


Service/Resource	Description	Availability to:				Cost	Contact
		Fac Eng	UNSW Staff	UNSW Students	External		
GRADUATE SCHOOL OF BIOMEDICAL ENGINEERING							
General Services							
UV-VIS Spectrophotometry		X	X	Research & honours		Charges apply for consumables and training	Peter Slowiaczek, x3904 p.slowiaczek@unsw.edu.au
Scintillation counting		X	X	Research only		Charges apply for consumables and training	Peter Slowiaczek, x3904 p.slowiaczek@unsw.edu.au
Tensiometry	MTS Minibionix 10 kN, 1kN Instron 8402 10 kN, 1Kno	X	X	Research & honours		Charges apply for consumables and training	Peter Slowiaczek, x3904 p.slowiaczek@unsw.edu.au
Engineering Research Services							
Cell Analysis Facility (with BABS, Science)	High speed cell sorter, laser scanning cytometer, confocal microscope.	X	X	X	X	Charges apply	Andrew Collins, BABS, x2101 a.collins@unsw.edu.au
PC2 lab	PC2 facility for genetic manipulation of cells.	X	X	Research only		Charges apply. Please enquire	Robert Nordon, x3908 r.nordon@unsw.edu.au
QCM-D	Q-Sense quartz crystal microbalance with dispersion. Can look at thin hydrogels in flow chamber.	X	X	X	X	Charges apply. Please enquire	Bruce Milthorpe, x3911 b.milthorpe@unsw.edu.au
Tissue culture	Tissue culture for cytotoxicity assessment or established cell lines.	X	X	X		Charges apply. Please enquire	Lynn Ferris, x3909 l.ferris@unsw.edu.au
General Engineering							
Biomedical Engineering Library	Books and journals in biomedical engineering and biomaterials. Level 5 Samuels Building. Access during normal business hours only.	Browse & copy only	Browse & copy only	Browse & copy only	Browse & copy only	Photocopying charges apply	Gina Middlemiss, x3911 G.Middlemiss@unsw.edu.au
Instrumentation Lab	Up to 10 workstations for instrumentation practical classes. Fully supervised classes only. Requires IT support and security.	X				Please enquire	C.Bertram, x3928 c.bertram@unsw.edu.au


Service/Resource	Description	Availability to:				Cost	Contact
		Fac Eng	UNSW Staff	UNSW Students	External		
SCHOOL OF CHEMICAL ENGINEERING AND INDUSTRIAL CHEMISTRY							
General Services							
Chemical analysis	ICP	X				Charges apply. Please enquire	T. Tran (CEIC) t.tran@unsw.edu.au
Engineering Research Services							
Centre for Particle and Catalyst Technologies	A range of particle characterisation equipment which can be used to determine: particle size, particle charge, density and surface area. See web site for more details: www.ceic.unsw.edu.au/centers/partcat	X	X	X	X	Charges apply. Please enquire	Rose Amal x4362 R.Amal@unsw.edu.au John Starling x4310 J.Starling@unsw.edu.au
CAMD – Centre for Advanced Macromolecular Design (School of Chemical Engineering and Industrial Chem.)	CAMD offers services involving different equipment focusing on the chemical analysis of polymerization products and advanced polymerization techniques (please refer to: <i>Equipment</i> on our website).	X	X	X	X	Charges apply. Please enquire	Steve Jacenyik x4964 i.jacenyik@unsw.edu.au http://camd.unsw.edu.au
HPLC Analysis	Compositional analysis of liquid samples containing ions, ogranomolecules (<10 ⁶ mol.wt.), alkanolic acids, alcohols etc.	X	X	X	X	Costs supplied on request. UNSW staff and students at discounted rates.	A/Prof. A.A. Adesina x5268 a.adesina@unsw.edu.au
Carbon content analysis (TOC Analyser)	Total organic carbon and inorganic carbon in liquid and solid samples.	X	X	X	X	Costs supplied on request. UNSW staff and students at discounted rates.	A/Prof. A.A. Adesina x5268 a.adesina@unsw.edu.au
Thermogravimmetry	Thermal analysis of solids.	X	X	X	X	Costs supplied on request. UNSW staff and students at discounted rates.	A/Prof. A.A. Adesina x5268 a.adesina@unsw.edu.au
Catalyst characterisation	Determination of BET total surface area, active metal area, oxidation and reduction attributes and concentration of acid sites via temperature programmed treatment of the solid.	X	X	X	X	Costs supplied on request. UNSW staff and students at discounted rates.	A/Prof. A.A. Adesina x5268 a.adesina@unsw.edu.au

