IRSE Guidance:
Maintaining and developing your professional competence (Continuing Professional Development (CPD))

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1. Maintaining and developing your professional competence

Maintaining and developing your professional competence keeps you up-to-date and competent in the work you do: affirming what you do well, addressing areas needing improvement and exploring new knowledge, skills and behaviours needed to remain in your current role or move onto another role. It allows you to maximise your potential for lifetime employability in your professional engineering discipline; it shows that you are committed to maintaining high levels of professional competence by continually refreshing and improving your knowledge, skills and understanding.

The IRSE, other professional organisations and employers refer to this maintenance and development of your professional competence as “Continuing Professional Development (CPD)” and is also known as “Professional Development (PD)”. It is appropriate for all professional engineers, wherever they live or work in the world.

Continuing Professional Development (CPD) is the systematic acquisition of knowledge and skills, and the development of personal qualities, to maintain and enhance professional competence.¹

To acquire knowledge and skills and develop your personal qualities, you plan, undertake, record and reflect on appropriate activities, normally a variety of types which can include, but not be limited to, attending events and seminars, learning on your own or through formal academic studies, attending formal training, taking part in voluntary work and doing work experience.

Professional engineers cannot rely on their employers to identify and satisfy all their development and career needs. People change jobs, career paths, types of employment and employers frequently, technology is constantly advancing and IRSE members need to take ownership of their career and the continuing maintenance and development of their knowledge and skills.

This guidance document explains why maintaining and developing your professional competence (CPD) is important to you as an individual and how best to approach it. If you have any questions, our CPD team are happy to offer advice and can be contacted on cpd@irse.org.

¹ UK-SPEC version 3, Engineering Council www.engc.org.uk
2. Demonstration of Commitment

For IRSE members, commitment to maintaining and developing your professional competence (CPD) is shown through the maintenance of an up-to-date professional competence record and working with a full understanding of the IRSE Code of Professional Conduct².

As part of IRSE’s Code of Conduct, all members of the IRSE are expected to keep abreast of new developments in science and engineering relevant to their field of professional activity, and to encourage those working under their supervision to do likewise. The IRSE CPD Policy³ confirms this.

If you are a professional engineer registered through the UK’s Engineering Council, that is an Engineering Technician (EngTech), Incorporated Engineer (IEng) or Chartered Engineer (CEng), you have also agreed to abide with the Engineering Council’s standards and principles, including their CPD Code of Practice⁴. If you are an EngTech, IEng or CEng registered through the IRSE, your CPD records may be requested for audit by the IRSE. From 2020 onwards, if you do not engage with this audit, you may be removed from the register of engineers and technicians and therefore would no longer be an Engineering Technician, Incorporated Engineer or Chartered Engineer.

Your professional competence is your own. To maintain and/or develop it is your responsibility, and your investment in your future role(s) / career. Planning, doing, recording and reflecting on development activities can be done in work time and in your own leisure time.

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² IRSE Code of Conduct June 2018
³ IRSE CPD Policy issue 3 February 2018
3. Benefits of maintaining and developing your professional competence (CPD)

There are many benefits to you of taking control of your career and your professional competence. These include:

- Having a fulfilling and rewarding career
- Recognising opportunities for career progression
- Being more aware of trends and directions in engineering and society
- Becoming more effective in the workplace and beyond
- Being better able to help, influence and lead others by example
- Increasing confidence in your own future employability
- Being more aware of your own capabilities and limitations
- Being able to adapt and succeed when change happens; in processes, organisations and technology
- Achieving your career and/or academic potential

By taking a structured approach to maintaining and developing your professional competence (CPD), you will be able to demonstrate your continuing commitment to your career and profession and develop the good practice of regularly reviewing your development needs and ensuring you undertake appropriate learning activities to help address them.

Maintaining and developing your professional competence (CPD) is appropriate for all professional engineers no matter what stage of career development you are at, for example:

- If you are at the beginning of your career, your development may initially concentrate on developing your technical knowledge;
- If you are later in your career, you may need to keep up to date with technical knowledge and standards, which may require you to refresh your knowledge, or gain new skills and experience, for example management or financial;
- If you are on a career break, you may need to refresh your knowledge, skills and experience prior to your return to work, for example ensuring that you are aware of recent standard and legislation changes;
- If you are not planning any major career changes, you still need to keep up-to-date with your technical knowledge, standards and relevant legislation for you to remain competent for your role.
- If you are considering retirement in the near future, you may be considering working as a consultant, in which case you still need to maintain and develop the knowledge which you are planning to sell and acquire new knowledge such as basic accounting for you to ensure that you are paid correctly for your work.
4. A Partnership Approach

The prime responsibility for maintaining and developing your professional competence (CPD) lies with each individual.

