

CURRICULUM VITAE

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Present Position: Senior Lecturer
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Academic Qualifications and Awards:

- B.Surv, The University of South Australia (formerly South Australian Institute of Technology), 1988
- Trimble Industry Scholarship to undertake Ph.D studies, 1996
- Co-winner of the Outstanding Student Paper Award in the Geodesy Sessions for Western Pacific Geophysics Meeting, held in Taipei, Taiwan, July 1998
- PhD, The University of New South Wales, 2002
- Best Academic Paper, SatNav 2003, Melbourne, Australia, July 2003

Brief Biography:

- 1989 – 1992: Graduate Surveyor at David Phillips P/L and Allan D. Wilson & Assocs P/L
- 1992 – 1993: Geodetic Engineer at University Navstar Consortium (UNAVCO), USA. Manage, supervise and direct medium scale international GPS surveys for National Science Foundation funded geophysical research projects.
- 1995 – 1996: Scientific Assistant at GeoForschungsZentrum, Germany. Responsible for orbit prediction and determination for ERS1/2, Meteor3 and GFZ1 research satellites. Assist in the organisation of and participate in international GPS measurement campaigns for geophysical research.
- 1996-2001: PhD Studies at UNSW. Topic: A continuous low-cost GPS-based volcano deformation monitoring system in Indonesia.
- 2002-2003: Lecturer in Surveying/GPS/Geodesy at RMIT University, Melbourne, Australia.
- 2004 - 2007: Lecturer in Surveying/GPS/Geodesy at UNSW, Sydney, Australia.
- 2008 - : Promoted to Senior Lecturer Surveying/GPS/Geodesy at UNSW.

Major Projects:

- **Volcano monitoring:** Deployed the first low-cost continuous GPS deformation monitoring system on Mt Papandayan, Indonesia in 1999. This involved all stages of the project from the initial collaboration with our Indonesian partners, system design and testing, in-country assessment, design, installation and operation. Subsequent surveys in 2000 and 2001.

- **GPS Surveying:** GPS plate tectonic monitoring survey between China, Nepal and India based in Nepal in cooperation with the University of Colorado and the Survey of Nepal for one month.
- Investigation of the extension of the East African Rift in a partnership between the University of Colorado and the Ethiopian Institute of Geological Sciences. Duration of the survey was three weeks based in Ethiopia.
- Epoch survey of the Central Andes between Argentina and Chile for further plate tectonic studies. Cooperation between the Memphis State University and the Military Geographical Institute of Argentina for a total of 2 months.
- Three surveys, over two months, in Indonesia between Java and the Australian plate, across the Sunda Strait and along Sumatra, all for plate motion detection in association with the Scripps Institute of Oceanography and the National Survey and Mapping Agency, Indonesia.
- **Conventional Surveying:** Holding-down-bolts set-out for two large warehouse constructions and all associated checks over eight weeks. Direct consultation with project manager.
- Detail survey and full plan preparation for an on-going 500 block subdivision. Continuing detail and engineering surveys for subdivision design purposes.

Recent Presentations:

- **Roberts, C. (2008)** South Australia: Well placed for a new CORS infrastructure, Spatial Information Day, Adelaide, 8 August 2008. *(Invited)*
- **Roberts, C. (2008)** Designing a course in Surveying and Spatial Information for Generation Y, Spatial Information Day, Adelaide, 8 August 2008. *(Invited)*
- **Roberts, C. (2008)** (on behalf of Alison Kealy) VicPos, MelbPos current status, FIG Working Week, Stockholm, Sweden, 18 June 2008.
- **Roberts, C. (2008)** (on behalf of Doug Kinlyside) Current status of SydNet, FIG Working Week, Stockholm, Sweden, 18 June 2008.
- **Roberts, C. (2008)** Your UNSW, Association of Public Authority Surveyors, Ettalong Beach, 13 April 2008. *(Invited)*
- **Roberts, C. (2008)** GNSS and the Modern Surveyor, SEASSIC 2008, Sydney, 25 Jan 2008. *(Invited)*
- **Roberts, C. (2007)** GPS for Professional Surveyors 2007 and beyond, ACS Business Seminar 2007, Sydney, 6 August, 2007. *(Invited)*
- **Roberts, C. (2007)** Setting the Sails – The Survey of the Sydney Opera House, Mapping and Surveying History Seminar, Institution of Surveyors NSW, UNSW, June 22, 2007.
- **Roberts, C. (2007)** School of Surveying and Spatial Information Systems: Promotions, Scholarships & Marketing, Invited speaker at New South Wales Country Surveyors Association, Sydney, 23 March, 2007.
- **Roberts, C. (2006)** GNSS and the convergence of Geodesy and the Cadastre in Australia & Review of FIG2006 Munich, Germany, *SSDS*, Sydney, 6 Dec.
- **Roberts, C. (2006)** GNSS and the convergence of Geodesy and the Cadastre in Australia, *FIG 2006, TS33, paper 273*, Munich, Germany 9 – 13 Oct.
- **Roberts, C. (2006)** GPS for Cadastral Surveying: Practical Considerations, Invited speaker at Uni of Newcastle, GPS for Cadastral Surveying Seminar, Newcastle, 29 June, 2006.
- **Roberts, C. (2006)** GPS for Cadastral Surveying: Practical Considerations, Invited speaker at ISNSW, St George Group meeting, Sydney, 29 June, 2006.
- **Roberts, C. (2006)** School of Surveying and Spatial Information Systems: A Snapshot, Invited speaker at New South Wales Country Surveyors Association, Sydney, 6 April, 2006.
- **Roberts, C. (2006)** GPS for Cadastral Surveying: Practical Considerations, Invited speaker at ISNSW, Cumberland Group meeting, Sydney, 22 Feb, 2006.

- **Roberts, C. (2006)** GPS for Cadastral Surveying: Practical Considerations, Invited speaker at CRKennedy Seminar on GPS for cadastral surveying, Melbourne, 2 Feb, 2006.

Memberships and Affiliations:

- Corresponding member IAG Special Study Group 1.181 - 'Regional Permanent Arrays'.
- Member of American Geophysical Union (AGU).
- Active member of FIG GNSS Developments and Modernization Commission 5, Sub Group 5.3.3
- Member, FIG Working Group 2.3, "Education Management and Marketing"
- Member of the Spatial Sciences Institute.

Industry Participation:

- Member of the Institution of Surveyors NSW Careers and Promotions sub-committee.
- School representative to the NSW Survey and Mapping Industry Council (SMIC).
- Member of the SMIC careers and promotions committee.
- Director of Industry Liaison & Marketing, School of Surveying and SIS

Research Interests:

- Network RTK & CORS applications
- GPS for cadastral surveying
- Low-cost volcano monitoring using GPS/GNSS.
- Deformation Monitoring

Research Grants:

- Faculty Research Grant (2006) "GPS/GNSS for cadastral surveying"
- ARC-Linkage Grant (2004-2007) "Real-time atmospheric modelling for cm-level positioning based on continuously operating global navigation satellite system (GNSS) reference station networks"
- Research student for ARC large grant project (1996-98) "Develop, test and deploy a GPS array system for continuous, automatic monitoring of Earth deformations arising from volcanic activity"

Workshops and Consultancies:

- Fundamentals of GPS workshop 18-19 July, 2002, Melbourne, Victoria.
- Fundamentals of GPS workshop 13-14 Feb, 2003, Melbourne, Victoria.
- GNSS and the Land Surveyor workshop 8 – 10 Dec, 2004, Sydney, NSW.
- Advanced RTK: Concepts and Operations 7-8 Feb, 2005, Sydney, NSW.
- Advanced RTK: Concepts and Operations 9-10 Feb, 2006, Sydney, NSW.
- Advances in Satellite & Terrestrial Technologies for Land Surveying, 20-24 Nov, 2006, Sydney, NSW.
- GNSS and the Modern Surveyor 14-15 Feb, 2008, Sydney, NSW.
- Handheld GPS Brochure for how to use and how to buy, VicRoads.
- Precision Farming workshop, June 2006.

Conference Organisation:

- SatNav 2003, July, Melbourne – general assistance.
- GPS/GNSS 2004, Dec, Sydney – Chair of the Publicity and Exhibition committee.
- Industry Day, Undergraduate Student Careers Day 2005
- IAG 2005, Aug, Cairns – Member of Local organising committee.
- Industry Day, Undergraduate Student Careers Day, 12 August 2008
- Numerous Annual Research Seminars at UNSW and undergraduate thesis conferences.

Personal Details:

- Fluent German speaker,
- Basic Indonesian language,
- Excellent communication skills,
- Experienced rockclimber,
- Keen interest in politics.