

# Curtin University



**PROJECT MANAGER, BIOMETRICS –** STATISTICS FOR THE AUSTRALIAN **GRAINS INDUSTRY (WA NODE)** 

# CANDIDATE INFORMATIONBOOKLET

Make tomorrow better.

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### **OVERVIEW OF THE UNIVERSITY**

Curtin University is an inspiring, vibrant, international organisation, committed to making tomorrow better. It is a beacon for innovation, driving advances in technology through high impact research, and offering more than 100 practical, industry-aligned courses connected to the workplaces of tomorrow.

Ranked in the top one per cent of universities worldwide in the Academic Ranking of World Universities 2017, Curtin is also ranked 14th nationally in the 2017 Time Higher Education Top 200 universities under 50 and has received an overall five-star excellence rating in the QS stars rating 2017.

The University is committed to international engagement and supports a diverse international student population. This cultural diversity adds a rich and valuable dimension to the campus atmosphere and prepares graduates to live and work in an increasingly global environment. Curtin maintains campuses in Western Australia, Malaysia, Singapore and Dubai, while also conducting face-to-face teaching in a number of countries.

Offering a wide range of undergraduate and postgraduate courses in health sciences, business, humanities, resources, engineering and related sciences, the University is recognised for high-impact research across a range of areas. The practical and applied nature of Curtin's courses equips graduates with the skills and knowledge that employers look for, by exposing students to industry, business and research that has a focus on solving real world problems. This combination enables graduates to be effective in the workplace immediately upon graduation.

As part of this approach, Curtin has always fostered successful partnerships with industry, business and government to enhance the quality of our scholarships, teaching and research. Curtin will continue to develop existing partnerships and to establish new ones in areas relevant to research and teaching. We have an exciting future and we invite you to join with us as we move forward.



## **STRATEGIC PLAN**

In late 2015 and throughout 2016, Curtin undertook a substantial review of its strategic direction and positioning, involving University-wide consultation.

The outcomes of this highly collaborative process have been captured in the Strategic Plan 2017- 2020.

The focus for this planning cycle will be on 'Delivering Excellence' as we look forward to securing our position as a leading global university that is positioned in the top 200 globally and top 10 nationally. As we head towards 2020, we will ensure that we:

- o strengthen our capacity to be future looking;
- o maintain a focus on excellence in everything we do;
- o strive to be both industry-facing and industry-embedded;
- o deepen our well-established culture of innovation;
- o build life-long connections with an engaged alumni;
- o above all, be led by our values as we support our staff, promote Indigenous reconciliation and contribute to a fairer and more just society for all.

Our Strategic Plan is comprised of six themes: o Learning and Student Experience;

- o Research and Innovation;
- o Engagement and Impact;
- o People and Culture;
- o Global Positioning; and
- o Sustainable Future.

Each theme contains a high-level goal and series of desired outcomes for 2020, and details the initiatives and actions that will enable us to achieve this.



### FACULTY OF SCIENCE AND ENGINEERING

The Faculty of Science and Engineering develops internationally focused graduates who are committed to excellence in their field.

The faculty is noted for its achievements in innovative teaching and learning and, in particular, its high research profile through participation in Commonwealth Government Cooperative Research Centres, State Government Centres of Excellence, and joint activities with industry and government. Teaching staff from the faculty have received national and international awards for their teaching qualities and practices.

The faculty is also committed to community engagement and runs several successful outreach programs that take science and engineering to schools and the wider community.

#### THE FACULTY OF SCIENCE AND ENGINEERING COMPRISES FIVE SCHOOLS:

- o School of Civil and Mechanical Engineering (CME)
- o School of Earth and Planetary Sciences (EPS)
- o School of Electrical Engineering, Computing and Mathematical Sciences (EECMS)
- o School of Molecular and Life Sciences (MLS)
- o WA School of Mines: Minerals, Energy and Chemical Engineering (WASM:MECE)

#### MOLECULAR AND LIFE SCIENCES

The School of Molecular and Life Sciences is a combination of studies in agriculture, chemistry, molecular bioscience and food science. Courses are supported by research-led teaching and are dedicated to creating graduates with industry experience.