The IRSE recognises that effective maintenance and development of professional competence (CPD) can be a result of a partnership between our members, their employers, the IRSE and others, including training providers and other professional bodies.

It is recommended that CPD is planned and implemented in partnership with an employer, preferably as part of your normal review or appraisal cycle, but it is acknowledged that you may not want to share all of your plans and aspirations with your employer, as it might not fit their current objectives or requirements of you.

Likewise your employer may not wish to or be able to support you in all your planned CPD activities, for organisational, financial or other reasons.
5. The CPD Cycle
Everyone’s professional development is unique as it must meet your needs and aspirations over a period of time. The process for determining what development is needed is, however, is common and many members will be familiar with the Plan – Do – Review cycle as show below.
5.1. Planning

5.1.1. Reviewing your current situation

To get started you will need to think about your future aspirations and career path. Ask yourself:

Where am I now? Where do I want to be, what do I want to do? How might I get there?

Carry out an honest self-appraisal of your current expertise and potential areas for improvement. Think about your strengths, weaknesses and the future challenges and opportunities that might arise.

Consider whether there is someone you can talk to who could help you draw up your plans; if you have a mentor, a trusted manager or colleague, they may be able to help. Review your job description and the description for the role you aspire to next and/or sometime in the future, use notes from recent appraisals and other formal feedback from your day-to-day work.

Don’t worry if you are unsure where your career journey will take you – consider your short and medium term future, in terms of companies, types of work and location. Think about the financial and time implications of your plans within your work and home environments.

There are some hints and tips in Appendix A to assist you in this stage.

5.1.2. Identifying Your Objectives

Once you have reviewed your current status and considered where you plan to go, the next step is to identify objectives to help you get there. You should consider:

- The immediate requirements of your job, this could include
  - Demonstrating competence through gaining / maintaining IRSE licence(s)
  - Gaining specific knowledge, experience and/or skills
  - Maintaining technical knowledge
- Business and career aspirations, this could include
  - Gaining membership of IRSE and/or other appropriate professional institutions as a suitable grade for your experience
  - Demonstrating knowledge of wide signalling, communications and traffic management systems through passing IRSE professional examination
  - Promotion to specific role, such as managing people, having budget responsibilities or being technical lead
  - Gaining professional recognition for your knowledge, for example by being asked to speak at technical presentations or gaining professional registration through UK Engineering Council or appropriate equivalent
- Targets for self-improvement, this could include
  - Improving communication skills, such as presenting / speaking in meetings, writing reports, learning / improving another language
- Widening knowledge of engineering and/or management, family and personal considerations, these could include
Geographical considerations – where can you work, study, go to events / lectures
Time considerations – when can you fit attending events, study, or reading into your normal working week
Family considerations – what are your responsibilities at home / with family and/or friends and how much time and energy does this take

You may wish to consider what your personal drivers and values are. These may give you further understanding of what achievement and success will look like for you.

Although your medium and long term objectives should be considered, concentration should be given to those objectives that can be achieved in the relatively short term – probably the next 12 months. These short-term objectives are likely to be much more detailed than any longer-term ones.

Some people prefer to take opportunities as they arise rather than have fixed planned objectives; if you are one of those people, then take time to review and potentially change your plan and objectives when each of these new opportunities appear.

Make your short-term objectives SMART, i.e.

Specific
• state exactly what the aim is

Measurable
• be able to clearly identify when the goal is achieved

Achievable
• make sure there is a reasonable chance of your success

Realistic
• select goals that are realistic yet challenging

Timed
• set a realistic completion date

Do be realistic! It is better to set some useful, achievable objectives and exceed them than to set impossible goals. If you have a long-term aspiration, then set smaller ‘stepping stone’ objectives along the way otherwise your long-term goal may seem like an impossible dream.
5.1.3. Determine the skills and competences you need
Competence is the ability to carry out a task to an effective standard. It comprises of:

\[ C = S + E + K + A \]

For you to be fully effective in the workplace, not only do you need to have the ability but also the attitude to work, in particular in safety critical and safety related works.

