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Introduction

I am pleased to introduce this final report from UCL Australia, which celebrates UCL’s activities in Adelaide over the last seven years and is a testament to the sustained efforts of its staff and students.

UCL’s approach to global engagement focuses on working with partners to achieve fair solutions to global challenges, and the new partnership between UniSA and UCL Faculty of Engineering Sciences will provide a fantastic platform to build on the achievements of UCL Australia, developing tomorrow’s leaders in the energy and resources sectors.

It is important to acknowledge the very substantial financial and operational support that UCL Australia received from Santos, BHP and the South Australian Government to enable our activities in Adelaide over the last seven years. As can be seen in this report, UCL Australia also benefitted from a wide range of in-kind support from many others in industry across Australia.

UCL appreciates greatly the contributions from all our industry and government partners. I would also like to thank those on the advisory and academic boards who gave regularly of their expertise and played an important governance role. Finally, I would like to thank the staff and students who have contributed to the academic endeavour in Adelaide. I hope that you take pride that through your participation you have joined the exclusive group that is UCL alumni.

While the stand-alone operations of UCL Australia cease at the end of 2017, January 2018 brings an exciting new phase of the partnership between UCL Faculty of Engineering Sciences and UniSA. UCL will have an ongoing presence in South Australia, including the placement of UCL Australia staff within UniSA Engineering and the Future Industries Institute at Mawson Lakes, joint UCL-UniSA fellowships for women in Engineering and cross-hemisphere teaching programmes run by the two institutions. Building on the achievements of UCL Australia, I am confident that this new partnership will lead to a long-term and sustained legacy of UCL activities in South Australia.

Professor Michael Arthur
UCL President & Provost
Note from Acting Head of Department

Although UCL Australia has had a relatively short history, I believe we have made a difference here in Adelaide. This report documents what we’ve done since we established in Adelaide in 2009, enrolling our first cohort of students in 2010, through to our final cohort of students in Victoria Square who will graduate at the end of 2017. The report tries to summarise the things we’ve achieved here in Adelaide, in research, teaching and outreach via our public lecture series and to acknowledge the efforts of our management, academic and professional services staff, our students and the many other people involved in our enterprise. In particular, we greatly appreciate the significant support we received from many companies and individuals in the energy and resources sectors, who assisted us in many ways – from sponsoring research financially, to giving of their time and expertise in guest or public lectures, or hosting student research projects or field trips. My thanks also, to Brooke Williamson for helping produce this report. Finally, while this report summarises our efforts here over the last eight years in a quantitative way, it cannot adequately convey the often life-changing impacts that I think UCL Australia has had on many of our students and staff or, indeed, wider impacts we’ve had on the energy and resources sectors. I look forward with hope to these sorts of impacts continuing as we move on to our new operations within the partnership between UCL Engineering and UniSA.

Dr Craig Styan
Acting Head of Department
A (Brief) History of UCL Australia

The School of Energy and Resources, Australia (later to be renamed UCL Australia) was established in Adelaide in 2009 as UCL’s first overseas campus. As the only UK university with a presence in Australia, UCL’s purpose was to bring a global and unique approach to postgraduate education in the energy and resources sectors. UCL had three original goals in establishing in Australia. Focusing on minerals, energy, natural resources management and space and climate physics, it sought to: provide an interdisciplinary model of research and teaching; increase its share of the best research students from Asia and the Pacific; and engage more directly with business and government to prove a new business model.

UCL Australia developed as part of former Premier Mike Rann’s vision of Adelaide as a University City, which saw policies to attract high quality international universities to Adelaide in support of key State Strategic priorities and to raise the profile of Adelaide as a destination for international students. UCL’s Vice-Provost International at the time, Professor Michael Worton, supported by the then Provost Sir Malcolm Grant, developed a relationship with the South Australian Government, brokered by the SA Agent General’s office in London. Mr David Knox, former Chief Executive of Santos was the other key person to support UCL establishing in Adelaide. A generous funding package was provided by Santos for MSc scholarships, Professorial Chair, professional development of academics and international research capacity. The SA Government committed a similar level of funding through redevelopment of space within the Torrens Building for the UCL Australia campus and initial establishment costs and campus rental for the initial lease period to 30 June 2017. Subsequently BHP Billiton also provided funding to fund a Professional Chair, PHD Scholarships and energy related research in Australia through the establishment of the International Energy Policy Institute.

In 2009, the first staff were appointed, including our first academic director Professor Tony Owen, academics Drs Mohan Kohle and Kim Talus and professional services staff Maria Stavrinakis and Lisa Brien, with Richard Martin seconded from UCL in London as Chief Operating Officer. The first cohort of MSc students started in February 2010, with our first graduation ceremony held at the Royal Institution Australia in December 2011. Subsequently, Mr David Travers was appointed as Chief Executive Officer in 2010, leading UCL Australia until 2015. After Richard Martin returned to London, Kym Teh was appointed Chief Operating Officer from July 2010 until May 2011. Mr Bronte Treloar was appointed Chief Financial Officer from July 2011 until May 2015 and then Deputy Head of Department from June 2015 to December 2017. Professor Tony Owen retired from the position as academic director, to be replaced for a year by Professor Eric Fraga, on secondment from Chemical Engineering.