The school strives to act as a source of independent and expert advice to industry, government and society, and to carry out research and development with particular relevance to the regional community.





# AGRICULTURAL RESEARCH

Research and innovation is at the forefront of Curtin's global strategy, with agricultural science a key component.

Agricultural research at Curtin has grown rapidly over the last 7 years with a focus on the grains industry and strong industry linkage. In 2015 Curtin University achieved a top ERA ranking of 5 for the FOR – Crop and Pasture Production (0703) and continues to grow its research profile in agriculture. Currently the university has 4 major research initiatives in Agriculture.

#### CENTRE FOR CROP AND DISEASE MANAGEMENT (CCDM)

Co-supported by Curtin University and the Australian government-funded Grains Research and Development Corporation (GRDC), the CCDM is pivotal to the future success of the Australian – and global – grains industry.

CCDM conducts high-impact research aimed at reducing the economic effect of crop disease, whilst developing concepts and programs to improve overall farm management systems. Just four years old, CCDM and its 65-strong research and support staff, has already carved a strong presence in the grains research realm, so far producing outcomes estimated to save industry more than \$200 million per year.

Its \$46 million building is state-of-the-art, boasting a four-storey stand-alone complex, housing laboratories and plant growth facilities and incorporating PC2 and PC3 containment levels that are dedicated to crop disease research.

#### SAGI West

At the start of 2018 the GRDC announced a major new investment in grains research with the establishment of four statistical science nodes across Australia.

The western node, SAGI West, is based at Curtin University and managed by the Centre for Crop and Disease Management and Curtin's Department of Mathematics and Statistics. SAGI West will undertake statistical research and provide support and training to more than 30 GRDC project investments in the western region, working to improve the rigour of field research through statistically valid data.

The team is also working closely with the GRDC's Western Regional Cropping Solutions Network to improve statistical support of projects developed through the five key port zones.

Based within the CCDM at Curtin, SAGI West is colocated with a number of world class research teams working within the grains, food and digital agriculture industry.

As part of this team you will work closely with CCDM Co-Director Professor Mark Gibberd and John Curtin Distinguished Professor Adrian Baddeley, one of Australia's leading researchers in statistical science.

#### CENTRE FOR DIGITAL AGRICULTURE (CDA)

Digital agriculture is leading the way in new farm technologies and big data is at the forefront of this future-focus industry.

The Centre for Digital Agriculture, newly established at Curtin, is primed to lead the way in data-driven science for the agricultural industry.

At its helm is the inaugural Premiers Fellow for Agriculture and Food, Professor Simon Cook.

Projects include On-Farm Experimentation, where growers will be on the frontline of testing and implementing digital technologies aimed at improving outcomes and yields.

With data collections and analysis a major part of this new centre, the synergies between the CDA and SAGI West will be significant, with opportunities for ground-breaking collaborations in the grain and food industries.

#### FOOD AGILITY CRC

The \$210 million Food Agility Cooperative Research Centre (CRC) is also focused on improving agricultural production by fast-tracking digital services for industry. With a specialised component also based at Curtin University, the Food Agility CRC is partnering closely with the CDA in the global push for improved food production.

Curtin's role within the CRC is to lead the Sustainable Food Systems Program with a focus on deploying real-time big data market intelligence and predictive analytics, the creation of digital systems to leverage Australian food production, products to increase capital to the food and agriculture sectors and a key role in training the next generation of big-data scientists. More than 50 partners across the food value chain are involved in the Food Agility CRC with the WA node perfectly placed to capitalise on – and collaborate with – the skills and expertise of agriculture researchers at Curtin University, the CCDM, the CDA and SAGI West.

#### **RESEARCH OFFICE at CURTIN (ROC)**

Curtin has grown to become an influential university for progressive research, with an office dedicated to supporting leading-edge projects across the university.

Globally relevant research is the focus, with more than 60 centres, institutes and collaborations, bringing together leading managers, academics and researchers from across the world.