Consider your development in the broadest sense – not just your technical skills. For example, wherever you are in your career, it is likely that interpersonal skills are useful for you to interact with your colleagues and others around you.

The IET identify four types of competence required for activities associated with safety-related systems, detailed below:

<table>
<thead>
<tr>
<th>Technical skills, for example</th>
<th>Behavioural skills, for example</th>
<th>Underpinning knowledge, for example</th>
<th>Underpinning understanding, for example</th>
</tr>
</thead>
<tbody>
<tr>
<td>• hazard analysis</td>
<td>• personal integrity</td>
<td>• person performing hazard</td>
<td>• it is unlikely that somebody could</td>
</tr>
<tr>
<td>• report writing</td>
<td>• interpersonal skills</td>
<td>identification must have knowledge</td>
<td>establish risk tolerability levels for</td>
</tr>
<tr>
<td></td>
<td>• problem solving</td>
<td>of the particular application</td>
<td>a particular problem without an</td>
</tr>
<tr>
<td></td>
<td>• attention to detail</td>
<td></td>
<td>understanding of the principles of</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>safety and risk</td>
</tr>
</tbody>
</table>

If you are looking at developing into a new role, look at the competencies required. Obtaining relevant job specifications, descriptions or adverts may prove useful in understanding what competences you may need. Similarly, if your aim is to perform better in a particular aspect of your current role this will allow identification of which aspects of knowledge or skills needs to be worked on.

Appendix B provides examples of several different skills areas you might want to consider as part of your development.

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5 UK-SPEC version 3, Engineering Council [www.engc.org.uk](http://www.engc.org.uk)
6 Developing and maintaining staff competence comparisons with rail industry experience, John P Baker and Paul Durrant
7 Competence Criteria for Safety-Related System Practitioners, IET in collaboration with HSE and BCS, 2006
Examples of where to look for competence standards are:

- The generic UK Engineering Council competence standards for EngTech, IEng and CEng can be downloaded from the Engineering Council website [https://www.engc.org.uk/standards-guidance/standards/uk-spec/]
- The specific S&T Engineering standards for IRSE licenses are given in the appropriate license and can be downloaded from the IRSE website [www.irse.org]
- Other technical institutions and professional bodies such as Engineers Australia\(^8\), Engineering Council of India\(^9\), Institution of Engineers Singapore\(^10\) and Engineering Council of South Africa\(^11\)
- Generic competence statements for activities associated with safety-related systems are within IET guidance\(^12\).

5.1.4. Produce a Development Action Plan

For CPD to be effective it should be part of a structured plan and members are encouraged to produce a Development Action Plan.

Your action plan should include as a minimum:

- Title of your plan
- Objectives
- Initial ideas for ways of achieving the objectives
- Start date or proposed start date
- Target completion date

You should also consider:

- Including information on any resources required, for example courses, study groups, mentor, bursary, reading materials
- Regularly reviewing your plan to take account of changing circumstances
- How you record your plan, electronically or on paper

You may have several plans running concurrently covering different areas of development, or plans you wish to share with your employer and some that you may not.

The method to achieving your plans can take many forms; it’s not just attending a course, it can include self-study (such as studying for IRSE examination), attending technical seminars and events, gaining experience at the workplace, appropriate voluntary work and academic study. Appendix D provides examples of types of CPD activity. It is likely that your plan(s) will include a range of different activities.

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\(^8\) [www.engineersaustralia.org.au](http://www.engineersaustralia.org.au)
\(^9\) [http://www.ecindia.org](http://www.ecindia.org)
\(^10\) [www.ies.org.sg](http://www.ies.org.sg)
\(^11\) [www.ecsa.co.za](http://www.ecsa.co.za)
\(^12\) Competence Criteria for Safety-Related System Practitioners, IET in collaboration with HSE and BCS, 2006
5.2. Doing

5.2.1. Do your CPD activities

It is a common misperception that CPD is only formal training provided by an employer. In fact, there are seven categories which your CPD activities will fit into at least one of:

- Events
- Seminars
- Self-Learning
- Academic Study
- Formal Training
- Voluntary Work
- Work Experience

