



Remote Sensing and Photogrammetry Commission

Certified Professional

Documentation and application

"Everything you need to get yourself certified!"

Table of contents

PART 1 – CERTIFIED PROFESSIONAL DOCUMENTATION

INTRODUCTION

What is certification?	3
Why should I apply for certification?	3
Am I eligible?	3
How do I remain certified?	4
What does it cost?	4
What now?	4
Notes to assist you in filling out the application form	4

WORK EXPERIENCE

Background	5
Relevant work experience	5

EDUCATIONAL ACHIEVEMENTS

Background	6
Graduate certificate/diploma and master's degree by coursework	6
PhD and master's degree by research	6

CONTRIBUTIONS TO THE PROFESSION

Background	8
Publication record	8
Voluntary service to the profession	9

PART 2 – APPLICATION FORM

Personal details	12
Details of work experience	13
Details of educational achievements	14
Details of contributions to the profession	15
Referees	16
Disclaimer	17
Checklist	17

INTRODUCTION

What is Professional Certification?

Professional certification in the SSSI occurs at two levels. **General Certification** as a Spatial Practitioner requires a broad level of experience, qualifications and contributions at a general level (see <http://www.sssi.org.au/details/cat/2/sub/6/subnav/502.html>).

A **Certified Professional** is a spatial professional who has achieved a high level of endorsement in a particular area of specialization. Certification as a Professional is available in most commissions and in the Remote Sensing and Photogrammetry Commission we seek to endorse expertise in the two broad areas of Photogrammetry and Remote Sensing. Endorsement in one of these two areas informs the general public and other professionals that your skills and expertise are recognised at the highest level. Consequently the specialist certification process requires a professional to initially demonstrate that she or he has achieved through academic qualification, relevant experience, publication and contribution to the industry, an advanced level of expertise in the area in which specialist certification is sought. Subsequently, a certified specialist will be required to maintain recognition by a continuance of specialist activity which will lead to assessment and renewal every two years.

Why should I apply for certification?

Being declared a Certified Professional has the following benefits:

- ▶ Recognition by one's colleagues and peers that a certified specialist in remote sensing or photogrammetry has demonstrated professional excellence and integrity in their specialist discipline.
- ▶ Establishment and maintenance of high standards of professional practice and ethical conduct.
- ▶ Guarantee of competency among those who produce information via remote sensing or photogrammetry.
- ▶ Assistance for prospective employers to identify applicants with required specialist skills.
- ▶ Encouragement for established spatial science professionals for the purpose of professional development and advancement.
- ▶ Definition and protection a professional body of specialist knowledge.
- ▶ Establishment and maintenance of links to spatial sciences educational bodies who provide education and research in the areas of remote sensing and photogrammetry.
- ▶ Provision of a basis for judging the validity of allegations or complaints involving specialist remote sensing and, or photogrammetry Professionals.

Am I eligible?

To be eligible for certification as a Remote Sensing or Photogrammetry Professional you must meet certain criteria. The basic requirement is that you have 10 years 'equivalent work experience' in your chosen field of specialisation, with a minimum of three years actual work experience. Equivalent work experience means that you need not have gained this experience whilst working – educational achievements and contributions to the profession can count towards the 10 year requirement.

Formal qualifications count towards the work experience requirement as follows:

Relevant graduate certificate:	Equivalent to work experience of up to 6 months
Relevant graduate diploma:	Equivalent to work experience of up to 1 year
Relevant master's degree:	Equivalent to work experience of up to 2 years
Relevant PhD:	Equivalent to work experience of up to 4 years

Contributions to the profession count towards the work experience requirement as follows:

Continued publication record:	Equivalent to work experience of up to 2 years
Service to the profession:	Equivalent to work experience of up to 2 years

With regards to the educational achievements, the review panel will assess the relevance of the qualifications to the chosen specialisation, and adjust the above figures accordingly. Similarly, the review panel will assess the quality of the publication record and the level of service to the industry, and adjust the equivalent work experience accordingly.

