3 July 2020

Proposal for introducing a CPD requirement for all HFESNZ Professional Member grades

Within the HFESNZ Professional Affairs Board (PAB) there has been discussion of an upgraded Continuing Professional Development (CPD) system for some years, with the HASANZ Register providing increased motivation for this.

The HASANZ Register https://register.hasanz.org.nz/search/ is promoted to New Zealand businesses and the health and safety sector broadly, as a means of driving improved standards across the sector via improved professionalism. Only those professionals meeting HASANZ-approved competency standards (in association with the professional associations) may list on the Register.

If HFESNZ ensures that all Professional Members (Associate and Technical, in addition to Certified) complete regular and appropriate CPD, all three Professional Member gradings should be able to list on the HASANZ Register, and therefore be promoted to the broader audience seeking health and safety services. It is only Certified Professional Members that can now list on the HASANZ Register - as the three yearly recertification process demands that Certified Professional Members remain professionally current, meeting the HASANZ requirements for listing.

Increasing the range of people able to list on the HASANZ Register will make it easier for business to find HFE professionals and will enable more HFE professionals to move from Associate to Certified, as this relies on two years of work experience. Improved results from advertising HFE services via the Register will also reinforce the benefits of HFESNZ membership, a driver for increasing membership.

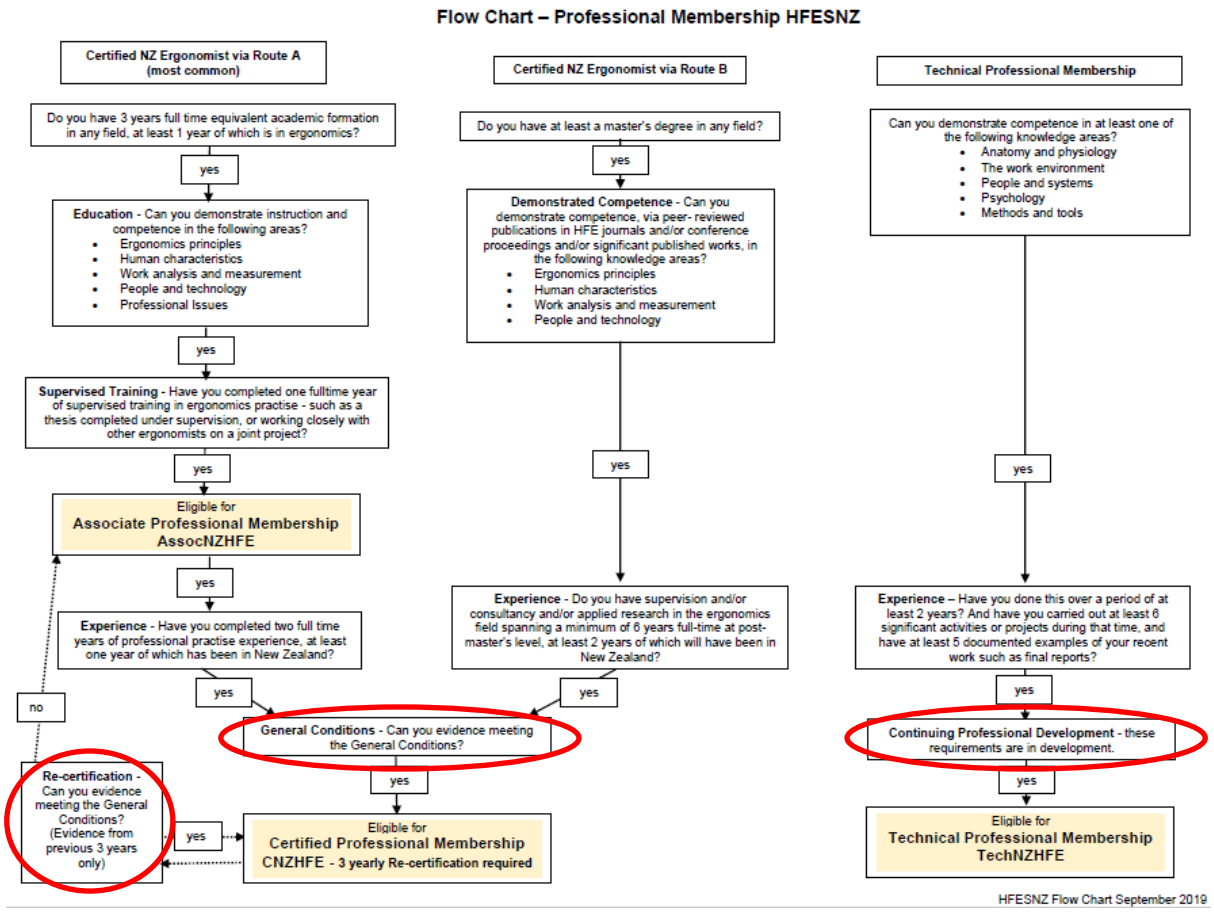
Current CPD process

The existing 'General Conditions' requirement for Certified Professional Members requires evidence of meeting four conditions:

1. The applicant is practicing HFE in the broad 'systems' sense of the definition and in fields that may include physiology, biomechanics, psychology, and work organisation.
2. The applicant has a shared perspective with other HFE professionals that is demonstrated via active and ongoing participation in a variety of HFE-specific activities such as professional development meetings, conferences, publication and study.
3. The practise of the HFE professional is being carried out at a level equivalent to that of a university graduated professional[1].
4. The applicant is competent to practise HFE as an intrinsic part of design activities.

These 'General Conditions' must be met at initial Certification, and at consequent three yearly recertifications.

The Flow Chart below shows how the current Professional Membership includes the meeting of General Conditions (a CPD requirement) for Certification and includes recognition that CPD is 'in development' for Technical Professional Members.



[1] This General Condition has been noted by PAB for potential removal or revision, and this will occur further to the planned Competence Framework review documented in the 7 May 2020 HFESNZ Workforce Development Proposal.

In addition to the three Professional Member categories are General Members (those with an interest in the field of HFE), and Student Members (full time students studying HFE).

Verification of Professional Member status

Printed A4 Membership Certificates are in the process of being provided for Professional Members, to verify their membership status. These will include a prompt for checking current membership status at the HFESNZ 'Find a Professional' web page https://www.hfesnz.org.nz/find-a-professional/. General and Student Members will not be provided with the same type of membership certificate but will be advised of how to refer to their society membership and encouraged to seek professional member levels.

