

Engineering Surveying Professional –  
Australasia Pacific (ES P-AP)

# CERTIFICATION PROCEDURES MANUAL

Surveying and Spatial Sciences Institute (SSSI)  

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Engineering and Mining Surveying Commission





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## 1. Purpose

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Specialist Certification in Engineering Surveying is the official recognition by the Surveying & Spatial Sciences Institute (SSSI) that a person has the necessary knowledge and experience to competently perform engineering surveys and associated activities. It benefits an employee by providing recognition and career opportunities and an employer by increasing their credibility to customers.

## 2. Scope

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The Engineering Surveying Professional – Australasia Pacific (ESP-AP) Certification is open to all persons irrespective of membership status with SSSI. To achieve certification, you will have to fulfil the requirements of the relevant criteria.

A registered or licenced land surveyor may require ESP-AP certification to conduct engineering surveying work in New Zealand or an Australian State and Territory, if stipulated in infrastructure specifications.

This certification entitles a person to be recognised as a Certified Engineering Surveying Professional – Australasia Pacific (ESP-AP). [Current certified professionals](#) are listed in the ESP-AP Register on the SSSI website.

The Engineering Surveying Certification Panel (ESCP) undertakes the assessments and is comprised of three – five experienced SSSI members. The Certification Panel is supported and coordinated by the SSSI Engineering & Mining Surveying Commission.

A professional who achieves the status of Engineering Surveying Professional – Australasia Pacific (ESP-AP) Certification is able to use the post-nominal *ESP-AP*.

## 3. Retention of Certification

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Once initial certification is achieved via the process outlined below, you must meet the requirements of SSSI's [Continuing Professional Development](#) (CPD) Policy to maintain this status.

Achievement of the required points outlined in the CPD Policy is required to be undertaken **every year**. More information on how to do this will be provided once initial certification is approved.

**NOTE:** Failure to undertake appropriate CPD may result in cancellation of an individual's certification and removal of their name from the list of Certified Professionals in Engineering Surveying. In this case the individual may reapply for certification by providing such detail since the date of the last certification and the required fee. The ESCP may make allowance for extenuating circumstances but their decision on retention of an individual's certification will be binding.

## 4. Preparing for an Application

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- a) Download the current [Application for Certification Form](#) from the SSSI website.
- b) Collate the basic primary and secondary materials needed for the application  
Primary materials include:
  - Current resume
  - Self-certified copy of qualification (if claiming)
  - Email from current Employer/Supervisor/Client
  - Referee's report.

To self-certify the copy of your qualification, please write '*Certified to be a true copy of the original seen by me*' and add your signature and date under this.

**Inclusion of these documents is mandatory** and the Engineering Surveying Certification Panel will not consider exceptions or exemptions to this requirement.

Secondary materials may include:

- Transcript of course work
- Certificates of CPD completion/participation
- Awards
- Publications.

*All sensitive or personal information (e.g. driver's license number, maiden name etc.) may be removed or obscured from any document. These omissions are the only allowable marks that you may make to an official document. However, if this information is included, only SSSI staff and the ESCP members will view it.*

Please note, following initial review of the information and documentation provided, should the ESCP deem it necessary, **applicants may be requested to undertake a brief interview** (via videoconferencing) to confirm key details of their application. Appropriate notice will be provided and timing will be sought that is suitable to both parties.

## 5. Completing the Application

### 5.1. Options for applicants for ESP-AP Certification

- QUALIFICATION BASED PROVISION

For those applicants that hold:

- a) AQF/NZQF Level 7 surveying related qualification and a minimum of four years of documented work experience **OR**
- b) AQF/NZQF Level 6 certification and five additional points from education along with a minimum of four years of documented work experience.

See Sections 8 – 10 for full details.

- LONG-TERM PRACTICE PROVISION

For those applicants that hold:

- a) AQF/NZQF Level 6 surveying related qualification along with 10 years' documented work experience **OR**
- b) AQF/NZQF Level 5 surveying related qualification obtained during or before 2015, along with 10 years' documented work experience. This provision is only available until 1 July 2023. See Section 7 for full details.

- EMERITUS PROVISION

For those applicants who are retired but want to maintain professional recognition. See Section 6 for more information.

**NOTE:** If you have **less than 4 years (48 months) of professional experience**, you may not apply for ESP-AP Certification, regardless of your point totals in any category.

### 5.2. Documenting Sufficient Points to achieve Certification

Document sufficient points in the categories required to achieve certification. There is no benefit in documenting a considerably higher than necessary point total as these are only used during application assessment and are not noted or reflected in your final certification.



### 5.3. Key steps to ESP-AP Certification

#### 1. COMPLETE YOUR PERSONAL DETAILS

Fill in the appropriate details and agree to the Terms & Conditions, including the SSSI [Code of Ethics](#).

#### 2. DETERMINE WHICH PROVISION YOU QUALIFY FOR

See Section 5.1 above for details. Emeritus Provision applicants go to step 7, Long-Term and Qualification Based Provisions, go to step 3 below.

#### 3. DOCUMENT YOUR EDUCATIONAL ACHIEVEMENTS

- a) For Qualification Based Provision applicants, list the highest completed tertiary educational achievement (**Part EDU-1**). If you have 30 or more points, proceed to step 4. If not, continue below.
- b) For Long-Term Practice Provision applicants, this is optional. You may list your qualification here if needed and then move to step 3e). Otherwise go to step 4.
- c) List individual subjects from a survey-related tertiary course in **Part EDU-2** to gain additional educational points.
- d) List completed Continuing Professional Development (CPD) in **Parts EDU-3A and/or 3B**.
- e) Summarise points in **Part EDU-S**.

See Section 8 of this manual for full details.

#### 4. DOCUMENT YOUR PROFESSIONAL EXPERIENCE

List all primary engineering surveying-related professional positions held in **Part EXP-1** and calculate your points (see Section 9 for full details). Summarise the points in **Part EXP-S**. The minimum required is **110 points** under the Qualification Based Provision and **300 points** under the Long-Term Practice Provision.