If you have accrued at least 10 years equivalent work experience, with at least three years actual work experience, then you are eligible for certification as a Professional in either of the two specialisations.

How do I remain certified?

To remain a certified Professional in your chosen field, you must accrue continuing professional develop (CPD) units. Specifically you need to accrue 40 points in a two year period in order to maintain the status of Certified Professional. Points can be accrued by attending SSSI sponsored conferences, or events which the SSSI has deemed to attract CPD points. Points should directly relate to the field in which you have become a certified Professional. A complete list of CPD points needs to be maintained by the professional and submitted to the SSSI at the end of each two year period. Six months will be allowed for the submission and processing of applications for certified Professional continuance. After this period the certified Professional endorsement will cease.

What does it cost?

For members of the SSSI the cost for endorsement as Certified Professional (Remote Sensing or Photogrammetry) is \$195.00 (GST Inclusive)

For non-members of the SSSI the cost for specialist certification is \$850 (GST Inclusive)

SSSI Members Recertification - \$75 (required every 2 years)

Non-Members Recertification - \$500 per year (GST Inclusive)

What now?

If you're still interested, you need to fill in the application form, which commences on page 11. Here you'll have to detail your personal details, educational achievements, work experience and your contributions to the profession. Notes to assist you with filling in these sections of the application form are given on the following page. Once this is done, you'll then have to find three referees who will support your application for certification, and fill in their details on page 15. Finally you need to read page 16, make sure you have all the items on the checklist, sign the form, and post everything off to the SSSI office. You'll immediately receive notification stating that your application has been received and is being processed. It will then go to a committee who will review the details, make further enquiries if necessary, and eventually make a recommendation. After approximately 4 weeks you will receive formal notification as to whether your application was successful or not. **Good luck!**

Notes to assist you in filling out the application form

Here are a few notes which will help you to fill out the application form.

1. Please provide as much information as possible to assist in the assessment of your application. Too much information is far better than too little.
2. Please complete all sections, unless they are marked as optional. Even then, additional comments may help the review panel to accurately assess your application.
3. Wherever there is insufficient space, please continue on a separate sheet.

WORK EXPERIENCE

Background

Work experience is the cornerstone of certification of remote sensing or photogrammetry specialists. There is a requirement that you must have at least three years relevant work experience in the field of your chosen specialisation. The notes below will help you to determine which work experience is relevant, and which is not.

Relevant work experience

Work experience that is relevant to remote sensing includes the following tasks:

- Sensor selection and operational planning
- System design
- Modelling of fundamental physical properties
- Project management for remote sensing applications
- Processing of remote sensed imagery
- Interpretation and analysis of imagery
- Derivation of information for specific purposes and applications
- Quality control, accuracy assessment and error estimation
- Production of maps, plans and other derived image products such as rectified imagery

Work experience that is relevant to photogrammetry includes the following tasks:

- Project and operational planning
- Project management for photogrammetry
- Sensor/platform modelling
- Image mensuration
- Mathematical adjustment of large systems of photographs
- Data acquisition and extraction
- Specification of control requirements
- Quality control, accuracy assessment and error estimation
- Production of maps, plans and other derived image products such as orthophotography

In order to qualify for specialist certification, you will need to demonstrate that you have experience in one or more of the fields described above. That experience can either have been gained from working in the field, or from teaching.

When completing the application form, it is important to keep in mind that only work experience that is covered by the tasks listed above can be claimed as relevant work experience. Additionally, the percentage of time actually spent on those tasks must also be taken into account. Work experience credit cannot be claimed for time spent on other duties, such as administration.

Please state the total amount of work experience that is being claimed, in the space required.

If you feel that you can show that you have more than 10 years relevant work experience, then there is no need to complete the sections of the application form relating to educational achievements and contributions to the profession. You will automatically qualify for specialist certification. If your work experience is approximately 10 years, then it is recommended that you complete the further sections of the application, to ensure you meet the criteria for certification. If your work is less than 10 years, then it is mandatory that you complete the remainder of the application. If you have less than 3 years work experience, then you will not qualify for specialist certification.