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UV-Vis Spectrophotometry	Composition measurement in the 190-1100nm range for liquids. Diffuse reflectance probing of solid surfaces.	X	X	X	X	Costs supplied on request. UNSW staff and students at discounted rates.	A/Prof. A.A. Adesina x5268 a.adesina@unsw.edu.au
Gas chromatography	Capillary and packed columns methods using TCD and FID.	X	X	X	X	Costs supplied on request. UNSW staff and students at discounted rates.	A/Prof. A.A. Adesina x5268 a.adesina@unsw.edu.au
UNESCO Centre for Membrane Science & Technology, School of Chemical Engineering & Industrial Chemistry	Centre which carries out research and development, testing, analysis, consulting and information surveillance in the areas of characterisation and design of industrial membrane systems with particular emphasis on water and waste water treatment, dairy applications, minerals processing and food industry applications.	X	X	X	X	Charges apply. Please enquire	Tony Fane x 4315 A.Fane@unsw.edu.au

Service/Resource	Description	Availability to:				Cost	Contact
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SCHOOL OF CIVIL & ENVIRONMENTAL ENGINEERING							
General Services							
Heavy Structures Laboratory - Randwick Sub-campus	A unique laboratory facility with the space and testing equipment for testing prototype structures to failure. Equipped with state of the art testing facilities, including a 5000 kN servo-controlled actuator and a high-capacity, very stiff testing frame for measuring the post failure (unloading) behaviour of large structures, all mounted on the largest strong floor in the southern hemisphere.	X	X	X	X	Costs negotiated for each project. Charge out rates for equipment and staff-time are set by the School.	Mr Chris Gianopoulos 9385 0329 c.gianopoulos@unsw.edu.au
Water Research Laboratory at Manly Vale	A large well-equipped Water Engineering Laboratory with the capability of undertaking experimental research in hydraulics and coastal engineering, including both numerical and physical modelling. Provides applied research and consulting services to Government and Industry.	X	X	X	X	Costs negotiated for each project. Charge out rates for equipment and staff-time are set by the School.	A/Professor Ron Cox (Director) 9949 4488 r.cox@unsw.edu.au Mr Brett Miller (Manager) 9949 4488 b.miller@unsw.edu.au 
Geotechnical Engineering Laboratory	A standard geotechnical engineering laboratory, with the equipment and facility for undertaking a wide range of standard geotechnical tests.	X	X	X	X	Charge out rates for equipment and staff-time are set by the School. Costs for various tests are available on request.	Mr Paul Gwynne x5028 p.gwynne@unsw.edu.au

Service/Resource	Description	Availability to:				Cost	Contact
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Cement and Concrete Laboratory	A standard concrete testing laboratory, with batching and mixing facilities, curing and controlled environment chamber, high-temperature curing facilities, compression testing, tensile testing, and a wide range of other standard tests.	X	X	X	X	Charge out rates for equipment and staff-time are set by the School. Costs for various tests are available on request.	Mr Paul Gwynne x5028 p.gwynne@unsw.edu.au
Engineering Research Services							
Pilot Plant Facility	A laboratory facility to build and operate pilot scale plants for demonstration and scale up of environmental engineering process technologies. All services are provided and data bus is available. Large cool room is available for storage of perishable material. Some technical service can be provided at cost.	X	X	X		We have not formulated charge basis for this facility yet. Expertise can be provided at rates fixed by the School.	Dr Gautam Chattopadhyay x5700 gautam@unsw.edu.au
Instrumental analysis laboratory	A high performance gas chromatography -mass spectrometry based analytical facility. Various sample handling and preparation facilities are available. Expertise provided for instrumental analyses of most types of organic pollutants in different matrices. ICP-AES system for elemental analyses in both solid and liquid matrices. The facility includes microwave digestion and subsequent sample preparation systems. Hydride generation accessory is also available for high sensitivity analyses of arsenic, selenium, tellurium etc. commonly encountered in air quality management research. High performance liquid chromatography based analytical system. A high performance UV/visible spectrometer with temperature controlled heated cell system. Suitable for reaction kinetics research in aqueous medium.	X	X	X	X	All instruments have hourly charge rates. School staff and students are not charged for the use of the facility. External users usually pay double the hourly rate charged to the students and staff from the rest of the university. Expertise can be provided at rates determined by the School.	Dr Gautam Chattopadhyay x5700 gautam@unsw.edu.au