#### 5. DOCUMENT YOUR CONTRIBUTION TO THE PROFESSION

If required, in **Part CON**, you can use primary engineering surveying-related professional contributions that you have made such as:

- Authoring publications
- Involvement in professional associations
- Participating in conferences
- Receiving an award.

See Section 10 for full details.

#### 6. REVIEW THE TOTAL NUMBER OF POINTS GAINED

Summarise the total points in **Part TOT**. If you have:

- Qualification Based Provision - **150** points or more
- Long-Term Practice Provision – **300** points or more

continue to the next step below. If you are unable to attain these total points, certification cannot be attained at this time.

#### 7. ARRANGE PAYMENT

You must complete the payment section before the application will be considered.

#### 8. PREPARE YOUR SUPPORTING DOCUMENTS

Please see the relevant sections of this manual as to which documents are required.

#### 9. EMAIL TO SSSI

Compile your documents together and email to [certification@sssi.org.au](mailto:certification@sssi.org.au).





## **6. Emeritus Provision**

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Emeritus achievement of ESP-AP is available to SSSI members and non-members who have retired as an ESP-AP and wish to maintain the recognition of their professional standing in retirement.

Emeritus ESP-AP is an honorary recognition and as such does not require an annual CPD return to maintain certification.

To be considered for Emeritus status, complete the Personal Details, Application Type & Payment parts of the Application Form.

On retirement, a professionally active ESP-AP can switch to the Emeritus classification by writing to the SSSI Certification Coordinator requesting a classification change.

## **7. Long-Term Practice Provision**

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SSSI recognises that some practitioners may not be able to meet the standard of academic qualifications set for the ESP-AP certification process.

A minimum surveying-related qualification is still however required. The Australian Qualifications Framework (AQF) or New Zealand Qualifications Framework (NZQF) minimum level requirement is:

- AQF level 5 or NZQF level 5 surveying related qualification, obtained on or prior to 2015
- AQF Level 6 if applying from overseas.

The Long-Term Practice Provision provides applicants an opportunity to obtain certification based solely on their qualification type, long-term practice or experience. This provision is available **until 1 July 2023**. After that, all applicants must hold an AQF Level 6 qualification to get certification under the Qualification Based provision.

You should consider the Long-Term Practice Provision if you cannot meet the educational requirements as set out in Section 8 but have at least a minimum of an AQF5 surveying educational qualification and 10 years in an engineering surveying position of data analysis, system and project design, programming, or similar position.

The application fee for the Long-Term Practice provision is the same as the Qualification Based Provision.

### **7.1. Documenting the Long-Term Practice Provision**

Long-Term Practice Provision applicants are not required to complete the education Section of the application, though can list a relevant qualification for 25 points.

However, it is mandatory that applicants record their experience and provide a resume detailing engineering surveying work history.

Long-Term Practice Provision applicants can use Contribution to the Profession activities to gain a maximum of 10 points.

The total must be **at least 300 points** to qualify for ESP-AP certification under this provision.

## 8. Educational Achievement

The aim of this part of the certification process is to encourage practitioners to seek continuing education opportunities to gain/maintain certification while providing incentives to education providers to offer substantive engineering surveying related course within their academic programmes.

Applicants who claim Educational Achievement points must document their qualifications in line with specifications noted in each section below.

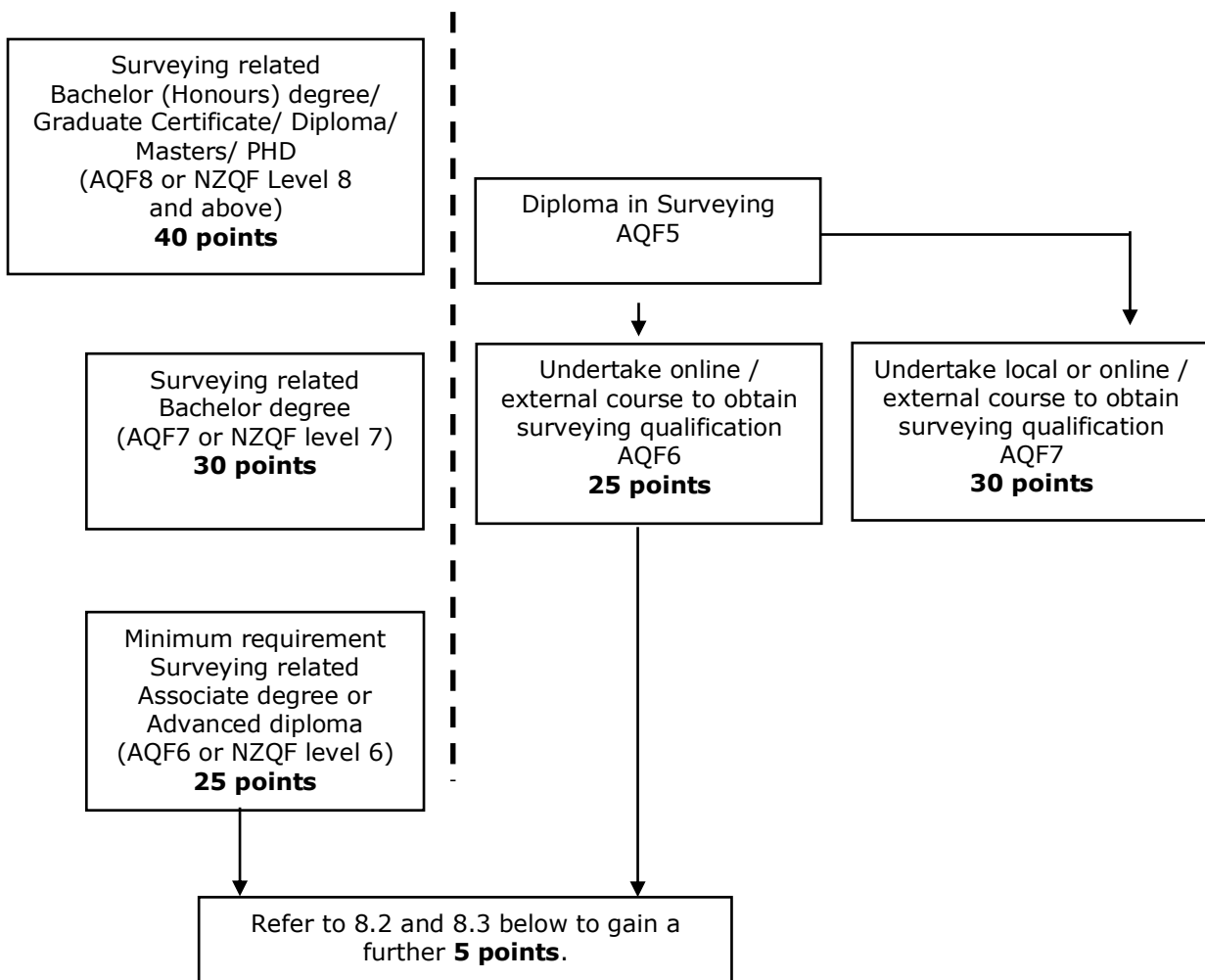
The Education point schedule consists of three parts, outlined below. For Qualification Based Provision applicants, a minimum of 30 points is required and the maximum Educational Achievements points is 40. Education Achievement points are optional for Long-Term Practice Provision applicants.