In 2012 Dr Ady James came from the Mullard Space Science Laboratory (MSSL) at UCL to set up an outpost hosted within UCL Australia. For over 40 years the MSSL has been delivering a broad, cutting-edge space science programme in the UK, with involvement in over 50 space science missions internationally. In addition to conducting research and collaborating with the space community within the region, the goal for MSSL (Australia) was to be involved in research and continuous professional development programmes in the areas of technical project management, systems engineering and systems thinking. About the same time, the International Energy Policy Institute was established, with Professor Stefaan Simons from UCL Chemical Engineering appointed to the BHP Billiton Chair to lead research into energy policy and also act as Director of Research.
In 2013 Ady James was appointed Academic Director when Eric Fraga returned to London. In February 2015, UCL launched its new Global Engagement Strategy, which focuses on partnerships of equivalence rather than having a “bricks and mortar” presence overseas. Following consultation, it was agreed that the campus would close as a stand-alone activity at the end of 2017. Stefaan Simons briefly took on the interim role of Head of Department until starting as Dean of Engineering at Brunel University, with Maria Stavrinakis also appointed as Departmental Manager and Dr Craig Styan as Director of Research to add to the UCL Australia management team. Subsequently, Professor Magnus Nyden was appointed as Head of Department. In 2015 a Memorandum of Understanding was signed between UniSA and UCL's Faculty of Engineering to develop a partnership focusing on research and teaching in South Australia in fields that include minerals processing, advanced manufacturing, sustainable future energy production and protection, and care of the environment. In February 2016 we enrolled our last cohort of MSc students into the MSc in Energy and Resources Management. Magnus Nyden resigned as Head of Department in April 2017, with Craig Styan acting in the head position until the closure of the Victoria Square campus in December 2017. Following graduation, the academic and ongoing research staff will move to their new offices and lab spaces within UniSA’s Future Industries Institute at Mawson Lakes and a new phase in the history of UCL's activities will begin.

Along the way there have been quite a number of academic, research and professional services staff working at UCL Australia, each of whom has contributed to the UCL Australia story and whose efforts have been greatly valued. Similarly, numerous people from government and industry have contributed greatly to the governance and oversight of UCL Australia through their participation in our Academic and Advisory Boards. One special mention though of somebody who has supported us all the way through our history - Dr Jane Lomax-Smith, former Lord Mayor of Adelaide and former Minister in the Rann Labor Government - was a key adviser for Professor Worton and made a significant contribution to the establishment of UCL Australia and Adelaide’s relationship with UCL in London. Jane has served on the Academic Board and subsequently the Advisory Board with distinction.
UCL Australia Advisory Board Members

Mr Douglas Caster CBE (Chairman) (2010–2013)
Chief Executive, Ultra Electronics Holdings plc

The Hon Martin Ferguson AM (Chairman) (2014–2017)
Group Executive, Natural Resources, Seven Group Holdings

Ms Kim Bolhuis (2012–2014)
Senior Commercial Advisor, Origin Energy

Mr Mark Brownley (2012–2015)
General Manager Field Services, SA Power Networks

Mr Alan Bye (2015–2016)
Vice-President, Technology, BHP Billiton

Dr Ian Chessell (2010–2010)
Chief Scientist, South Australia

Ms Petrina Coventry (2012–2014)
Chief Human Resources Officer, Santos

Mr Dean Dalla Valle (2010–2012)
President, Uranium, BHP Billiton Limited

Mr Chris Eccles (2010–2010)
Chief Executive, Department of the Premier & Cabinet

Dr Craig Fowler (2013–2014)
Deputy Chief Executive, Department of Further Education, Employment, Science & Technology

Ms Joanne Fox (2015–2017)
Chief Human Resources Officer, Santos

Mr Jim Hallion (2011–2013)
Chief Executive, Department of Premier and Cabinet

Mr H L Kam (2010–2017)
Group Managing Director, Cheung Kong Infrastructure Holdings Limited

Mr David Knox (2010–2012)
CEO & Managing Director, Santos Limited

The Hon. Dr Jane Lomax-Smith AM (2015–2017)
Chair, South Australian Museum Board

Professor Tanya Monro FAA FTSE FOSA GAICD (2015–2017)
Chief Scientist, South Australia

Professor Steve Begg (Chair) (2015–2017)
Head, Australian School of Petroleum, University of Adelaide

Emeritus Professor Alan Robson (Chair) (2011–2014)
The University of Western Australia

Professor Chris Baker (2011–2017)
Chief Technology Officer, Availant, UK

The Hon. Dr Jane Lomax-Smith AM (2011–2015)
Chair, South Australian Museum Board

Professor Peter Majewski (2015–2017)
Head, School of Engineering, UniSA

Professor John Ralston AO FAA FTSE (2011–2015)
Emeritus Laureate Professor, University of South Australia

Professor Stefaan Simons (2015–2017)
Dean of College, Brunel University London

UCL Australia Academic Board Members

Professor Steve Begg (Chair) (2015–2017)
Head, Australian School of Petroleum, University of Adelaide

Emeritus Professor Alan Robson (Chair) (2011–2014)
The University of Western Australia

Professor Chris Baker (2011–2017)
Chief Technology Officer, Availant, UK

The Hon. Dr Jane Lomax-Smith AM (2011–2015)
Chair, South Australian Museum Board

Professor Peter Majewski (2015–2017)
Head, School of Engineering, UniSA

Professor John Ralston AO FAA FTSE (2011–2015)
Emeritus Laureate Professor, University of South Australia