The large number of industry-partnered research centres and strategic alliances is testament to the relevance of the work being carried out, and the value placed on it, outside the realms of the university itself.

A large network of staff and services exist within Curtin's ROC ensuring ongoing support for the many centres, institutes and organisations that sit within the university campus.

#### ADDITIONAL RESEARCH CENTRES

Curtin is home to a wide range of research institutes and centres, an example of some are below:

AUTISM ACADEMY FOR SOFTWARE QUALITY ASSURANCE

AUSTRALIA-CHINA JOINT RESEARCH CENTRE FOR TECTONICS AND EARTH RESOURCES

CENTRE FOR HIGH DEFINITION GEOPHYSICS (CHDG)

CENTRE FOR MARINE SCIENCE AND TECHNOLOGY (CMST)

CENTRE FOR MINE SITE RESTORATION (CMSR)

CURTIN CENTRE FOR OIL AND GAS INNOVATION (COGIC)

CURTIN INSTITUTE FOR COMPUTATION (CIC)

CURTIN INSTITUTE OF RADIO ASTRONOMY (CIRA)

JOHN DE LAETER CENTRE FOR ISOTOPE RESEARCH (JDLC)

REMOTE SENSING AND SATELLITE RESEARCH GROUP (RSSRG)

SSERVI AUSTRALIA

TRACE AND ENVIRONMENTAL DNA LABORATORY (TrEnD)

WESTERN AUSTRALIAN ORGANIC AND ISOTOPE GEOCHEMISTRY GROUP

### POSITION DESCRIPTION

#### **PURPOSE OF POSITION**

Curtin University is ranked in the top 200 universities worldwide (ARWU 2017), and in the top 50 in the world for universities under the age of 50 (QS World University Rankings 2017).

In recent years the University has climbed significantly in global league tables and attracts the very best talent from around the world. It is a forward-thinking, industry-facing university, highly engaged with business and government.

The Centre for Crop and Disease Management (CCDM) is a research success story. Co-supported by Curtin University and the Grains Research and Development Corporation (GRDC), it is a rising star in agricultural science and is recognised as playing a key role in reducing the economic impact of crop disease for Australian growers and increasingly for industry around the world.

The position of Project Manager – Biometrics, at SAGI West, works in close partnership with the CCDM and enjoys the support and collaboration of this worldclass research facility.

The successful candidate will bring leadership, innovation and experience in biometrics and statistical research to this key industry role, doing so under the direction of John Curtin Distinguished Professor, Adrian Baddeley.

#### **RESPONSIBILITIES AND ACCOUNTABILITIES**

This role contributes primarily to research-based activities, with an expectation that the successful candidate will make original and innovative contributions to a field of research that is increasingly off national and international importance.

You will be expected to display high levels of performance and bring with you a consistent record of excellence in research, and the passion and ability to provide quality leadership.

This is an exceptional opportunity to further enhance your reputation as an outstanding research contributor, whilst working within a multidisciplinary team of ambitious researchers and research students.

Your primary focus will be to improve the development, testing, documentation and publication of new methodology in statistics and biometrics.

Your accountabilities and responsibilities may include:

- o Contribute to the development and execution of major research programs and policy that align with and support the strategic research objectives of the University
- o Provide leadership and mentoring to academic staff in relation to research and HDR supervision
- o Provide leadership in the development of research and professional linkages and relationships with external stakeholders, including other universities, industry and government entities, and related associations and professional bodies
- o Provide leadership and governance within the school/faculty/university
- o Contribute to academic service and leadership, engagement and management and collegiality within the University
- Provide leadership and foster and promote relationships with professional bodies, industry and affiliated associations, government departments, and the wider community
- o Participate in professional body, and other external activities, as required
- o Model a high standard of professional behaviour consistent with the University Code of Conduct and Vision, Mission and Values.

