

Professional Recognition for Metrologists

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Review of suggestions May 2018

Points of Agreement:

- Simple and cost effective.
- MSA membership is a pre-requisite
- Competence would have to be assessed more stringently than for MSA membership
- There should be two levels of recognition, e.g. Calibration Metrologist and Consulting Metrologist. (terminology to be voted at conference?)
- Both grades to require on-going assessment and professional development
- The administrative infrastructure may be difficult for the MSA to provide as currently structured.

Definition of Recognition Levels

A calibration metrologist can perform and/or show that a measurement is metrologically valid. A metrologically valid measurement is performed in a scientifically and technically correct way and assigns a value and an uncertainty to a properly defined quantity which is traceable.

In addition to the above, a consultant metrologist has the skills and competence to evaluate whether a measuring system is fit for the purpose to which it is applied and can determine the level of comparability between measurements and the relevant SI unit.

Proposed System

Calibration Metrologist: Peer review, an MSA member checks details of application by contacting employer, referees and educational institution. If requirements are not met, then a face to face (or video conference if face-to-face is not possible) interview will be needed.

Consultant Metrologist: Peer review as for Calibration Metrologist, but applicant has higher level criteria, e.g., development of measurement uncertainty budget, > 5 years at high level.

Administration

- Application fee \$250 may contribute to assessment.
- Referees must be MSA members and have personal knowledge of competency
- Both levels to be bound by the MSA Code of Ethics.
- Session at MSA conference to approve on-going recognition, i.e a 2 (or 4) year term of recognition. Names to be announce publically (and vote taken?).
- Register of professional recognition maintained and publically available.

Implementation.

MSA membership applications are accepted on face value, but applications for MSA professional recognition to be manually validated.

Initially all applications to be handled by Management Team to assess level of administrative requirements.

One Team member to be assigned to vet the application by personally contacting referees, educational institution and current employer or employer history.

A member of the Metrology Society of Australasia may apply for professional recognition with a written application that provides evidence of their competence in evaluating measurement fitness for purpose and comparability to the International System of Units (SI). The application shall include a written explanation citing at least one specific example of evaluating measurement uncertainty, including how the measurand was traceable to the SI, and placing the measurement in its social context. The applicant must be prepared to defend their proposal before expert metrologists. Acceptance will be contingent upon a successful defence, meeting the requirements for qualifications and experience and undertaking to uphold the Society's code of ethical conduct and professional development standards.

MSA Code of Ethics

- Integrity: Act with honesty, equity, courtesy and transparency in all dealings.
- Professional competence: provide timely advice in the areas of competence and recognise limitations of competence; maintain professional knowledge and skills to the required levels and act in accord with applicable technical standards
- Professional behaviour: to abide by the laws of Australia and its States, or the laws of New Zealand if resident there, and ensure that actions do not bring disrepute to the profession
- Objectivity: ensure potential conflicts of interest, bias or third party influence does not alter professional or business judgement
- Confidentiality: to maintain the privacy of information provided in the course of professional duties and not disclose such information for personal or third party advantage

Continual Professional Development

In addition to the initial assessment requirements a points-based system for both initial and ongoing recognition may be used. Points accumulate and expire at the end of five years. The applicant must have a continuous balance of at least, say, **5** points for a Calibration Metrologist and **10** points for a Consultant Metrologist. Points can be given for, for example:

- 3 points for attending an MSA biennial conference;
- 1 point per paper presented at an MSA biennial conference;
- 1 point per paper presented at a non-MSA but high level, peer-reviewed conference on a topic relating to metrology;
- 1 point for each NATA/IANZ assessment as a technical assessor;

- 1 point for attending an NMIA/MSL two-day training course (or maybe one point per day for multi-day courses);
- 1 point for successfully passing an MSA online multiple-choice exam, maximum of one per year (if we implement this);

So, the applicant can maintain their recognition by attending two MSA conferences, presenting one paper and attending three NATA/IANZ assessments within five years. Unless the MSA conferences shift to three-year cycles, there will always be the possibility to accumulate points for two conferences within any five-year period. But if they miss one for whatever reason then there are other ways to accumulate points.

If possible, this information could be entered into the MSA membership information saved in the MSA database and able to be updated by the person themselves online by logging into their account. Alternatively, each time the person's MSA membership is renewed they could submit an additional form showing the points accumulated over the preceding five years.

Naming

Calibration Metrologist. Alternatives:

Qualified, professional, practising, certified, licensed, expert

Consultant Metrologist. Alternatives

Professional, fellow, senior, expert