Examples of how activities fall into these categories are shown in Appendix D.
5.3. Recording

5.3.1. Record your CPD activities – Your ‘evidence’ of CPD

Whilst you should keep records of what you have done, it is more important to record what you have learned after reflection on your activity. Producing a record helps to organise thoughts and experiences; records don’t have to be complicated but should cover:

- Date and duration of activity
- Type of activity (training course, on job learning etc.)
- Evidence title and a brief description of the activity
- Any additional information about the activity, such as speaker name, name of training provider, author of book
- Reflection (sometimes referred to as lessons learnt and benefits gained), see 0
- Follow up (optional) what you will do differently as a result / how you will apply what you’ve learnt, see 0.

There are many processes and systems available for recording CPD; IRSE recommends the use of the online tool Mycareerpath 13 but recognises that members may wish to use other systems of recording, see 5.3.2 and 5.3.3.

When recording an ongoing activity, such as committee membership, split this into separate CPD events for recording purpose and link to your main objective.

5.3.2. Mycareerpath

Mycareerpath is an online professional development tool which is free of charge to all IRSE members. It has been developed jointly by the Engineering Council, IRSE and other Institutions for members to plan and record their CPD. It has the facility to upload files including pictures as evidence of CPD activity and allows you to send plans, records and reports to a third party if you wish them to be reviewed, for example your mentor or manager.

Access to Mycareerpath is via the IRSE website or directly through https://mycareerpath.irse.org/login.aspx.

Guidance on using Mycareerpath can be found [link]

However for those not wishing to use an electronic online system, simple forms based on Mycareerpath input fields are available which can be downloaded from the IRSE website14 and are shown in Appendix E and Appendix F.

5.3.3. Other systems

Members can use other paper or electronic CPD recording systems, including their employers’ appraisal / training systems, or a combination of these, but note that the minimum requirements as stated in section 0 should be included, especially reflection which is often not included in these other systems.

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13 https://mycareerpath.irse.org/login.aspx
14 At http://www.irse.org/membership/public/professionaldevelopment.aspx
5.4. Reflection

Most important is your reflection on what you have learnt and how you will apply any new skills, where appropriate. The aim is to recognise and record the benefits and change in experience and abilities.

It is acknowledged, however, not all CPD activities are as useful as you may have expected them to be. This could be because you have developed more quickly than expected when a course was booked for you, or that the article you read was not at your level, or it was a mandated course by your employer which you have to pass at regular intervals, or another reason. These are still useful reflections to record, as they demonstrate your awareness of your own knowledge and abilities.

Examples are included in Appendix H.
5.5. Reviewing

5.5.1. Review your Development Action Plan
Your plan should be reviewed regularly as it serves to demonstrate how your original objectives have been met and record what you are going to do with your new-found knowledge and skills.

5.5.2. Consider next stages and new objectives
When reviewing your Development Action Plan, objectives should be re-evaluated and modified as necessary or a new action plan with further objectives developed.

It is very likely that your Development Action Plan will alter during the course of your career, with changes to personal and professional circumstances, interests and technology.

It is recommended that you review your Development Action Plan during your employers’ appraisal process, however this is not mandatory and may not be appropriate if your aspirations are not aligned with your employer’s.

Don’t forget to celebrate your success and achievements!
6. How much CPD is required

The IRSE Council does not mandate the amount of time which members take doing CPD. Members are expected to define their own requirements, through determining and monitoring their own professional engineering competence.

For example, you should reasonably plan to undertake more CPD when you are working towards membership, looking to upgrade your membership and/or registration through UK Engineering Council and equivalents compared to later in your career when you should complete enough CPD to both maintain and develop the professional knowledge, skills and competence that you need for the role you are undertaking.

Your anticipated commitment to your CPD should be reflected in your development plan. It is acknowledged that your plans and commitment could change between reviewing opportunities. It is also recognised that not all CPD activities are planned – you are encouraged to take opportunities as they arise, then record and reflect on them.
7. Further Information and Examples

Resources available from the IRSE via the www.irse.org website include:

- Seminars, papers, events
- Bursaries for young IRSE members to attend some international seminars and conferences
- IRSE Exam material and study groups
- IRSE mentors (only available for IRSE members)
- Past Presidential Series papers, International Technical Committee papers and other technical papers - some technical papers are recorded and are available on the website
- Text books
- Mycareerpath, IRSE’s preferred method of recording CPD electronically and Word templates for CPD planning and recording
- CPD Map to Success, included in Appendix G, and other CPD information.

