apparatus;
- Design and build a unit to sequence power supplied to a microwave spectrometer preventing damage to the equipment;
- Build and test a high voltage deflector power supply for electron spectroscopy.

As well as the many small tasks there were some larger projects undertaken in 2002, including:

- A system to automatically maintain liquid nitrogen cooling to gamma-ray detectors used for Nuclear Physics research. Initially 12 detectors will be cooled, but the system can easily be expanded. This project brought new technology and capabilities to the Group, especially in micro-controller development;
- A device to identify electron spin polarisation was developed to aid data collection from the e₂e electron spectrometer apparatus;
- Two pressure monitoring gauges were designed and built to allow easy monitoring of differential gas pressures within the detector system of the Solitaire experiment in Nuclear Physics;



School Electricians, George and Bruce at work - from Michael Blacksel's Founders Day talk

- A beacon system to indicate beam path in the Nuclear Physics target areas was designed and installed as part of the radiation safety strategy;
- An analogue temperature control unit is under development for use in custom environmental chambers for Applied Mathematics;
- The control of the School's air compressors was automated using PLC technology;
- Laser diode control units were built and tested for the atom manipulation research program at the Faculties.

Keeping experimental equipment functioning is a key role for this Group. 2002 was no exception. 89 separate service reports were written and the maintenance activity consumed more than 1931 hours of effort. Repairing a 3D Model Rapid Prototyper for the ANU Arts School was a good example of the worth of having broadly skilled staff able to solve complex technical issues.

The Group was active in a number of School- and University-wide support activities. There were regular contributions to OH&S inspection and committee work, leadership in First Aid and significant contribution to Electrical Safety issues.

This is a democratic group that continues to flourish using self-managing team strategies together with a strong client focus.

Electricians

Bruce Johnson completed his apprenticeship in 2002 under the guidance of George McEwan. The School considers it a privilege to have such a gifted electrical tradesperson as George with the ability to pass on his many years of practical skills to apprentices.

George and Bruce have undertaken the electrical strip out of the Round House, rewiring of many of the machine tools in the mechanical workshop as well as countless lamp changes and the provision of single-phase and three-phase wiring to laboratories.

Joinery

Steve Brooks and Anthony Mackey have manufactured a range of furniture that is not commercially available. They have undertaken a strip out of the Round House prior to demolition. Doors have been trimmed after carpet laying, keys have been cut for offices and laboratories, furniture repaired in addition to the many and varied maintenance tasks that have to be undertaken in aging buildings. All have been completed with great attention to detail and a courteous attitude.

Mechanical Workshop

This year we embarked on a "consolidate and update" plan to revamp the Mechanical Workshop (MWS). This involved a five step plan:

- Selling some of the older machine tools that had reached their use by date or were largely redundant;
- Acquiring new CNC/Manual machines that will keep the MWS at the forefront of machining technology;
- Incorporating the Precision Shop into the main workshop to help alleviate OH&S problems with the isolated location of this workshop, and to provide better integration of skills within the workshop;
- Relocating some of the existing machinery into a modern work-team-style layout rather than a regimented factory layout and also to allow crane access;
- Opening up the workshop area by demolishing most internal walls to increase visibility for OH&S reasons and also to present a more modern, spacious and attractive appearance to School visitors.

Recently we have been advised that the Cockcroft West wing will be completely refurbished by the end of 2003. This should bring some exciting changes to the building, including the MWS.

The highlight this year for the MWS has been the addition of a Deckel-Maho DMU50T machining centre to advance our CNC milling capability. This machine opens the door to effective three-dimensional machining and allows us to more fully utilise modern cutting-tool technology.

The year has been a busy one with many projects completed for our School customers. Among these projects were assemblies for a High Voltage Polarised Electron Source for AMPL; CEASAR Array Linear Scissor Mount assemblies for Nuclear Physics; Multi-channel Gas Feed system (for H1) for Plasma; Cryo-cell assemblies for Applied Maths; and a Rutherford Back-Scattering Chamber for EME. In addition, external work was also

undertaken, in particular work for other departments of the ANU and also notably Multi-Collector parts for Australian Scientific Instruments, additional Quadrupole Lenses for the University of Amsterdam (via University of Melbourne), and the University of Canberra. Funds received by MWS for these jobs will go towards purchase of new machinery, in particular a "teach-in" type CNC/Manual lathe and milling machine.