### 8.1. Credential Points (Form Part EDU-1)

Points earned through successful completion of a formal surveying undergraduate degree, postgraduate degree or certificate programme. Mandatory survey-related AQF level 6 or NZQF level 6 (associate degree or advanced diploma) is a minimum requirement. Applicants may claim credential points equal to the value of the highest tertiary qualification earned.

#### Surveying-Specific Qualifications

#### Where local TAFE offer up to AQF5





## 8.2. Course points (Form Part EDU-2)

Points are awarded for the successful completion of individual subjects (courses/papers) associated with a tertiary educational institution's formal degree, postgraduate or certificate programmes. Relevant subjects are those whose content appears within one or more of the **12 Knowledge Areas of Engineering Surveying** as described below.

- Conceptualisation of space
- Formalising spatial conceptions
- Spatial data models and data structures
- Design aspects of Engineering Surveying projects and tasks
- Spatial data acquisition, sources and standards
- Exploratory spatial data analysis
- Confirmatory spatial data analysis
- Application of design to project (set out procedures)
- Confirmation concepts of structures, facilities and surrounds
- Organisational and institutional aspects of Engineering Surveying
- Professional, social, and legal aspects of Engineering Surveying
- Quality Assurance aspects of Engineering Surveying.

Please indicate on the form which area/s your subjects (courses/papers) aligns with.

Applicants cannot claim for subjects completed in achieving the undergraduate, postgraduate or certificate qualifications claimed in EDU-1.

The number of points earned per subject is proportional to the number of Student Activity Hours (*the time that a student spends both inside and outside the classroom completing reading or course work assignments, studying, or other preparations*) that each subject entails. To calculate **Student Activity Hours (SAH)** per subject, use the formula  $SAH = C \times 2.25 \times W$  where

- **C** is the class contact hours per subject,
- **2.25** is the standard number of activity hours per contact hour, and
- **W** is the duration of the subject (course/paper) in weeks.

*For example, a typical subject with 4 class contact hours conducted during a 14-week semester earns 126 hours (4 class contact hours  $\times$  2.25  $\times$  14 weeks = 126 activity hours). Course points are obtained by dividing total Activity Hours by 40.*

Applicants claiming SAHs for subjects completed at **non-Australian tertiary institutions** must provide satisfactory documented evidence supporting their claim certifying the number of SAHs associated with the particular subject for which SAHs are being claimed.

*Examples of evidence include a Head of Department letter from the institution where you studied or a self-certified copy of the page in the university's official calendar where the university's assignment of SAHs to subjects is explained.*

Subject titles should be listed as they appear on the supporting transcript, syllabi, or other documentation. Non-specific subject titles such as 'Special Issues in Geography' can be augmented with the actual subject topic, e.g. 'Special Issues in Geography: Error Analysis'. If you have a documented description found within a university course catalogue, please provide that instead of your written description.

The final decision regarding the validity of all course points lies with the Engineering Surveying Certification Panel. **Applicants who claim Course Points are expected to provide evidence of their achievements with an official transcript that states subjects by title.**





### 8.3. Continuing Professional Development points (EDU-3A and/or EDU-3B)

Points are awarded after the successful completion of short courses and workshops, seminars or conferences, with subject matter that relates directly to one or more of the **12 Knowledge Areas** (see Section 8.2 above).

Applicants claiming CPD points must show clearly and specifically that claims are valid in the context of meeting the above requirement. You will be able to claim points only for the number of total hours spent at short courses and workshops and the total number of days spent attending seminars and conferences with subject matter that relates directly to engineering surveying and geospatial information science or related technology and applications.

Applicants who claim CPD Points for **short courses and workshops** should refer to Form **EDU-3A**. After the details have been entered, the total number of hours should be divided by 40. The resulting value will be the total number of CPD short course and workshop points.

Applicants who wish to claim CPD Points for **seminars and conferences** should refer to Form **EDU-3B**. After all the claims have been entered, the total number of days should be multiplied by 0.1. The resulting value will be the total number of CPD Seminar and Conference points.

**All CPD point claims require a certificate of attendance from the host organisation. If the CPD event was hosted by SSSI, an email from the National Events Manager confirming attendance is sufficient.**

## 9. Professional Experience Component

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Experience is an important factor contributing to an individual's skills and knowledge. Professional experience gained while studying can be recognised so long as it is survey-specific and under the supervision of a surveying professional. **Refer to Appendix C** for guidance on assessing your work experience.

