

Institute for Conservation Biology and Law

Director: A/Prof. Sharon Robinson (www.uow.edu.au/science/biol/icb)

Formed in 2001, the Institute for Conservation Biology and Law is unique in combining expertise in Conservation Law and Policy with strong research into the Biology of Australian flora and fauna. ICB combines expertise in three core research areas: Evolutionary Biology, Environmental Biology and Conservation Law and Policy. Within the two scientific themes we aim to perform world class research into the evolution, ecology and physiology of Australian biota. The research of many academics within the Institute encompasses more than one of these discipline areas, with the majority of staff seeking to link science with law and policy to achieve better conservation outcomes.

Institute for Superconducting and Electronic Materials

Director: Prof. Shixue Dou (www.uow.edu.au/eng/research/ISEM)

The ISEM has established itself as a world class cooperative research team in energy, superconducting & electronic materials science and technology, and has been instrumental in the technological and commercial development of this research field in the Australian industry. The ISEM aims to maintain an awareness of emerging science and technology from around the world, promote the commercialisation of energy, superconducting & electronic materials technology to sponsoring companies, enhance the existing strong, national and international links in the field, and contribute to the education of high quality postgraduates and postdoctoral fellows.

Intelligent Polymer Research Institute | ACES

IPRI Director: Prof. Gordon Wallace (www.uow.edu.au/science/research/ipri)
ACES: (www.electromaterials.edu.au)

IPRI is recognised internationally as a pioneer in Intelligent Polymer Research with strategic links and alliances with other research institutions in the USA, Japan, Korea, Italy, Ireland and the UK. The IPRI is also the leading partner and main administrative centre for the **ARC Centre of Excellence for Electromaterials Science**. The Centre was formally opened in February 2006 and is a collaborative partnership between IPRI, Monash University, The Bionic Ear Institute, and St Vincents Health in Melbourne. The main aim of the centre is to explore the science of nanomaterials having an electron or charge transfer functionality: to prepare such nanomaterials, study and develop theories for their behaviour, and exploit these new behaviours in useful applications. An ethical dimension is also included to monitor the impact of such developments on the community as a whole.

Oceans and Transnational Security

Director: Prof. Martin Tsamenyi (<http://ancors.uow.edu.au>)

OTS is a major national hub for research into issues of national, regional and international security. It seeks to enhance the capacity of Australia and other states in the Asia-Pacific region to combat new threats, with a particular research focus upon maritime and other transnational challenges to security. Its five research programmes comprise: Maritime Strategy and Security; Oceans Governance and Law of the Sea; Marine Resources and Environmental Protection; Transnational Crime; and Terrorism.

Telecommunications and Information Technology Research Institute

TITR: (www.snrc.uow.edu.au)

The TITR has two primary objectives: (i) To carry out leading edge basic and applied research in future multimedia information communication systems and services, and (ii) to utilise its expertise and reputation to enable and stimulate development of IT&T based industries centred in the Illawarra. The envisaged outcomes are national and international recognition as a centre of excellence in IT&T which attracts high calibre students and industry collaborative research, and new employment opportunities in the region. TITR is a core partner in the CRC for Smart Internet Technology and the CRC for Desert Knowledge.

Centre for Asia Pacific Social Transformation Studies

Director: Dr Lenore Lyons (www.capstrans.edu.au)

The Asia Pacific region offers unique insights into social transformation processes triggered by national and international development policies and their effects at local, regional and transnational level. The Centre for Asia Pacific Social Transformation Studies (CAPSTRANS) seeks to examine these processes through innovative research by combining methods from a variety of disciplines, including political science, economics, management studies, sociology, anthropology, media studies, social history and language and literature studies. CAPSTRANS is an Australian Research Council Key Centre for Teaching and Research and a joint venture of the University of Wollongong and the University of Newcastle.

Centre for Health Service Development (CHSD)

Director: Prof. Kathy Eagar (<http://chsd.uow.edu.au>)

The CHSD was established in 1993 'to undertake a continuing program of active research into methods to improve the management and provision of health and community care services with the goal of making a significant contribution to improving the funding and delivery of health and community care services in Australia'. Our ideas of improvement include achieving greater equity in the distribution of resources, promoting fairer access to services, better continuity within and across the health and community care sectors, and basing management decisions on evidence.

Centre for Medical Bioscience

Director: Prof. Mark Wilson (www.uow.edu.au/science/research/cmb)

The new Centre for Medical Bioscience (CMB) is a research intensive grouping with a focus on medically relevant aspects of biology. Currently the grouping consists of 17 post-doctoral scientists and 31 higher degree research students and spans a broad range of research areas from mass spectroscopic studies of biological molecules to cancer cell biology. The vision of this new centre is to become quickly established as the principal bioscience research arm of the Illawarra Health and Medical Research Institute (IHMRI), providing a valuable research platform underpinning the new Medical School.

Centre for Medical Radiation Physics

Director: Prof. Anatoly Rozenfeld (<http://mrp.uow.edu.au>)

The Centre for Medical Radiation Physics is a research team within the School of Engineering Physics, University of Wollongong. We are dedicated towards the development of semiconductor radiation detectors and dosimetric instrumentation for clinical applications in radiation oncology and nuclear medicine, radiation protection as well as high energy physics applications. CMRP has a strong research program in external beam radiotherapy IMRT and IGRT and proton therapy. Core Objectives of CMRP include: excellence in research and development in the field of radiation instrumentation and measurements with particular emphasis on medical and high energy physics applications, excellence in teaching (BSc,MSc,PhD) medical physicists and engineers for research and clinical careers and active collaboration with local and international institutions to facilitate broader research efforts in new radiation oncology modalities and nuclear medicine applications.

Centre for Medicinal Chemistry and Pharmacology

Director: A/Prof. Paul Keller (www.uow.edu.au/science/research/cmcp)

The CMCP is a medically focussed research group investigating both fundamental and applied science of molecular based systems. The main aims of the Centre include, enhancing our understanding of the molecular basis of disease, modern drug design and development leading to new pharmaceuticals, maintaining and developing collaborative links with other researchers, industry and centres of excellence, and providing an exceptional training centre for Post-graduate students in medical chemistry and biomedical research fields for the growing Australian biotechnology market.

Centre for Statistical and Survey Methodology

Director: Prof. David Steel (<http://cssm.uow.edu.au>)

The Centre for Statistical and Survey Methodology (CSSM) is a centre of excellence in statistical design and the analysis of complex populations. It undertakes fundamental research, industry focussed research, contract research, major consulting projects and training involving statistical methodology. It focuses on how to efficiently obtain and analyse data from populations in the real world that do not have the simple structure often assumed in traditional statistical methods. The centre has expertise and research projects in: survey design and analysis; complex data analysis; experimental design and analysis; data mining; spatial and small area statistics; statistics in quality; privacy and confidentiality; combining and analysing data from different sources, bioinformatics and statistical education.

Engineering Materials Institute

Coordinator: Prof. Geoff Spinks (www.uow.edu.au/eng/research/emi)

The Engineering Materials Institute (EMI) conducts research into the design, synthesis and characterisation of advanced materials for engineering applications. While maintaining a special interest in ferrous metallurgy, the span of activities also includes light alloys, polymers, composites and nano-materials.