# William Thomson SCHOLARSHIP



### **KEY POINTS**

- Our Company's namesake, William Thomson, was a great thinker, inventor and educator
- The power industry is experiencing exceptional growth and transformation which creates significant employment opportunities
- These opportunities can be greatly enhanced for individuals who hold relevant Electrical Supply Industry qualifications
- The Annual William Thomson Scholarship is designed to foster qualification opportunities for experienced workers in the rail, transmission, distribution or generation sectors to develop their career capabilities

### BACKGROUND

Our Company is named in honour of a great thinker, inventor and educator, William Thomson, also known as Lord Kelvin. Thomson was a mathematical physicist and engineer. Born in Belfast in 1824, he helped develop the second law of thermodynamics and he invented the absolute temperature scale named after him. He was also chief consultant for the laying of the first Atlantic cable (1857–58).

Today, Thomson Bridge fosters a team of high calibre members that are flexible, passionate and committed to achieving quality outcomes at a personal and collective level.

We are equally committed to our corporate community of Clients and their employees. We value our opportunity to educate and contribute to the development of knowledge and skills that enable an individual to undertake work with confidence in the electrical supply industry.

Our industry, which is made up of the transmission, distribution and rail networks, together with the thermal and renewable energy generators, is undergoing substantial transformation in recent times, with the industry experiencing significant expansion and change.

With this Scholarship, our Company will support and mentor an experienced worker in the Electrical Supply Industry, to formally recognise existing skills and experience and gain new skill opportunities via nationally recognised qualifications.

### WILLIAM THOMSON ANNUAL SCHOLARSHIP

In honour of our namesake, we have launched the William Thomson Annual Scholarship, designed to support an outstanding individual to achieve a qualification in the Electrical Supply Industry.

Scholarship holders may pursue a Certificate II, III, IV or diploma level qualification across distribution, transmission, cable joining, thermal or renewable generation program.



#### How do I apply?

This is an Annual Scholarship. To apply for a scholarship, you will need to send an email to admin@thomsonbridge.com with information about yourself and the program that you seek to undertake. Your nominated Course needs to be a Course that is on our scope under <a href="https://training.gov.au/Organisation/Details/40754">https://training.gov.au/Organisation/Details/40754</a>.

#### How is the successful applicant selected?

All applications will be reviewed with careful consideration by the scholarship selection panel.

#### What else will I need to provide?

The scholarship selection panel will contact the short list applicants and interview you by phone as an initial step. You will also be required to provide supporting evidence at this time.

It is important your email includes all requested supporting documentation otherwise your application may be deemed incomplete and therefore not considered.

#### Am I Eligible?

To be eligible for this Scholarship, the candidate must be:

- Currently employed in the Electrical Supply Industry and eligible to work in Australia
- Aged 21 or older

#### Who is this Scholarship Suitable For?

- Career Changers
- New or continuing Thomson Bridge students

#### What is the Scholarship Value?

Up to \$10,000 in tuition fees.

#### What Supporting Documentation is Required?

Copy of Previous Qualifications and work history will be requested if you are short listed.

### OUR NAMESAKE, WILLIAM THOMSON

William Thomson, also known as Lord Kelvin was Born in Belfast in 1824. He was a mathematical physicist and engineer who helped develop the second law of thermodynamics and he invented the absolute temperature scale named after him.

#### An illustrious career

During Thomson's long and esteemed career, he was chief consultant for the laying of the first Atlantic cable (1857–58). His work in electricity and magnetism led to James Clerk Maxwell's theory of electromagnetism. He also contributed to the determination of the age of the Earth and the study of hydrodynamics.

Thomson was also an electric telegraph engineer and inventor, which propelled him into the public eye and ensured his wealth and fame. He had extensive maritime interests and was most noted for his work on the mariner's compass, which had previously been limited in reliability. A **Kelvin or Thomson Bridge** is a measuring instrument used to calculate unknown electrical resistors below 1 ohm.

### If you would like to know more about the Thomson Bridge – read on:

Resistors above about 1 ohm in value can be measured using a variety of techniques, such as an ohmmeter or by using a Wheatstone Bridge. In such resistors, the resistance of the connecting wires or terminals is negligible compared to the resistance value. For resistors of less than an ohm, the resistance of the connecting wires or terminals becomes significant, and conventional measurement techniques will include them in the result.

To overcome the problems of these undesirable resistances (known as 'parasitic resistance'), very low value resistors and particularly precision resistors and high current ammeter shunts are constructed as four terminal resistors. These resistances have a pair of current terminals and a pair of potential or voltage terminals. In use, a current is passed between the current terminals, but the volt drop across the resistor is measured at the potential terminals. The volt drop measured will be entirely due to the resistor itself as the parasitic resistance of the leads carrying the current to and from the resistor are not included in the potential circuit. To measure such resistances, requires a bridge circuit designed to work with four terminal resistances. That bridge is the Thomson or Kelvin Bridge.

## MEET WILLIAM GRIFFITHS OUR 2020 WILLIAM THOMSON SCHOLAR

William Griffiths is an electrician who arrived in Australia from the UK with the goal of living and working as a Cable Jointer in Queensland. Upon his arrival, William realised that this task was more difficult than he had anticipated, as industry often struggles to interpret and translate overseas qualifications and experience into the requirements of the Australian Electricity Supply Industry (ESI).

William called Jamie Ilton, Thomson Bridge's National ESI Program Manager to discuss his options and how he might be able to gain a qualification and a license to further progress his employment prospects in his chosen industry.

For Thomson Bridge, Will's past experience, commitment and enthusiasm represented the perfect candidate for the launch of the Willam Thomson Scholarship.

> Our aim for this initiative is to foster qualification opportunities for experienced workers in the ESI sector, which

incorporates transmission, distribution, rail and renewable and thermal generation. This scholarship enables the successful candidate to participate in a Thomson Bridge sponsored program to the value of up to \$10,000. Most scholarship holders will complete their qualification program via instructor led training, RPL and on the job mentoring. The Scholarship program also allows the Candidate to have free access to the Thomson Bridge online Electrical Theory School and access to our Instructors who have deep industry knowledge and industry connections.

In spite of the challenges of COVID-19 during 2020, Will has successfully completed the essential electrical theory units that were a prerequisite to gaining his qualification. He is now ready to commence 2021 with a new employer, and will complete his final course work and practical skills development for his program. We expect that Will is on track to being qualified as a Certificate III Cable Jointer by end 2021, and be able to apply for his Queensland state licence. We wish William all the best, and Thomson Bridge are proud to have been part of his career progression.

"The scholarship has allowed me to quickly and efficiently complete my electrical theory units. This is due to the great help and support I have received from my Instructors, Guy and Jamie, who have laid out great online classes and tutorials, and are always available for a chat if I was ever stuck.

It has also led to me being offered a job in the industry I love, and without this scholarship and Thomson Bridge's support, this would have been impossible."

William Griffiths (Scholar 2020)

### **TERMS & CONDITIONS**

The scholarship selection panel has the right to consult with the applicant, his or her employer, our training staff or any external party nominated.

All applicants will be notified via email advising of the scholarship selection panel decision.

All scholarship recipients must use their scholarship within the nominated timeframe specified in their Letter of Offer.

Supporting documentation requirements must be provided with the application form at the time of submission for the application to be considered.

The scholarship selection panel have the right to contact applicants to ask for additional documentation or invite applicants in for an interview at any time.

Applying for a Thomson Bridge Scholarship allows Thomson Bridge to use the applicant's name and image for any future advertising collateral.

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