Next year promises to be an interesting one and the MWS team again looks forward to helping our customers through providing high quality manufacturing support.

School Computer Unit

In 2002, the School Computer Unit (SCU) team continued to provide support for the information technology infrastructure of the School including the computer network and the diverse range of hardware and software used in the School. Pavlinka Koleva, a Network Engineering student from CIT was on Industry Placement at SCU between August and October.

During the year, SCU upgraded the Linux server and expanded its support of the Linux systems in the School. The computational facilities of the School have also been enhanced significantly with the acquisition of an ES40 Alphaserver.

Other major projects carried out in SCU in 2002 include:

- Continued improvements in the School's computer network infrastructure;
- Upgrade of the Unix Operating System;
- Development of a financial report for School administration;
- Development of the School staff database.

STAFF

School Facilities and Services Manager

Kevin Lonsdale, AssocDipMechEng DDIAE, B Tech USQ, PGCertCnflctMgt Macq

Electronics Unit

Tony Cullen (Head)

Engineers

Michael Blacksell

David Kelly

Technical Staff

David Anderson

Dennis Gibson

Huan Van Tran

Wasantha Ramasundara

Trainee Technical Officers

Celia Higginbottom (until June 2002)

Steven Huynh

Mechanical Workshop

Ron Cruikshank

Technical Staff

Anthony Barling

Ben Danaher

Peter East

Stephen Holgate

Owen Kershaw

Tom McGuinness

Miro Peric

Andrew Sullivan

Apprentices

Gareth Crook

Elliott Scott

School Computer Unit

Shiu Tin, BSc Hong Kong, PhD

Julie Dalco, BA

Janes Irwin, BIT UC

Deane Larkman, BSc, Grad Dip Comp UC, MIT UC

School Services Staff

Steve Brooks

Bruce Johnson

Anthony Mackey

George McEwan

School Committees



School Advisory Board

In the past, the role of the School Advisory Board has been to assist the School to identify strategic priorities and advise the Director on the appointment of continuing academic staff. In 1997, Faculty Board endorsed the current terms of reference. They agreed that an important role for external members of the School Advisory Board was to lobby on behalf of the School, within the public and private sectors, and to advise on factors in the external environment which impact on the School. It was therefore deemed appropriate to appoint more than one industry representative. Several other changes to the composition of the Board were also agreed at that time. Members are:

Professor Erich Weigold, Director, RSPHysSE (Chair) (until October)
 Professor Jim Williams, Director, RSPHysSE (Chair) (from November)
 Professor Hans Bachor, Department of Physics, Faculty of Science, ANU
 Professor John Hearn, Deputy Vice-Chancellor (Research), ANU
 Professor Stephen Hyde, Head, Applied Mathematics, RSPHysSE
 Professor Keith Nugent, School of Physics, University of Melbourne
 Associate Professor John O'Connor, Director, Centre for Materials, University of Newcastle
 Dr Scott Rashleigh, Managing Director, ADC Australia Pty Ltd
 Professor Robert Watts, Chief Scientist, Broken Hill Propriety Limited, Melbourne
 Ex Officio Members:
 Professor Stephen Buckman, Associate Director (Academic), RSPHysSE
 Professor Neil Manson, Associate Director (Students), RSPHysSE
 Professor Jim Williams, Associate Director (Resources), RSPHysSE (until October)

Faculty Board

Together with meetings of Heads of Departments, Faculty Board is the principal mechanism for advising the Director on a regular basis. It reports to the Board of the Institute of Advanced Studies. The Board spends a significant proportion of its time on issues affecting the environment in which the School operates – especially funding and the impact of industrial and other legislation – rather than on strictly academic issues. Members are:

Professor Erich Weigold (Chair; until October)
 Professor Jim Williams, (Associate Director, Resources; until October) (Chair; from November)
 Professor Rod Boswell (Chair of Faculty)
 Professor Stephen Buckman, Associate Director (Academic)
 Professor Neil Manson, Associate Director (Students)
 Professor Stephen Hyde, AM (until October)
 Dr David Williams, AM (from November)
 Professor Brenton Lewis, AMPL
 Professor John Love, DU
 Professor Yuri Kivshar, DU
 Professor Robert Elliman, EME (also Faculty representative on BIAS)
 Professor Barry Luther-Davies, LPC
 Professor George Dracoulis, NP
 Professor John Mitchell, OSC
 Professor Jeffrey Harris, PRL
 Professor Vladimir Bazhanov, TP
 Mr Darryl Scott (Student Representative until September)
 Ms Megan O'Mara (Student Representative from September)
 Dr Nanda Dasgupta (Faculty Representative)
 Professor Robert Dewar (Faculty Representative)
 Mrs Judith Huppatz (By Invitation – non-voting continuing)
 Mr Kevin Lonsdale (By Invitation – non-voting continuing)
 Secretary – Mrs Gayle Samuel

Faculty

The Faculty of the School consists of all academic staff, including long-term visitors and postgraduate students. Faculty functions as a means for informing academic staff on activities within the School.

Chair – Professor R.W. Boswell
Secretary – Mrs Gayle Samuel

Heads of Departments

Heads of Departments met with the Director throughout the year and, where appropriate, senior administrative staff attended. Aspects of the School budget and strategic planning dominated the meetings. Because of the School's requirements for major items of equipment, consideration of bids to the ARC Linkage Infrastructure, Equipment and Facilities (LIEF) and the University Major Equipment Committee was again given high priority. Issues concerning the Institute Planning Committee grants and the Vice-Chancellor's Plan for Growth Fund were also of importance.

Professor Erich Weigold (Chair; until October)
Professor Stephen Buckman, Associate Director (Academic)
Professor Neil Manson, Associate Director (Students)
Professor Jim Williams, Associate Director (Resources) (until October) (Chair; from November)
Heads of Departments

Advisory Groups

At the beginning of 1998 the Director established a number of internal groups to offer advice regarding major School activities to optimise the academic functions of the School. Together with the Heads of Departments meetings, they prove extremely effective in formulating a cohesive approach to School management.

Academic Staffing Advisory Group

Professor Stephen Buchman (Chair)
Professor George Dracoulis
Professor Stephen Hyde
Professor Bob Dewar
Professor Jeffrey Harris
Professor C. Jagadish
Secretary – Mrs Gayle Samuel

Budget Strategy Advisory Group

Professor Erich Weigold (Chair)
Professor Stephen Buckman
Mrs Judith Huppatz
Professor Jim Williams

Commercialisation Advisory Group

Dr Tim Senden (Chair)
Professor Rod Boswell
Mr Tony Cooke (Anutech representative)
Professor Jeffrey Harris
Professor Barry Luther-Davies
Professor Jim Williams

External Grants Advisory Group

Professor Stephen Buckman (Chair)
Professor Robert Elliman
Professor Jeffrey Harris
Professor Yuri Kivshar
Professor Barry Luther-Davies
Dr Mark Ridgway
Professor Jim Williams

Major Equipment & LIEF Advisory Group

Professor Brenton Lewis (Chair)
Professor Stephen Buckman
Professor Robert Elliman
Dr Keith Fifield
Professor John Love

General Staff & Facilities Advisory Group

Professor Stephen Buckman (Chair)
Ms Julie Dalco
Dr Keith Fifield
Mrs Judith Huppatz
Mr Kevin Lonsdale
Mr Ian McRae
Dr David Weisser
Secretary – Mrs Gayle Samuel

Student Advisory Group

Professor Neil Manson (Chair) and Convenor, Graduate Program in Physics
Dr Aidan Byrne
Dr Steve Gibson
Dr John Howard
Professor Chennupati Jagadish
Professor John Love
Dr Tim Wetherell
Mr Darryl Scott (Student Representative, Faculty Board) (until September)
Ms Megan O'Mara (Student Representative, Faculty Board) (from September)
Secretary – Ms Gillian Harman

Other School Committees (alphabetically)