EDUCATIONAL ACHIEVEMENTS

Background

This section describes how your educational achievements can contribute to the equivalent work experience target of 10 years. Qualifications that will be assessed include graduate certificate, graduate diploma, master's degree and PhD. Undergraduate qualifications will not be considered in the assessment process. The relevance of the qualifications to the specialisation for which you are applying, will be assessed according to the content of the coursework or research.

The qualifications count towards the work experience requirement as follows:

Relevant graduate certificate:	Equivalent work experience of up to 6 months
Relevant graduate diploma:	Equivalent work experience of up to 1 year
Relevant master's degree:	Equivalent work experience of up to 2 years
Relevant PhD:	Equivalent work experience of up to 4 years

Graduate certificate/diploma and master's degree by coursework

A graduate certificate/diploma or master's degree by coursework is usually made up of a number of units. It is clear which units involve remote sensing or photogrammetry, and which do not. The relevance of the qualification will be determined by the percentage of the coursework that is directly relevant to remote sensing or photogrammetry.

Consider a 12 month graduate diploma course with the following structure:

- | | |
|--|--|
| <input type="checkbox"/> Geographic Information Systems | <input type="checkbox"/> Spatial Statistics |
| <input type="checkbox"/> Remote Sensing and Image Analysis | <input type="checkbox"/> Integrated GIS and Remote Sensing |
| <input type="checkbox"/> Mathematics for Spatial Analysis | <input type="checkbox"/> Algorithms in GIS |
| <input type="checkbox"/> GIS Applications | <input type="checkbox"/> Remote Sensing Algorithms |

In this course, three units out of eight are related to remote sensing (Remote Sensing and Image Analysis; Integrated GIS and Remote Sensing; Remote Sensing Algorithms). Therefore the relevance of this course to remote sensing is three eighths, or 37.5%. For specialist certification in remote sensing, this graduate diploma is equivalent to 4.5 months of work experience (i.e. 37.5% of 12 months). For specialist certification in photogrammetry, there is no equivalent work experience for this diploma, since there is no photogrammetry component to this course. If the graduate diploma includes a research project, then the relevance of that research project to the specialisation will be assessed by the review panel.

In order for the review panel to assess the relevance of a graduate certificate, graduate diploma or master's degree by coursework, you are required to submit the additional information with the application form:

- Proof of completion of the course of study
- Details of the course structure
- If units are optional, details of which units were studied
- If the course involved a research project, the title, table of contents and abstract of that project

PhD and master's degree by research

PhDs and master's degrees by research could contain a small amount of photogrammetry or remote sensing (if it is used peripherally in the research), or it may contain a large amount (if it is the central theme of the research). The review panel will use the following guide to assess the relevance of the research degree.

Description of the research	Relevance	Equivalent work experience (PhD)	Equivalent work experience (master's)
Investigation of fundamental aspects of photogrammetry or remote sensing, or development of new thinking, understanding or algorithms in photogrammetry or remote sensing	66% to 100%	32 to 48 months	16 to 24 months
Examination and validation of current theories in photogrammetry or remote sensing as part of a study not directly related to photogrammetry or remote sensing	33% to 66%	16 to 32 months	8 to 16 months
Use of photogrammetry or remote sensing in an application that is not directly relevant to photogrammetry or remote sensing	0 to 33%	0 to 16 months	0 to 8 months

The equivalent work experience requirements are calculated on the basis that a master's research degree lasts for two years, whilst a PhD last for four years. This is irrespective of the actual duration of the course of study.

In order for the review panel to assess the relevance of a PhD or master's degree by research, you are required to submit the additional information with the application form:

- Proof of completion of the course of research
- The title, table of contents and abstract of the research project. In some cases where the relevance of the qualification is not clear, the introduction and concluding chapters may also be required.

CONTRIBUTIONS TO THE PROFESSION

Background

Contributions to the profession can be demonstrated in two ways:

- ❑ by a continued publication record, and
- ❑ by relevant voluntary service, such as sitting on regional or national committees.

