INSTITUTE OF HIGHWAY ENGINEERS

Professional Review 2010

a focus on **'Other routes'**

How we can help you to achieve IEng/CEng

Your options

What you need to do next

How IHE's Professional Review process works

Matching your experience to EC standards

Advice on preparing your review

"Providing professional leadership by developing and sharing knowledge and with standards based on integrity, fairness and quality"

The IHE Guide: 2010

All Routes to registration	Document E1
Chartered Engineer	
The Professional Review	Document CE2
The Chartered Standards	Document CE3

(IEng = IE2 etc and EngTech = ET2)

Go to www.theihe.org – click on 'Membership'

The IHE Guide: 2010

Chartered Engineer

Other Routes to CEng	*Document CE4*
Annex 1	Learning outcomes
Annex 2	Further Learning
Annex 3	Technical Report option

Go to www.theihe.org – click on 'Membership'

The IHE Guide: 2009

Incorporated Engineer

Other Routes to IEng	*Document IE4*
Annex 1	Learning outcomes
Annex 2	Further Learning
Annex 3	FL – 60 credit top up
Annex 4	Technical Report option

Go to www.theihe.org – click on 'Membership'

The IHE Guide: 2010

Review Forms and Guidance

- Advice (*Rough Guide, CPD)*
- Essential Forms (*Application, Proposer*)
- Optional Forms (*Action plans, CPD forms*)
- Additional advice (*H&S, Sustainability*)

Go to www.theihe.org – click on 'Membership'

IHE Support for Reviewers & Mentors

www.theihe.org/protected/mentoring/

- Documents
  - Assessment Forms
- Manual
  - Who does what, Advice
  - Procedures including appeals
  - The review assessment and advice
  - Technician and Individual routes to CEng, IEng
- Forum and Contacts

Your Institute

Who Joins

Your institute

Licensed by Engineering Council

Registers IEngs+EngTechs+CEng

Accredits HNC, HND, degree and MSc courses

(Joint Board of Moderators (JBM) with ICE, IStructE)

Accredits Company training schemes

Awards Professional Certificates for Specialists

Department for Transport · HIGHWAYS · ADEPT

Your Institute

Engineering Council (UK)

- Holds Register of IEng+EngTech+CEng
- Technical Report route similar all institutes

You must join an EC licensed institution

- IHE – registering engineers for >30 years

How to progress

How to progress

- Decide to commit time and energy to getting registration
- Be prepared to invest in your career
- Talk to people who have gone through the process
- Decide to make a personal action plan
- Follow it

How to progress
- what is your starting point?

Your Qualifications?

Your Experience?

Your Responsibilities?

UK SPEC sets the Standard

You need

1. An engineering qualification
2. To prove competence
   - Training and Experience *('Initial Professional Development')*
   - + exercise responsibility
   - + commitment to professionalism
3. To pass a Professional Review

In order to meet Engineering Council standards

Your Qualifications determine your route

Benchmark qualifications

- CEng academic benchmark – BEng + MSc/MEng
- IEng academic benchmark entry level - Degree
- EngTech - NC/NQV3
- Older approved qualifications – still OK
- Equivalent qualifications (incl. Further Learning)

Standard Review

All the rest - **Individual Routes**

Academic Entry: for CEng

MEng in engineering – the benchmark

BEng(Hons) + MSc

BEng(Hons) or BSc in Engineering <2001

Standard Route

Same processes as IEng
Different level of competence

Academic Entry: for IEng

- Degree in engineering – the benchmark
- HND, HNC accredited pre-1999 (in engineering, technology) – still OK
- EC Interim Registration (stage 1)

- Non-accredited engineering HNC, HND awarded by BTEC/Edexcel or SQA
  - Pre-1989 intake which meets old Engineering Council profile
  - Intakes ≥1989 to < 1999 with 8 'H' units, Maths N/H, project

Accepted: GO Standard Route

To confirm your options

For a Career Assessment, send by email:

- CV
- Current responsibilities
- Copy of certificates
- Lists of units or modules
- Any syllabus details or weblink

Top up options

- EC examinations run by City & Guilds
- Academic top-up
- Work-based Further Learning (www.jbm.org.uk)

  (*including 60 credit FL projects for IEng only*)
- Combination of courses and experience