If you have any questions our CPD team are happy to offer advice and can be contacted on cpd@irse.org.
Appendix A. Examples of reviewing your current situation

Where am I now?
- Just started at bottom of the career ladder
- Middle manager
- Technical expert
- Experienced but new to rail industry

Where do I want to be / what do I want to do?
- In my boss’ job
- I don’t want to change jobs
- New company and/or new location
- Be the person people come to for information on xxx
- Be earning good money

How might I get there?
- Find out what skills are needed for boss’ job
- Become MIRSE
- Present technical papers
- Pass the IRSE professional exam

What do you do well? What are your skills and interests?

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expert knowledge of testing level crossings</td>
<td>Report writing</td>
</tr>
<tr>
<td>Leading teams</td>
<td>Easily side-tracked by technical problems</td>
</tr>
<tr>
<td>Calm when working under time pressure</td>
<td>Technical knowledge of xxxx</td>
</tr>
<tr>
<td>Reliable</td>
<td>Speaking in public</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sam agreed to mentor me for interlocking work</td>
<td>Time – already working nights, bank holidays and</td>
</tr>
<tr>
<td>IRSE exam study group which I can dial into</td>
<td>weekends on the project</td>
</tr>
<tr>
<td>Employer has depot in xx area, where I’d like</td>
<td>No promotion opportunities in current organisation</td>
</tr>
<tr>
<td>to move to</td>
<td>without taking on line / project management</td>
</tr>
</tbody>
</table>

What possibilities are open to you? Who can help you? What resources do you have access to?

What might cause difficulties? What might restrict you?
Appendix B. Example Areas for Development

CPD isn’t just about your technical or engineering skills and knowledge. Whilst the list below is not exhaustive it provides some guidance about the different areas of development you might wish to consider, split into UK Engineering Council’s generic areas of competence and commitment:\(^{15}\):

<table>
<thead>
<tr>
<th>A Knowledge and Understanding:</th>
<th>B Design and Development of processes, systems, services and products:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Equipment, processes and standards</td>
<td>• Software engineering techniques</td>
</tr>
<tr>
<td>• Engineering or technical principles</td>
<td>• Intellectual property rights</td>
</tr>
<tr>
<td>• BIM and other new techniques</td>
<td>• Learning from incidents and accidents, e.g. root cause analysis,</td>
</tr>
<tr>
<td>• Research and development into new technologies</td>
<td>evidence gathering and applying relevant lessons learnt</td>
</tr>
<tr>
<td></td>
<td>A support function, e.g. bidding, procurement, logistics or marketing</td>
</tr>
<tr>
<td></td>
<td>• Systems thinking, understanding the whole life of a product or project</td>
</tr>
<tr>
<td></td>
<td>• Specifications writing</td>
</tr>
<tr>
<td></td>
<td>• Requirements definition</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C Responsibility, Leadership and Management</th>
<th>D Communication and Inter-personal skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Developing business plans</td>
<td>• Communication skills / Presentation skills</td>
</tr>
<tr>
<td>• Leadership skills</td>
<td>• Managing effective meetings</td>
</tr>
<tr>
<td>• Supervising teams</td>
<td>• Languages</td>
</tr>
<tr>
<td>• Team management</td>
<td>• Assertiveness</td>
</tr>
<tr>
<td>• Managing people performance</td>
<td>• Coaching skills</td>
</tr>
<tr>
<td>• Managing equipment performance</td>
<td></td>
</tr>
<tr>
<td>• Procurement – estimates, bids, tenders</td>
<td></td>
</tr>
<tr>
<td>• Managing and reporting on finances</td>
<td></td>
</tr>
<tr>
<td>• Contract management</td>
<td></td>
</tr>
<tr>
<td>• Stress management</td>
<td></td>
</tr>
<tr>
<td>• Negotiating</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Problem solving and decision making</td>
</tr>
<tr>
<td></td>
<td>• Marketing</td>
</tr>
<tr>
<td></td>
<td>• Developing collaborative partnerships</td>
</tr>
<tr>
<td></td>
<td>• Client and customer care/management</td>
</tr>
<tr>
<td></td>
<td>• IT: in house systems or external services; specialist software</td>
</tr>
<tr>
<td></td>
<td>• Planning your, and others’, work and reporting progress</td>
</tr>
<tr>
<td></td>
<td>• Managing change</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E Professional commitment</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Ethics</td>
<td>• Sustainability and environmental issues</td>
</tr>
<tr>
<td>• Public relations</td>
<td>• Health, Safety and Quality</td>
</tr>
<tr>
<td>• Dealing with the media, including social media</td>
<td></td>
</tr>
</tbody>
</table>