#### RESEARCH

- o Undertake nationally and internationally competitive research in discipline
- o Provide research leadership in the discipline
- o Lead a significant research team
- o Be lead chief investigator in successful nationally competitive research grants and/or fellowships
- Produce significant research outputs with regular publication in high quality journals, or outputs in other creative outlets consistent with an international reputation in the discipline.
- o Edit high quality international works or journals
- Develop international recognition for research through presenting at major national and international conferences/exhibitions
- o Undertake principal supervision of honours, research masters, and research doctoral students
- o Undertake administrative functions associated with research activities

#### TEACHING

o Participate in the delivery of research led educational programs as required by the Head of School

#### OTHER

o Undertake other activities associated with the organisational area, which the incumbent might reasonably be expected to do, and which are consistent with the specific accountabilities and responsibilities outlined above

#### **KEY PEOPLE INTERACTIONS**

- o External stakeholders/Industry partners
- o Centre for Crop and Disease Management staff
- o S&E staff
- o Research at Curtin staff

#### **CRITERIA**

#### Essential

- o A doctoral qualification in relevant discipline
- o Demonstrated leadership of research both within and across groups in academia and/or industry
- o An established record of highly productive research outputs with regular publication in high quality peer-reviewed journals, or outputs in other creative outlets
- o Evidence of an established international reputation and profile, significant citation indices or equivalent esteem measures and a commitment to conducting on-going research as appropriate to the discipline
- o A significant record of obtaining research income, including nationally competitive research grants and/or fellowships relevant to the discipline
- o Considerable experience and record of successful supervision of HDR students
- o Demonstrated leadership and mentoring to academic staff in relation to their professional development and extensive experience of supervision of HDR students
- o Demonstrated high level communication and interpersonal skills with the ability to foster and promote the development of a collegial and supportive working environment and the ability to interact with students and staff with cross cultural sensitivity
- o Demonstrated commitment to applying relevant and applicable policies, procedures and legislation in the day-to-day performance of the functions of this position

#### Desirable

- o Experience of working collaboratively with industry and community engagement
- o Demonstrated contribution to teaching at undergraduate and postgraduate level

#### WORK REQUIREMENTS

- o Interstate travel may be required
- o Ability to work outside of normal when required

#### CAPABILITIES & BEHAVIOURS (Curtin Leadership Framework)

It is a requirement that staff in leadership roles exhibit and model capabilities and behaviours consistent with the Curtin Leadership Framework (see odu.curtin.edu.au/curtin\_leadership\_framework.cfm ). These include:

#### Managing Self

- o Understanding self & others
- o Modelling Curtin Values
- o Managing time and wellbeing
- o Building working relationships
- o Effective Communication

#### Leading Others

- o Building & leading high performance teams
- o Developing staff capability
- o Facilitating participative decision making
- o Dealing with conflict

#### Leading Innovation & Change

- o Thinking creatively & fostering innovation
- o Managing change
- o Influencing and inspiring others

#### Leading Strategically

- o Thinking strategically & having vision
- o Setting goals & objectives
- o Thinking analytically to solve problems

#### **Managing Operations**

- o Managing Curtin resources
- o Continuous quality improvement
- o Managing complex projects

#### **UNIVERSITY VALUES**

All staff must commit to and uphold Curtin's Values which are:

- o Integrity to act ethically, honestly and with fairness
- o Respect to listen, value and acknowledge
- o Courage to lead, take responsibility and question
- o Excellence to strive for excellence and distinction
- o Impact to empower, enable and inspire.

For more information, please visit the Living Our Values homepage **curtin.edu.au/livingourvalues/** 

#### COMPLIANCY & LEGISLATIVE REQUIREMENTS

Occupational Safety and Health

All supervising staff are required to undertake effective health and safety measures to ensure compliance with the Occupational Safety and Health Act 1984 and related legislative requirements.

All staff must comply with requirements of the Occupational Safety and Health Act and all reasonable directives given in relation to health and safety at work, to ensure compliance with University and Legislative health and safety requirements.

Ethics Equity and Social Justice

All staff are responsible for informing themselves of their obligations and responsibilities in relation to Ethics, Equity and Social Justice. In particular, all staff must demonstrate appropriate and professional workplace behaviours in accordance with the University's Values and Code of Conduct.

Staff must familiarise themselves and comply with all other University policies and procedures and legislation relevant to the position.



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