Member communications

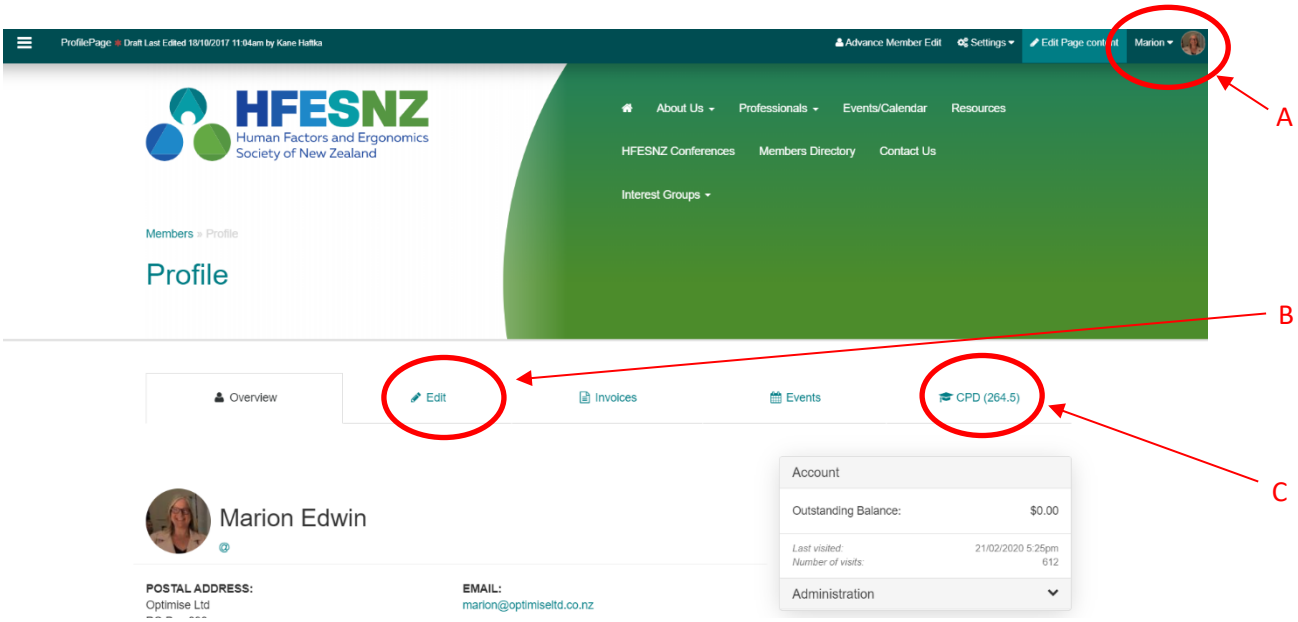
A Member Directory was created at the end of 2019 which requires more members to engage with it to be useful. This is designed to enable members to find other members with the interests and skill sets they seek, in support of professional development and support such as mentoring https://www.hfesnz.org.nz/members-directory/.

CPD system with website log-in

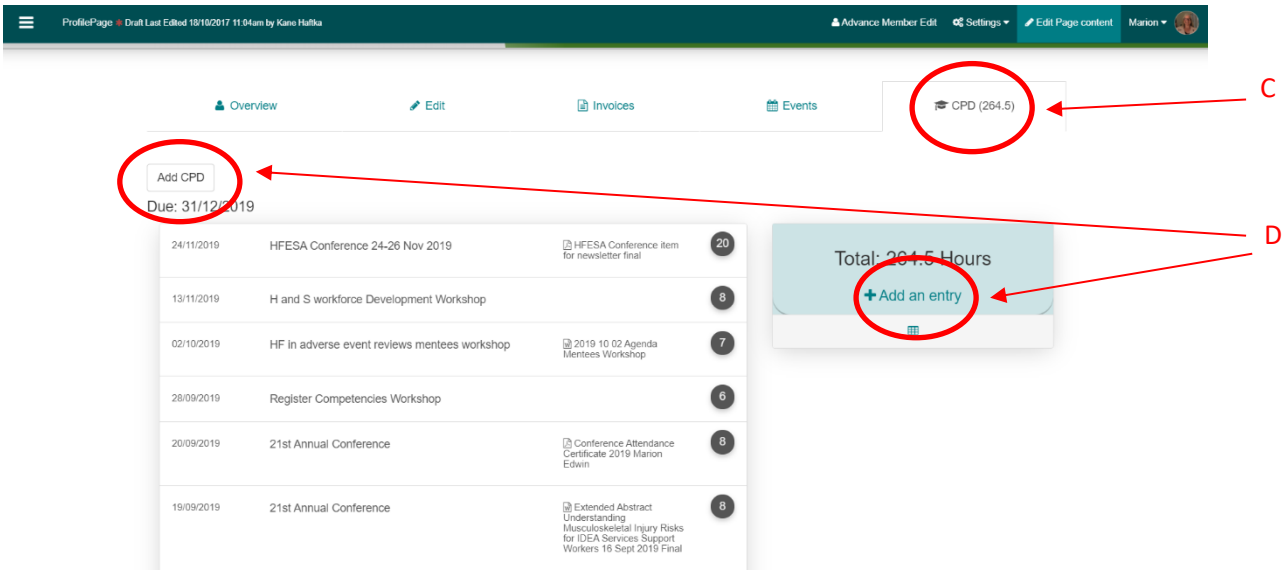
The HFESNZ website's associated membership database (see screen shot below) provides the ability for members to easily log-in:

- A - to access their own records
- B - to update their address and contact details
- C - to log CPD as this is accumulated.