  In order to meet EC knowledge standards

Academic Top ups towards CEng

BEng >2001	MSc *or* Further Learning
BSc is 'cognate' or Engineering	Top up *or* Further learning *or* Technical MSc
HND, HNC Senior IEng	BSc (Eng) + technical MSc Technical MSc
BSc not 'cognate'	Technical Report route

Academic Top ups towards IEng

BSc is 'cognate'	Bath HOT, PgDip, HNC, MSc or Further learning
BA/not 'cognate'	HNC + 30 degree credits or Technical MSc
Post-2001 HNC	Technical MSc or HND + Further Learning for '60 credits'

Further Learning towards CEng

Only if have - recent BEng(Hons) – BSc(Hons) or are senior IEng

Further learning assessed as Masters equivalent

- Complete 'work-based learning' + courses
- Can draw on many schemes and projects
- Compile a Portfolio matched to *Learning Outcomes*
- IHE Assesses as Masters equivalent
  - maybe an interview

Before Professional Review

Further Learning towards IEng

Only if have - HND - or cognate BSc (Hons)

Further learning assessed as degree equivalent

Cross reference to degree *Learning Outcomes*

Same processes as CEng

plus another option:

- two work projects for 60 credits (IE4 Annex 3)

Or,

Technical Report option

in order to meet EC knowledge standards

What does the Review require?

You demonstrate you match EC Standards-

Review Submission

- Professional Development (training and responsible experience) matched to EC

- Presentation and interview on 1/2 recent schemes

Documents CE2, IE2,ET2

IEng/CEng - The Standard Review

- Match Experience Report to 16 ECUK Statement
- Supporting documents
- Work with a mentor
- 1/2 Projects to present at Review
- Submit for assessment
- Present 1/2 Projects at review interview

Documents CE2 IE2

IEng/CEng - The individual Routes

FIRST - Show meet KNOWLEDGE requirements by -
- Further learning (report + possible interview)
- Technical Report (report + interview)

SECOND – The Professional Review
- Match Experience Report to 16 ECUK Statement
- Supporting documents
- Work with a mentor
- 1/2 Projects to present at Review
- Submit for assessment
- Present 1/2 Projects at review interview

Documents CE4 IE4

How Technical Report option differs

Documents IE4 CE4

Same process for IEng and CEng
Different levels of knowledge & competence to prove

Technical Report

Need to prove engineering knowledge acquired by training and experience is equivalent to colleague who followed benchmark (Masters or degree) route through a 'Technical Report'

It is not a general report of work experience or managerial ability – covered in *Experience Report*

Technical Report

It is a technical paper relating "the application of engineering principles to an engineering project"

- the project: how problems were resolved using engineering principles
- the decisions: what you did: the engineering reasoning

Technical Report for IEng

Report must demonstrate to degree level:

1. Underpinning science and maths (fundamentals and your specialism)
2. Engineering analysis
3. Design (non-routine problems, client needs)
4. Awareness in the chosen project of hazards, risk, quality, contracts, social context
5. Engineering practice

Document IE4 Annex1

Technical Report for CEng

Report must demonstrate to Masters level:

1. Transferable skills
2. Underpinning science and maths
3. Engineering analysis
4. Design
5. Economic, social etc context
6. Engineering practice

Document CE4 Annex1

CEng: creativity and innovation; deeper/broader understanding

Technical Report option – CEng & IEng

- Fewer qualifications – longer, more taxing report
- Focus is on one scheme, theme or project
- IHE gives go ahead/approves synopsis of report
- Consult a Mentor regularly

Documents CE4 IE4

Technical Report Route (CEng & IEng)

Join IHE as a Member

Ask IHE for formal advice and assistance

IHE confirms eligibility and extent of Technical Report

Step 1 Submit synopsis – set out project and principles

IHE agrees report coverage and depth

Step 2 Write Technical Report (IHE Mentor or advisor)

Technical Report Option (CEng & IEng)

Your Review Submission

• IHE Application Form for Fellow • List of Contents • CV, Job description • Organisation chart • CPD Plan, Record • 7/10 'CPD Days'	•Technical Report •16 Professional Development Forms •Supporting documents •Project Presentation • Employer Proposer Statement (301) •Original + 4 copies + CD