\(^{15}\) UK-Spec UK Standard for Professional Engineering Competence, Third edition
## Appendix C. Examples of Objectives

<table>
<thead>
<tr>
<th>CPD Plan Title</th>
<th>CPD Plan Objectives</th>
</tr>
</thead>
</table>
| **Action plan to get xxx promotion**                                         | Planning move to next position (promotion to xxxx role):
|                                                                                | Find out what competencies and experience are required for that grade through talking to manager and looking at role profile.
|                                                                                | Then revisit this action plan to look at next steps – how to gain experience & knowledge required.                                                     |
| **Action plan to be recognised as signalling / telecoms / systems engineer**  | To increase signalling / telecoms / systems knowledge by taking IRSE professional exams.                                                                 |
|                                                                                | Will participate in study group and request place on xx course.                                                                                     |
|                                                                                | Aim to sit modules 3 and 5 in 2019 and modules 1 and 7 in 2020.                                                                                     |
| **Plan to gain more than engineering knowledge to expand my potential career options.** | To get management experience, volunteer to organise xxx seminar with assistance and guidance from other IRSE volunteers.                           |
| **To become more efficient in managing projects**                             | To become more efficient in managing projects through attending in-house training on company project management system, so will be able to understand the principles of a successful project. |
| **To improve my communication skills**                                       | To improve my communication skills, utilise in-house company e-training and use this knowledge to write an article for IRSE news.                   |
## Appendix D. Types of CPD

CPD can take many forms; the following list is not exhaustive but provides some examples of types of CPD activity:

CPD activities must be appropriate to your development plan.

### At work:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using your existing knowledge and increasing your experience by being in new situations / projects</td>
<td>Work experience</td>
</tr>
<tr>
<td>Increasing or refreshing your skill set and demonstrating your personal responsibilities by volunteering to take on additional duties such as supervising others</td>
<td>Work experience</td>
</tr>
<tr>
<td>Increasing your understanding of your work and project through peer discussion and participation in meetings</td>
<td>Work experience</td>
</tr>
<tr>
<td>Sharing your knowledge of your company, discipline or industry by acting as a buddy, coach or mentor</td>
<td>Work experience and/or Self-learning</td>
</tr>
<tr>
<td>Learning or practicing your communication skills by writing reports or preparing and delivering presentations to colleagues or other professionals</td>
<td>Work experience</td>
</tr>
<tr>
<td>Increasing your understanding of your company or industry or widening your domain knowledge through work shadowing</td>
<td>Work experience and/or Self-learning</td>
</tr>
<tr>
<td>Sharing knowledge and expertise with others in discussions and meetings</td>
<td>Work experience</td>
</tr>
<tr>
<td>Gaining leadership and communication skills as well as sharing knowledge and expertise with others in formal sessions such as ‘lunch and learn’</td>
<td>Work experience</td>
</tr>
<tr>
<td>Increasing or refreshing your knowledge by reading up in technical papers, journals and specifications on projects, techniques or equipment being used</td>
<td>Self-learning</td>
</tr>
<tr>
<td>Increasing your knowledge and understanding of your industry through secondments into different disciplines and / or to another office / area</td>
<td>Work experience and/or Self-learning</td>
</tr>
<tr>
<td>Increasing your knowledge by attending formal training courses, seminars and workshops</td>
<td>Formal training</td>
</tr>
<tr>
<td>Widening your network, practice your communication skills and learn other skills like negotiation by participating in a work forum, for example being your local safety or sustainability representative or ‘champion’</td>
<td>Work experience and/or Self-learning</td>
</tr>
</tbody>
</table>

