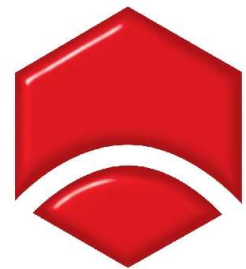


***Engineering Technologists Australia's
Career Resources***

***- including discussions from the
Online Career Days held March 2003***



**ENGINEERS
AUSTRALIA**

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ENGINEERS AUSTRALIA is the trading name of the Institution of Engineers Australia

**Engineering Technologists Australia's
Career Resources**

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Engineering Technologists Australia (ETA) is a group within ENGINEERS AUSTRALIA committed to:

- gaining wider recognition for Engineering Technologists within the engineering industry and the wider community;
- creating opportunities for Engineering Technologists to participate in activities to enhance their skills and careers;
- representing Engineering Technologists on ENGINEERS AUSTRALIA's National and Divisional Boards and Committees;
- reporting to ENGINEERS AUSTRALIA's governing Congress through the Board of Engineering Practice; and
- organising Engineering Technologist groups within each of the Institution's Divisions across Australia.

Introduction

On 5 and 12 March 2003, Engineering Technologists Australia (ETA) held the first-ever Online Career Days with special guest Jenny O'Donovan, the National Careers Adviser for Engineers Australia.

Through ETA's online discussion group, members were able to discuss with Jenny, and each other, a wide variety of career and professional development issues. In addition, these Career Days enabled ENGINEERS AUSTRALIA to better understand the career needs and concerns of our Engineering Technologist members, and to identify how these can be best addressed through our Careers service.

The online discussion group for our Engineering Technologist members operates through our Members Zone E-Comms facility (supported by Yahoo Groups), with 60 members now participating.

This document is designed as a resource for our Engineering Technologist members to assist them with their career and professional development inquiries. The issues raised during the Online Career Days are presented in question and answer format and separated in to relevant topics (see the Contents page).

Career Resources

Engineering Technologist members seeking further assistance on any of these or related issues are encourage to use the following resources made available by ENGINEERS AUSTRALIA:

Engineer.Career Exclusive for members of ENGINEERS AUSTRALIA and available online in our Members Zone, this secure site contains a comprehensive package of careers information for all members including salaries, resumes, student needs and information about working in Australia and overseas. There is also a link to **ENtrain**, a searchable database containing details of short courses, seminars, workshops, conferences etc that are recognised by ENGINEERS AUSTRALIA for Continuing Professional Development purposes. *ENtrain* is produced by Engineering Education Australia, a wholly owned subsidiary of ENGINEERS AUSTRALIA.

The **Engineering Employment Database** is one of the largest database of engineering-only positions available in Australia. This is a brilliant tool for members looking for work or who want to hire additional staff. Search positions by discipline, location, keyword and type of employment. Select the Job Alert feature for an early warning on positions you are seeking.

To access the Members Zone please register at www.ieaust.org.au (**Please Note:** the Members Zone is exclusive for current financial members of ENGINEERS AUSTRALIA. Registration is free and easy to complete).

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Careers Adviser ENGINEERS AUSTRALIA's National Careers Adviser can provide personal advice and assistance on any career related issue. Jenny O'Donovan can be contacted direct as follows:

Phone: 1300 366 613
E-mail: jodonovan@ieaust.org.au

ETA Webpage ETA has its own section on ENGINEERS AUSTRALIA's public website, providing a range of resources on topics of interest to our Engineering Technologist members, including careers and professional development.

Go to: http://www.ieaust.org.au/about_us/sig/technologists/

ETA Online ETA's Technologist-only online discussion group provides members with a valuable opportunity to discuss issues, receive advice from each other, and to engage with special guests (eg. Careers Adviser).

Registration is free and easy to complete. To register either:

OR go to E-mail: ETAmembers-subscribe@yahoogroups.com
Website: <http://groups.yahoo.com/group/ETAmembers/>

Please Note: Access is only for current Engineering Technologist members of ENGINEERS AUSTRALIA and membership confirmation may be required.

Engineering Technologist Career Issues

Engineering Technologists face a variety of career and professional development challenges, some of which are unique to this group of members, while others are common to the engineering profession as a whole.

This section covers the issues raised by members during the Online Career Days, and, therefore, does not include all career-related issues. If you require further assistance on any of the following or other career-related issues we encourage you to use the 'Career Resources' section.

1. Salaries and Employment Conditions

Question: What conditions should be included in a contract for a full-time position?