Technical Report Route (CEng & IEng)

Step 3 Send 1 copy of submission to IHE

IHE appoints two Reviewers and a *Third Reviewer (EC for CEng or IHE for IEng)*

Step 4 You send submission to 3 Reviewers

Reviewers agree can proceed

May ask for more information

You receive Initial Assessment

Step 5 Review arranged

Technical Report option (IEng & CEng)

2 Reviews on same day*

2 IHE Reviewers plus a Third Reviewer

- First, present and discuss your Technical Report *(Demonstrate technical Knowledge)*

BREAK

- Second, the Professional Review focus is on Responsibilities, Management, Role E *(Demonstrate competence and commitment)*

* You can do in 2 stages and 'bank' the Technical Report

Now – Applicants – What will be your Report?

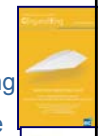
Reviewers – Assessment exercise

Engineering Council Standards

Documents CE3 IE3 ET3

Engineering Council

UK SPEC sets the Standard



- CEng academic benchmark - BEng + MSc/MEng
- IEng academic benchmark entry level - Degree
- Technical Report or Further learning Report is assessed against 'Learning outcomes' (*Annex 1*)
- Competence Standards are covered in Review submission (16 EC Statements – *Documents CE3/IE3*)

EC Standards

Competence	A	Knowledge and Understanding
	B	Application to Practice
	C	Leadership / Management / Supervision
	D	Interpersonal Skills
Commitment	E	Professional Conduct

+ IHE Guidance & Examples

The IEng Standards

A. Use engineering knowledge and understanding to apply existing technology

B. Apply appropriate theoretical and practical methods

C. Provide technical and commercial management

D. Demonstrate effective communication and interpersonal skills

E. Demonstrate your personal commitment

Document IE3

The IEng Standards

A. Use engineering knowledge and understanding to apply existing and emerging technology

A.1 Maintain and extend a sound theoretical approach to applying technology in engineering practice

A.2 Use evidence based approach to problem solving and contribute to continuing improvement

IHE guidance - IEng

A. Use knowledge to solve problems

- Refer to current Standards, best practice in reports and documents
- Show how you use engineering principles to solve problems
- Show you investigate 'client' needs

Possible evidence: client briefs, safety audit reports, feasibility studies, appeals statements , maintenance schedules

The IEng Standards

B. Apply appropriate theoretical and practical methods

B.1 Identify, review and select techniques, procedures and methods

B.2 Contribute to the design and development of engineering solutions

B.3 Implement design solutions and contribute to their evaluation and monitoring

IHE guidance - IEng

B. Apply technical expertise and judgement

- Take technical responsibility
- Identify and survey requirements
- Analyse problems/evaluate options/present solutions/reflect/monitor
- Plan programmes/schedule activities
- Prepare specifications, contracts, works orders, bids, tenders
- Identify, secure and manage resources and costs

The IEng Standards

C. Provide technical and commercial management

C.1 Plan for effective project implementation

C.2 Manage the planning, budgeting and organisation of tasks, people and resources

C.3 Manage teams and develop staff to meet changing technical and managerial needs

C.4 Manage continuous quality improvement

IHE guidance - IEng

C. Provide management: show leadership

- Plan delivery of tasks, programmes
- Monitor costs, quality and progress
- Prepare and control budgets (size is not important)
- Manage projects and people
- Contribute to the development of teams
- Evaluate projects and recommend improvements
- Manage operations to maintain standards

The CEng Standards

A. Use engineering knowledge and understanding to optimise existing and new technology

B. Apply appropriate theoretical and practical methods to analyse and solve problems

C. Provide technical and commercial leadership

D. Demonstrate effective communication and interpersonal skills

E. Demonstrate your personal commitment

Document CE3

The CEng Standards

A. Use engineering knowledge to optimise existing and new technology

A.1 Maintain and extend a sound theoretical approach enabling and exploiting new technology

A.2 Develop engineering technology creatively and innovatively and continuously improve

IHE guidance - CEng

A. Use knowledge to optimise new engineering applications

- Be innovative and strategic
- Refer to current Standards, best practice, evolving policy and practice
- Supervise or prepare briefs
- Agree client etc. requirements