Calculate your total professional experience points using any or a combination of:

- Leadership and Management of multi-skilled teams to achieve the surveying output goal of an organisation as specified in Appendix C categories.
- Engineering field surveying as specified in Appendix C categories
- Data Compilation, Data analysis and reduction, Data Maintenance, System design, programming and teaching relevant to the Appendix C categories.
- Policy Formulation and Coordination.
- Supervisory Bonus relevant to the Appendix C categories.

### 9.1. Experience Point Schedule

The Professional Work Experience Points Schedule is categorised in Appendix C: into three disciplines/jobs with one supplemental 'bonus' section:

- **30 points per year** in an Engineering Surveying position of data analysis and reduction, system design, programming or field party leader/surveyor
- **25 points per year** in an Engineering Surveying position of data compilation
- **20 Points per year** in an Engineering Surveying environment; and teaching, technician or similar position
- **Additional 10 bonus points per year** (*in addition to points above*) in an Engineering Surveying supervisory or management position.

### 9.2. How To Document Professional Experience points

The minimum Professional Experience requirement for certification as an ESP-AP is **110 points** under the Qualification Based Provision and **300 points** under the Long-Term Practice Provision.

Use Part **EXP-1** of the application form to document your Engineering Surveying experience. Each individual job/position you have held will need its own worksheet. **EXP-S** is used as a summary sheet for totalling the points claimed on the individual worksheets. All point totals should be rounded to two decimal places.



You must complete the Description of Engineering Surveying Duties section for each position for which you are claiming points. This description should be brief and not expand outside of the provided box, however the description should be detailed enough for the Panel to determine if points being claimed are correctly categorised.

#### FULL-TIME EQUIVALENT PERCENTAGES (%FTE)

The Full-Time Equivalency Percentage or %FTE is the decimal portion of time credited towards a particular experience level, supported by the Description of Engineering Surveying Duties section of the **EXP-1** worksheets. For example, in a small survey office, an applicant might spend 80% of their time doing application development and system maintenance and 20% of their time doing data maintenance and update. It would be appropriate for the applicant to record 0.8 for 'Programmer or Similar' and 0.2 for 'Engineering Survey User or Similar'. In most cases, values entered will sum to 1.

Where an academic internship or part-time research is involved, the values in %FTE should sum to the appropriate proportion (e.g. 0.5 for a half-time graduate research assistant). This proportional estimation can be applied to positions with split duties. For example, if an applicant spent 50% of their time in sales, and the balance doing development work, it would be appropriate for a factor of 0.5 to be applied to the category supported in the Description of Engineering Surveying Duties Section.

Years/months of employment should be entered into all applicable categories, multiplied by the appropriate number of points and added together.

#### PART-TIME WORK

FTE% is based on full time employment, i.e. a 36.25 to 40 hour working week. If the applicant works part time, the FTE% is calculated by the hours worked divided by the full-time employment hours normal for that position or industry. For example, an applicant working 20 hours a week cannot exceed 50% or 0.5 if the full-time employment hours for that position are 40.

### 9.3. Experience Points Documentation

Three items are required to accompany the completed Engineering Surveying Professional Experience Worksheets:

#### A. EMPLOYER/SUPERVISOR OR CLIENT EMAIL

**An email** confirming your application **from your most current immediate supervisor or employer**. This letter must have a signature block outlining the person's position and contact details. A template and further instructions are provided in **Appendix A**. Alternative versions of the letter will be accepted but scrutinised more carefully than the template letter.

**An email from a client is required for self-employed applicants**. This is to be obtained preferably from those clients who establish, start and end/continue contract work. A template and further instructions are provided in **Appendix A**. A maximum of three client letters can be provided.

#### B. RESUME

**A current copy of your resume**, edited to include only engineering surveying related positions. Use this to fully explain the engineering surveying related duties at the positions claimed on the worksheets.

The description section of the worksheet is for quick reference during the preliminary review process. It is imperative that a detailed resume accompanies the application. The resume descriptions may either be bulleted lists or paragraphs. Please concentrate on duties as well as projects that incorporated those duties. A formal job description may also be included for clarification.

#### C. REFEREE REPORT EMAIL

**An email from a referee**, who should be a person who is familiar with your technical work experience, incorporating details as outlined in **Appendix A**.



## 10. Contribution to the Profession Component

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For initial certification, Contribution to the Profession points is not mandatory. It is recognised that a surveyor who has a degree and four years full time field experience should be able to gain certification as an ESP-AP. However, if additional points are required, Contribution to the Profession activities can be used to gain points in the initial certification.

Refer to Appendix B below for an explanation of the Contribution to the Profession component. A maximum of 10 points can be gained through Contribution to the Profession.

## 11. Total Points

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After the documentation of all three components has been completed (i.e. Educational Experience, Professional Experience and Contribution to the Profession), the totals should be transferred to the Total Certification Points area of the form.

If the final total is less than **150 points for Qualification Based Provision applicants or 300 points for Long-Term Practice applicants**, the applicant is not eligible for certification as an ESP-AP at this stage.

## 12. Additional Evidence

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You may submit additional evidence in support of the application if you consider the certification process does not sufficiently recognise your engineering surveying skills. Such evidence would typically include, but is not restricted to, copies of professional licences or relevant certification, personal statements, letters of reference and affidavits.

However, consideration of this supporting material in awarding certification as an ESP-AP is at the discretion of the Engineering Surveying Certification Panel.

## 13. Payment

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An application for ESP-AP certification will not be processed unless full payment of the relevant application fee is made. Full details are on the application form.

The certification fee is **\$330 for SSSI members and \$850 for non-members**.

*Non-members are welcome to [join SSSI](#) at the same time as submitting their application and access the Member rate, even without full membership approval being received.*

## 14. Completed Application and Queries

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Once your application form is complete and all your supporting documentation is ready, submit your application to SSSI to the SSSI Certification Coordinator via email to [certification@ssi.org.au](mailto:certification@ssi.org.au).