Professor Stefaan Simons (2015–2017)
Dean of College, Brunel University London

UCL Australia Board of Examiners Members

Professor Peter Ashman (2012–2017)
Dean, College of Engineering and Computer Science, Australian National University

Professor Christopher Baker (2010–2012)
Dean, College of Engineering and Computer Science, Australian National University

Professor Jeffrey Bennett (2013–2015)
Professor of Environmental Management, Australian National University

Emeritus Professor Adrian Bradbrook (2010–2014)
School of Law, The University of Adelaide

Associate Professor Karen Bubna-Litic (2014–2017)
School of Law, University of South Australia

Associate Professor Lynne Chester (2015–2017)
Department of Political Economy, University of Sydney

Professor Walter Fernandez (2012–2015)
School of Information Systems, University of New South Wales

Emeritus Professor Vernon Ireland (2015–2017)
University of Adelaide

Professor Ronald Ripple (2010–2013)
Professor of Energy Economics, Curtin University of Technology
**Senior Management Team**

- **Professor Eric Fraga (2012–2013)**
  Academic Director
- **Dr Adrian James (2012– )**
  Director of Teaching/Executive Director, Mullard Space Science Laboratory
- **Professor Magnus Nyden (2015–2017)**
  Head of Department
- **Mr Richard Martin (2009–2011)**
  Chief Operating Officer
- **Professor Anthony Owen (2009–2013)**
  Academic Director
- **Professor Stefaan Simons (2012–2015)**
  Director, International Energy Policy Institute
- **Maria Stavrinakis (2009–2017)**
  Departmental Manager
- **Dr Craig Slyan (2012– )**
  Acting Head of Department/Director of Research

- **David Travers (2010–2015)**
  Chief Executive
- **Bronte Treloar (2011–2017)**
  Deputy Head of Department

**Academic Staff**

- **Dr Stylianos Bouzalakos (2011–2012)**
- **Dr Mohan Kolhe (2009–2012)**
- **Dr Carlos Miraldo (2016–2017)**
- **Dr Tuan Phan (2015–2016)**
- **Dr Eleftheria Polykarpou (2012–2013)**
- **Dr Kim Talus (2010–2012)**
- **Professor Christine Trenorden (2013– )**
- **Dr Adeline Tubb (2013– )**
- **Dr Katelijn Van Hende (2013–2015)**
- **Dr Eng Hwa Yap (2014–2016)**

**Professional Services Staff**

- **Dina Bello (2011–2017)**
- **Lisa Brien (2009–2010)**
- **Mark Johnson (2014–2017)**
- **Angela Korng (2012–2017)**
- **Sergio Lordao (2012–2013)**
- **Michaela Mocikova (2012–2015)**
- **Jo-Anne Rowe (2010–2011)**
- **Nathan Tan (2010–2013)**
- **Kym Teh (2010–2011)**
- **Brooke Williamson (2016–2017)**
- **Pixie Yeap (2011–2017)**

**Visiting Academics**

- **Dr Paul Dare**
- **Professor Christian Ekberg**
- **Professor Sir Malcolm Grant CBE**
- **Dr Jonathan Mirrlees-Black**
- **Professor Anthony Owen**
- **Dr Eleftheria Polykarpou**
- **Dr Luke Reedman**
- **Trevor Rose**
- **Professor Christof Rühl**
- **Dr Katelijn Van Hende**
- **James Voss**
- **Dr Wai-Kin Wong**

**Postdoctoral Research Associates**

- **Dr Michel Berthelemy (2013–2015)**
- **Dr Alicia Boyano Larriba (2012–2013)**
- **Dr Navinda De Silva (2013–2017)**
- **Dr Laura Falkenberg (2014–2016)**
- **Dr Jedrzej Gorski (2017–2017)**
- **Dr Mikael Larsson (2016–2017)**
- **Dr Cristelle Maurin (2014–2016)**
- **Dr Dale Potts (2014–2015)**
- **Dr Mahdi Shahnazari Avval (2016–2017)**
- **Dr Darien Simons (2013–2016)**
- **Dr Hazel Vandeleur (2016–2017)**
Research Outputs

Books

Book chapters

Refereed articles in a scholarly journal


Published conference presentations


Other conference presentations


Wouters C., Polykarpo E. M., Fraga E. S. (2013). Optimal design of a microgrid: A case study in South Australia. All Energy Australia, Melbourne, Australia, 8-9 October 2013.


Keynote or other invited presentations


Styan C. A. (2015). Tales from the (d)edge of reality: monitoring the impacts of oil and gas developments on corals and other charismatic marine creatures. School of Biological Sciences, Flinders University, Adelaide, South Australia, 17 September 2015.

James, A. (2014). CubeSat instrumentation development for the QB50 project. Workshop on utilising existing Australian space capability for future growth, Mt Stromlo Observatory, Canberra, Australia, 14 - 18 July 2014.


Technical reports


Other outputs


Public Lectures

2017

Sociology before Geology: Social Performance in the Extractive Sector
Bruce Harvey, Centre for Social Responsibility in Mining, The University of Queensland.

The importance of research and education in water resources management to inform decision making
Hon Karlene Maywald, Non-Executive Director of SA Water.