Colloquium Committee

Professor Yuri Kivshar (Chair)
Professor Robert Crompton
Professor Robert Elliman
Professor Neville Fletcher
Dr Rowena Ball
Dr Miklos Gulascsi
Dr Tim Senden
Secretary – Ms Martina Landsmann

Computing Policy Advisory Committee

Dr Boyd Blackwell (Chair)
Dr Gordon Foote
Dr Stephen Gibson
Mr Heinz Horn
Professor John Mitchell
Dr Elena Ostrovskaya
Dr Marek Samoc
Dr Adrian Sheppard
Dr Hark Hoe Tan

Executive members:

Mrs Judith Huppatz
Mr Kevin Lonsdale
Dr Shiu Tin

Editorial Committee – Annual Report

Dr Mark Ridgway
Professor Brenton Lewis
Dr Timothy Wetherell
Ms Martina Landsmann

Library Advisory Committee

Mr Paul McNamara (Library) (Chair)
Dr Adrian Ankiewicz
Dr Kenneth Baldwin
Professor Robert Elliman
Ms Samantha Jackson (Library) Information Access Officer
(Physical Sciences)
Dr Serdar Kuyucak
Professor Brenton Lewis (Representative on SCILAC)
Dr Craig Savage (The Faculties)
Dr Michael Shats
Dr Ralph Sutherland (RSAA)
Ms Annette Styles (Physical Sciences Library)
Dr David Williams

Fixed-Term Academic Appointments Committee

Core members
Professor Stephen Buckman (Chair)
Professor Jeffrey Harris
Dr Nanda Dasgupta
Professor Robert Elliman
Professor John Love

Occupational Health & Safety Committee

Mr Anthony Hyde (Chair, from February)
Dr Keith Fifield (Chair, until February) (Deputy-Chair, from February)
Mr Michael Blacksell
Mr Alan Cooper
Mr Kevin Lonsdale
Mr Gary Picker
Dr Maarten Vos
By invitation:
Mr Stephen Atree-Williams (ANU OH&S Unit)
Mr Tom Halstead

Public Relations Committee

Dr Tim Wetherell (Chair)
Professor Rod Boswell
Dr Aidan Byrne
Dr Stephen Gibson
Dr Miklos Gulacsi
Dr John Howard
Professor John Love
Professor Neil Manson
Dr Tim Senden
Professor Jim Williams
Ms Elena Wilson (Student representative)

Local Promotions Committee

Professor Erich Weigold, Director (Chair)
Professor Robert Elliman
Professor Adrienne Hardham (RSBS)
Professor Stephen Hyde
Professor Neil Manson
Professor Leo Radom (RSC)
Secretary – Mrs Gayle Samuel

Internal Management



Equal Employment Opportunity Issues

Professor Jeffrey Harris is the School representative on the University Equity and Diversity Group. The role of this group is to initiate and provide a means for the implementation of policies and practices in the local work areas.

The School has nominated the following staff members as gender equity officers:

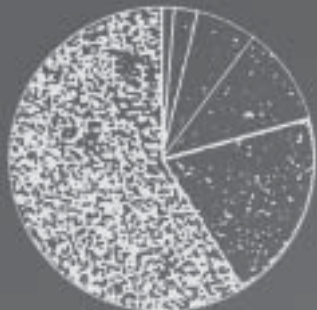
Professor Jeffrey Harris (senior academic)
Ms Judith Huppatz (senior general staff)
Ms Gayle Samuel (equity officer)
Professor Neil Manson (student affairs)

Report on management of sexual harassment matters.

No issues arose during the year.

Report on Equity & Diversity Certificates.

No certificates were received during the year.



Staff Statistics

Academic Staff	92.5
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Recurrent Funding (includes 36.5 continuing staff)	60.5
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Externally funded staff

ARC Staff	17
Federation Fellow	1
CRC staff	9
Other	5

Total Externally Funded	32
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(Total Female Academics	(15)
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Visiting Fellows	102
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General Staff	97
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Technical Staff (of which 37 are in departments and 27 in central services)	64
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Administration Staff (of which 10 are in departments and 21 in central services)	31
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Research Offices in Departments	2
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Postgraduate Students	82
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(including on course and on time to submit)

Total Female students	30
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PhD awarded	11
MPhil award	1