



Curtin University

INDUSTRIAL TRANSFORMATION TRAINING CENTRE FOR CORROSION PREVENTION

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INDUSTRY AND RESEARCH ORGANISATIONS WORKING TOGETHER TO MITIGATE AND REDUCE THE COST OF CORROSION

An expert network of Australia's leading scientists in corrosion, engineering and computing is seeking industry partners to participate in a proposal to the Australian Research Council to establish the Industrial Transformation Training Centre for Corrosion Prevention.

The Industrial Transformation Training Centre (ITTC), jointly funded by the Australian Research Council (Australian Government), will provide a unique opportunity to develop strategic and enduring partnerships between research organisations and industry to mitigate the ongoing impact and cost of corrosion on industry assets, community infrastructures and the Australian economy. The ITTC will strengthen and expand the current world-leading capabilities in corrosion research in Australia, positioning the nation at the forefront of corrosion science and engineering.

WHY ITTC FOR CORROSION PREVENTION?

The impact of corrosion on our economy is severe with an estimated annual cost of 3.4 per cent GDP. Corrosion affects our everyday lives across industries, public places and households and it is well known that inadequate corrosion management can have significant health, environmental and economic consequences.

This corrosion impact can be reduced by advancing current corrosion prevention measures through employing innovative approaches and novel methodologies developed at national and international research organisations. It has been estimated that the cost of corrosion could be reduced by 10 per cent using current best practices. By combining training and the development of new technologies this cost can be substantially further reduced. However, such progress in corrosion mitigation is largely hindered by the lack of engagement between the industries that face corrosion challenges in their operations and the academic institutions that can provide R&D solutions.

The proposed Industrial Transformation Training Centre aims to bring together leading national and international organisations and industry partners, with the support of the Australian Research Council, to address specific corrosion issues and employ innovative solutions across various industry sectors, including oil and gas, mining, defence, biomedical, chemical processing and manufacturing.

The ITTC for Corrosion Prevention will also provide academic and industry training programs for PhD students and postdoctoral research fellows through their placement in partner industry organisations, fostering knowledge transfer from academia to industry and deployment of cutting edge technologies.



ITTC SCHEME AND BENEFITS

The ITTC will be jointly funded by the Australian Research Council (ARC), research organisations (universities and government research organisations) and industry partners. The ARC will contribute a minimum of \$650,000 p.a. to a maximum of \$1 million p.a. for 4 to 5 years.

The ARC funds will be combined with cash and in-kind contributions from research organisations and industry partners, and primarily used to fund PhD programs and postdoctoral research fellows.

Industry funds will be partially used towards the placement of PhD candidates or postdoctoral research fellows in the partner organisation to pursue industrial training within the ITTC scheme.

The ITTC for Corrosion Prevention aims to attract funding to support up to 6 postdoctoral fellows and 12 PhD students to address issues associated with both internal and external corrosion processes across a range of industry sectors.

BENEFITS TO INDUSTRY PARTNERS INCLUDE:

- the opportunity to transform corrosion prevention programs in their organisation through leveraged R&D funds with the Australian Research Council and academic institutions, and to create long term and sustainable solutions in corrosion prevention.
- access to outcomes of innovative research and newly developed technologies in a range of corrosion themes (see specific research themes below).
- access to state-of-the-art research facilities and expertise available in the corrosion research community in Australia, combined with shared knowledge from international institutions.
- the option to have specifically tailored projects within the ITTC scheme that suit their organisational needs, including sole IP ownership.
- participation in the development of training programs with academic institutions. Help train tomorrow's skilled workforce by hosting PhD students and research fellows to work on specific industry projects.
- opportunities to collaborate with researchers and other industry partners within the ITTC network, and access to training sessions and technical workshops.

RESEARCH THEMES

1. Corrosion under insulation
2. Microbiologically influenced corrosion
3. Corrosion monitoring
4. Coatings and chemical inhibition
5. Materials selection and environmentally assisted cracking

TIMELINE

Industry partners to lodge an expression of interest (August – September 2018)

Stakeholder roundtable (October 2018)

Completion of internal draft application (October 2018)

Submission stakeholder meeting with partners (November 2018)

ARC deadline for submission (November 2018)

Anticipated announcement of funding outcomes from ARC (Quarter 3, 2019)



HOW TO JOIN ITTC FOR CORROSION PREVENTION

Contact us to find out how you can participate and help us to develop a research program to benefit your organisation.

We can come to you to present technical capabilities and opportunities in the proposed research themes, assess your corrosion issues and assist with selecting a suitable research scheme.

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