2016

Brexit: A Utopian Ideal?
Visiting Professor Dr Tim Stone CBE, UCL Australia.

Delivering the Energy Transition in theory and practice
Professor Michael Grubb, University College London; Hon Mark Parnell MLC.

Can Humans Survive Human Nature?: The Political Psychology of Climate Change
Dr John Rolls, Barbara Hardy Institute, University of South Australia.

The Nuclear Fuel Cycle: A Community Decision
Honorary Reader Jim Voss, UCL Australia.

Murray-Darling Basin – management challenges of a complex system
Dianne Davidson, University of Adelaide.

Nuclear: A waste of time, energy and money?: Power Generation, Waste Management and Recycling Spent Fuel
Emeritus Professor Tony Owen, University College London; Visiting Professor Christian Ekberg, UCL Australia; Honorary Reader James Voss, UCL Australia.

Energy and Materials Efficiency, Conversion and Storage
Professor Stefaan Simons, Brunel University London; Associate Professor Frank Bruno, University of South Australia; and Professor Peter Murphy, University of South Australia.

The effects of radiation
Professor Pam Sykes, Flinders University.

Nuclear, renewables, energy storage and other low-carbon technologies: an energy systems perspective on policy options
Dr Paul Dodds, University College London.

2015

The Security Implications of a Changing Climate; why it matters and what we need to do
Honorary Professor Rear Admiral Neil Morisetti CB, University College London.

Management Options for Energy-from-Waste Air Pollution Control Residues
Dr Julia Stegemann, UCL Centre for Resource Efficiency and the Environment.

Prospects for international oil prices
Visiting Professor Paul Stevens, UCL Australia and Chatham House.

Infrastructure, markets and regulation: Fixing failure
Visiting Professor Dr Timothy Stone CBE, UCL Australia.
2014

How health can beat at the heart of an economy
Visiting Professor Sir Malcolm Grant, UCL Australia and National Health Service (NHS).

South Australia and the world energy outlook
Visiting Professor Christof Rühl, UCL Australia and Abu Dhabi Investment Authority.

Evidence, Parliaments and making good policy decisions
Dr Chris Tyler, University College London and UK Parliamentary Office of Science and Technology

Arbitrating Complex Energy Disputes: A Case Study in Gas/LNG Production and Export
Dr Alejandro Escobar, BakerBotts.

Application of Oil Dispersants by Sub-surface Injection: Deepwater Horizon Oil Spill Gulf of Mexico
Dr Kenneth Lee, CSIRO Wealth from Oceans National Research Flagship.

The International Oil and Gas Companies: Is the old business model dead?
Professor Paul Stevens, Chatham House.

Energy and environmental public policy. Joining the dots between public policy, economics and implementation
Jim Voss, UK Nuclear Institute.

Systems Thinking and Interdependency – a joined up world
Professor Brian Collins, UCL Centre of Engineering Policy.

2013

Use of models to develop policies for energy and environment
Dr Mark Barrett, UCL Energy Institute.

The First Oil Shock forty years after: Is a good memory still the best qualification for a prophet?
Professor Paul Stevens, Chatham House.

Challenges for Mineral Exploration in SA
Richard Hillis, Deep Exploration Technologies Cooperative Research Centre.

The Coalition’s climate change strategy
The Hon Greg Hunt MP, Federal Member for Flinders Shadow Minister for Climate Action, Environment and Heritage; Professor Stefaan Simons, University College London.

Remote Sensing for Energy and Mineral Resources
Professor Peter Muller, Mullard Space Science Laboratory.

The US and ‘Energy Independence’: probabilities, geo-politics and a meow!
Professor Paul Stevens, Chatham House.

Wind Power in South Australia – from zero to 26% in 10 years
Adjunct Associate Professor Monica Oliphant, ISES; Nic Jacobson, Independent Consultant.

Fluid modelling of carbon dioxide sequestration
Professor Herbert Huppert, University of Cambridge.

Unconventional Gas Project Management
Diana Hoff, Santos.

Global Energy Outlook – the long term
Dr. Christof Rühl, BP plc.

2012

The Economics of Resource Curse: Is Australia a Special Case?
Professor Paul Stevens, Chatham House.

Dr Kenzo Fujisue, Member of the House of Councilors of Japan.

The Changing Climate of Climate Science
Professor Chris Rapley, University College London.
Site Visits

Site visits were a feature of our programme and allowed the students to gain context to enhance their classroom learning and to understand the operational realities of facilities in the energy and resources sectors, and to see them in the wider environmental and community contexts. This was only possible with the generous support of the following organisations.