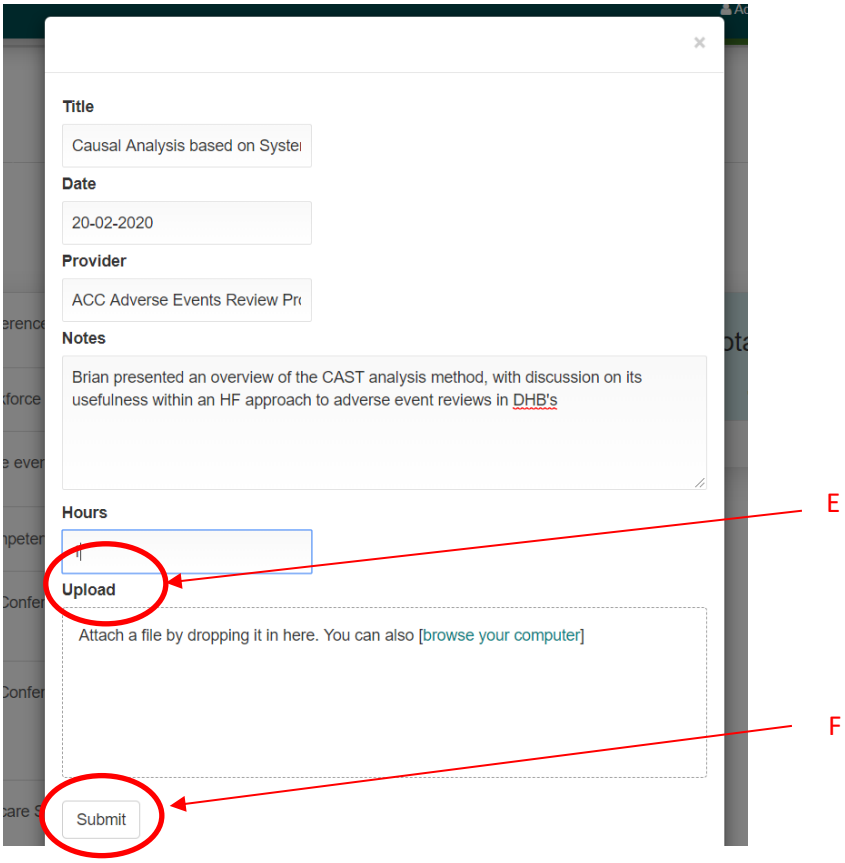
Invoices can also be accessed, and events that they are registered for viewed. (Members unsure of log-in details should contact the Administrator at admin@hfesnz.org.nz).



Adding CPD items is an easy task using the CPD tab (C), and adding another entry (D - with two ways to do this), including a record of hours.



Information about the CPD event is then added, and a file can be uploaded (E) to evidence the claimed CPD. For example, an-e-certificate provided from a webinar or course attended, or a scan of a hard-copy certificate of attendance, etc. The entry is then submitted (F).



Review of the website records identifies that 11 members accessed the CPD records from 2015 to March 2020, with only one of these not being a Professional Member (though is a current

committee member). The 7 regular users of the CPD logging system were all Professional Members (6 Certified, one Associate), representing one third of all Professional Members.

An internet-based CPD system would require improved member's use of the website's logged-in functions. The PAB has encouraged Certified Professional Members (n=14) to utilise the CPD function over the last two years, with more now doing so. This encouragement should continue.

PAB Assessors can view the member's CPD entries during the recertification assessment process. Currently Certified Professional Members must submit an application form (Appendix A) for their recertification, to provide detail of how they have met the General Conditions. The online CPD records may be a part of the provided evidence and can be downloaded into a document to submit with the application (Example at Appendix B).

It is recognised that attention to CPD system design could both streamline the process for Certified member's recertification and allow Associate and Technical Professional Members a useful means of recording professional development.

Research

A review of similar professional bodies gives knowledge of the typical CPD requirements for like professionals, as per the table over.

Of note is that the UK society (CIEHF) that became chartered in 2014, has stringent and detailed requirements for reviewing HFE professionals' ongoing competence, the BCPE in the US runs as a separate certification body to the professional society (HFES) and has a 5 yearly review process, and whilst not obvious on the website, Australia does have a recertification requirement (details not known at this time). The US's BCPE system could be equated with the Physiotherapy Board of NZ, in that the organisation is there simply for registration purposes, and other professional issues are dealt with by other bodies, such as the HFES.

The systems used for recording CPD were from more sophisticated systems that are part of member log-in on the website (eg CIEHF), through to largely paper-based system of sending in Excel or Word worksheets. Some professions used random audit processes to check a smaller number of members had completed suitable CPD recording. The IEA documentation ('Recommendations for Certification of an Ergonomist', Version 5, December 2016) recommends that the bodies that certify HFE professionals should require recertification after a set period of time (eg 5 years), to ensure that professionals remain up to date.

Some systems used simple to understand 'hours per year' CPD requirements, often in association with needing to cover a range of categories. Other systems were more complex. Mentoring is mentioned by all the bodies reviewed and linked as a possible CPD activity.

Some professions have practice registration as a requirement dictated by law, (Engineering, Physiotherapy) and for these the process of registration is non-negotiable. There is no such requirement at this time in New Zealand for human factors professionals/ergonomists, though this has been discussed within HASANZ circles. (Legislation similar to the Health Professionals Competence Assurance Act [HPCA], for health and safety professionals from across the various disciplines). Should this notion progress, we would be in a stronger position if all professional members already had a CPD requirement.