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		Fac Eng	UNSW Staff	UNSW Students	External		
Sono-chemistry laboratory	A new facility to study degradation kinetics of various pollutants mainly in aqueous medium. Consists of three temperature controlled reactors with variable power ultrasonic transducers.	X	X	X		All instruments have hourly charge rates. School staff and students are not charged for the use of the facility. External users usually pay double the hourly rate charged to the students and staff from the rest of the university. Expertise can be provided at rates determined by the School.	
Membrane filtration laboratory	A fully controlled environment facility to study various aspects of membrane filtration in pressurised cells. Radio-labelled compounds can be used in this facility. Scintillation counters are available.	X	X	X		Not determined	Dr Gautam Chattopadhyay x5700 gautam@unsw.edu.au
Public health engineering laboratory	All basic water parameters can be measured in this facility. Bench scale and pilot scale experiments to look into the microbiology aspects of public health engineering is possible. Extensive bio-reactor experiments in various configurations can be carried out. Extensive facility for microbiological characterisation is available.	X	X	X	X	All instruments have hourly charge rates. School staff and students are not charged for the use of the facility. External users usually pay double the hourly rate charged to university students and staff. Expertise provided at rates set by the School.	Dr Gautam Chattopadhyay x5700 gautam@unsw.edu.au
Photochemistry system	Extensive facility available for photochemical reaction kinetics studies. Various photo assisted advanced oxidation kinetics can be studied in solar, simulated, solar and photo reactors.	X	X	X		Purely research facility at this point. Cost has not been determined	Dr Gautam Chattopadhyay x5700 gautam@unsw.edu.au

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General Engineering							
Particle size analysis	Various laser based particle size analysis instruments are available.	X	X	X	X	All instruments have hourly charge rates. School staff and students are not charged for the use of the facility. External users usually pay double the hourly rate charged to the students and staff from the rest of the university. Expertise can be provided at rates determined by the School.	Dr Gautam Chattopadhyay x5700 gautam@unsw.edu.au
Environmental Odour Laboratory, UNSW	Provides professional planning, sampling and testing service for carrying out odour study which includes reporting, air dispersion modelling and consulting on odour minimisation technology.	X	X	X	X	Charges apply. Please enquire	John Jiang x5452 j.jiang@unsw.edu.au

Service/Resource	Description	Availability to:				Cost	Contact
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SCHOOL OF COMPUTER SCIENCE & ENGINEERING							
General Services							
Computer Lab	20 Macintosh computers, networked, in a teaching laboratory. Limited availability (due to coursework teaching requirements).	X	X	X	X	\$800/day	Daniel Woo: x6495 danielw@cse.unsw.edu.au
CSE Seminar Room	CSE Seminar Room K17 Level 1; 90 seated, A/C, dimmers, Whiteboards, OHP, AVX Lectern, Hi-Res LCD projector and screen, all inputs, 5.1 sound, video camera, network untrusted UTP & Fibre ports, conferencing phone, quality collapsible tables for conferencing layout.	X	X		X	Other than School: commercial rates \$60/hr or part thereof, 4hrs min. incl setup plus refundable cleaning deposit \$100, plus network/ phone charges against deposit: \$100/day local; \$500/day IDD	Tanya Oshuiko x7744 facilities@cse.unsw.edu.au
Meeting Rooms	Levels 2, 3, 4, & 5; 20 seated, A/C, whiteboards, OHP, var lighting.					Please enquire with Facilities	Tanya Oshuiko x7744 facilities@cse.unsw.edu.au
Garden lawn	John Lions Garden K-J17, fixed seating for 50 around shade tree, lawn, BBQ area.	X	X	X		Please enquire with e-spot	e-spot@unsw.edu.au
CATS	K17 Basement x 2 seat 30 each, whiteboards, OHP & screen.	X	X	X	X	Please enquire with CATS	CATS x5645 cats@unsw.edu.au
CHIL	Computer-Human Interface Teaching Laboratory K17-G11 20+1 tutorial seating, A/C, Whiteboard, MacG400 +19"LCD.	X	X		X	Negotiable	facilities@cse.unsw.edu.au stakeholder/supervisor: Daniel Woo x6495 danielw@cse.unsw.edu.au
Engineering Research Services							
HCI Laboratory	Human-Computer Interaction Research Laboratory K17-301A/B, 20m2 recording studio, 10m2 control room c- one-way-each-way mirror, A/C, auxiliary cable ducts, network UTP & Fibre, video/audio/lighting control panels.	X	X		X	Other than School: \$120/hr or part thereof plus equipment hire and set-up negotiable	facilities@cse.unsw.edu.au stakeholder/supervisor: Daniel Woo x6495 danielw@cse.unsw.edu.au