- Adelaide Desalination Plant (SA Water)
- Angas Zinc Mine (Terramin Resources)
- ANZ House (ANZ)
- Arid Recovery Reserve (Arid Recovery)
- Australian Water Quality Centre (SA Water)
- Biofuels Demonstration Plant Whyalla (Muradel)
- Christie Walk Eco-village
- Clements Gap Wind Farm (Pacific Hydro)
- Davenport Substation (ElectraNet)
- ElectraNet Control Room (ElectraNet)
- Kanmantoo Copper Mine (Hillgrove Resources)
- Langhorne Creek
- Leigh Creek Coal Mine (Alinta)
- Lochiel Park (Zero Carbon House)
- Moomba Facility (Santos)
- Northern Power Station (Alinta)
- Olympic Dam Mine (BHP)
- Onshore Petroleum Centre of Excellence (TAFE)
- Pelican Point Power Station (ENGIE)
- Port Bonython Hydrocarbon Facility (Santos)
- Port Pirie Smelter (Nystar)
- Royal Adelaide Showgrounds Solar PV Plant
- SA Power Networks Innovation Centre (SA Power Networks)
- Santos House (Santos)
- Sundrop Farms (Sundrop)
- Torrens Island Power Station (AGL)
- Whyalla Steelworks (Arrium)
Industry Hosts for Student Projects

ACCIONA
AGL
ANZ
APA
Arrium Mining
Attorney-General’s Department
Australian Competition and Consumer Commission
Australian Energy Market Operator
Beach Energy
BG Group
BHP Billiton
Commonwealth Bank of Australia
Coopers Brewery
Department for Manufacturing, Innovation, Trade, Resources and Energy
Department of Primary Industry and Regions, South Australia
ElectraNet
Energy Exemplar
Epic Energy South Australia
Finlaysons
Holland & Knight
Marathon Resources
Ministry of Energy and Mineral Resources
Origin Energy
Osmoflo
Parsons Brinckerhoff
Regional Development Australia Yorke and Mid North
Santos
Saumweber Holdings
SEA Gas
Sundrop Farms
Tas Gas
Guest Lecturers

Roy Abraham
Santos

Professor Jonas Addai-Mensah
University of South Australia

Stuart Ainsworth
Enlightening Data Pty Ltd

Dr Alemu Alemu
University of South Australia

Dr Anas Alhajji
NGP Energy Capital Management

Professor Owen L. Anderson
The University of Oklahoma

Michael Bailey
Rio Tinto

Professor Steve Begg
University of Adelaide

Dr Martin Belusko
University of South Australia

Dr Andrei V Belyi
Deputy Chair on cathedra on Political Issues Russia

Dr Geoff Bertram
Victoria University of Wellington

Graeme Bethune
EnergyQuest

Kate Bickford
McDonald Steed McGrath Lawyers

David Blowers
Grattan Institute

Ally Bonakdar
NAB

Kim Bouwer
University of Strathclyde Glasgow

Dr Marita Bradshaw
Geoscience Australia

Dr Thierry Bros
The Oxford Institute for Energy Studies

Professor Frank Bruno
University of South Australia

Robin Budden
Social Aspects Solutions

Dr Mark Bunch
CO2CRC

Professor John Callaway
University of San Francisco

Lisa Caripis
Transparency International Australia

Lui Cirocco
University of South Australia

Leigh Clifford
Qantas

Dr Ian Cody
ExxonMobil

Hon Patrick Conlon MP
Ministry of Transport

Joel Cook
Cambridge Economic Policy Associates CEPA

Chris Coomans
ANZ

Dianne Davidson
Murray-Darling Basin Authority (MDBA)

Dr Katherine Davidson
University of South Australia

Charles Davis
Commonwealth Bank

Dr Rob Dickinson
Hydricity Systems Australia

Dr Che Doering
Australian Government

Martyn Eames
Santos

Ralf Eckley
Santos

Greg English
Piper Alderman

Associate Professor Nesimi Ertugrul
University of Adelaide

Dr Alejandro Escobar
Baker Botts
Professor Howard Fallowfield  
Flinders University

Dr Chris Fogwill  
University of New South Wales

Nick Fox  
Santos

Cathy Frost  
Santos

Jan Gabrynowicz  
Commonwealth Bank

John Gallagher  
Santos

Scott Gardiner  
King & Wood Mallesons

Bob Gilliver  
University of South Australia

Dr Barry Goldstein  
Government of South Australia

Dennis Gonzales  
CSIRO

Phillip Gordge  
Santos

Dr Alice Gorman  
Flinders University; Australian Cultural Heritage Management

Elizabeth Harnett  
University of Oxford

Philip Harris  
Frazer-Nash Consultancy

Bruce Harvey  
Resolution88; Rio Tinto

Professor Jon Havenhand  
University of Gothenburg

Dr Guna Hewa Alankarage  
University of South Australia

Bronte Hollow  
Santos

Peter Holt  
Energetics'