If you are able to merge your documents (Application Form, Qualifications, Resume, emails etc) into one PDF file that would be ideal. If not, please email them as separate documents and SSSI will merge for you.

Enquiries regarding your application can be addressed to the SSSI Certification Coordinator.

Telephone: 02 6282 2282  
Email: [certification@ssi.org.au](mailto:certification@ssi.org.au)

## 15. Checklists

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### EMERITUS APPLICANTS

#### Form

- Personal Details - pg 3
- Application Type - pg 3
- Payment - pg 15

#### Supporting Documents

- Cover email requesting classification change if applicable
- Resume
- Email from Employer/Supervisor/Client confirming retirement date

### LONG-TERM PRACTICE APPLICANTS

#### Form

- Personal Details - pg 3
- Application Type - pg 3
- CDU-1: Credential - pg 4 (*if applicable*)
- EDU-S: Education Summary - pg 8 (*if applicable*)
- EXP-1: Professional Experience Worksheets - pg 9-12
- EXP-S: Professional Experience Summary - pg 13
- CON: Contribution to the Profession - pg 14 (*if needed*)
- TOT: Application Total - pg 15
- Payment - pg 15

#### Supporting Documents

- Self-certified copy of qualification (*if applicable*)
- Resume
- Email from Employer/Supervisor/Client
- Referee Report

### QUALIFICATION BASED APPLICANTS

#### Form

- Personal Details - pg 3
- Application Type - pg 3
- EDU-1: Credential - pg 4
- EDU-2 Course Points – pg 5 (*if needed*)
- EDU-3A&B: Short Courses, Workshops, Seminars & Conferences – pg 6-7 (*if needed*)
- EDU-S: Education Summary - pg 8
- EXP-1: Professional Experience Worksheets - pg 9-12
- EXP-S: Professional Experience Summary - pg 13
- CON: Contribution to the Profession - pg 14 (*if needed*)
- TOT: Application Total - pg 15
- Payment - pg 15

#### Supporting Documents

- Self-certified copy of qualification
- Resume
- Email from Employer/Supervisor/Client
- Referee Report
- Additional Evidence Documentation (if needed) e.g. self-certified copies of Course transcript/s or certificates of CPD attendance



## **APPENDIX A: Employer/Supervisor/Client Email and Referee Report Guidelines**

### **EMPLOYER/SUPERVISOR EMAIL**

You are required to have your current Employer/Supervisor send the text below to you via email, ensuring a full email signature (noting position and contact details) is at the base. You must then PDF the email and include in your application.

*Subject:* Confirmation of ESP-AP Application

Dear [YOUR NAME]

As your supervisor/employer, I am pleased to send this message in support of your application for certification as an Engineering Surveying Professional – Australasia Pacific (ESP-AP). Having reviewed your application, I can attest that it is true and correct as to your current title, duties, experience level, and duration of employment here, and that it is consistent with what I know of your background.

I understand that the Engineering Surveying Certification Panel does not expect me to be able to vouch for the entire application and that any errors are solely your responsibility.

If the Panel have any questions, please contact me on the details below.

Yours sincerely

<Email signature block>

### **Notes**

- *Immediate Supervisor – The administrative officer who oversees your professional duties, tasks, or operations.*
- *An individual with a higher position than an immediate supervisor may also send the email. A peer, partner, or subordinate may not.*
- *If you unemployed, obtain a letter from a past employer.*

### **CLIENT EMAIL**

If you are self-employed/business owner, you are required to have a current client send the text below to you via email, ensuring a full email signature (noting position and contact details) is at the base. You must then PDF the email and include in your application.

*Subject:* Confirmation of ESP-AP Application

Dear [YOUR NAME]

As your client, I am pleased to send this message in support of your application for certification as an Engineering Surveying Professional – Australasia Pacific (ESP-AP). I can attest that you [ARE/WERE] our [CONTRACTOR/CONSULTANT] for carrying out [TYPE OF WORK] from [START DATE] till now/[END DATE] and performed to our complete satisfaction.

If the Panel have any questions, please contact me on the details below.

Yours sincerely

<Email signature block>



## **REFEREE REPORT**

You are required to submit a referee report from a peer or current supervisor. Applicants do not need referee documentation from past supervisors.

This can be done in the form of an email to you, ensuring a full email signature (noting position and contact details) is at the base. You must then PDF the email and include in your application. The subject line should be “ESP-AP Referee Report”.

Please ensure the following is included in the Referee’s report:

- a) Referee’s name
- b) Referee’s title and qualifications
- c) Length of time the referee has known you
- d) Relationship with you
- e) Brief evaluation of your skills and qualities.





## **APPENDIX B: Contribution to the Profession Component**

### **CONTRIBUTIONS TO THE PROFESSION SUMMARY**

There are seven major areas of professional involvement with points being awarded. Contribution points may fall into any of the categories or be distributed among all seven.

Work-related publications and sales presentations are elements of work experience. Contributions are intended to recognise documents and activities that relay lessons learned and techniques developed at work beyond the client and employer. They should benefit the spatial sciences profession.

It is recognised that professional contributions in the form of conference planning, publications, committee/board participation, outreach, and other related efforts are fundamental to the health and growth of the profession. Participation in any of the abovementioned activities contributes to the education and professional development of the individual professional and to an extent the employer.

### **PROFESSIONAL CONTRIBUTION POINTS SCHEDULE**

Points should be included for each instance that the applicant has satisfied a listed contribution. Therefore, if the applicant has satisfied a contribution category more than once, the applicant may receive duplicate points. There is no limit to how many times a category may be used or how many points may be accrued in that category.

However, in the engineering and mining surveying-related professional association involvement category (category 2), only one level of involvement can be counted per year, i.e. no double counting so use the highest points level.

Not all categories need to be filled. The candidate will be responsible for completing the calculations and arriving at a total that meets the minimum amount. The ESCP will also complete a separate tabulation to verify that the points and totals are correct and satisfactory.

