www.istructe.org/cpd-2022

The Institution of **StructuralEngineers**

Professional Development Courses

2022 Programme



How to book

Book online – www.istructe.org/cpd-2022

Contact us

Email training@istructe.org

Telephone-+44 (0)20 7235 4535

Welcome

Welcome to the Institution of Structural Engineers' 2022 Continuing Professional Development training programme. We are delighted to present an annual programme of more than 65 high-quality training courses designed to support learning and development at every stage of your career.



Louise Tingley Head of Professional Development and Events, the Institution of Structural Engineers training@istructe.org

Why choose IStructE?

Enhanced flexible online learning

We have optimised even more courses for online delivery, it's never been simpler to enrol in one of our Professional Development courses. Courses including *Seismic design of structures* and *Using computational design in practice* have been reformatted as a series of four half day interactive sessions to make it easier to manage workloads and help you get the most out of the course, wherever you are in the world.

New courses for 2022

In response to feedback, we are pleased to be offering four new courses for 2022. Our new technical courses include *Eurocode 8: Worked examples of the dynamic analysis and seismic design of buildings* and *Rapid calculations for structural engineers*.

Net zero structural design

We know that the climate emergency poses the greatest threat to our planet and that structural engineers can play a key part in mitigating its effects by changing the way buildings and infrastructure are designed, commissioned and constructed. To support these vital efforts, we have developed a new online course, led by Will Arnold and Oliver Broadbent, that will provide practical training on how you can achieve net zero structural design.

In-house training tailored to your needs

In 2021 we worked with more companies than ever to provide solutions to their unique in-house training needs. We developed bespoke courses on topics such as *Design process management* and tailored training from our public course programme to be delivered at a time and place best suited to meet any organisation's needs.

If you would like to discuss in-house training, or if your organisation has professional development needs not currently met by the 2022 programme, please do get in touch at training@istructe.org.

Expert tutors

Our training is always developed and delivered through long-standing partnerships with leading experts, elite academic institutions and trade and professional organisations.

We thank all the presenters of our courses for their expertise and dedication. It continues to set our professional development programme apart.

Training calendar at a glance

February	Date(s)	Delivery format
Historic timber structures: assessment and reuse	2 February	Online
Conceptual design for structural engineers: an introduction	3 – 24 February	Online
Net-zero structural design	4 February – 4 March	Online
Eurocode 9: design of aluminium structures	8 February	Online
Temporary works design	9 – 10 February	Online
Eurocode 8: an introduction to seismic design of buildings	10 February	Online
Eurocode 8: worked examples of the dynamic analysis and seismic design of buildings	11 February	Online

March	Date(s)	Delivery format
Demolition and structural refurbishment	3 March	Online
Business and strategic planning	8 March	Online
Dealing with domestic clients	9 March	Online
Writing skills for engineers	10 March	In person, London
Lateral stability of building structures	21 March	Online
Rapid calculation for engineers	29 March	Online

Мау	Date(s)	Delivery format
Conceptual design for structural engineers: an introduction	3 – 24 May	Online
Effective marketing for SMEs	3 May	Online
Moving into engineering management	4 – 5 May	In person, London
Drawing Gym for engineers	4 – 25 May	Online
Eurocode 6: masonry design	12 May	Online
Understanding structural behaviour	18 – 19 May	Online
Eurocode 3: structural steelwork design	26 May	In person, London
Net-zero structural design	26 May – 23 June	Online

June	Date(s)	Delivery format
Exam preparation course (3 day)	6 – 8 June	Online
Seismic design of structures	6 – 9 June	Online
Designing for blast resilience and resistance	8 June	Online
Design and analysis of tall buildings	13 June	Online
Structural design against deflection	22 June	In person, London
Managing engineering projects	15 – 16 June	Online
Presentation skills for engineers	23 – 24 June	In person, London
Expert Witness: an introduction	28 June – 1 July	Online
Eurocode 5: the essentials of timber design	29 June	Online
Eurocode 5: connections and advanced topics in timber design	30 June	Online

July

Conceptual design for structural engineers: an introduction	
Contract law for engineers	
Pitching and sales skills	
Structural engineering with bamboo	

September

Design and analysis of tall buildings
Eurocode 4: composite design
Client appointments and terms of engagement: a legal toolkit
Resilience-based design of structures
Communication skills for engineers
Wind loading on structures to EN 1991-1-4
Using computational design in practice
Wind: dynamic response of structures to wind
Net-zero structural design
Dealing with domestic clients