The CEng Standards

B. Apply theoretical and practical methods to analysis and solution of problems

B.1 Identify potential projects and opportunities

B.2 Conduct research and design and develop solutions

B.3 Implement design solutions and evaluate their effectiveness

IHE guidance (CEng)

B. Apply theoretical and practical methods to analysis and solution of problems

- more complex schemes
- apply new or emerging theory or practice in unfamiliar situations
- evaluate broad financial/commercial risks
- apply engineering techniques over a range of constraints
- take a strategic view

IHE guidance (CEng)

B. Apply theoretical and practical methods to analysis and solution of problems

- Identify systems or services to enhance
- Draft, present and agree designs
- Prepare option studies for complex schemes
- Assess performance against objectives
- 'Solve' non-standard problems
- Evaluate outcomes

The CEng Standards

C. Provide technical and commercial leadership

C.1 Plan for effective project implementation

C.2 Plan, budget, direct tasks, people and resources

C.3 Lead teams and develop staff to meet changing technical and managerial needs

C.4 Bring about continuous improvement through quality management

IHE guidance - CEng

C. Provide management leadership

- Lead on complex schemes
- Control projects
- Prepare or evaluate bids/tenders
- Provide team leadership
- Apply quality management
- Manage change

The EC Standards

D. Demonstrate effective communication and interpersonal skills

D.1 Communicate in English and interact with others at all levels

D.2 Present and discuss proposals

D.3 Demonstrate personal and social skills

IHE guidance

D. Demonstrate effective communication and interpersonal skills

- Contribute to/chair meetings
- Work with others at all levels
- Present and discuss ideas/plans *(CEng-current affairs)*
- Lead and sustain debate *(CEng-broad policy issues)*
- Manage information - Work towards collective goals

Possible evidence: development plans, team minutes, your Review submission, your interview

The EC Standards

E. Demonstrate your personal commitment to professional standards

E.1 Comply with Codes of Conduct

E.2 Manage and apply safe systems of work

E.3 Contribute to sustainable development

E.4 Carry out continuing professional development to enhance your competence

IHE guidance

E. Demonstrate personal and professional commitment (E1, E3, E4)

- Know your organisation's ethos/codes
- Abide by legislation etc
- Maintain the environment/involve the community
- Know Contract responsibilities
- Be aware of wider social context *(CEng)*
- Review and record your CPD and assist others

IHE guidance

E. Demonstrate personal and professional commitment (E.2: Manage and apply safe systems)

- Know and apply all relevant legislation etc
- Analyse, assess and control risk
- Manage health and safety of self and others
- Use judgement not just rely on codes of practice
- Adopt a systematic approach

Achieve 'Practice Standard'

EngTech cf IEng cf CEng Standards

Technicians are technically competent

Incorporated Engineers have greater knowledge and understanding *plus*

Know 'why' as well as 'how'
Exercise independent judgement
Hold a responsible position
Lead and manage

Chartered Engineers lead, implement innovative or complex schemes, take the strategic view

All are professionally committed (Statement E)

Now – Applicants – Does my experience match up?

Reviewers – Assessment exercise

The Professional Review

What do I need to do?

Documents CE2 IE2 ET2

IEng/CEng - The Standard Review

- Match Experience Report to 16 ECUK Statement
- Supporting documents
- Work with a mentor
- 1/2 Projects to present at Review
- Submit for assessment
- Present 1/2 Projects at review interview

Documents CE2 IE2

IEng/CEng - The individual Routes

FIRST - Show meet KNOWLEDGE requirements by -

- Further learning (report + possible interview)
- Technical Report (report + interview)

Documents CE4 IE4

Your Professional Review – the next section covers

Compiling your submission

Your mentor

Presentation advice

The assessment process

The presentation and interview

CEng and IEng

Your PR submission – 'normal' Review

- Application Form
- List of Contents
- Certificates*
- CV*
- Job description*
- An organisation chart*
- CPD record*
- 10 or 7 'CPD days

YOU ALREADY HAVE THESE

- Professional Development Forms (201)
- Your documents
- Selected schemes
- CPD Plan
- Employer Proposer Statement (301)