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PCB Fabrication Laboratory	Printed Circuit Board Fabrication facility K17-315B, HVAC, carbon deposition PTH multi-layer copper boards to max 200x300mm, UHS air-bearing NC machine drill and cutting, thermal press, and plating.	X			X	Negotiable	David Johnson x 5546 davidj@cse.unsw.edu.au
SMT Laboratory	Surface Mount Technology Laboratory K17-315D, advanced soldering gas reflow assembly and repair, HVAC & fume exhaust, Stereo microscope, etc, PCB CAD layout and design.	X			X	Negotiable	David Johnson x 5546 davidj@cse.unsw.edu.au
Experimental Field	Robotics experimental field K17-301, 6x18m flat +-2mm/m level hard carpet, A/C, lighting and overhead equipment booms with power and network UTP terms.	X			X	Negotiable	Bernhard Hengst x6940 bernhardh@cse.unsw.edu.au
General Engineering							
Building Services Manager	Ergonomic Furniture design consultant.	X	X		X	Negotiable	Ric Forster x6611 ricf@cse.unsw.edu.au
MicroProcessor System Design	Computer uP System Design Engineer.	X				Negotiable	Serge Poplavsky x4818 sergep@cse.unsw.edu.au
Computer Systems Support	Computing Support Group, CSE, 12 CSO specialists in Unix, MS & Mac systems and hardware.	X				Negotiable	Geoff Oakley x4043 geoffo@cse.unsw.edu.au

Service/Resource	Description	Availability to:				Cost	Contact
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SCHOOL OF ELECTRICAL ENGINEERING & TELECOMMUNICATIONS							
General Services							
SMT Laboratory	The Surface Mounting Technology laboratory is for practically any repair/soldering application including desoldering and soldering process of BGA and Micro BGA components.	X	X	X		Dependent on use	Z.Liu x5508 z.liu@unsw.edu.au
Computer Laboratory	30 pentium III 800 Mhz computers, Laser printer, two operating systems (Win2000 & Linux). A/C.	X	X	X	X	\$100/hr	P.Chen x5509 p.chen@unsw.edu.au
Video Conferencing TeleTeaching Virtual Classroom	Provide a visual collaborating environment for two or more geographically separated locations. The facility includes modern state of the art video conference equipment and interactive electronic whiteboard.	X	X	X	X	UNSW: \$200/hr plus communication cost External: \$250/hr plus communication cost	Ming Sheng x4057 m.sheng@unsw.edu.au
Computer Laboratory	Computer laboratory with general and specialized software such as: Microsoft Office, Matlab, Visio.			School of Electrical Engineering & Telecommunications only		For use by students of the School of Electrical Engineering & Telecommunications (EET), and those studying an EET subject requiring access to specialized software e.g. Matlab	Ming Sheng x4057 m.sheng@unsw.edu.au
Multimedia Laboratory	Color printer, scanner, CD-burner, specialized software.	School staff		School (EET) P/G Research students		For use by staff and postgraduate research students of the School of Electrical Engineering & Telecommunications	Ming Sheng x4057 m.sheng@unsw.edu.au