<b>CONTRIBUTIONS POINT SCHEDULE</b>		
<b>1. Industry Publications</b>		
<b>Code</b>	<b>Publication Type</b>	<b>Points Earned per Publication or Activity</b>
1.10	Book Author/Editor	15
1.11	Senior author of a refereed paper	5
1.12	Joint author of a refereed paper	3
1.13	Book Chapter Author	5
1.14	Editorial Board	3
1.15	Magazine Article	2
1.16	Magazine Column	2
1.17	Un-Refereed Paper	2
1.18	Magazine / Newsletter Column Editor	2
1.19	Newsletter Article	1

**Note:** For any work to be considered published, for purposes of earning contribution points, it must be or have been publicly available in electronic or print form from an independent third party. 'Publicly available' means that copies could be downloaded or acquired in hardcopy form. An 'independent third party' is defined as a person or business, other than the author, who makes decisions regarding publication and/or content and who is **not** the author's employer or educator. There is no limitation regarding direct or indirect payment to produce the book, article, or map. Professional writing is credited as Experience. Publication of theses and dissertations is credited as Education.

<b>2. Professional Association Involvement</b>		
<b>Code</b>	<b>Level of Involvement</b>	<b>Points Earned per Year</b>
2.11	National Board Participation	5
2.12	National Committee Member	4
2.13	Regional Committee Member	4
2.14	Regional Sub-Committee Membership	3
2.15	Certification Assessment Panel Member	3
2.16	SSSI Membership	1
<b>3. Committee Participation</b>		
<b>Code</b>	<b>Level of Involvement</b>	<b>Points Earned per Committee</b>
3.10	International (e.g. FIG)	5
3.11	National (e.g. ANZLIC)	4
3.12	State (e.g. QSIS, WALIS)	3
<b>4. Conference Organisation Participation</b>		
<b>Code</b>	<b>Level of Involvement</b>	<b>Points Earned per Conference</b>
4.10	International / National Conference Chair or Convenor	5
4.11	International / National Conference Committee Member	3
4.12	Regional Conference Chair or Convenor	4
4.13	Regional Conference Committee Member	2
<b>5. Event Presentations</b>		
<b>Code</b>	<b>Presentation Type</b>	<b>Points Earned per Event</b>
5.10	Continuing Professional Development (CPD) Presentation	2
5.11	Conference Presentation	1
5.12	Conference Poster Display	1
<i>Note: Credit is accrued separately for a conference presentation and publication of same in the conference proceedings (see item 1. Engineering Survey Publication).</i>		
<b>6. Awards Received</b>		
<b>Code</b>	<b>Recognition Type</b>	<b>Points Earned per Award</b>
6.10	International Award	4
6.11	National Award	3
6.12	State Award	2
6.13	Local Award	1
<i>Note: Awards issued by the applicant's employer do not count as a contribution to the profession.</i>		
<b>7. Other Contributions</b>		
<b>Code</b>	<b>Participation Type:</b>	<b>Points Earned per Activity</b>
7.10	Event Convenor	3
7.11	Event Participation/Moderation	2
7.12	Community Contributions	2
7.14	YP Mentoring Program Mentor	2
<i>Note: These events cannot be considered if part of mandatory job requirements. An example would be organising activities for Engineering Conferences and Seminars.</i>		



## CONTRIBUTION POINTS DOCUMENTATION

All Contribution Points of three or higher need to be documented. With this in mind, documentation is a necessary part of any ESP-AP certification application and some types of contribution and the methods to be used for their documentation are provided below:

- **Engineering Surveying Industry Publications**

- **Books:** The ISBN #, year, and title will be sufficient.
- **Refereed Papers:** The journal's title, ISSN#, Volume and Number.
- **Editorial Board:** List the journal, publication, or serial, the ISSN#, years and capacity served.
- **Article:** Name of the publication in which it appeared, date, year, ISSN#, and a copy of the article.
- **Paper in Conference Proceedings:** Date and location of the conference, name of the conference, copy of the paper's title page.
- **Newsletter Article:** Date and year of the article, Issue # or date, month, year, name of the newsletter, copy of the article or title.

- **Examples of What Constitutes a *Work-related Publication***

- An employee of an engineering surveying organisation creates data for civil engineering works, someone else in the same organisation's design department then designs the infrastructure and places it on a web site for public. This is **not** a contribution to the profession as the decision to publish was made by the author's employer.
- An employee of a city-planning department writes an article for the regional engineering surveying user group's newsletter during normal working hours describing how a zoning map was produced. This **is** a contribution since the decision to publish was made by the newsletter editor.
- A consultant designs a new road alignment for a client and then writes a magazine article describing the project and its results at the request of the firm's marketing department. The database design is **not** a contribution, but the magazine article **is**.
- A student does original research to produce a term paper, and then writes an article for a *Journal* describing the work. The term paper is **not** a publication, but the *Journal* article **is**. The difference between the term paper and the published article, if any, is not relevant.

- **Professional Association Involvement**

A Professional Association can be characterised as an organisation of persons having a common professional interest. An association can be local or national, dues paying or open, large or small. A professional association is not the same as one's place of employment. Membership should be voluntary and regular compensation from the association to the member for their involvement should not exist (i.e. salary). An honorarium is acceptable.

There are numerous levels of involvement in a professional association. These levels are listed below along with supporting documentation examples. In this category only one level of involvement can be counted per year, i.e. no double counting – use the highest points level.

For involvement in an organisation other than the SSSI or its founding partners, documentation may include a copy of a membership card, listing in a Membership Directory or other association publication, dues receipt, certificate or a verification letter from the association.

- **Committees Participation**

This category is similar to Association involvement and therefore should be documented in the same manner. Documentation may include a copy of a Committee publication or a verification letter from the Committee Secretariat.