October

Lateral stability of building structures
Steel essentials: practical design of structural steelwork
Timber workshop: design through worked examples
Temporary works design
Business skills for engineers
Eurocode 6: masonry design
Deep basements
Understanding structural design
Eurocode 7: foundation design for small practitioners
Financial fundamentals
Protect your designs – a practical guide to intellectual property

November

Drawing gym for engineers Conceptual design for structural engineers: an introduction Writing skills for engineers Stadium design Historic timber structures: assessment and reuse Expert Witness: going into court

December

Conceptual design for structural engineers - advanced
Eurocode 2: design of concrete structures
Exam preparation day (1 day)
Exam preparation course (3 day)

Date(s)	Delivery format
1 July	In person, London
5 July	Online
7 July	Online
13 July	Online

Date(s)	Delivery format
12 September	Online
14 September	In person, London
14 September	In person, London
19 September	Online
19 – 20 September	In person, London
20 September	Online
20 – 23 September	Online
21 September	Online
22 September – 20 October	Online
28 September	In person, London

Date(s)	Delivery format
3 October	Online
3 October	Online
5 October	Online
5 – 6 October	In person, London
10 – 11 October	In person, London
11 October	Online
12 October	Online
18 – 19 October	Online
20 October	In person, London
27 October	In person, London
28 October	Online

Date(s)	Delivery format
2 – 23 November	Online
3 – 24 November	Online
8 November	Online
10 November	In person, London
18 November	Online
23 November	In person, London

Date(s)	Delivery format
1 – 16 December	Online
8 December	Online
15 December	Online
December (dates to be announced)	In person, London

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Useful information

1. Unless stated otherwise, courses will take place at our London HQ

2. If no time is stated then the course is a full day

3. If you see this symbol ^{C online} that course is designed for online delivery

4. The programme is subject to change. Please check the website for latest information.

Professional Guidance courses



rofessional Guidance Courses

Business development seminars

Master key business skills with the Institution's business development seminars. Themed around three essential subjects, they are delivered in partnership with The Business Growth Agency (an ActionCOACH company). The seminars are tutored by Parag Prasad, who has over a decade's worth of experience mentoring more than 80 CEOs in the construction and design industry.

Book all 3 seminars and save 15%.

Business and strategic planning

Course date: 8 March (online) 10:00 - 13:00 GMT

Aim

A business plan provides a living blueprint for running and growing your business. It ensures you are on course to meet goals, financial targets and operational milestones. This highly practical half day workshop teaches the skills you need in order to plan the medium and long term growth of your SME.

Learning outcomes

Intended for

None.

Price

Book 4 weeks

in advance

Book within

last 4 weeks

£215

£245

By the end of the course, you should be able to:

- Write financial and marketing plans in a practical and time efficient manner
- Organise your goals into annual, quarterly and weekly objectives
- Understand the different components of a practical marketing plan
- · Recognise the importance of a cashflow forecast and use it to make important numbers-based decisions
- Appreciate the identity shift required to prioritise these critical planning skills

ontributes to IPD Core Objective 3.1, 3.4

Entry criteria



Ambitious big vision SME practice owners and senior director level staff.

nber te	Standard rate
+ VAT	£285 + VAT
+ VAT	£325 + VAT

Tutor

Parag Prasad has been an award winning business mentor to many of London's elite entrepreneurs including: ProperCorn, the 5th fasted growing company in Europe (Financial Times, 2017); Weston Williamson, one of the leading architecture firms behind TFL's £15Bn Crossrail project, and Chilango, voted one of Britain's 27 most disruptive companies by the Telegraph.



Lots of tools for improving a business and direct approach to identify natural weaknesses of engineers at running businesses.

2021 course attendee

다 Online

Effective marketing for SMEs



C Online

Pitching and sales skills

Course dates:

Aim

Course date: 3 May (online) 10:00 - 13:00 BST

Aim

During this hands-on half-day workshop you will learn a practical business growth system. This system has helped grow our clients' revenues by an average of 34% per year.

Intended for

Entry criteria

None.