Original + 3 copies + CD

Your PR submission

Pre-2010

- Review Report
- Evidence Summary Forms (201)
- Your documents + matrix

2010

- Presentation summary
- Professional Development Forms (201)
- Your documents + matrix

- 3, 7 or 10 'CPD days'
- CPD Plan
- Employer Proposer Statement (301)

Original + 2 copies + CD

Technical Report Route (CEng & IEng)

Your Review Submission

- Technical Report
- 16 Professional Development Forms
- Supporting documents
- Presentation summary
- Employer Proposer Statement (301)
- Original + 4 copies + CD

Your PR submission

- IHE Forms
- List of Contents
- Certificates*
- CV*
- Job description*
- An organisation chart*
- CPD Record/Appraisal*

- START TOMORROW!
- OPEN A FOLDER
- PUT IN THESE DOCUMENTS*

You need a MENTOR

Your Mentor

- Is an engineer in your section
- Gives support, advice, guidance, encouragement
- Assists in converting objectives into an action plan
- Reviews and authenticates
- Can be trained and supported by IHE
- Is not assessing you
- Can be more than one person

Your submission

Demonstrates you meet EC Standards

How?

- Set yourself targets. Make plans
- Read the Statements of Competence & Commitment(*IE3*)
- Collect documents
- Describe your experience under each Statement
- Identify 1/2 recent projects for interview presentation

Arrange your manager's support

Presentation Advice

Document A

Presentation Advice

Your Technical Report (TR option)

Summary of findings or conclusions
Introduction to main points
Aim of the project
Main body: explain project/interpret & evaluate data/your contribution
Discussion – draw together the arguments/reflect
Conclude with critical evaluation/recommendations
References
Appendices of supporting evidence, calculations, drawings

Cross reference to Learning Outcomes

Presentation Advice

Professional Review - *Advice on preparing:*

1. Professional Development Forms* (201) – *one per sub-role signed by Mentor.*
2. Your documents*
3. Your Review Presentation summary
4. CPD Plan, Records and 'CPD Days'
5. Employer Proposer Form 301

**Cross refer everything*

Presentation Advice

Your CV summarises your career to date

1. Your Professional Development Forms

- Describe relevant experience demonstrating meet the EC Statement
- More recent work
- Is personal: uses “I” not “We”
- Describe schemes and your contribution
- Mention size of works/problems resolved
- One side of A4 paper per EC Statement

Presentation Advice

1. Your Professional Development Forms

- Use two or more projects/schemes per Statement
- Recent work of maximum responsibility
- Can use same schemes on > one Statement
- Proof read for English and technical content

Presentation Advice

1. Professional Development Forms (201)

Includes a CEng Example

(Next slide)

Presentation Advice

1. Professional Development Forms (201)

One per Role (16)
Role A.2 To engage in creative and innovative development (CEng)
Describe 1/2 schemes, your work, relevant evidence to show you meet this role *“I was asked to undertake an options study to improve the access road …A barrier containment was required on the seaward side… I decided that standard barriers were unsightly in the rural setting.. I identified the T40 barrier, used in Europe but without Type Approval …*
List Documents *5 The Report to Client ...*

Mentor countersigns each form

Presentation Advice

Check you refer explicitly to:

- Managing health and safety and risk
- Current standards, best practice
- Problem solving using engineering principles
- Managing people + projects + budgets
- Environment/community concerns

Presentation Advice

2. Your Documents *Keep everything*

- Most should relate to your chosen schemes
- *No* copies of Manuals/Standards
- One document can cover many Statements
- Collect witness testimony if necessary (use *Form 205*)
- Own work or explain your contribution
- Legible not perfect documents
- Talk to colleagues
- Use a matrix to show how relate to the Standards (see IE3)

Presentation Advice

2. List of Documents Matrix

Doc. Ref.	Statement Doc. title	A1	A2	B1	B2	B3	C1
Doc 1	*Shaw Road junction*			✔			✔
Doc 2	……..				✔	✔	

Presentation Advice

2. Some examples of Projects/Documents (IEng)

- Scrim report and list of work orders: A2, B2, B3
- Evaluation programme for traffic scheme: B1, C4
- Correspondence with contractor: C3, D1, E1, E2
- Transport Assessment (preparing and/or an assessment): A2, B2, B3, E3
- Safety Audit exception report: A1, B1, B3

Presentation Advice

3. Summary of Project for Interview (CEng)

"The project was to improve the Agon motor racing circuit track and secure a relaxation of the planning restrictions …

My early involvement as Senior Engineer included the initial 3D Modelling …

I undertook a tender assessment ….