### Away from work:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increasing your technical knowledge and widening your network by attending IRSE and similar conferences and events</td>
<td>Events or seminars</td>
</tr>
<tr>
<td>Widening your network and increasing your knowledge of equipment and systems available by attending trade exhibitions</td>
<td>Events or seminars</td>
</tr>
<tr>
<td>Increasing your technical knowledge through structured reading, through articles in IRSE NEWS and other technical journals, text books and case studies</td>
<td>Self-learning</td>
</tr>
<tr>
<td>Increasing your technical knowledge by attending IRSE local, national and international meetings and activities and those of other engineering professional institutions</td>
<td>Events</td>
</tr>
<tr>
<td>Gaining leadership, communication and planning skills which you might not get through work by being on IRSE local or national committee or assisting in organising events and seminars</td>
<td>Voluntary work</td>
</tr>
<tr>
<td>Increasing your technical knowledge by researching into technical detail</td>
<td>Self-learning</td>
</tr>
<tr>
<td>Increasing your knowledge by undertaking appropriate qualifications, through attending lectures, distance or e-learning</td>
<td>Academic study</td>
</tr>
<tr>
<td>Increasing your technical knowledge by studying and practicing for one or more module of the IRSE Exam</td>
<td>Self-learning</td>
</tr>
<tr>
<td>Increasing and demonstrating your technical knowledge by preparing for and successfully passing the IRSE Exam or equivalent</td>
<td>Self-learning</td>
</tr>
<tr>
<td>Increasing your knowledge and communication skills by learning or refreshing a language, through formal or self-learning</td>
<td>Formal training or Self-learning</td>
</tr>
</tbody>
</table>

**Undertaking other activities:**

| Refreshing your technical knowledge as well as gaining leadership and communication skills which you might not get through work by promoting engineering in schools or colleges or teaching or presenting at organised events such as IRSE local meetings or IRSE exam events | Voluntary work |
| Refreshing and sharing your technical knowledge through gaining responsibility experience and communication skills which you might not get through work by volunteering at a local preserved or miniature railway | Voluntary work |
| Gaining leadership and communication skills which you might not get through work and demonstrating your professionalism by being in a responsible position in a charity / organisation | Voluntary work |
# Appendix E. IRSE CPD Development Action Plan Template

<table>
<thead>
<tr>
<th>Name</th>
<th>Membership/Licence No</th>
<th>Period covered by plan</th>
<th>Action Plan Title</th>
<th>Objectives</th>
<th>Planned start date</th>
<th>Target completion date</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td>If you are working towards Engineering Council registration, please state which level and competence(s) the objectives relate to</td>
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</table>

If appropriate comments by a line manager or other reviewer

Name, signature & date
## Appendix F. IRSE Record of CPD Activities Template

### Record of CPD Activities

<table>
<thead>
<tr>
<th>Name</th>
<th>Membership/Licence No</th>
<th>Page No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity Title</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category</th>
<th>From</th>
<th>To</th>
<th>CPD hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lessons learnt</td>
<td></td>
<td>Benefits gained</td>
<td></td>
</tr>
</tbody>
</table>

Follow-up

- Title and location of any supporting evidence

If you are working towards Engineering Council registration please state which level and competence(s) this activity relates to

- EngTech  IEng  CEng*
  
  *Circle as appropriate

If appropriate comments by a line manager or other reviewer

Name, signature & date
Appendix G. IRSE CPD Map to Success

1. Current Status
   - Celebrate
   - Change of Plan

2. Where Do You Want To Go
   - SWOT
   - SWOT
   - SWOT
   - SWOT

3. Plan
   - How
   - What
   - Resources
   - When
   - Events
   - Self-Learning
   - Academic Study
   - Formal Training
   - Voluntary Work
   - Work Experience

4. Do
   - Key
     - Interchange Station (Stage)
     - Station (Stage)
     - Minor Station (Consideration)
     - Development Action
     - Plan Line
     - Continuous Professional Development Line

5. Record
   - What
   - Type
   - Amount
   - Type depends on your Goal

6. Review
   - Reflect
   - What to do with this knowledge
   - What Learnt
   - Where, Who...
   - When
   - Mycareerpath, Logbook, Other Systems
   - How
   - Long
   - What
   - Type

START HERE
**1. Current Status**
Identifying where you are – your skills, knowledge and experience

**Achievements and Feedback:**
- For example annual appraisals; formal feedback; courses; qualifications; opinions of colleagues and others; IRSE licence