Price

Learning outcomes

By the end of the course, you should be able to:

- Track and measure return on investment for marketing activities conducted by your business
- · Identify profitable leads and focus on winning and retaining them
- Understand the 5 most important numbers for your commercial success: number of gualified sales leads, conversion rate, average spend, client lifetime and profit margin. Learn the easiest, most commonly overlooked ways of improving each number

Contributes to IPD Core Objective **3.1, 3.4**

Parag Prasad has been an award

Tutor

winning business mentor to many of London's elite entrepreneurs including: ProperCorn, the 5th fasted growing company in Europe (Financial Times, 2017); Weston Williamson, one of the leading architecture firms behind TFL's £15Bn Crossrail project, and Chilango, voted one of Britain's 27 most disruptive companies by the Telegraph.

The speaker was engaging and presented overarching concepts in marketing well.

2021 course attendee

	Member rate	Standard rate
Book 4 weeks n advance	£215 + VAT	£285 + VAT
3ook within ast 4 weeks	£245 + VAT	£325 + VAT

Ambitious big vision practice owners

and senior director level staff.

Learning outcomes

By the end of the course, you should be able to:

7 July (online) 10:00 - 13:00 BST

- Manage the fears and insecurities people commonly experience around sales
- Build trust and rapport with leads quickly and easily
- Analyse prospects' objections and respond to them, in order to move forward with a sale
- Build a clearly defined sales process
- Use proven sales methodologies: questioning & listening, sales scripts, emotion vs logic, DISC communication and styles

Contributes to IPD Core Objective **1.2**

Intended for

owners and senior director level staff.

Entry criteria

None.

Price

	Member rate	Standard rate
Book 4 weeks in advance	£215 + VAT	£285 + VAT
Book within last 4 weeks	£245 + VAT	£325 + VAT



This interactive half-day coaching workshop is a unique opportunity to learn, discuss and receive personalised feedback on your sales skills. The experienced sales trainer will help you to convert prospects into paying clients more effectively.

Ambitious big vision SME practice

Tutor

Parag Prasad has been an award winning business mentor to many of London's elite entrepreneurs including: ProperCorn, the 5th fasted growing company in Europe (Financial Times, 2017); Weston Williamson, one of the leading architecture firms behind TFL's £15Bn Crossrail project, and Chilango, voted one of Britain's 27 most disruptive companies by the Telegraph.

Business skills for engineers



Penny Taylor

Course dates: 10 - 11 October

Aim

This two-day course gives an overview of all the essential business tools needed by graduate engineers to make the best progress in their early career.

Learning outcomes

By the end of the course, you should be able to:

- Understand the basics of finance
- Know how to manage your time more effectively
- Understand project management principles
- Know how engineering fits into the organisation structure along with the key deliverables
- Know the responsibilities of a professional engineer
- Know how to proactively manage your career

Contributes to IPD Core Objective 1.2, 3.1, 3.4

Intended for

Anyone early in a career in the engineering industry heading towards Chartered or Incorporated status.

Entry criteria

Price

None.

	Member rate	Standard rate
Book 4 weeks in advance	£565 + VAT	£755 + VAT
Book within last 4 weeks	£625 + VAT	£835 + VAT

IN-HOUSE AVAILABLE

Tutor

Penny Taylor CEng FIMechE FWES has combined an engineering career in the automotive industry and academia, with post-graduate qualifications in teaching, coaching and psychology. She combines the practical experience of running sizeable teams and projects with the underpinning theoretical knowledge. Her style of training is very interactive, adapting to the individual needs and action plans of the delegates. Penny has been delivering highly regarded courses for the IStructE since 2015.



Client appointments and terms of engagement: a legal toolkit

Communication skills for engineers

Course date: 14 September

Aim

This course enables engineers to understand, evaluate and negotiate confidently the commercial or legal terms of proposed contracts with clients.

Learning outcomes

By the end of the course, you should

be able to: • Recognise issues around

- misrepresentation, implied terms, contractual ambiguity and interpretation
- Appraise and negotiate exclusion and limitation clauses
- Assert skill and care, and resist strict liability and warranty obligations
- Identify the key issues recurring in client-led contract appointments
- Recognise the hidden risks of assignment, staff-naming, coordination, and third party design

contributes to IPD Core Objective **3.2, 3.5**

Intended for

Owners, directors, commercial partners, senior and middle management personnel, and engineers growing into a managerial role. The course will also be useful for junior engineers with a special interest in the commercial and contractual aspects of engineering practice.