The budget was …..

I acted as Project Manager under the NEC ECC form of contract ….. My duties included ….."

Aspects of same scheme used for
Statement C – project planning
Statement D – ability to negotiate

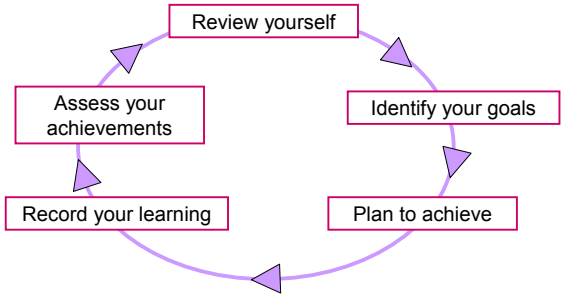
Presentation Advice

4. CPD Plan, Record and 'CPD Days'

Continuing Professional Development is:

…"the systematic maintenance, improvement and broadening of knowledge and skills and the development of personal qualities necessary to execute your professional and technical duties throughout your career".

Document B



The journey has a beginning but no end: a continuous procession of improvement as you 'move ahead'

Presentation Advice

4. CPD Plan and record (*Every day activities*)

In your Professional Development Plan:

Analyse what need/want to learn – record – review.

Plan to achieve 5 days a year by:

- Reading
- Team Building
- Special arrangements or Research
- CPD Days, courses
- Writing a paper
- Making a presentation
- Learning from or coaching colleagues

Use IHE or own Appraisal forms

Presentation Advice

4. CPD Days (*are additional*)

- 7 CPD Days for IEng,10 for CEng
- Formal 'off the job' education, training
- 2 days on Safety and I on Environment issues
- Maximum 2 days per activity (6 hours=1 CPD Day)
- Technical, management, finance, communications

In the 2 years before submitting for review

Presentation Advice

5. Employer Proposer

- Sees final submission
- Gives advice
- Completes Form 301
- Arranges mock interview

Presentation Advice

Help the Assessors!

- Recent projects with maximum responsibility
- Choose schemes which cover many roles (eg B2+C1+D2)
- Quality *not* Quantity
- Clear confidential work & warn IHE
- Bind documents in ring binder
- Number everything: Use tabs, dividers, highlighters
- Include photos, sketches, plans

Presentation Advice

Ask is your portfolio

- Appropriate to the Statements (valid)?
- Demonstrating consistent competence?
- Your work (or explained contribution)?
- Readable/understandable by others?
- Sufficient? (Several projects)
- Showing know "why" as well as "how"?

Consult your Mentor

Presentation Advice

Check everything

Proofread - ask a friend

Check your grammar

Be clear and direct – use Plain English

Presentation Advice

Sentences have 15 to 20 words

Make one point in a sentence

Use active verbs ('I designed')

Use bullet points or lists

Use flow charts

Be clear ○ *Keep to essentials* ○ *Be interesting*

Your Review Submission(CEng & IEng)

- IHE Application Form for Fellow
- List of Contents
- CV, Job description
- Organisation chart
- CPD Plan, Record
- 7/10 'CPD Days'

- Technical Report
- 16 Professional Development Forms
- Supporting documents
- Project Presentation
- Employer Proposer Statement (301)

Original + 4 copies + CD

Applying for Review

Send 1 copy to IHE

IHE confirms eligibility

IHE checks documents

IHE appoints Reviewers

You send submission to Reviewers - use Post Office

Reviewers assess and agree you are ready for interview

You receive copy of their Assessments

Review arranged

The initial Assessment

Performance on A1 to E4 scored

Little evidence = 0

Weak awareness = 1

Practice standard = 2

Very strong = 3

'Practice standard' in E.2 and B

No more than one zero in any role

plus, written objective judge (P.2)

Cannot fail – resubmit Roles not achieved

Once OK, Review arranged

The initial Assessment – Technical Report

- Technical Report – assessed against Learning Outcomes (Annex 1)
- May be requests for additional work
- *Review arranged only when Technical Report OK*