	CIEHF – UK (HFE Profs)	BCPE – USA (HFE Profs)	HFESA (HFE Profs)	Physiotherapy Board of NZ	Engineering NZ
Membership grades	**Student**, **Graduate** (equiv. to NZ Associate), **Associate** (equiv. to NZ General Member), **Technical**, **Registered/ Chartered** (equiv. to NZ Cert), **Fellow/Chartered**	**Certified** or **Associat**e (being phased out) designations. Recognises certified professionals in the fields of Ergonomics, Human Factors, and User Experience (UX).	**Student, Affiliate** (approx.. equiv. NZ General Member), **Full Member** (equiv. NZ Associate) **Certified Prof Ergonomist** (approx. NZ Cert) **Corporate**	**Registered**, **Registered Specialist, Post Grad,** and **Visitor/presenter.** (The Physiotherapy board is a registering body rather than a professional society)	**Affiliate, Student**, **Emerging professional**, **Member, Chartered Member** (plus Technologist, Technician and Geologist sub categories) and **Chartered Professional Engineer**, **Fellow, Distinguished Fellow.**
Outline of CPD requirements	Registered and Fellows must complete annual CPD to remain Chartered, and other members are encouraged to log CPD. Mixed activities: course, conference, webinar, reading, mentoring, coaching, writing reports/papers.	Recertification is required every 5 years – 'Continuance of Certification'. Initial certification includes education, work experience and work products, and an exam.	Nil specific per website. CPE are required to 'actively and continuously, contribute …'to advance the science of ergonomics in Australia…' (HFESA PAB Rules 2015). No specific review process for this is outlined.	Recertification programme requires keeping a logbook: Minimum of 100 formally recorded CPD hours per three year cycle, with a minimum of 20 formally recorded CPD hours in any one year. Reflective practice demonstrated (3 statements). 5 pieces of evidence to be provided across the 4 learning categories. One Professional Peer Review per three year cycle. A percentage of people are required to be audited each year. Registered Physios must maintain competence -at least at the minimum/threshold level for any field of practice.	CPEng have 6 yearly recertification. Applications are assessed against international competence standards. Design Verifiers (Pressure equipment, Cranes, Passenger ropeways) must hold current competence certificates. Online log-in to record qualifications, make 'Work Records' and 'Learning Records' (40 hours per year), 2 referees, practice area details, and a self-review of competence against the competence standard.
Link to professional competencies via proficiency scales	Integrated with a professional competence checklist with levels of proficiency: 0 Unaware 1 Aware 2 Novice 3 Intermediate 4 Advanced 5 Expert	Competencies fall under categories: Analysis, Design, Validation, Implementation.	None stated, beyond general statements regarding knowledge across physical, cognitive, organisational ergonomics domains.	Published 'scopes of Practice' for general, specialist, postgrad students and visiting presenter/educators exist. Also Physiotherapy Standards Framework, and Physiotherapy Practice Thresholds. This identifies competencies based on different practice roles, with 'threshold competence' a basic requirement.	Yes – self review against competence standards: engineering knowledge, developing technical solutions, managing engineering work, professional acumen.

CPD Documentation	Uses online member log-in to record date, nature of activity, and description, including what was learned and how it has helped your professional development.	Continuance of Certification required 5 yearly. Worksheet to be completed and emailed for review. Random auditing may occur to ensure worksheet completion to standard. Categories required are: work in the field, training, service, reports/publications, meetings/conferences	Nil. No requirement for ongoing CPD submission.	Logbook (Excel spreadsheet) records in categories: work based activities, professional activities, formal education, self-directed activities. Each entry is to be dated, activity outlined, provider name recorded, evidence provided, and hours noted.	Online records once logged-in. For recertification, need to: describe how they maintain skills as engineer, explain what makes your work complex, and for one NZ good practice change in your field since the last assessment, explain how you would address and apply the changes.
Links with mentoring	Mentors encouraged and seen to aid progress through competency framework. Part of senior professionals 'give back' to the profession.	Mentors offered, discussed in initial application process.	Mentoring is acknowledged within the initial application process.	Listed as a type of activity that could be part of work-based CPD.	Mentor::Me programme connects Emerging Professional Members with experienced engineers. Free, helps earn CPD hours, linked with but not critical to CPEng.
Hours and other aspects required per year	Registered and Fellow Members must record a minimum of 5 activities per year to remain Chartered. Planning to fill gaps is encouraged with 3 planned activities about filling competence gaps and raising proficiency.	Continued certification requires a total of 100 points to be accumulated, in a minimum of 2 categories (of 5), over the 5 year reporting period. (Seems complex).	Nil. Initial application references the need 'to be professionally active', but no ongoing checking processes.	Minimum of 100 formally recorded CPD hours per three year cycle, with a minimum of 20 formally recorded CPD hours in any one year.	40 hours per year of learning activities for CPEng.
CPD entry types	'CPD Entry', and 'Forward Plan Entry' via log-in.	Per worksheet completion and email submission.	Nil.	Excel Spreadsheet for use as logbook, 4 categories, with evidence.	Via Log-book (not viewed detail)
Legal aspects	Recent Chartership highlighted the specialist body of knowledge of HFE, and necessary competence for practice, and gave validity to need for registration.			Dictated by Health Professionals Competence Assurance Act	Dictated by Chartered Professional Engineers Act 2002

Considerations for a CPD system applying to all Professional Members

A number of considerations are suggested for any proposed CPD system:

- Assessor workload and ease of review.
- Ease of member recording of the necessary data - Interface with website and membership database – CPD record system – and new Gecco system for upgrade shortly.
- Link to mentors and mentoring programs.
- Annual CPD requirements across all Prof Members, and no longer need to do 3 yearly recertification? How would this be managed from PAB perspective?
- Perceived value to members.
- The CPD process needs to capture the different aspects of 'General Conditions'.

Competence Framework

It is recognised that the HFESNZ Competence Framework requires update at this time - see the HASANZ 'Building the Professions' report, November 2019, and the 7 May HFESNZ Workforce Development Proposal. This joint HFESNZ/HASANZ proposal seeks funding support to address the HFE workforce development needs. The Competence Review is required as the first step, and is interwoven with this CPD issue and Professional Membership issues. Professional development activities and planning should incorporate proficiency development (novice, expert etc) across differing competencies.

The competence framework as such is however not covered in this discussion paper.

Proposed CPD Programme

CPD incorporates the notions of peer review, mentoring, competence development, and the growth in proficiency across competencies. It is a basic requirement of 'the professions' that professionals engage in such learning and development and remain part of a community of practise for their field. It would be expected that professionals explore and understand their own learning needs, and work to meet them. Reflective learning is a common requirement of professional development activities, and many types of activity may be relevant.

The Physiotherapy Board of NZ lists 4 types of CPD activities as below, and such a breakdown could be further adapted for HFE.

Work Based • Case studies • Reflective practice • Mentoring • Clinical audit • Discussion • Peer review • Learning from experience • Involvement in the sider work of employer, eg representative on committee • Observation • Journal Club • In-service training • Direct supervision of staff/students • Visits to other departments and reporting back • Setting up rehab class • Critical incident analysis • Completion of self-assessmt questionnaires • Project work/management	**Professional Activity** • Participation in a professional body • Participation in a special interest group • Lecturing/teaching • Examiner • Tutor • Branch Meeting • Organising Journal clubs and other special interest groups • Maintaining and/or developing skills • Expert witness/advisor • Member of other professional bodies/groups • Presentation at conferences • Organiser of accredited courses • Research supervision • Assessor/auditor • Quality activities • Maintaining and/or developing skills
Formal Education • Courses/seminars • Further education • Undertaking research • Attendance at conferences • Submission of articles/paper • Distance Learning • Planning or running a course	**Self-directed** • Reading journals/articles • Review of books/articles • Updating knowledge via internet/TV/Press

Importantly, consideration should be given to the sorts of evidence that can be submitted to verify the claiming of the CPD activity.

