



POSITION DESCRIPTION

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| POSITION TITLE: | Graduate Engineer |
| ANNUAL SALARY: | (RES 3.1) \$69,931 plus Salary Packaging |
| SUPERANNUATION: | 10.5% Employer Contribution |
| ROLE: | Full Time |
| LOCATION: | St Vincent's Hospital Melbourne |

About us

The Bionics Institute is an internationally recognised, independent medical research institute that solves medical challenges with technology. We lead the world in the research and development of innovative medical devices and therapies to improve human health. Our multidisciplinary team comprises world-class scientists, engineers and researchers, and our laboratories are located in St Vincent's Hospital Melbourne, close to our clinical collaborators. Together we transform the lives of people with a range of conditions, including hearing impairment, Crohn's disease, Parkinson's disease, epilepsy, stroke, arthritis and diabetes.

Medical bionics is an exciting area where biology, medicine and engineering intersect. It demands people with an innovative and pioneering approach and a common goal of improving the lives of people with chronic and debilitating conditions. To enable effective cross disciplinary research, improve our capabilities and maintain and enhance critical skill sets, the Bionics Institute utilises a "Capability Pillars" model of functional expertise accessible across the Institute. Capability pillars are led by team leaders tasked with maintaining critical mass and expertise to support the needs of the Institute.

The Engineering team are a key capability within the Institute. This group is responsible to developing technological solutions to medical problems and provides engineering support at the Institute in line with industry standard best practices. The Engineering Teams mandate is to translate the needs of clinicians and scientists into engineering solutions from early concepts through to clinical application.

In addition to supporting the Bionics Institute, the Engineering Pillar plays a key role in delivering design and development activities at Neo-Bionica. Neo-Bionica is a for profit engineering consultancy joint venture between the Bionics Institute and the University of Melbourne. The mandate of Neo-Bionica is to establish and expand the access to medical device prototype design and manufacturing.

Position Summary

As a Graduate Engineer, you will be joining our close-knit team of inter-disciplinary engineers and designers undertaking exciting cutting-edge projects with real world impact. In addition, you will have the opportunity to work and collaborate within the wider Bionics Institute research and development teams.

During the engineering graduate program, you will rotate between engineering capabilities: Research Support, Design and Manufacturing. In addition, you will complete a placement at Neo-Bionica, contributing to the delivery of Neo-Bionica's projects and developing skills in the product development pathway. You will also have the opportunity to complete short rotations with other teams across the institute as tailored to your interests and development pathway.

Over the course of your rotations, you will develop a broad range of skills including: a sound knowledge of the electrode-tissue interface; electrophysiology; electronics design; design for manufacture; mechanical design and prototyping; systems integration; electrode design, inspection, and testing; and regulatory pathways for medical devices. As you transition to autonomy, this will involve close collaboration with investigators across different projects underway at the Bionics Institute and with external stakeholders. We expect you to be highly motivated and exhibit a high level of communication skills. It is expected that you will contribute significantly to the development of new technologies and more broadly to the effective operation and success of the Bionics Institute.

Key Responsibilities

- Learn skills and techniques from rotations in the different engineering capabilities and Neo-Bionica.
- Design and develop specific software and/or hardware solutions required for the successful completion of specified projects. Including documentation of process, roll out across appropriate experimental locations and training/troubleshooting implementation.
- Responsible for the maintenance and upkeep related to electrophysiological and behavioural recording equipment. Perform regular maintenance including checking quality of recordings, making parts, and ensuring an appropriate schedule of calibration and servicing is undertaken.
- Provide training and technical support for staff and students to perform and analyse a range of electrophysiological and behavioural recordings, including existing and new software and hardware. Be on call for problem solving during experiments.
- Support development activities for neuro-modulations systems as they progress through the pipeline from conception, pre-clinical development, early product design, manufacture, and clinical application
- Provide technical and mentoring support to BI staff and students as and when required.
- Make original contributions to scientific manuscripts for publication and scientific seminars on the research performed as required.
- Communicate effectively with researchers, clinicians, and other staff.
- Attend and contribute where appropriate to meetings associated with relevant projects.

Essential Selection Criteria

- Tertiary qualification in engineering (e.g., biomedical, electrical, mechatronics or mechanical).
- Experience in a multidisciplinary environment.
- A high level of communication skills.
- Demonstrate ability to work in a team environment.

Desired Selection Criteria

- Experience with mechanical design (CAD), mechanical simulation/analytics and fabrication methods.
- Experience with analogue and digital electronics hardware design (e.g., Altium, KiCad, Eagle), embedded microcontrollers, printed circuit design, and high-level PC software design.
- Experience in preclinical, translational, or clinical research.
- Experience recording electrophysiological data from animal models.

Applications Close: Monday, 21st November 2022 11.59 pm. However, applications will be considered as they are received, and the position may be filled ahead of the closing date.

Requirements:

- A police check is required.
- The Bionics Institute requires that staff are vaccinated against COVID-19.

If you believe you meet the requirements for this position, please submit your application by clicking 'Apply for Job' via SEEK. Please include a CV and a brief cover letter (max 2 pages) that addresses the Selection Criteria.

For a full position description please refer to our website:

<https://www.bionicsinstitute.org/vacant-positions>

For further information about the Senior HR Advisor position, please contact the HR Officer, Ms Cindy Verrells, by email: cverrells@bionicsinstitute.org

Bionics Institute is an equal opportunity employer and female applicants are encouraged to apply. The Institute is committed to maintain a smoke free workplace and a workplace that is free from sexual harassment. The Bionics Institute's workplace embraces the Occupational Health and Safety Standards.