Entry criteria

Those attending should have some experience of reading, interpreting and applying commercial terms of appointment. The course will involve a significant element of reading and discussing actual clauses.

Price

	Member rate	Standard rate
Book 4 weeks in advance	£305 + VAT	£415 + VAT
Book within last 4 weeks	£345 + VAT	£465 + VAT

IN-HOUSE AVAILABLE

Tutor

Rob Langley has an MA (Oxon) in jurisprudence. He is a barrister, solicitor, Fellow of the Society of Advanced Legal Studies, practising adjudicator, arbitrator and mediator. Before specialising in training and consultancy, he was a law firm partner practising in engineering and construction law. During this time, he dealt with almost every form of contract. He has extensive and successful experience of defending claims against construction professionals.

IN COLLABORATION

ROB LANGLEY MEDIATION

Course dates: 19 – 20 September

Aim

This two-day course teaches engineers communication skills, building on specific engineering scenarios and examples.

Learning outcomes

Intended for

Entry criteria

None.

By the end of the course, you should be able to:

- Understand the principles of effective communication
- Know the barriers to effective communication and how to overcome them
- Develop a greater understanding of your own and other people's communication styles
- Know how to influence others using the four influencing styles
- Learn techniques to lead and engage others in effective team meetings
- Know how to ask good questions and understand the importance of good listening skills

Contributes to IPD Core Objective 1.2, 3.1

Price Mer ra Book 4 weeks £565 in advance

£625

The Institution of Structural Engineers 14

- - - - Book within last 4 weeks

Penny Taylo

IN-HOUSE AVAILABLE

Tutor

Penny Taylor CEng FIMechE FWES has combined an engineering career in the automotive industry and academia, with post-graduate qualifications in teaching, coaching and psychology. She combines the practical experience of running sizeable teams and projects with the underpinning theoretical knowledge. Her style of training is very interactive, adapting to the individual needs and action plans of the delegates. Penny has been delivering highly regarded courses for the IStructE since 2015.

iber te	Standard rate
+ VAT	£755 + VAT
+ VAT	£835 + VAT

Anyone who wants to improve their communication skills. Ideal for anyone who needs to build better relationships with their colleagues and team.

Contract law for engineers

Rob Langley

Course date: 5 July (online)

Aim

This course covers the practical issues arising from commercial contracts.

Learning outcomes

By the end of the course, you should be able to:

- Interpret lawyers' terminology
- Identify which legal issues are critical in a negotiation
- Recognise how to use the contract during the progress of a project or delivery of a service

Contributes to IPD Core Objective **3.2, 3.5**

Intended for

Middle and senior managers.

Entry criteria

Participants would benefit from having several years' experience in practice.

Price

	Member rate	Standard rate
look 4 weeks a advance	£305 + VAT	£415 + VAT
Book within ast 4 weeks	£345 + VAT	£465 + VAT

" Rob was very personable and obviously extremely knowledgeable. He gave lots of examples with construction industry specifics which was really helpful.

Rob Langley has an MA (Oxon) in jurisprudence. He is a barrister,

solicitor, Fellow of the Society of Advanced Legal Studies, practising adjudicator, arbitrator and mediator. Before specialising in training and consultancy, he was a law firm

construction law. During this time, he dealt with almost every form of

successful experience of defending

contract. He has extensive and

claims against construction

professionals.

2019 course attendee

Tutor

IN COLLABORATION

ROB LANGLEY MEDIATION

Dealing with domestic clients

Rob Langley

Course dates: 28 September 13:00 - 17:30

Aim

This half-day course assists engineers working in the domestic sector for householders or small businesses.

Learning outcomes

By the end of the course, you should be able to:

- Agree and record clear, enforceable agreements with non-professional clients with no technical background and limited experience
- Recognise the 'consumer protection' background
- Recognise and avoid misunderstandings around fees and variations, delays, and your own and the contractor's responsibility
- Respond to complaints correctly
- Communicate effectively and get paid more easily

Contributes to IPD Core Objective **1.1, 1.2, 3.5**

Owners, directors, managers and employees working in small practices or as sole practitioners, particularly for the domestic sector and for non-commercial or non-professional clients.

Entry criteria

Intended for

None.