Also from the Physiotherapy Board of NZ, evidence might include:

<table>
<tr><td colspan="2">Production of Work
• Information leaflets
• Case studies
• Critical literature reviews
• Policy or position statements
• Discussion or procedural documents
• Reports, eg on project work, clinical audit, reviews of activity, cultural audit
• Business plans
• Protocols
• Clinical guidelines or audit tools
• Cultural audit tools
• Contributions to work of a special interest group
• Course assignments
• Course programme documents
• Presentations
• Articles produced for publication
• Questionnaires
• Research papers/proposals/funding applications/ethics approval applications</td></tr>
<tr><td>Demonstrating Reflection
• Profiles drawn from portfolios
• Adapted documentation arising from appraisal, clinical supervision, job evaluation, compliance with locally implemented competence frameworks
• Documentation from compliance with local and national CPD schemes
• Reports on conferences/courses attended
• Personal development plans
• Documented and approved claims for academic credit for prior or experiential learning
• Written comment on an ethical issue, real or potential</td><td>Acquired Materials
• Testimonies
• Course certificates</td></tr>
</table>

Proposed options for an HFESNZ Professional Member CPD requirement

Review suggests that there are two types of CPD approach that we could consider adopting for HFESNZ.

One approach (A) could be a simple requirement for a certain number of hours of CPD at each Professional Membership category. This approach would be easier to integrate as our existing CPD logging system makes this possible right now, and will only become easier with the forthcoming changes to an updated 'Gecco' membership database system (due for integration later in 2020).

Alternatively (B) an approach that is based on recognising HFE professional competencies and the building of those competencies via selected CPD activities, would target skill development and professional growth rather than simple accumulation of hours spent at conferences. This approach would take longer to develop and integrate, and would need to be linked with the updated Competence Framework, and integrate mentoring activities. The CIEHF system is a useful model for this approach.

A Based on the hours of CPD activity accumulated:

<u>Certified Professional Members</u>

- Minimum of 40 hours per year (equivalent to engineers).
- Total of 150 hours for 3 yearly recertification review.
- Continue the requirement for 3 yearly recertification, with the addition of annual CPD to encourage and facilitate the building of material for recertification.

<u>Associate and Technical Professional Members</u>

- Minimum of 30 hours per year (equivalent to physios, who require 100 hours over 3 years)
- Reviewed by PAB annually.

CPD for all Professional Members will:

- Use the General Conditions to guide categories for recording (may require some revision of General Conditions).
- Encourage mixed types of CPD.
- Require the provision of evidence to support CPD claims.
- Year of each review could be based on the date of original certification (so a rolling anniversary-date year), or on a calendar year, with the timing of this to be determined.
- Use of the CPD login system.

B Based on targeted skill development and professional growth

Our thinking here is to borrow from the CIEHF approach - key CIEHF documents and processes are at Appendices C and D.

Linked with the Professional Competencies Checklist (Appendix C), Registered Members and Fellows must record (Appendix 4) a minimum of *5 activities per year*, recording the date, activity and a description of what they did, what they learned, and how it has helped them; *and* an additional *3 forward plans* for activities for the following year. These record the planned date, activity and description of what they aim to do, and how it will help them. Thus, the CPD process encourages HFE

professionals to target their skill development, and to review their progress. This approach requires a suitable competency framework and proficiency scale to be developed.

More work is required on an HFESNZ CPD system. Committee must work with PAB to determine:

- If CPD for all professional Members is required
- The preferred approach, and the activities and standards required
- The process for submission of CPD, and what is required for evidence
- PAB's role in reviewing the CPD submissions, with consideration for additional volunteers to assist with this activity (which in itself would be a CPD activity)
- And determining the timing for CPD completion, including whether alerts can be set with the anniversary date for each Professional Member. Alternatively, a new time period can be set for the collection of CPD, perhaps by the end of the calendar year, or linked with the 1 April - 31 March financial year as the annual subscriptions are, or perhaps a mid-year date that falls during our winter period when the season may be more conducive to completing this sort of task.

Prepared by Marion Edwin (Convenor PAB, HFESNZ), with assistance from Hannah Trevett (HFESNZ Committee Member)

Appendix A Recertification Assessment Form

HFESNZ Human Factors and Ergonomics Society of New Zealand

Re-Certification Application

Provide an e-copy of this application form and appended evidence to:

Professional Affairs Board HFESNZ, at: profmember@hfesnz.org.nz

Applicant's name:			
Applicant's contact details: (any amendments for HFESNZ Membership Register			
Current certification expiry:		**Re-certification period (3 years):**	

Evidence of Meeting the General Conditions

Certified NZHFE must meet the four General Conditions to remain certified. Complete the *Re-certification Evidence* section to document how you are meeting these General Conditions. Note that the evidence submitted should be from the PREVIOUS 3 YEARS ONLY.

Use column 2 to list the ***Activities*** that demonstrate you have met that General Condition. In column 3 list the ***Relevant Evidence*** for each of these activities as appendices and attach to your e-submission. The evidence may include (but is not limited to): a description of your work tasks, a position description, copies of refereed publications, copies of client reports (remove key identifiers if confidentiality is required) and professional references/referees. The HFESNZ Professional Affairs Board demands a high standard of evidence. It is important that your supporting documents can be independently verifiable as authentic. In some cases, PAB Assessors may be familiar with the applicant's work, but it is the evidence provided that will be objectively assessed. PAB Assessors can view the Continuing Professional Development (CPD) material that you may have logged via your member log-in on the society website, and we encourage you to use this to support your recertification application.

General Conditions

1. The applicant is practicing human factors/ergonomics (HFE) in the broad 'systems' sense of the definition and in fields that may include physiology, biomechanics, psychology, and work organisation.
2. The applicant has a shared perspective with other HFE professionals that is demonstrated via active and ongoing participation in a variety of HFE-specific activities such as professional development meetings, conferences, publication and study.
3. The practise of the HFE professional is being carried out at a level equivalent to the level of a university graduated professional.
4. The applicant is competent to practise HFE as an intrinsic part of design activities.