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Cisco Certified Local Academy	As a certified Cisco Networking Local Academy we provide, as part of Cisco's Networking Academy Program, the opportunity for course participants to become qualified as an industry recognised Cisco Certified Network Associate (CCNA).	X	X	X	X	\$990/Semester	See website http://cisco.ee.unsw.edu.au
Semiconductor Nanofabrication facility	Capabilities include: photolithography, thin film deposition by PECVD, diffusion, oxidation, E-beam evaporation.	X	X	X	X	Negotiable. Material compatibility with other processes in SNF must be considered.	Dr. Eric Gauja x6314 e.gauja@unsw.edu.au
CAD facilities	Mentor graphics software for IC layout, Design of photomask layout. Circuit simulation software.	X	X	X		Negotiable. Only for research and NO commercial work due to licensing arrangement.	Daniel Krcho x4044 d.krcho@unsw.edu.au
Wafer probing and wire bonding service	Karl Suss wafer probe for probe measurement of circuits/ devices K&S Al wire wedge/ wedge wire bonder.	X	X	X	X	Negotiable.	Daniel Krcho x4044 d.krcho@unsw.edu.au
Engineering Research Services							
Photonics and Optical Communications Group	Silica based Optical Preform and Fibre manufacture. Custom designs and rare earth doped fibre.	X	X		X	Please enquire	Trevor Whitbread x4036 t.whitbread@unsw.edu.au Dr. G.D.Peng x4014 g.peng@unsw.edu.au
	Polymer Optical fibre manufacture.	X	X		X	Please enquire	
	Fibre characterisation, attenuation, cut-off wavelength, preform and fibre refractive index profiling.	X	X		X	Please enquire	
	Spectra Physics MOPO tunable (0.2 ~ 2µm) laser system.	X	X		X	\$200/hr	
Mobile Communication Simulation & Testing GSM & CDMA	Specialist base-station simulators that can be used to test GSM and CDMA equipment.	X	X	X	X	Dependent on use	Mr. Joe Yiu j.yiu@unsw.edu.au

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Anechoic Chamber	For 10 GHz measurement.	X	X	X	X	Dependent on use	Mr. Joe Yiu j.yiu@unsw.edu.au
High Frequency Network/Spectrum Analyser	HP 8720A Network Analyser HP 8720A Network Analyser	X	X	X	X	Dependent on use	Mr. Joe Yiu j.yiu@unsw.edu.au
Network Test-bed	Collection of CISCO routers and ATM switches.	X	X	X	X	Dependent on use	Mr. Phil Allen x4504 p.allen@unsw.edu.au
Signal Processing Laboratory	Laboratory of PC equipped with TMS signal processing boards.	X	X	X	X	Dependent on use	Mr. Tom Millett x4802 t.millet@unsw.edu.au
Opnet Network Simulation Tool	Simulation Communication Networks.	X	X	X		Dependent on use	Mr. Phil Allen x4504 p.allen@unsw.edu.au
Xylink Development Environment	Prototyping of Xylink designs.	X	X	X	X	Dependent on use	Mr. Tom Millett x4802 t.millet@unsw.edu.au
General Engineering							
Advice on computer instrumentation & control solutions	Computer controlled systems solutions dealing with: Real-Time Linux, Data acquisition, Controller implementation & Embedded system solutions.	X	X	X	X	Free for students within University. Others please enquire	Chris Lu x5307 c.lu@unsw.edu.au
Power Plant Simulation laboratory	Power Plant Simulation Application Software, Bailey Infi 90 DCS System. Advice on Modelling and Simulation of Complex Systems.	X	X	X	X	Free for students within University. Others please enquire	Chris Lu x5307 c.lu@unsw.edu.au

Service/Resource	Description	Availability to:				Cost	Contact
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SCHOOL OF MECHANICAL & MANUFACTURING ENGINEERING							
General Services							
			X	X	X		
Mechlab @ UNSW	<p>Mechlab @ UNSW is a Project Management group formed in 1998 to give added emphasis and focus to the availability and capability of the various testing facilities, research capabilities and professional consultants within the School of Mechanical and Manufacturing Engineering at The University of New South Wales.</p> <p>The key testing laboratories within the Mechlab entity include Acoustics and Vibrations, Aerodynamics, Computational Fluid Dynamics and Heat Transfer Modelling, Fluid Mechanics, Heat Transfer, Internal Combustion Engines, Manufacturing Processes, Mechanics of Solids, Mechatronics, Precision Measurements, Refrigeration and Air Conditioning and Solar Thermal Energy.</p>	X	X	X	X	<p>Each project is costed and quoted on separately for client approval before work commences.</p> <p>There is an overheads component built into the project costs to cover the School and Project Management.</p>	<p>Mike Fynch x4101 Project Manager Mechlab @ UNSW Mobile: 0414 230 868 mechlab@unsw.edu.au</p>
		Mechlab @ UNSW is primarily available to all outside industry and government groups where testing and consulting or research is required as a means of problem solving or development of products which may require mechanical or manufacturing know-how. Projects can be initiated by clients external or internal to UNSW.					
Workshop	<p>Machining, fabrication, assembly and welding of components.</p> <p>Machining includes conventional machines and multi-axis computer controlled machines capable of machining highly complex shapes to fine tolerances.</p>	X	X	X	X	<p>Assessed for each job and can vary depending on the amount of Computer Aided Manufacture required, please apply for quotation</p>	<p>Tony Harris x4113 Laboratory Manager ag.harris@unsw.edu.au</p>
General Engineering							
Magnified Imaging	<p>Various microscopes with digital imaging and analysis.</p>	X	X	X	X	<p>Will vary depending on complexity of job, please apply for quotation</p>	<p>Tony Harris x4113 Laboratory Manager ag.harris@unsw.edu.au</p>