A continued publication record is equivalent to a maximum of 2 years work experience. Relevant voluntary service is also equivalent to a maximum of 2 years work experience. Therefore, contributions to the profession could be worth up to 4 years equivalent work experience.

Publication record

To determine the equivalent work experience of the publication record, the quality, quantity and relevance of publications will be taken into account. The review panel will assess the publication record based on the information you provide. Guidelines to help you determine the equivalent work experience of your publication record are provided in the tables below. The first table describes the quality of publications, whilst the second gives an indication of the requirements for equivalent work experience. Please note that only publications over the last 10 years only are accepted for contribution towards certification credit. Publications older than 10 years will not be considered.

Type of publication	Category
Book author or editor Granted patent	A
Senior author of a refereed paper in an academic journal Book chapter author Editorial board member (ongoing appointment)	B
Senior author of a refereed paper in conference proceedings Joint author of a refereed paper in an academic journal Magazine or newsletter column editor (ongoing appointment)	C
Joint author of a refereed paper in conference proceedings Magazine article Magazine column Unrefereed paper in conference proceedings Newsletter article	D

Number and type of publications	Equivalent years of work experience
Minimum of 12 publications, 10 of which must be category C or higher	2 years (maximum)
Minimum of 10 publications, 2 of which must be category B or higher, and 6 of which must be category C or higher.	
Minimum of 8 publications, 3 of which must be category B or higher, and 4 of which must be category C or higher.	
Minimum of 6 publications, 5 of which must be category C or higher	1 year
Minimum of 5 publications, 1 of which must be category B or higher, and 3 of which must be category C or higher.	
Minimum of 4 publications, 2 of which must be category B or higher, and 2 of which must be category C or higher.	

With regards to publications, please note the following:

1. For any work to be considered published, 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. (See examples of acceptable and unacceptable publication contribution within the SSSI Professional Certification Panel Procedures Manual.)
2. Professional writing should be listed under work experience.
3. Publication of theses and dissertations should be listed under educational achievements.
4. Representation of remote sensing or photogrammetry in the media (for example, newspaper, radio, television, broadband cast) should be listed under voluntary service to the profession.

Voluntary service to the profession

Voluntary service to the profession can be difficult to measure. The method of assessment used here is based on the type of voluntary service, and the number of years that you have been carrying out that service. The first table below outlines activities which are classed as service to the remote sensing and photogrammetry profession, and categorizes them according to importance. The second table gives guidelines as to how many years of voluntary service are required for the equivalent amount of work experience.

Type of activity	Example	Category
Participation on international committees	ISPRS Council or Technical Commissions and Working groups	A
Participation on national committees	SSSI RS&P Commission National Committee	
Participation on an international conference organizing committee	IGARSS	
Participation on regional or State committees	RS&P representative on regional SSSI committee	B
Participation on a national conference organizing committee	ARSPC	
Participation on a cross-jurisdictional organizing committee	NARGIS	
Participation on a regional conference organizing committee	QLD Spatial Sciences Conference	C
Chair of a conference session	IGARSS, ARSPC, NARGIS	
Presentations to the wider community on remote sensing and/or photogrammetry issues	Radio and/or television broadcast, podcast, print media etc.	

Amount and type of service	Equivalent years of work experience
4 years of category A activity	2 years (maximum)
2 years of category A activity and 4 years of category B activity	
4 years of category B activity and 4 years of category C activity	
3 years of category A activity	18 months
1 year of category A activity and 3 years of category B activity	
3 years of category B activity and 3 years of category C activity	
2 years of category A activity	1 year
1 year of category A activity and 2 years of category B activity	
2 years of category B activity and 2 years of category C activity	

DETAILS OF WORK EXPERIENCE

Start date and end date	Name and full address of employer	Your title/ position, details of your experience, percentage of time spent on relevant tasks	Name and address of someone who knows your work fully

Total number of months/years of relevant work experience	
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If this figure is more than 10 years, proceed directly to page 15 (referees).
 If this figure is less than 3 years, you do not qualify for specialist certification.