Melissa Holzberger  
Sloan Holzberger Lawyers

John Karasinski  
Curtin University

Tim Kildea  
SA Water

David Knox  
Santos

Rainer Korte  
ElectraNet

Eloise Langford  
Aurecon

Paul Leadbeter  
University of Adelaide

Frank Leanez  
Energy Exemplar

Dr Richard Leaver  
Flinders University

Kerrynne Liddle  
Santos

Ian Little  
Envestra

Dr Adam Loch  
University of Adelaide

Professor John S. Lowe  
SMU Dedman School of Law

Associate Professor Iain MacGill  
University of New South Wales

Dr Steve Mackie  
Santos

Jon Marshallsay  
Australian Cultural Heritage Management

Karlene Maywald  
Government of South Australia

Deena McMullen  
Santos

Dr Stephanie McWhinnie  
University of Adelaide

Paul Menzies QC  
Wentworth Chambers

Dr Kieren Moffat  
CSIRO

Bradley Moggridge  
University of Canberra

Dr Gavin Mudd  
Monash University

Deena Mullen  
Santos

Nick Mumford  
Santos

Glenn Murray  
Santos

Dr Sasi Nayar  
South Australian Research and Development Institute

Jane Norman  
Santos

Craig Oakeshott  
The Australian Energy Regulator; Sinclair Knight Merz

Cheryl Ormond  
Santos
Dr Declan Page
CSIRO
Dr Alexandra Peralta
University of Adelaide
Dr Tuan Phan
Australian Government
Colin Pitman
Walkerville City Council
Associate Professor Peter Pudney
University of South Australia
Joe Ranford
Terramin Australia
Damien Raspe
Santos
Philip Roach
The Bend Motorsport Park
Dr John Rolls
University of South Australia
Trevor Rose
Consultant; Santos
Dr Christof Ruhl
BP
Professor Christof Ruhl
ADIA
Dr Anibal Sabater
Fulbright & Jaworski
Professor Wasim Saman
University of South Australia
Patrick Say
Rex Minerals
Dr David Shearman
Doctors for the Environment Australia
Dr Samantha Smith
Nautilus Minerals
Susie Smith
Santos
Rod Smythe
King & Wood Mallesons
Abigail Steed
McDonald Steed McGrath Lawyers
Professor Paul Stevens
Chatham House
Ian Stirling
ElectraNet
Major Sumner
Ngarrindjeri Elder
Nick Swain
SA Water
Fred Tanner
Government of South Australia
Michael Thorpe
Commonwealth Bank
John Tsalapatis
Arium
Marc Twining
Rex Minerals
Lisa Twyford
Clear Decisions
Murray Tyler
BHP Billiton
Dr Katelijn Van Hende
Aarhus University
Dr Eric van Sebille
University of New South Wales
Carolyn Vigar
Wallmains Lawyers
Mark Vincent
ETSA Utilities
Dr Vlado Vivoda
University of Queensland
David Warner
DSWPET Pty Ltd
Dr Alexandra Wawryk
University of Adelaide
Dr David Whaley
University of South Australia
Peter Williams
Marathon Resources
Ben Wolrige
Corality
Reiner Wolterbeek
Sundrop Farms
Dr Wai-Kin Wong
ElectraNet
Tony Wood
Grattan Institute
Simon Wooley
Sources of Value
Dr Theodore Xu
Santos
Professor Mike Young
University of Adelaide
Jane Yuile
ANZ
Dr Massimiliano Zanin
University of South Australia
Dr Airong Zhang
CSIRO
Dr Rocco Zito
University of South Australia
Message from the Director of Teaching

The Master of Science in Energy and Resources Management was a two-year programme designed to provide students with a rigorous and comprehensive knowledge of contemporary theory and practice in the sustainable management of energy and natural resources. The programme was a management focussed Master's course that prepared students for management and senior executive roles by taking a industry focussed multidisciplinary approach.

The UCL Australia experience combined traditional classroom principles with practical field trips that enriched the student experience by providing operational context. South Australia provided the perfect case study for many of the issues tackled in the course because of a curious, seemingly paradoxical clash of abundance, risk and fragility of its own natural resources.

To provide the expected learning outcomes UCL Australia brought together a multidisciplinary research team to challenge assumptions, break down discipline barriers and address key interactions between energy and resource management, technology and policy. Initially providing eight modules for study by 2016 the number of options available had risen to 14:

- Energy Technology Perspectives
- Resources Development and Sustainable Management
- Economics of Energy, Resources
- Law of Energy and Resources
- Project management for Energy and Resources
- Macroeconomics and Sustainability
- International Policy and Geopolitics of Energy and Resources
- Energy Efficiency and Conservation
- Political Economy of Oil and Gas
- Financing Resource Projects
- Social Licensing
- Water Resources Management
- Nuclear Energy
- Big Data Analytics

Within these modules we made extensive use of guest lectures from UCL London and other Universities as well as industry leaders and experts to provide a broad, multi-perspective view of the issues under study. Students then got the opportunity to carry out industry relevant research projects, often hosted within, or in conjunction with, our industry partners. This strong connection between the teaching, research and industry issues meant that our students were truly engaged within the energy and resources community. This networking opportunity and a UCL qualification has resulted in many of our graduates securing good positions within the sector both locally and internationally. Personally, it has been very satisfying to see students from all over the world arrive at UCL Australia, many straight from an undergraduate qualification, and watch them develop and mature into future leaders within the energy and resources sector who UCL can be proud of.

From this perspective I am happy that we are able to take this model, with its growing network of experts, and apply it to the context of the ongoing MSc in Global Management of Natural Resources and the new Joint Masters in Sustainable Energy Systems commencing in 2018.

Dr Adrian James
Director of Teaching
PhD Research Graduates
Class of 2016

CARMEN WOUTERS

Optimal design and regulation of residential distributed energy systems
Supervisors Dr. Adrian James, UCL Australia and Professor. Eric S. Fraga, UCL

A word from Carmen

Being at UCL, I was able to do research in a truly international environment, and be part of the greater UCL campus with collaboration possibilities in London as well as in Australia.

I had the opportunity to work in a multidisciplinary environment at UCL Australia which sparked my interests beyond energy engineering. This helped me to understand the different ways of working in various disciplines and the importance to collaborate.

My favourite memory from my time at UCL Australia is that for nearly four years I was able to share an office with inspiring friends, making fun every day while going through a shared PhD experience.