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Surface finish	Measurement of surface finish to appropriate standard.	X	X	X	X	Will vary depending on complexity of job, please apply for quotation	Tony Harris x4113 Laboratory Manager ag.harris@unsw.edu.au
Metrology	A large variety of measurement equipment, including computer linked coordinate measuring machine and roundness measuring machine.	X	X	X	X	Will vary depending on complexity of job, please apply for quotation	Tony Harris x4113 Laboratory Manager ag.harris@unsw.edu.au

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CENTRE FOR PHOTOVOLTAICS & SOLAR ENERGY							
General Services							
General office functions	128 of EE building. Equipment for photocopying, colour printing, fax machine, scanning, CD writing etc.	X	X			By negotiation	Mark Silver x6150 m.silver@unsw.edu.au Lisa Cahill x6155 l.cahill@unsw.edu.au
Computer lab	12 pc's with various simulation packages for pv devices and systems.	X	X	X		Only available by negotiation out of session times	Mark Silver or Lisa Cahill x6155
Engineering Research Services							
Class 100 semiconductor processing laboratory	G29-G31 of EE building Full processing capabilities except for metal deposition.						Mark Silver x6150 m.silver@unsw.edu.au J. Zhao x5246 j.zhao@unsw.edu.au
Class 10,000 semiconductor processing laboratory	G26-G28 of EE building. Capabilities include 10 tube furnaces suitable for diffusions, oxidations and metal sintering; fume cupboards; vacuum deposition systems; laser scribes; clean-air benches; IAD system; etc.	X	X	PG only	X	By negotiation	Mark Silver x6150 m.silver@unsw.edu.au Jeff Cotter x4602 j.cotter@unsw.edu.au
Industry collaborative research laboratory for pv fabrication	229 of EE building. Has the infrastructure and equipment typical of pv manufacturers including furnaces, DI water, laser scribe, chemical processing, electroless plating, screen-printing and spray-on AR coating deposition.	X	X	X	X	By negotiation	Mark Silver x6150 m.silver@unsw.edu.au Jeff Cotter x4602 j.cotter@unsw.edu.au
Semiconductor device and material characterisation laboratory	Range of characterisation equipment available in LG area of EE building. This includes: solar simulator with 4-quadrant IV testing for devices; FTIR; spectrophotometer; ellipsometer; wafer lifetime measurement system.	X	X	X	X	By negotiation	Mark Silver x6150 m.silver@unsw.edu.au Alistair Sproul x4039 a.sproul@unsw.edu.au

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General Engineering							
PV teaching lab	417 of EE building. Range of experimental set-ups for teaching about pv devices and systems.	X	X	X	X	Only available by negotiation out of session times	Mark Silver x6150 m.silver@unsw.edu.au Lisa Cahill x6155 l.cahill@unsw.edu.au Stuart Wenham x5171 s.wenham@unsw.edu.au
Grid-connected PV systems	Roof EE building. Ten small grid-connected PV systems using a range of different mounting materials and inverter technologies. All modules in each system are monitored with data available in real-time in room 417 or via internet.	X	X	X	X	By negotiation	Mark Silver x6150 m.silver@unsw.edu.au