Answer: The contract should include the following conditions and information:

- 20 days annual leave per year;
- public holiday entitlements - its usual not to have to work on these days, but still be paid for them;
- 8 days sick days per annum;
- details of your work location;
- details of to whom you report;
- a brief description of your role or a job description as an appendix, so that you are aware of your responsibilities; and
- an explanation of remuneration, salary, superannuation and any other benefits that you are entitled to, which may include time in lieu if you are working excessive hours.

Question: What salary should I be getting as an Engineering Technologist?

Answer: There is currently a lack of information on salaries for Engineering Technologists. The *Engineer.Career* section of our Members' Zone contains comprehensive information on average graduate salaries for a variety of engineering fields, but this information mainly looks at Professional Engineers.

The National Careers Service is currently planning a new salary survey covering all engineering fields and membership categories (eg. professional engineers, technologists and associates). This will provide us with valuable information for members.

Question: What difference, if any, should I expect in my salary as a Technologist from that of a Professional engineer?

Answer: This really depends on the type of position being held, the responsibilities and the engineering field. In many cases there will be no clear distinction between Technologists and other engineers, while in other cases there will be significant differences.

Engineering Technologists Australia's Career Resources

Some examples provided by members are as follows:

1. Christine

“My work as a vocational education advanced skills lecturer has a tiered pay structure according to professional qualifications and activities within the work place. I am working alongside (4 year) Engineers and we are on the same pay scale/terms and conditions. It is interesting to note that the pay within this area goes mainly on current performance, length of service, educational qualification, with a 3-year degree setting the minimum entry point. In his particular work place initial technical qualification and work experience gains an interview but there is little prejudice between the 2 year Diploma or 3 or 4 year Engineering qualification - the 3 or 4 year Engineering qualification are both seen as 'professional' studies from the management point of view. The teaching qualification and work experience and work involvement, however, provide the impetus to achieve the higher pay scale.”

2. John

“In my last two contract roles (in the railway industry) I was employed as an engineer. A lot of people in industry don't seem to be aware of the distinction between engineers and technologists.”

2. Technologists Competing against Professional Engineers

Question: How can I as an Engineering Technologist best compete against a Professional Engineer when going for engineering positions?

Answer: Often it's not so much a case of competing against another applicant for work, more showing how your skills, experience and attributes fit in better with the company you are applying for a position with. Go for an overall experience and qualifications skill set and you should always be employable.

In terms of experience counting for more than qualifications, one doesn't outweigh the other. If a certain level is asked for it's assumed that the underpinning knowledge is there - proved by a degree. Most employers use behavioural interviews now so that they can test the reactions (behaviours) of an individual to a certain situation, as this will usually be repeated.

Following is some advice provided by Dan, a Technologist member:

“I applied for jobs that advertised for 4 yr engineering degrees, and upon application and interview I explained that the B Eng Tech combined a practical focus with theoretical knowledge. I also mentioned that B Eng Tech students in fact attend many of the same classes as Bachelor of Engineering students.”

3. Positions Available for an Engineering Technology Qualification

Question: I am currently a second year student at USQ doing a Bachelor of Engineering Technology in Building and Construction. I was just wondering if anyone had any idea as to what sort of job I could be getting into when I leave, and also what sort of money I could be earning. I am very interested in design etc, but am not so fond of the Maths side.

Answer: (provided by Dan, a Technologist member): The jobs I have come across for your type of degree are contract administrator for medium to large contractors in the building and construction industry (eg. ABI Group, Theiss, Leighton, Lend Lease etc. These jobs involve a lot of people management (sub contractors), procurement of supplies, reporting on financial and job progress etc. Salary is about \$35,000 to \$50,000 pa, 5 1/2 to 6 day weeks are the norm 10 to 12 hr days, sometimes living on site, but an RDO once a month gives a long weekend. This role doesn't relate to design and if that's more up your alley, try a drafting position. This involves getting information from the client, engineer and architect (sometimes) and drawing the plans up on AutoCAD and checking minor design to Australian Standards, building codes, client specification and standard supplied products, to get a fit for purpose design that is structurally sound and architecturally pleasant. So if these types of jobs interest you, you are currently studying the right degree.

Question: I just want to know how to get the first job for fresh engineer graduate (especially in manufacturing/industrial) because most engineering positions require work experience.

Answer: As a graduate, prospective employers should understand that you will have little or no experience. If you completed a work experience component as part of your degree, it is important to promote this. You may also like to gain some volunteer work to give you some more exposure. Any other work that you undertook during your degree, paid or voluntary such as involvement with uni groups could also be used as examples of work. Your local Division can assist you with finding work experience placements – further details are available from Engineer.Career (see 'Career Resources' section).

Following is some advice provided by Chris, a Technologist member:

“My advice is to get involved with the IEAust, become an active member and help to increase the professional recognition of Engineering Technologists. You will be surprised at what you can gain by putting something back into the profession.”