Your Professional Review presentation and interview

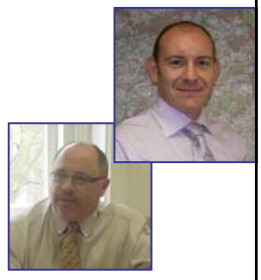
Documents IE2/CE2

or TRR – IE4/CE4

Your Professional Review

IHE Reviewers

- Fellows of IHE (+ EC)
- Matched specialists
- Trained
- Do not know you



Your Technical Report interview

- You present but,
- Reviewer-led questioning
- Engineering Knowledge being tested
- If successful – BREAK - then present Review project

Document IE4/CE4

for Technical Report

Technical Report for IEng

You must demonstrate to degree level:

1. Underpinning science and maths (fundamentals and your specialism)
2. Engineering analysis
3. Design (non-routine problems, client needs)
4. Awareness in the chosen project of hazards, risk, quality, contracts, social context
5. Engineering practice

Technical Report for CEng

You must demonstrate to Masters level:

1. Transferable skills
2. Underpinning science and maths
3. Engineering analysis
4. Design
5. Economic, social etc context
6. Engineering practice

CEng: creativity and innovation; deeper/broader understanding

Your Review preparation

Revise your engineering and management knowledge

Compile your Documents for ease of access

Get external advice for comprehension and clarity

Practice your presentation - Do a "Mock Review"

Your Review preparation

- Confirming you are an IEng (or, CEng)
- Paper-based so far – want to confirm
- PR is an holistic judgement by your peers
- Review Report and presentation are the vehicles
- Ethical issues/Professional commitment
- Communications ability tested

Your Review preparation

Plan your presentation

- 'Normal' Review – 1 hour with questions
- Technical Report

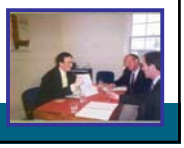
  - 1.5/2 Hours with questions (Reviewer-led) then a *BREAK and*,

  - Professional Review – 0.5/1Hour

Reviewers test and probe

Your Review Preparation

- Use notes or cards or laptop or A4 display or plans
- Report has been read – add something – give an update – be enthusiastic
- Use documents to explain your work
- Be confident - answer the questions they actually ask
- Assume a knowledgeable audience



The Review Assessment

Rounded judgement of competence and commitment *('Normal' Review)*

Reviewers will focus on Statements C, D and E:

- Confirming responsibility level
- Project and general management
- Communications ability
- Any weaknesses identified
- Ethical awareness
- Professional issues

IEng: What Reviewers look for

- A sound understanding of relevant engineering principles
- Ability to solve engineering problems and plan implementation
- Evidence of independent technical judgement
- Management of safety and risk issues
- Knowledge and understanding of financial, statutory and commercial activities
- Prepare and control budgets

IEng: What Reviewers look for

- Management of schemes and resources
- Leadership
- Interpersonal skills, teamwork and self motivation
- Ability to communicate effectively in English
- Commitment to the profession's code and rules of conduct
- Commitment to personal and professional development

CEng: What Reviewers look for

- Creativity, Innovation, Breadth
- Application of engineering knowledge to complex problems
- Leadership of 'design' processes/projects
- Commercial understanding
- Appreciation of wider context
- Development and application of new technologies

After the Review

Assessment Form jointly completed	→	IHE office
Your application & Reviewer recommendation	→	IHE Committee
Election announcement letter within three weeks	→	YOU
Registration Form *automatic approval*	→	Engineering Council

Academic Entry Points: Technician

Standard Route (Review Report/No interview)

- National Certificate in engineering
- National Diploma in construction

Individual Route (Different Forms/Local interview) NEW

- Bath HOT/ C & G Traffic Engineering
- MANCAT Road Safety
- Experience only

Approved NVQ3 (Transport, Site management, Laboratory)

- No interview/ NC not needed

The IHE Guide: 2010

All Routes to registration Document E1

Engineering Technician

The Professional Review Document ET2

The Technician Standards Document ET3

Individual route Application Form

Go to www.theihe.org – click on 'Membership'

The Standard EngTech Review

2010

- Complete 13 EC Statements demonstrating competence*
- Include CV, supporting documents and a 'matrix'
- Work with a mentor
- Submit for assessment - *Normally no interview*