Service/Resource	Description	Availability to:				Cost	Contact
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SCHOOL OF SURVEYING & SPATIAL INFORMATION SYSTEMS							
General Services							
Image Analysis Laboratory	Generation of digital elevation models and orthophotomaps from digital imagery. Close Range Photogrammetric measurement systems Measurement from surveillance camera images.	X	X	X	If service is not available from industry	Free to UNSW staff and students except for materials. Hourly rates + materials costs for external users	Brian Donnelly x4202 B.Donnelly@unsw.edu.au
Engineering Research Services							
3D Laser Scanning	Laser Scanning with Cyrax 2400, 3D coordinates of millions of points on objects up to 100m away, point spacing/ resolution from a few mm, accuracy about 6mm. Requires trained operator.	X	X	School of Surveying & SIS only	X	Internal by negotiation, external \$2500/day plus operator	A / Prof W Kearsley x5308 w.kearsley@unsw.edu.au Dr B Harvey x 4178 B.harvey@unsw.edu.au
High precision GPS positioning	The Satellite Navigation & Positioning (SNAP) Lab has a large variety of precision GPS receivers able to deliver cm-level accuracy.	X	X	X	X	The use of facilities is free of charge to staff and students at UNSW. Negotiated rates if personnel are required to assist operations. External use considered on case-by-case basis for research-related activities.	Chris Rizos x 4205 c.rizos@unsw.edu.au
GPS receiver customisation	SNAP Lab has two Development Kits that allow customisation of firmware for single-frequency GPS receivers.	X	X	X	X	The use of this facility is free of charge to staff and students at UNSW after initial consultation. Negotiated rates for external users.	Chris Rizos x 4205 c.rizos@unsw.edu.au
Inertial Navigation System	Tactical-grade solid-state INS (3-axis gyros, 3-axis accelerometers). Can be used standalone, or integrated with other sensors.	X	X	X	X	The use of this facility is free of charge to staff and students at UNSW after initial consultation. Negotiated rates for	Jinling Wang x 4203 JL.Wang@unsw.edu.au

Service/Resource	Description	Availability to:				Cost	Contact
		Fac Eng	UNSW Staff	UNSW Students	External		
						external users.	
SAR processing	Software and expertise to process Synthetic Aperture Radar images.	X	X			Negotiated service, considered on case-by-case basis if research-related.	Linlin Ge x 4177 l.ge@unsw.edu.au
General Engineering							
CAD software	Surveying software. Civilcad and Geocomp. Used to create engineering and topographical plans.	X	X	X		The use of software is free of charge to staff and students at UNSW.	C. Ryan x5252 C.ryan@unsw.edu.au
GIS Software	ARCGIS. Used as a graphical database for spatial analysis.	X	X	X		The use of software is free of charge to staff and students at UNSW.	C. Ryan x5252 C.ryan@unsw.edu.au
A3 digitisers	Two A3 Summasketch III Professional digitisers are available. The interface with ARCGIS.	X	X	X	X	The use of equipment is free of charge to staff and students at UNSW. Negotiated rates if personnel are required to assist operations.	C. Ryan x5252 C.ryan@unsw.edu.au
Surveying Instrument Issue and Return Facility	Located in School of Surveying & SIS. General (terrestrial) surveying instruments for field use, such as levelling instruments, theodolites and electronic tacheometers.	X	X	X	X	Free loan to UNSW departments and students for non-commercial UNSW projects, if not in use by owner. Borrower must cover risk of loss/damage. Commercial hire rates for all other uses.	A/Prof. J.M. Rueger x4173 J.Rueger@unsw.edu.au
UNSW continuously operating GPS base station	Dual-frequency Leica CRS1000, connected to server running Oracle database software, generates continuous GPS data files for project post-processing.	X	X	X	X	Data is free of charge. Negotiated access for external users.	Chris Rizos x 4205 c.rizos@unsw.edu.au
GPS receivers	The SNAP Lab has a large variety of GPS receivers for loan, ranging from low-cost handheld receivers, through boardsets, to top-of-the-line survey-grade receivers.	X	X	X		The use of equipment is free of charge to staff and students at UNSW. Negotiated rates if personnel are required to assist operations.	Chris Rizos x 4205 c.rizos@unsw.edu.au

Service/Resource	Description	Availability to:				Cost	Contact
		Fac Eng	UNSW Staff	UNSW Students	External		
GPS data processing	The SNAP Lab is equipped with a variety of software to support GPS data processing. Some of the software is developed in-house, others are commercial or scientific packages.	X	X	X		The use of software/PCs is free of charge to staff and students at UNSW. Negotiated rates if personnel are required to assist data processing.	Chris Rizos x 4205 c.rizos@unsw.edu.au
Advice on GPS and related navigation & positioning technologies	The SNAP Lab has extensive experience with the technologies and applications of GPS and similar positioning systems.	X	X	X	X	Free of charge to staff and students at UNSW. Negotiated rates for external consulting.	Chris Rizos x 4205 c.rizos@unsw.edu.au