Declaration

I agree to conduct myself according to the HFESNZ Code of Professional Conduct

Signature: _____ Date: _____

Re-Certification Evidence

Applicants Name: _____ **Date:** _____

General Condition	Activities that demonstrate meeting the General Condition (activities from previous 3 years)	Relevant Evidence (Appendix relevant documents to support each listed activity from previous column)	Review Comments (Board use only)
1. The applicant is practicing HFE in the broad 'systems' sense of the definition and in fields that may include physiology, biomechanics, psychology, and work organisation.	*E.g. 1. Work System Assessments for a range of clients. Physiology/psych and work org covered as per Executive Summaries.* *2. Research into Widget interaction with users in hot environments*	*- Executive Summary 'Wobbler Department, Widgets 4U Inc Work System Assessment' (Appendix 1)* *- Executive Summary 'Laptop Use Training and Protocols, Workaholics Anonymous Ltd' (Appendix 2)* *- Executive Summary 'Review of Instruction Manuals, Widgets 4U Inc (Appendix 3).* *- Paper published in Ergonomics and Design "Widget-Human Interface Recommendations in Thermally Challenging Environments", Tom, A, Dick, B., & Harry, C. 20:4. pp 1067-1073. (Appendix 4)*	
2. The applicant has a shared perspective with other HFE professionals that is demonstrated via active and ongoing participation in a variety of HFE-specific activities such as professional development meetings, conferences, publication and study.			

3. The practise of the HFE professional is being carried out at a level equivalent to that of a university graduated professional.			
4. The applicant is competent to practise HFE as an intrinsic part of design activities.			

Comments:

Appendix B One year sample of CPD Records downloaded for inclusion with recertification application.

Downloaded 23 October from Marion Edwin's CPD records in HFESNZ log-in to website

(Date Title Provider Notes Hours Upload)

2018 Records – Total 145 hours

2018-03-27 Safety 360 Conference Conferenz
This was a 2 day conference 27, 28 March 2018. I was an invited speaker in the 'Occupational Health Summit' held on 28.3.18, and attended both days, spending time in the H and S Leaders summit, and the Wellbeing and Occupational Health Summits. 9.30-3.50, and 8.30-4pm = 13.8 hrs 14 /assets/members/Edwin-34/cpd/Exploring-the-implications-of-HFE-to-employee-health-and-wellbeing-Safety360-March-2018.pptx

2018-02-08 Wellington Regional Meeting HFESNZ
Dr Laurie Earl discussed her recent work in United Arab Emirates, in the HF aviation sector. Some interesting cultural contrasts. Also Frank Darby's library 'car-boot sale'! 9 members/nearly members present. 2 /assets/members/Edwin-34/cpd/2018-02-08-18.44.58.jpg

2018-02-07 Women in Safety 'Women in Safety' group
Attended a Wellington meeting of this high performing group (70 +) of female H and S professionals, from across the sector. Presenters included Nicole Rosie, CE WorkSafe, talking about issues relevant for women in H and S leadership roles. Valuable insights and advice including gender issues, work-life balance for those with families, and not being made to feel guilty! Excellent networking event, and lots of support between the women present. An uplifting get-together. 2 /assets/members/Edwin-34/cpd/Women-in-Safety-Invite-v6.pdf

2018-03-21 Nelson Regional Meeting HFESNZ
A get-together of the small Nelson member's group with a good range of discussion about professional issues. 2 /assets/members/Edwin-34/cpd/2018-03-21-16.50.41.jpg

2018-11-05 'Move it again' 2018 Roadshow MHANZ The Moving and Handling Association of NZ - Patient moving and handling.
Good PD/Review of the field regarding some client work and increasing interest in HFE in healthcare sector. Speakers Dr Mike Fray (UK) and Linda Enos (US) were both ergonomists, talking of HFE-specific roles and the importance of system design (Mike, re TROPHI assessment tool; Linda - hoist/sling design and input into ISO standards for design issues with important knock-ons to US legislation regarding use of mixing slings/hoists. Also interesting review and reminder of wound-care issues, the mechanobiology of pressure injury causation, and both prevention and wound care approaches. Appalling states re increasing obesity rates globally, and that US, Australia and New Zealand have similar statistics. This places both a health burden on the increasing numbers of 'people of size' and a burden on all the health care systems and services that assist them. Recognition that caregivers are fearful and sometimes lack sensitivity of large care recipients. Good reminder regarding the range of psychological and surgical etc issues. Also opportunity to review the range of hoists and equipment available in New Zealand, including portable gantry systems - Mike Fray evidence that these are preferred to ceiling mounted as they allow optimal positioning in the room, and both are preferable to mobile hoists - which have difficulties as they take up space on the floor and create trip hazards and storage problems 7 /assets/members/Edwin-34/cpd/MHANZ-Cert-2018-001.jpg

2018-08-26 IEA Triennial Congress, Florence, Italy IEA
4 days of conference from 27 August-30 August, plus one day of pre-conference workshops. (Attended healthcare and design workshops). Days ran from 8-8.30 am through til 6.30 or later, depending on the range of meetings, without a set lunch-break - lunch was provided for 'grabbing' between session breaks (not ideal, note to self that this was not a good system!) Attended healthcare and MSD sessions largely, with a wide range of coverage. Also attended a number of meetings and symposia designed for discussion between different countries certification systems etc. Separate (many/long) notes have been kept about sessions attended. Programme was immense - often 16 concurrent sessions, providing a challenging task in selection. Presented paper 'Certification establishment and IEA endorsement for a small society: New Zealand' in an 'experience exchange among certifying bodies on promoting certification'. This was on 29 Aug, 1.15 session. 40 /assets/members/Edwin-34/cpd/IEA-Cert-2018-001.jpg

2018-08-24 IEA Council Meeting IEA Executive Attended two day IEA Council Meeting, prior to IEA Congress, in Florence, Rome. 24 and 25 August, Hotel Baglione. 16 /assets/members/Edwin-34/cpd/2018-08-25-15.18.16.jpg