**Strengths:**
- What do you do well? What are your interests?
- For example detailed understanding of xx; keeping calm under pressure

**Weaknesses:**
- What don’t you do well / don’t enjoy?
- For example writing technical reports; public speaking

**Opportunities:**
- Who can help you? For example mentors; IRSE bursaries; free courses

**Threats:**
- What could stop you or cause difficulties?
- For example limited budget; no promotion opportunities

**2. Where Do You Want To Go**
Consider what your Goals might be...

**Values & Drivers:**
Values might include hard work; risk taking; fun; freedom. Drivers might include job security; high standards; industry leader

**Goals:**
To be Simple, Measurable, Achievable and Timed.
- Short term goals could be going on a specific course; passing IRSE exams.
- Long term goals could be becoming industry leader; financial security; career change

**3. Plan**
Plan what you are going to do to achieve your Goal(s)

**How:**
For example go on a xx course; volunteer to chair a meeting; go to a technical lecture

**What:**
For example promotion; retire & become part time / do two IRSE exam modules

**When:**
For example in 2 years; next month; every meeting

**Resources:**
- For example free courses; mentor; buddy manager; IRSE study group; IRSE travel bursary; IRSE Knowledge Information

**4. Do**
Doing your planned (and unplanned) CPD Activities
[Amount and types depend on your Goals and where you are in your career]

**Voluntary Work:**
- For example running IRSE local section events or study group; being a mentor; talking about engineering in schools; having responsible post in local organisation

**Work Experience:**
- In your company or with client or supplier.
- For example shadowing a senior manager; doing a job swap; taking on additional responsibility; being seconded to another location or discipline; return to work days

**Events:**
- In relevant subjects. For example attending / presenting technical papers; attending ‘lunch and learn’ sessions

**Self-Learning:**
- In appropriate subjects. For example reading text books, case studies, IRSE NEWS and other technical journals; studying for IRSE exam; watching TED lectures

**Formal Training:**
- In appropriate subjects. For example manufacturer’s training; online course; formal training on process, equipment or theory

**Academic Study:**
- Of appropriate subject. Gained through attending lectures, distance or e-learning

**5. Record**
Record what you’ve done

IRSE’s preferred method of recording is MyCareerpath, other methods include IRSE licence bigbook; IRSE template; company records; Apps; spreadsheets

- Include What: brief title / description
- What Type: self-learning; event; voluntary work; work experience; formal training; academic study
- How Long was learning (in hours) – Tip: split ongoing CPD into separate events, such as long course or committee meetings
- When: Date
- Where, Who: Any other additional information about the activity, such as who spoke; name of training provider

**6. Reflect**
On your CPD Actions

What did you, or didn’t you learn? For example learnt about xx technology; understand where my discipline sits in railway system; met others on my project; not useful because xx

**7. Review**
Where are you in your journey to your Goal(s)

**What are you going to do with this knowledge?**
- For example arranging ‘lunch and learn’ session; much further towards becoming company expert in xx; more confident to apply for promotion

**8. What Next**
Have you completed your Goal(s)? What about new Goal(s)?

**Change of Plan:** Your goals may have changed due to personal or professional circumstances; changes in interests; changes in technology

**Celebrate your achievements, whether you have achieved your goal yet or not**

End of page

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Appendix H.  Reflections for CPD recording

Your lessons learnt / benefits gained should record an honest reflection on the development activity.

Examples are:

- Introduction to xx. Key areas covered were xxx and yyy.
- Should have read up on xx before workshop.
- Repeat of H&S training which I took last year – nothing new learnt.
- Successful seminar organised and run through team work and efforts of the whole organising committee. Learnt how to plan an event like a mini-project using Project software which I hadn’t used before.
- Although I knew the basics of xx, the course gave me a better understanding of these fundamentals. Had opportunity to network with others from the project.
- Workshop leaders helped me understand xxx.
- Mandatory H&S training required to gain access to Client infrastructure.
- Developed project management and leadership skills. Developed good working relationship with other IRSE volunteers who are on the Client side of my project.
- Now I can use xxx software, I can utilise in yy project. Next level course planned for 6 months, subject to line manager review.
- Practice coaching skills learnt by volunteering to be mentor / buddy.
- Inform my team about xxx at next team meeting.
- Continue to use and practice project management skills by treating my work packages as mini-projects. Have already volunteered to assist in organising next event.