I currently live and work in The Netherlands. I am employed with DNV GL – Energy as a consultant in the field of energy markets and policy development.

PhD Research Candidates

Michael Bailey (2013– )
Desmond Chia (2010–2014)
Kenneth Dolan (2014– )
Herbert Hasudungan (2012–2012)
Antony Lockyer (2015– )
Andrew Nance (2010– )
Holly Niner (2014– )
Andrew Tan (2015–2016)
Class of 2017

Master of Science
- Yareni Aguado Ramos
- Michael Azevedo
- Yihan Fu
- James Alexander Hopkinson
- Okjung Kang
- Eunku Kang
- Donghwan Kim
- Svetlana Kotova
- Jinbu Lee
- Nathaniel Linder-Patton
- Suzanne Mathan
- Callum James Murison
- Hai Ha Nguyen
- Gary William Ruth
- Sarah Shalsi
- Gil Yong Um
- Sungpyo Wi

Graduate Diploma
- Jasmine A Richards
- Benjamin Stuart Wells

Graduate Certificate
- Fernando Jose
- Vincente Castillo
- Lilayu
- Rowan John Mackay
- Jacob John Potter

Class of 2016

Master of Science
- Steven Nicholas Bondio
- Gwangjun Choi
- Pedro Olavo Dos Santos Carvalho
- Emma Mary Haddon
- Aaron Matthew Haifley
- Shu (Cecily) Jiang
- Augusta Lane
- Belen Elaine Leveroni Villafana
- Nilofar Morgan
- Peter James Palmato
- Muhammad Ilham Pasha

Graduate Diploma
- Toby John Patterson

Graduate Certificate
- Stephenie Hilda De Nichilo
- Assem Sarieh Mohamed
- Maher Elessawy
- Patrick John Joseph Greene
- Jacob Anthony Jordans
- James Paul Telford
- David John Maxwell Turner

James Alexander Hopkinson

The best part about being at UCL was studying with such a diverse cohort and being taught across such a wide range of courses.

Attending UCL Australia helped me land the perfect job, which has put me on the career path I had hoped.
Class of 2015
Master of Science
Mohamad Shafiq Bin Adnan
Vincent Ashikordi
Gi-Gon Jeon
Kyungho Kang
Toby Benjamin Brooks
Suntae Kim
Rae Choon Lee
Julio Alberto Lopez Peña
Sébastien Robert McClay
Adedayo Odunade
Andranik Petrosyan
Cristina Rocca
Suhng Tae Suh
Graduate Diploma
Buyu (Amy) Guo
Heath Shepherdson
Szabolcs Vágvölgyi
Helena Wu
Graduate Certificate
Mark Alan Buckland
David L Di Blasio
David Andrew Knights
Craig William Schulz

I loved the international aspect of UCL and how it permeated everyone and everything! The obvious example is with the diverse background of the people at UCL, from the staff to the students. The course content is also very global and being taught by renowned international visiting academics was a real differentiator.

Class of 2014
Master of Science
Herbert Abigaba
Matthew Armitage
Christopher Joel Bartley
Anna Budaghyan
Sergio Andrés Pizarro
Myoung Jae Kim
Tae Jin Kim
Su Jin Lee
Ahmad Zuhairi Bin Muzakir
Hyun-Jong Park
Iwan Setiyono Ko
Owen Elliot Sharpe
Ik Su Shin
Maxime Martin Eric Stefan Snick
William Francis Trott
Aishat Yergaliyeva

Owen Elliot Sharpe
I developed as a person in my time at UCL. It taught me self-discipline and gave me confidence to take on new opportunities.

Graduate Diploma
Glen Rodney Spitty
Mark Anthony Stickells

Graduate Certificate
Benjamin James Ali
Katherine Browning
Mark William Burgoyne
Rhys Gordon Davy
Fiona Ann Hancock
Simon Alexander Hasler
Melissa Jane Lovell
Ian Ngoc Luong
Tomas Radzевичус
Mohamed Ridhahikmat
Tina Rose Stewart
Eugene Tier
Christopher Colin Wilcox

Helena Wu
I loved the international aspect of UCL and how it permeated everyone and everything! The obvious example is with the diverse background of the people at UCL, from the staff to the students. The course content is also very global and being taught by renowned international visiting academics was a real differentiator.
Matthew Bouraee

The best part about being at UCL were the incredible people (professors, staff, students, industry contacts), scholarships, superb facilities, and location in the heart of beautiful South Australia.

Class of 2013

Master of Science
James Abbott
Matthew Bouraee
Joohong Huh
Rahman Mulya
Listya Mustafida
Lendyn Marcus Philip
Ira Savitri

Graduate Diploma
Julie-Ann Simper
Kyoung Woo Kim

Graduate Certificate
Mark Butterworth
Tim Dean
Peter Dospisil
Brenton Emery
Phillip Gordge
Przemek Grobelski
Giuseppe Gugliotta
Andre Levey
Ying Luo
Damien Mavroudis
Barry Myers
Davide Rossi
Amy Seppelt
Melanie Toyer
Just like I’d been fascinated by working with the most intelligent and innovative minds in the oil and gas industry, UCL offered an opportunity to study alongside great minds and high achievers from across the world.