4. Professional Development

Question: Is the Masters of Engineering Technology a highly regarded qualification, or would I be better to complete a Bachelor of Engineering or a more specialised postgraduate qualification in project management or an MBA? My aim for the future is to gain a senior project management position.

Answer: The answer to this depends to some extent what engineering field you are working in, ie. MBAs may be highly valued in one field, and other postgraduate study in another field.

I recommend that you use the ETA and its services such as the online discussion group to find Technologists who are working in the area you wish to and get advice from them based on their personal experiences.

Following is some advice provided by Chris, a Technologist member:

"I have been working as an Engineering Officer in the Queensland Electricity Supply Industry for 9 years. I completed the bachelor of Engineering Technology in 1998 (and got a promotion to a "senior" engineering officer shortly afterward) and have just completed an MBA specialising in project management. I have just been appointed as a project manager and plan to gain several years experience before moving fully into management. Looking back, I can attribute a significant amount of my success to taking the initiative and doing further study. I have also been actively involved in Engineers Australia and with the ETA committee. This activity has helped me to develop some of the communications and leadership skills that I will need as a project manager. In fact I can honestly state that it was my involvement with the IEAust that gave me the edge I needed to get my new job."

Question: Is CEngT status really worth achieving? CPEng has very real status in the marketplace, but CEngT is virtually unknown.

Answer: While CPEng is currently more recognised than CEngT, the fact that there are more and more companies now signing up for our professional development program which covers all 3 categories of membership (professional, technologist and associate). This will result in increased recognition of CEngT as more people achieve it, and hopefully more companies/sectors will require it. We must wherever possible spread the word about what CEngT means, which in simple terms is the achievement of work related competencies assessed by your peers.

Question: What is the Graduate Development Program and what are the benefits of participating in it?

Answer: The Graduate development program (GDP) is used as a route to Chartered Membership of ENGINEERS AUSTRALIA in either of the three occupational categories: Chartered Professional Engineer (CPEng), Chartered Engineering Technologist (CEngT) and Chartered Engineering Officer (CEngO).

Engineering Technologists Australia's Career Resources

Traditionally, public utilities and larger companies primarily undertook training of graduates. However with the new business environment of out-sourcing and downsizing, especially in the public sector, this practice has almost disappeared. Provision of initial training or a planned period of professional formation can no longer be taken for granted by graduates in their first job. Therefore, ENGINEERS AUSTRALIA established the national GDP to support Graduates to acquire competencies for Chartered status. Although Chartered competencies can be acquired in a variety of ways, the preferred route is through participation in the GDP. The benefits of the GDP include the following:

- It provides a structure for graduates to acquire work-related competencies and to document their related professional experiences over a continuous period, providing clear evidence of how these competencies have been achieved.
- It facilitates the relationship between graduate and supervisor, with each graduate required to present their career episodes to his/her supervisor for checking and verification.
- It enables the graduate and employer to receive guidance from ENGINEERS AUSTRALIA's locally-based Accredited Assessor on the graduate's progress against the relevant competency requirements.
- It facilitates the preparation of the graduate's application for Chartered status, which incorporates each career episode report into an Engineering Practice Report. This report is then submitted by the graduate in support of his/her application for Chartered status, which is followed by a one-hour Professional Interview, the final assessment of the graduate's competencies under the GDP.

5. Recognition of Engineering Technologists Overseas

Question: How widely recognised is the B Eng. Tech degree throughout Europe and America (north), as I wish to travel next year after graduating and use this as basis for some casual travel work wherever possible. Is it affiliated with engineering institutions throughout the world? What is an equivalent position in UK, Canada, US, Europe, Africa? What is the ball park hourly rates in the above countries?

Answer: Engineers Australia has successfully arranged the Sydney accord with overseas countries including Canada, Hong Kong, Ireland and the UK. This allows for your Australian engineering technology degree to be recognised in these countries. You would be best to contact the associations in the countries you are interested in travelling to for pay rates, or trying web sites such as monster.com for an idea. More information on working overseas can be found in the Engineer.Career section in the Members Zone.

6. Clarification of Title 'Engineering Technologist'

Question: My experience is that most employers don't really know what a Technologist is and can't be bothered finding out. Most think that 'Technologist' is another name for 'Technical Officer'. What do you suggest can be done about this? What is the suggested reply to use when asked to define the role of the Technologist as opposed to a Technical Officer in the industry?

Answer: This is an issue the ETA National Committee is currently dealing with. Their aim is produce a resource pack for Technologist members and their employers to clarify these issues. This will be available within the next couple of months.