- **Conference Organisation Participation**

This category is similar to Association involvement and therefore should be documented in the same manner. Documentation may include a listing in a Conference Program or other publication or a verification letter from the association/organisation stating your involvement.

- **Industry Presentations**

This category is similar to Association involvement and therefore should be documented in the same manner. Documentation may include a listing in a Conference Programme or other publication or a verification letter from the association/organisation.

If the conference was held independently from a professional association or organisation then a copy of the relevant pages from the conference programme or similar documentation will suffice.

- **Conference Presentation/Poster**

A copy of the relevant pages from the programme or an acceptance letter from the organisation sponsoring the event is acceptable documentation. If this documentation is not available, a signed letter from the sponsoring organisation will suffice. This letter should indicate the date, year, and name of the conference.

- **Workshop Presentation**

A copy of the relevant pages from the programme or an acceptance letter from the organisation sponsoring the event is acceptable documentation. If this documentation is not available, a signed letter from the sponsoring organisation will suffice. This letter should indicate the date, year, and name of the conference.

- **Awards**

A signed letter from the award granting institution or proof of when/where/why the award was bestowed. This can consist of a listing in a conference programme, newsletter, magazine, memo etc.

- **Other Professional Contributions**

Include any materials that would signify your participation in these events. This would include letters, articles, fliers etc.

## **HOW TO DOCUMENT CONTRIBUTION POINTS**

Locate the applicable contribution type in the Contribution Point Schedule and place the corresponding code in the box and provide the necessary information. When all claims have been listed, sum all the Contribution Points earned. If an activity had a duration of more than one year (i.e. Association Membership/Board of Directors Term/etc.) place the adjusted point total counting each year in the Points box.



## ***APPENDIX C: Assessing your Work Experience***

The notes within the experience component are for guidance only to assist understanding of the requirements of the experience component. Evaluation of the submitted material is at the discretion of the assessment panel and may request additional information – including interviewing the applicant.

Requirements:

- **Survey Control** is overarching. At least one of the survey control sub-categories mandatory – can be concurrent with a project
- **Topographical**. At least one of the topographical sub-categories is mandatory – can be concurrent with a project
- **Construction Surveying**. At least 2 categories from construction surveying are mandatory.
- A minimum of 3 months duration in **any** category is required
- A minimum of 4 categories is required in total (Does not have to be every year).
- **Management** category is optional, and the **supervision** and **team leader** components can be concurrent with other categories

As a guide, the individuals' submissions should address the Performance criteria for the selected category to demonstrate evidence of competency. As a guide, the submitted evidence is to be assessed against the Performance criteria.

Descriptions for the road and bridge categories are adapted and referenced from Appendix A of Austroads *National Prequalification System for Civil (Road and Bridge) Construction AP-C96-19*



<b>Survey Control – overarching. This category can be stand alone or incorporated in other categories</b>					
<b>Category</b>	<b>Sub-category</b>	<b>Description</b>	<b>Points per year</b>	<b>Performance criteria</b>	<b>Evidence examples</b>
Survey control	Survey control networks (Primary control)	Primary survey control networks for large scale projects. Connected to appropriate Geodetic datums. If incorporated in other work categories, then pro rata time against those projects	30	Performance criteria should include majority of the following: <ul style="list-style-type: none"> <li>• Control network design.</li> <li>• GNSS observations</li> <li>• GNSS processing by Least squares adjustment for Minimally constrained and Constrained adjustment.</li> </ul>	Evidence should include: <ul style="list-style-type: none"> <li>• GNSS network design</li> <li>• GNSS network adjustment reports</li> </ul>
	Survey control networks (medium)	Terrestrial observations (for example, for bridge control networks). If incorporated in other work categories, then pro rata time against those projects	25	<ul style="list-style-type: none"> <li>• Control network design.</li> <li>• Terrestrial observations (for example, for bridge control networks).</li> <li>• Levelling networks.</li> <li>• Least squares adjustments</li> <li>• Validate any existing survey control</li> </ul>	Evidence should include: <ul style="list-style-type: none"> <li>• network design</li> <li>• network adjustment reports</li> <li>• levelling reports</li> </ul>
	Survey control networks (simple)	Could include infill control between primary survey control by traversing methodology. If incorporated in other work categories, then pro rata time against those projects	20	<ul style="list-style-type: none"> <li>• Terrestrial observations</li> <li>• Bowditch adjustment</li> <li>• Levelling</li> <li>• Validate any existing survey control</li> </ul>	Evidence should include: <ul style="list-style-type: none"> <li>• network design</li> <li>• survey control adjustment reports</li> <li>• Levelling reports</li> </ul>





<b>Construction Surveying – at least 2 categories mandatory (for example, Bridge is one category)</b>					
<b>Category</b>	<b>Sub-category</b>	<b>Descriptors</b>	<b>Points per year</b>	<b>Performance criteria</b>	<b>Evidence examples</b>
Bridge	Bridge (large/complex)	Medium /complex activities plus majority of the following: Significant fabricated steel superstructures, balanced cantilever construction, very heavy foundations, construction over navigable waterways	35	Majority of the following should include: <ul style="list-style-type: none"> <li>• Setting out of works in accordance with contract specifications and tolerances,</li> <li>• Conformance checking and reporting,</li> <li>• As constructed survey</li> <li>• Processing of measurements,</li> <li>• Volume measurements</li> <li>• Monitoring (if required)</li> </ul>	Supplied evidence should include majority of the following: <ul style="list-style-type: none"> <li>• project description</li> <li>• conformance reports</li> <li>• as constructed survey drawings / models?</li> <li>• volume measurement reports</li> <li>• monitoring reports (if applicable)</li> </ul>
	Bridge (medium / complex)	Simple activities plus majority of the following: Complex geometry, super T's / T-roffs, major slipform piers, complex earthworks, cast in-situ piles, setting out with horizontal and vertical curve geometry.	30		
	Bridge (simple)	Cast in situ reinforced concrete flat slab bridges, simple bridges, moderate earthworks, non-complex pile foundations, setting out abutments and piers without horizontal/vertical curve geometry.	25		
Road	Road (major – motorways / multiple carriageways)	Major arterial activities plus majority of the following: Complex grade separated interchanges. Multiple carriageways. Motorways on new urban alignments. Slipform large scale concrete pavements. Variable message signs & ITS work	35		
	Road (major arterial)	Minor arterial activities plus majority of the following: Grade separated intersections. Duplication of major arterial roads. Heavy duty asphalt pavements. Complex service relocations	30		
	Road (minor arterial)	Low volume rural / urban plus majority of the following: Multi-layer granular or	25		