2018-09-05 HFESNZ Conference 2018 HFESNZ
1 day conference for society, in Wellington. Presented IEA feedback. Society Awards for Peter Bateman and Craig Smith were made. Discussion about society future and action. Great range of members present and really good conversations occurring. (Fatigued as only just returned from IEA!) 8 /assets/members/Edwin-34/cpd/DSC06542.jpg

2018-09-06 HASANZ Conference HASANZ
Attended opening ceremony/evening event and one day of the HASANZ Conference. Fulfilled chairing duties for sessions as required of HASANZ Governance Group. Unable to stay second day due to rugby game in Nelson making air tickets unavailable! 10

2018-06-10 IFISH5 Conference IFISH5
International Fishing Industry Safety and Health 5th Conference, St Johns, Newfoundland, Canada. Attended with NZ colleague Darren Guard. Presented papers on dehydration research, and opportunities to reduce MSD for fishers. First day was pre-conference workshops, and then three days of main conference. Excellent opportunity for international collaboration. Disappointing lack of NZ regulatory engagement with this event. Self-funded - though attended to present ACC-funded research findings. 32 /assets/members/Edwin-34/cpd/IFISH5-M-Edwin-Dehydration.pptx

2018-05-30 HFESNZ AGM and education day
HFESNZ Education sessions after morning AGM. 5.5 /assets/members/Edwin-34/cpd/AGM-Notice-16.4.18.docx

2018-06-28 Aging Workforce Webinar HFESNZ Dr Paul Rothmore, University of Adelaide, Australia. The Ageing Workforce, challenges and interventions. 1 /assets/members/Edwin-34/cpd/webinar-28-June-aging-workforce-001.jpg

2018-12-13 Delivering Resilient Healthcare - a workshop with Professor Erik Hollnagel Health Quality and Safety Commission NZ Certificate states 5.5 CPD hours.
Excellent opportunity for networking and linking the H and S and quality of care outcomes under the same framework. See HFESNZ December e-News for further comments. 5.5 /assets/members/Edwin-34/cpd/EricHollnagel-ALL-26.pdf

Professional Competencies Checklist

Name:

Proficiency levels: 0 = Unaware 1 = Aware 2 = Novice 3 = Intermediate 4 = Advanced 5 = Expert

Competency	What is your current level of proficiency? (1-5)	What evidence, if any, have you got to back up your proficiency claim? *(e.g. academic transcript, log book entry, report, publication, event attendance, training course completion)*
1. Ergonomics/Human Factors (E/HF) principles		
1 Ability to identify and apply methods of analysis, evaluation and validation with respect to human interfaces for tasks, activities and environments.		
1.1 Understands the role and application of E/HF principles in optimising system performance and wellbeing across all ages and capabilities.		
1.2 Demonstrates ability to enhance health, safety, comfort, quality of life, attitudes, motivation, usability, effectiveness and efficiency.		
1.3 Demonstrates ability to identify potential and existing high risk tasks, activities and environments.		
2. Ergonomics/Human Factors (E/HF) theory and practice		
2.1 Understands theoretical and practice bases for analysis of human interactions.		
2.1a Demonstrates use of E/HF theories, methods and tools for analysis of systems (including process), tasks, workload (physical and mental) including mental models, communication and anthropometry.		
2.2 Understands the theoretical and practice bases for (re)design of human interfaces (physical and mental).		
2.2a Understands the influence of such factors as a person's body size, skill, cognitive abilities, age, sensory capacity, general health and experience.		
2.2b Demonstrates ability to integrate E/HF principles and concepts into systems, interface and product design including requirements development and validation.		
2.2c Evaluates user needs for safety, efficiency, reliability, ease of use.		
2.2d Determines the match and the interaction between human characteristics, abilities, capacities and motivations, and the system(s), organisation, planned or existing environment, products used, equipment, work systems, machines and tasks.		

2.2e Understands the management of E/HF risks, including priorities and mitigations; potential benefits and costs of E/HF solutions; short and long term goals relevant to defined problems.		
2.2f Can apply relevant legislation, codes of practice, standards (government and industry).		
2.2g Determines whether the interface or interaction is amenable to E/HF intervention.		
2.3 Understands the theoretical and practice bases for data collection and analysis relating to E/HF.		
2.3a Understands the type of quantitative and qualitative data required for E/HF appraisal and design; selects and validates the proposed collection/analysis methods and tools.		
2.3b Understands and can apply the basics of experimental design and statistics.		
2.3c Understands and can apply the basics of qualitative study design and analysis including knowledge elicitation, interviews, document analysis, and observation.		
2.3d Demonstrates ability to seek and obtain relevant ethical approval for E/HF data collection and analysis.		
3. Human capabilities and limitations		
3.1 Understands the theoretical and practice bases for E/HF relating to physical capabilities and limitations.		
3.1a Demonstrates a working knowledge of anatomy, functional anatomy, anthropometry, physiology, pathophysiology, and environmental sciences as they apply to E/HF practice.		
3.1b Can apply knowledge of biomechanics, anthropometry, motor control, energy, forces applied as they relate to stresses and strains produced in the human body.		
3.1c Understands the effects of the environment (including acoustic, thermal, visual, vibration) and individual sensory response (sight, hearing, touch, taste, smell) on human health and performance.		
3.2 Understands the theoretical and practice bases for E/HF relating to psychological and social capabilities and limitations.		
3.2a Understands theoretical concepts and principles of social and psychological sciences relevant to E/HF.		
3.2b Recognises psychological characteristics and responses and how these affect health, human performance, attitudes, perception, stress, human reliability and error.		
3.2c Can apply knowledge of human information processing (including situation awareness, memory,		

decision making).		
3.2d Demonstrates a knowledge of systems theory including socio-technical systems and culture (e.g. organisational and safety culture).		
3.2e Understands the principles of group functioning, motivation, engagement and participation.		
3.2f Understands the principles of organisational management including individual, group (team) and organisational change techniques, including training and work structuring.		
4. Design and development of systems including products, tasks, jobs, organisations and environments		
4.1 Understands the theoretical and practice bases for E/HF relating to design and development of systems.		
4.1a Understands basic engineering (technology) concepts, with a focus on design solutions and contextual operation of technologies.		
4.1b Demonstrates an understanding of the principles of E/HF and human-machine interface technology including hardware, software, internet and network based technologies and social media.		
4.1c Understands the requirements for safety systems, the concepts of risk, risk assessment and risk management.		
4.2 Utilises a systems approach to the human-aspects of the specification, design, assessment and acceptance of products, services and human factors interventions.		
4.2a Applies E/HF principles to design of systems (and services), products, job aids, controls, displays, instrumentation and other aspects of tasks and activities.		
4.2b Understands the iterative nature of design development including simulation and computer modelling.		
4.2c Considers the options for achieving a balance between human and technological, task and environment to achieve an optimal system.		
4.2d Selects appropriate forms of E/HF solutions and recommendations based on theoretical knowledge and practice, and develops a comprehensive, integrated and prioritised approach.		
5. Professional skills and implementation		
5.1 Understands role of E/HF in change strategies.		
5.1a Provides design specifications and guidelines for technological, organisational and E/HF design or redesign of the work process, the activity and the environment which match the findings of E/HF analysis.		