I wanted to advance my qualifications and further develop my knowledge of the energy and resources industry. The opportunity to attend UCL, a world leading university, along with the opportunity to learn from global experts was one I could not miss.
Prize Winners

Torrens Prize – awarded for academic achievement

Augusta Lane
Torrens Prize 2016

Toby Benjamin Brooks Kenward
Torrens Prize 2015

Christopher Joel Bartley
Torrens Prize 2014

Lendyn Marcus Philip
Torrens Prize 2013

Ntasha Berry
Torrens Prize 2012

Jeremy Rudston
Torrens Prize 2011

Grote Medal – awarded to the student who best exemplifies UCL values

Steven Nicholas Bondio
Grote Medal 2016

Sébastien Robert McClay
Grote Medal 2015

Owen Sharpe
Grote Medal 2014

Listya Mustafida
Grote Medal 2013

J W Conrad Mulherin
Grote Medal 2012

Robert Baker
Grote Medal 2011
Scholarships

Santos Scholars
Matthew Armitage
Vincent Ashikordi
Gregory Palavo Balavue
Christopher Joel Bartley
Ntasha Berry
Steven Nicholas Bondio
Matthew Bouraee
Anna Budaghyan
Thomas Bain Butchart
Vladimir Chikovsky
Nurul Chowdhury
Joseph Doleschal-Ridnell
Nicoleta Raluca Dorobantu
Klara Ildarovna Gadeeva
Emma Mary Haddon
James Alexander Hopkinson
Toby Benjamin Brooks Kenward
Rebecca Ogann Kiage
Iwan Setiyono Ko
Svetlana Kotova
Matt R Lady
Augusta Lane
Suzanne Mathan
Andrew Nance
Hai Ha Nguyen
Charles Ikenna Nweke
Toby John Patterson
Lendyn Marcus Philip
Jasmine A Richards
Cristina Rocca
Szabolcs Vágvölgyi
Guma Wau Jr
Benjamin Stuart Wells

BHP Scholars
James Brown
William Francis Trott
Mariya Koleva
Antony Lockyer
Holly Niner
Sayara Saliyeva
Andrew Tan
William Francis Trott
Richard Wilson
Carmen Wouters
Yunyang Wu
Aishat Yergaliyeva

Santos Taeguk Scholars
Gwangjun Choi
Gi-Gon Jeon
Eunku Kang
Kyungho Kang
Okjung Kang
Donghwan Kim
Kyoung Woo Kim
Myoung Jae Kim
Suntae Kim
Tae Jin Kim
Jinbu Lee
Rae Choon Lee
Sujin Lee
Hyun-Jong Park
Ik Su Shin
Suhng Tae Suh
Gil Yong Um
Sungpyo Wi

Australian Awards Scholars
Herbert Abigaba
Nelson Enano
Belen Elaine Leveroni Villafana
Julio Alberto Lopez Peña
Listya Mustafida
Muhammad Ilham Pasha
Kathryn Sara Siriram
UCL Australia Student Map

Student countries
The Next Phase

In 2015 the Faculty of Engineering Sciences (FES) at UCL and the University of South Australia (UniSA) signed an agreement committing to work together to develop teaching and research in South Australia in fields that include minerals processing, advanced manufacturing, sustainable future energy production and protection, and care of the environment. The agreement, signed at joint events in Adelaide and London, signalled a program of future collaboration between UniSA’s Future Industries Institute (FII) and the FES. The partnership emphasised UCL’s ongoing commitment to sustaining its engagement with South Australia, albeit in a different format.

Since then, staff from UCL Australia, FES and the FII have begun to collaborate frequently across research and teaching and a range of activities have initiated as part of the developing partnership. For example, UCL Australia has facilitated research workshops in Adelaide and London involving FES and UniSA researchers, a joint research application has recently been submitted to the Australian Research Council and three Santos/UCL/UniSA Women in Engineering Research Fellowships have just been appointed. Adjunct appointments have been made for key staff from both institutions and representatives from each university have been invited onto selection panels for the recruitment of senior staff for the other institution.

New teaching programmes have begun, including the MSc in Global Management of Natural Resources Management, which sees students take the first two terms of their course in London, then travel to Adelaide for April – Sept, taking a UCL Australia module (Social Licensing) here, a field trip to a mine and then doing their major research project with researchers from the FII and other areas from across UniSA. The first intake saw 11 students in Adelaide in 2017, with 20 students coming to Adelaide in the next cohort in 2018. Additionally, two new cross-hemisphere MSc run between UCL and UniSA are also planned to start next year – one in Sustainable Energy Systems Management and another in Data Science.

And from December 2017, the academic staff from UCL Australia (Craig Styan, Ady James and Adeline Tubb) and research staff and PhD students associated with their groups will relocate to space in the FII and Engineering at UniSA. Embedded as a UCL group, we will work closely with UniSA colleagues to build on the foundations developed at UCL Australia and to access the new opportunities that the FES-UniSA partnership provides. For example, links developed with Mullard Space Science Lab will expand and take on new opportunities – Ady James was recently appointed co-director of the Southern Hemisphere Space Studies Program which is hosted at UniSA in collaboration with the International Space University.

The closure of UCL Australia as a stand-alone department concludes the first, successful phase of UCL’s engagement in South Australia. We invite our alumni, industry partners and other friends to join with us and our colleagues at UniSA as we take on the many exciting opportunities that will develop in our next phase of the FES-UniSA partnership.