Price

	Member rate	Standard rate
Book 4 weeks in advance	£215 + VAT	£285 + VAT
Book within last 4 weeks	£245 + VAT	£325 + VAT

IN-HOUSE AVAILABLE

Tutor

Rob Langley has an MA (Oxon) in jurisprudence. He is a barrister, solicitor, Fellow of the Society of Advanced Legal Studies, practising adjudicator, arbitrator and mediator. Before specialising in training and consultancy, he was a law firm partner practising in engineering and construction law. During this time, he dealt with almost every form of contract. He has extensive and successful experience of defending claims against construction professionals.

"

Brilliant course, really well worth the time.

2019 course attendee

The Institution of **Structura**Engineers

Become an IStructE Expert Witness

ROB LANGLEY MEDIATION

Join today: www.istructe.org/expert-witness-register

Unlike other registers, the IStructE Expert Witness register includes details of your structural engineering specialisms

Achieve an internationally recognised professional status as an accredited Expert

다. Online

Expert Witness: an introduction

Course dates: 28 June – 1 July (online) 09:30 – 13:30 BST

Aim

The four-half-day course is a comprehensive introduction to the roles and responsibilities of an Expert. The practical training also concentrates on the Expert's Report and preparation for going into court.

Learning outcomes

By the end of the course you should understand:

- What is required to perform as an Expert
- Terms of Engagement
- What the Expert needs to know and do prior to writing the Report
- Witness Statements
- Fact Finding, early evaluation and pre-trial advice
- Codes of Practice for Experts
- The Meeting of Experts procedures and problems
- How to get paid

Contributes to IPD Core Objective **1.2, 3.2**

Intended for

This course has been designed for those wishing to become Experts and is also a valuable refresher for the experienced Expert.

Entry criteria

None.

Book in adv

Book last 4

Price

	Member rate	Standard rate
4 weeks ance	£565 + VAT	£775 + VAT
within weeks	£625 + VAT	£835 + VAT

Tutor

The Academy of Experts is the professional society and accrediting body for expert witnesses of all disciplines. It is independently run by Experts for Experts and those using them. The training is conducted by a team of experienced tutors. Although their disciplines are all very different, they all have practical experience of working as Expert Witnesses and Mediators or instructing them.

Expert Witness: going into court

Course date: 23 November

Aim

This course is designed to give you knowledge and experience of being in court. You will be cross-examined by a practising barrister in a protected environment to improve your technique, so you can be confident if you are called to give evidence.

Learning outcomes

Intended for

Entry criteria

None.

Price

By the end of the course you should understand:

- How and when to prepare for court
- How to introduce yourself and your expertise
- How to give evidence
- Lawyers' techniques for crossexamination and how to handle them

Contributes to IPD Core Objective **1.2, 3.2**

	Member rate	Standard rate
Book 4 weeks in advance	£305 + VAT	£415 + VAT
Book within last 4 weeks	£345 + VAT	£465 + VAT

IN COLLABORATION WITH

Tutor

The Academy of Experts is the professional society and accrediting body for expert witnesses of all disciplines. It is independently run by Experts for Experts and those using them. The training is conducted by a team of experienced tutors. Although their disciplines are all very different, they all have practical experience of working as Expert Witnesses and Mediators or instructing them.

Suitable as both an introduction to the art of success and survival in court and as a refresher for those with experience.

Financial fundamentals

Protect your designs a practical guide to intellectual property

Course date: 27 October

Aim

This course provides an overview of accounting principles and an explanation of accounting terminology. It also covers how three key financial documents are produced.

Learning outcomes

Intended for

Entry criteria

None.

Price

Book 4 weeks

in advance

Book within

last 4 weeks

financial figures in their role.

Anyone who must interpret or produce

£305 + VAT £415 + VAT

£345 + VAT £465 + VAT

By the end of the course, you should be able to:

- Recognise how the three key financial documents (cash flow forecast, profit and loss account, and balance sheet) are constructed
- Explain some key financial ratios that inform the health of a business
- Interpret financial data to set forward plans
- Use key financial terminology
- Identify what financial data is available in the public domain
- Work confidently alongside your financial colleagues

Contributes to IPD Core Objective **3.4**

Tutor

Penny Taylor CEng FIMechE FWES has combined an engineering career in the automotive industry and academia with postgraduate qualifications in teaching, coaching and psychology. She has been teaching Finance and Management to engineers for over 10 years, based on practical lessons learned during her engineering career.