DETAILS OF EDUCATIONAL ACHIEVEMENTS

Please give details of all postgraduate qualifications, starting with the most recent.

Type of degree		Start date	
Date awarded		Finish date	
Awarding institution		Full/part time	
Discipline/field			
Other comments*			
Number of equivalent months/years of work experience being claimed			

Type of degree		Start date	
Date awarded		Finish date	
Awarding institution		Full/part time	
Discipline/field			
Other comments*			
Number of equivalent months/years of work experience being claimed			

Type of degree		Start date	
Date awarded		Finish date	
Awarding institution		Full/part time	
Discipline/field			
Other comments*			
Number of equivalent months/years of work experience being claimed			

Type of degree		Start date	
Date awarded		Finish date	
Awarding institution		Full/part time	
Discipline/field			
Other comments*			
Number of equivalent months/years of work experience being claimed			

Total number of months/years of equivalent work experience for all educational achievements	
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(* = optional)

DETAILS OF CONTRIBUTIONS TO THE PROFESSION**Publications**

Total number of publications	
Number of category A publications	
Number of category B publications	
Number of category C publications	
Number of category D publications	

Total number of months/years of equivalent work experience for all publications	
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Please attach a separate list of all publications for the past ten years, listing under category headings of A, B, C and D appropriately.

Voluntary service to the profession

Category of voluntary service	Description	Number of years
A		
B		
C		
Total number of years of category A voluntary service		
Total number of years of category B voluntary service		
Total number of years of category C voluntary service		

Total number of months/years of equivalent work experience for all voluntary service	
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REFEREES

You must supply the names and contact details of three referees who can support your application. Referees may be asked for the following information:

- An assessment of the accuracy of the statements that you have made in this application form.
- A technical reference on those areas of your professional career with which the referee is familiar.
- An assessment of your level of professionalism.

Your referees should be familiar with significant parts of your career, and in a position to give a reliable and unbiased assessment. Referees do not necessarily have to be previous employers.

Referees will be given access to all the information you present in this application form.

	Referee 1	Referee 2	Referee 3
Name			
Title			
Position			
Employer			
Postal address			
Phone number			
Email address			

DISCLAIMER

Please carefully read the disclaimer below, and sign the document.

In making this application, I fully understand that it is a voluntary request to the Surveying & Spatial Sciences Institute to review my background and experience for possible certification in accordance with requirements and criteria established by the Institute. I authorize the SSSI to make enquiries regarding my qualifications and character, by contacting the referees named on my application. Further, I understand and subscribe to the Code of Ethics of the SSSI, with knowledge that any false statement or misrepresentation in this application may result in the denial or revocation of certification and the issuance of a complaint in violation of the Code of Ethics. In consideration of the SSSI's acceptance and processing of this application, I agree to waive all claims of liability or responsibility against SSSI and to indemnify and hold harmless SSSI, its executive officers, committee members, employees, agents and representatives against any and all such injury, damages, or claims made by or on behalf of any persons, partnership, association, or corporation. I further acknowledge that SSSI, officers, committee members, employees, agents or representatives are not liable to me, or to any other person, partnership, association or corporation, in any way or any injury, damages or claims alleged to be based upon or arising out of the approval or disapproval or the issuance, withdrawal or termination of any certification issued by SSSI.

Signature _____ Date _____

Checklist

- Application has been completed and signed.
- Additional information relating to all educational achievements has been included.
- Details (title, abstract and table of contents) of all research theses have been included.
- List of publications for the past ten years, categorized under the correct headings has been included.
- Code of ethics has been signed and included
- Where appropriate, a cheque made out to "Surveying & Spatial Sciences Institute" for the relevant amount (see page 3) has been attached.

When applying, all of the materials must be sent in one application packet. If the SSSI receives materials (degree certificates, transcripts, letter from employer, etc) separately, they will be disposed of. All application packets must be complete, and in the order required, for them to be considered.

When complete, please post all documents to:

The Secretary, RS&P Certification Committee
Surveying & Spatial Sciences Institute
PO Box 307
Deakin West ACT 2600
Australia