**Individual Route* – use special Form instead & Local interview (1 Reviewer)*

Document ET2

The Technician Standards

A. Use engineering knowledge to *apply technical skills*

B. *Contribute to* design/construction/maintenance of processes systems or services

C. *Accept* and exercise *personal* responsibility

D. Communicate and work with others effectively

E. Demonstrate your personal commitment

Document ET3

Technician: What Reviewers look for

- Know how to do your job
- Can identify the source of technical problems
- Can identify and marshal resources
- Supervise technical tasks
- Accept responsibility/are self-organised
- Can communicate
- Are committed to the profession

Applicants: What Next?

Reviewers: Roles & Responsibilities

What help can I get?

What Next – Get started!

Open a folder: collect your certificates etc

Read the Statements – list a few recent schemes

Find a Mentor – engage your manager

Plan to submit - in six months

Summarise selected experience under each Statement

Argue your case

Identify 1/2 schemes to present

Compile Documents – check relevance

What Next – the dates

Professional Review submission dates in 2010/2011

Closing Date	Review Dates	Committee
2 March 2010	June	19 June
1 June	September	22 September
7 September	Nov/ December	8 December
22 November	February 2011	March 2011

Individual Technician reviews are held in Branches

Technical Report & Further Learning:

Apply anytime

What Next – what you pay

Towards IEng and CEng

Student Member	FREE	
Graduate Member	£59.00pa	£49.00 by DD
Fellow	£120.00pa	£110.00 by DD

Professional Review

Members £160.00/£200 Non members £220.00/£250

Technical Report Option Extra £100

IHE Professional Certificate

Practitioner £125.00 Combined with PR £185/£235

Your institute: Join IHE Now!

Join today → Affiliate Member FREE

NC, HNC, HND, degree → Graduate Member

5 years' experience → Associate Member

More senior → Member or Fellow

What Next – *Join Today* - You gain

- The IHE family
- Branch events and contacts
- Discounted Conference and course fees
- A national voice

Your Institute

Keep up to date and ahead

- *E Bulletin* every 2/4 weeks
- HIGHWAYS direct
- surveyor direct…weekly news + jobs
- jobs-in-transport.com
- Local Branch meetings + visits

Your Institute

Keep up to date and ahead

- IHE good practice Guidelines
- Technical networks

www.theihe.org/technical gateway
www.theihe.org/tsgforum

- IHE on FACEBOOK
- Register of RSAs

www.theihe.org
www.homezones.org.uk

Prince Michael International Road Safety Award 2005

www.motorcycleguidelines.org.uk

Your Institute

Annual Professional Forums

Topical, practical conferences

Your Institute

Training courses - in your specialism - *for you*

IHE Professional Certificates
- Development Control, Signals, Sign Design, Public Realm

Your Institute

How to contribute to your profession

- Influence Department for Transport policy
- A voice at Engineering Council, CIC, Edexcel, PACTS
- Raising your status
- Become a Mentor, Reviewer, JBM visitor
- Promote engineering locally in schools

Celebrated 'IHE@40' in 2005

New to IHE? JOIN US

Use Application Form
and Subscription/Payment form

• Degree/HNC/NC	Graduate Member
• 5 years' experience	Associate Member
• 10 years' experience*	Member
• Degree + 2 years	Member
• 15 years' experience*	Fellow
• Already IEng/CEng	Fellow

* *3 or 5 years in responsible post*
Include 500/750 word career summary

Existing IHE member? MOVE UP

Use Transfer Form
and Subscription Payment Form

• 5 years' experience	Associate Member
• 10 years' experience*	Member
• Degree + 2 years	Member
• 15 years' experience*	Fellow

* *3 or 5 years in responsible post*
500/750 word career summary

We can help

membership@theihe.org

Becky Sprunt – 020 7436 7487

Web link on today's Programme

Success stories

Adrian Gray CEng Head of Traffic Signals, Hants CC

Mike Freestone Former Director, LB of Barnet

Stephen Spender Assistant Chief Engineer, Hants

Alison France MD, Sanderson Associates

Gordon Henderson CEng Design Manager, Amey

Good luck!

Welcome to

IHE