		simple A/C pavement. complex urban intersections. Earthworks exceeding 5m cut/fill. Complex drainage works including large size culverts/multiple bays. Moderately complex service relocation works.			
	Road (Low volume rural / urban)	Activities include majority of the following: Low complex at grade intersections. Multi-layer granular or simple A/C pavement. Low to Medium drainage works. Earthworks up to 5m cut/fill. Non-complex service relocation works	20		
Earthworks	Substantial	Earthworks on major construction sites. Can include a range of activities from topsoil stripping, excavations and filling. If incorporated in bridge or road categories, then pro rata time against those projects	25		
	Minor	Earthworks can include a range of activities from topsoil stripping, excavations and filling. If incorporated in bridge or road categories, then pro rata time against those projects	15		
Drainage	Complex	Can include drainage systems and culverts. A drainage system can include an underground network of pipe culverts and / or box culverts connecting between field inlets, gully pits and access chambers. If incorporated in road categories, then pro rata time against that project	30		

	Simple	Culverts under roadways. If incorporated in road categories, then pro rata time against that project	20		
Water / Wastewater network	Large / complex	Water networks can include water main lines, hydrants, valves, meters, inspection chambers, inspection pits and envelopers. If incorporated in road categories, then pro rata time against that project	25		
	Minor / simple	Water networks can include water main lines, hydrants, valves, meters, inspection chambers, inspection pits. If incorporated in road categories, then pro rata time against that project	20		
Retaining structures	Substantial and Complex	Can include retaining wall pad / strip footings. Can include horizontal and vertical geometry and multiple lifts during construction. If included in bridge or road categories, then pro rata time against those projects	30		
	Simple	Can include retaining wall pad / strip footings. Simple geometry. If included in bridge or road categories, then pro rata time against those projects	20		
Tunnel	Complex	To be developed (Applicant to specify)	35		
	Simple	To be developed (Applicant to specify)	20		
Dam	Major/ complex	To be developed (Applicant to specify)	35		
	Minor / simple	To be developed (Applicant to specify)	20		
Port Infrastructure	Major / complex	To be developed (Applicant to specify)	35		
	Minor / simple	To be developed (Applicant to specify)	20		
Processing plant	Major / complex	To be developed (Applicant to specify)	35		

	Minor / simple	To be developed (Applicant to specify)	20		
High Rise building	High Rise	To be developed (Applicant to specify)	35		
	Low Rise (Generally max. 3 levels)	To be developed (Applicant to specify)	20		
Rail	Major	To be developed (Applicant to specify)	30		
	Minor	To be developed (Applicant to specify)	20		
Other (Specify)		Applicant to specify			

<b>Topographical surveying (Mandatory) – This can also be inclusive</b>					
<b>Category</b>	<b>Sub-category</b>	<b>Description</b>	<b>Points per year</b>	<b>Performance criteria</b>	<b>Evidence examples</b>
Topographical	Topographical (complex)	Includes majority of the following: Complex urban environments / high number of features. Major drainage features. Complex intersections. Complex bridges and extensive underground services	25	In addition to the survey control requirements, majority of the following should include: <ul style="list-style-type: none"> <li>• Capture data by terrestrial observations.</li> <li>• Process and analyse data.</li> <li>• Create digital terrain model with contours.</li> </ul>	Supplied evidence should include majority of the following: <ul style="list-style-type: none"> <li>• survey control reports</li> <li>• project description</li> <li>• hard copy drawings.</li> </ul>
	Topographical (simple)	Small scale non-complex ground and feature surveys—rural or simple urban. Simple drainage features. Open terrain with few features	20		



<b>Management (Optional)</b>					
<b>Category</b>	<b>Sub-category</b>	<b>Description</b>	<b>Points per year</b>	<b>Performance criteria</b>	<b>Evidence examples</b>
Management	Team leader	Can include leading multiple types of engineering surveying categories	10 bonus points	<ul style="list-style-type: none"> <li>Assess survey specifications and contractual survey requirements.</li> <li>Determine work procedures.</li> <li>Determine the most fit for purpose surveying equipment that can include terrestrial and GNSS</li> <li>Determine the most appropriate surveying methodologies</li> </ul>	<ul style="list-style-type: none"> <li>project description</li> <li>role description</li> </ul>
	Supervisor	Can include supervision of any type of engineering surveying categories	10 bonus points	<ul style="list-style-type: none"> <li>Supervising of any of the non-management construction surveying activities</li> </ul>	<ul style="list-style-type: none"> <li>project description</li> <li>role description</li> </ul>

**Example of calculating points**

<i>Road construction project</i>			
	<i>Duration</i>	<i>Points per year</i>	<i>Total pts</i>
<i>Survey control network (simple)</i>	<i>1 month</i>	<i>20</i>	<i>1.7</i>
<i>Road (major arterial)</i>	<i>4 months</i>	<i>30</i>	<i>10.0</i>
<i>Retaining structure</i>	<i>3 months</i>	<i>30</i>	<i>7.5</i>
<i>Drainage</i>	<i>2 months</i>	<i>25</i>	<i>4.2</i>
<i>Earthworks</i>	<i>1 month</i>	<i>20</i>	<i>1.7</i>
<i>Topographical (simple)</i>	<i>1 month</i>	<i>20</i>	<i>1.7</i>