5.1b Develops strategies to introduce a new design to achieve a healthy and safe human interaction.		
5.1c Recognises the safety hierarchy, application of primary and secondary controls and the order of introducing controls.		
5.1d Recommends personnel selection where appropriate as part of a balanced solution to the defined problem.		
5.1e Interacts effectively with clients at all levels of personnel.		
5.2 Develops appropriate recommendations for education and training in relation to E/HF principles.		
5.2a Understands current concepts of education and training relevant to application of E/HF principles.		
5.2b Implements effective education and training programmes relevant to understanding the introduction of E/HF measures.		
5.3 Supervises the application and evaluation of an E/HF plan.		
5.3a Implements appropriate design or modifications.		
5.3b Incorporates methods to allow continuous improvement.		
5.3c Selects appropriate criteria for evaluation.		
5.3d Produces clear, concise, accurate and meaningful records and reports.		
5.4 Shows a commitment to ethical practice and high standards of performance and acts in accordance with legal requirements.		
5.4a Behaves in a manner consistent with accepted codes and standards of professional behaviour.		
5.4b Recognises the scope of personal ability for E/HF analysis and when it is necessary to consult and collaborate with different professional experts.		
5.4c Demonstrates commitment to ongoing professional development by maintaining skill set and an awareness of wider E/HF practice.		

Table 1: Proficiency Scale

Score	*Proficiency Level*	*Description*
0	**Unaware**	You have no knowledge or understanding of this competency.
1	**Aware**	*For a particular competency:* You have knowledge or an understanding of basic techniques and concepts. *Your professional development:* Your focus is on learning more.
2	**Novice**	*For a particular competency:* You have limited experience gained in a classroom and/or as a trainee on-the-job. You are expected to need help with this competency. Your focus is on developing through on-the-job experience. You can understand and discuss terminology, concepts, principles and issues, and can use reference and resource materials related to this competency. *Your professional development:* Your CPD shows responsibility for, and awareness of, your own learning and professional development.
3	**Intermediate**	*For a particular competency:* You can successfully complete tasks in this competency independently, though you may need help from an expert. Your focus is on applying and enhancing your knowledge or skill. You understand and can discuss the application and implications of changes to processes, policies, and procedures in this area. *Generally:* You show awareness of how even a narrowly focused task can draw upon knowledge crossing a variety of different knowledge areas. You can demonstrate the appropriate use of different techniques and methods in the application of human factors research or consultation. *Your professional development:* Your CPD demonstrates learning outside of your immediate job requirements. Your forward plan shows how you will learn new skills to complement your career path such as management, business administration, marketing, personnel management.
4	**Advanced**	*For a particular competency:* You can perform the actions associated with this competency without assistance. You are recognised within your organisation as the go-to person regarding this competency. Your focus is on broad organisational/professional issues. You participate in senior level discussions regarding this competency. You assist in the development of reference and resource materials in this competency, and are capable of training others. *Generally:* You have responsibility for integrating and delivering programmes of work and meeting deadlines and milestones. You mark, grade and review the work of others in the context of project delivery. You bring together disparate theories and techniques or the application of novel solutions to complex problems. You demonstrate use and application of multiple tools and techniques to more complex projects that require human factors integration. You present the output of work and research undertaken. *Your professional development:* Your CPD shows awareness of knowledge and skill fade in areas not being practised due to career specialism and provides a plan to compensate. You show consideration of the development of your management and administrative skills so you have greater autonomy and authority over project delivery.
5	**Expert**	*For a particular competency:* You are known as an expert or recognised authority in this area. You can provide guidance, troubleshoot and answer

		questions related to this area of expertise. Your focus is strategic. You have demonstrated consistent excellence in applying this competency across multiple projects and/or organisations. You are considered the go-to person in this area within and outside your organisations. You create new applications for and/or lead the development of reference and resource materials for this competency. *Generally:* You contribute to the development and success of the discipline possibly through voluntary activities within the CIEHF. You interact with other strategic thinkers within your community of expertise. *Your professional development:* Your CPD demonstrates communication of learning, teaching or mentoring of others.

Table adapted from NIH Competencies Proficiency Scale https://hr.od.nih.gov/workingatnih/competencies/proficiencyscale.htm

Appendix D CIEHF CPD Activity logging system

Current CPD Activity

Add CPD entry

To enter an activity, click the **Add CPD entry** button and select an activity from the drop-down list.
In order to gain or maintain Chartered status, Registered Members and Fellows need to record a minimum of 5 activities by year end. The description should clearly demonstrate reflection and should detail what you did, what you learnt and how it has helped your professional development and **the activity date must be for 2020**.

Export Current CPD

Activity Date	Activity	Description (what I did, what I learnt, how it's helped me)	Edit	Delete
There are no records.				

Forward Plan

Add Forward Plan entry

To enter a Forward Plan, click the **Add Forward Plan entry** button and select an activity from the drop-down list.
In order to gain or maintain Chartered status, Registered Members and Fellows need to record, by year end, a minimum of 3 Forward Plan activities for the following year. The description should clearly show what you aim to do and how it will benefit you and **the planned date must be for 2021**.

Export Forward Plan

Planned Date	Activity	Description (what I aim to do, how it will help me)	Edit	Delete
There are no records.				

Historical CPD Activity

Add Historical CPD entry

Here you will find a record of all recorded CPD activity for previous years. To enter an activity for a year previous to the current year, click the **Add Historical CPD entry** button and select an activity from the drop-down list. **Please ensure the activity date year is previous to the current year**.