IN-HOUSE AVAILABLE

다 Online

Course dates: 28 October (online) 13:00 - 17:00 BST

This half-day online course will equip selfemployed engineers with an understanding of the commercial value of their Intellectual Property. With practical training on how you can protect your design copyright, business name, confidentiality and inventions.

Learning outcomes:

Entry criteria None.

By the end of the course, you should be able to:

- Understand your legal rights
- · Identify potential risks and exposures
- Know when to seek advice, and what to ask

Intended for:

This course is relevant to senior executives and equity partners in design firms, particularly engineers and architects.

Contributes to IPD Core Objective **3.2, 3.4**

Price			
	Member rate	Standard rate	
Book 4 weeks in advance	£215 + VAT	£285 + VAT	
Book within last 4 weeks	£245 + VAT	£325 + VAT	

Rob Langley

Tutor

Rob Langley has an MA (Oxon) in jurisprudence. He is a barrister, solicitor, Fellow of the Society of Advanced Legal Studies, practising adjudicator, arbitrator and mediator. Before specialising in training and consultancy, he was a law firm partner practising in engineering and construction law. During this time, he dealt with almost every form of contract. He has extensive and successful experience of defending claims against construction professionals.

Managing engineering projects

Course dates: 15 – 16 June (online)

Aim

This two-day course addresses the challenges of managing projects in an engineering context. It includes practical project management tools and techniques, with an emphasis on technical and commercial aspects.

Learning outcomes

By the end of the course, you should be able to:

- Deploy a structured framework for projects
- Use a range of practical tools and techniques to help scope, plan and deliver projects
- Differentiate the roles and responsibilities in a project environment
- Manage project risks
- Monitor and communicate project status
- Use the language of project management
- Apply project management techniques in an engineering context

Contributes to IPD Core Objective **3.1, 3.4**

Existing or aspiring project managers

who wish to improve their ability to achieve their project goals by acquiring best practice tools and techniques.

Entry criteria

Intended for

Experience of working in a project environment would be helpful.

Price

	Member rate	Standard rate
Book 4 weeks in advance	£565 + VAT	£755 + VAT
Book within last 4 weeks	£625 + VAT	£835 + VAT

Tutor

Derek Bell has over 25 years of experience in delivering project, programme and risk management related consultancy and training. He has worked in many different sectors including the automotive, oil & gas, IT, finance and the public sector and has supported clients such as Jaguar Land Rover, BP, HP, Barclays and numerous police forces. Derek is a firm believer that the training process should be engaging and fun.

Moving into engineering management

Course dates: 4 – 5 May

Aim

This two-day course gives first time managers a toolbox of techniques to use for managing engineers and other technical staff.

Learning outcomes

Intended for

Entry criteria

None.

Price

By the end of the course, you should be able to:

- Manage effectively
- Build and develop an effective team
- Delegate appropriately and effectively
- Set, monitor and achieve SMART goals for your team
- Use performance management to get the best out of everyone

Contributes to IPD Core Objective 3.1

Book 4 weeks £565 in advance Book within £625 last 4 weeks

IN COLLABORATION

Penny Taylor

IN-HOUSE AVAILABLE

Anyone who is about to, or has recently, taken up responsibility for managing people for the first time.

Tutor

Penny Taylor CEng FIMechE FWES has combined an engineering career in the automotive industry and academia with postgraduate qualifications in teaching, coaching and psychology. She has been teaching Finance and Management to engineers for over 10 years, based on practical lessons learned during her engineering career.

nber te	Standard rate
+ VAT	£755 + VAT
+ VAT	£835 + VAT

Presentation skills for engineers

Course dates: 23 – 24 June

Aim

This highly practical two-day course helps engineers develop presentation skills through practical exercises and feedback.

Learning outcomes

Intended for

Entry criteria

None.

Price

Book 4 weeks

in advance

Book within last 4 weeks

commercial or management.

£565 + VAT £755 + VAT

By the end of the course, you should be able to:

- Understand the purpose and value of powerful presentations
- Be aware of what makes an effective presentation
- Utilise rapid preparation tips
- Control nerves when giving presentations
- Lead and engage effective team meetings
- Apply techniques for giving clear and concise answers to questions in public
- Use appropriate and engaging visual aids

Contributes to IPD Core Objective **1.2**

IN-HOUSE AVAILABLE

Tutor

Penny Taylor CEng FIMechE FWES has combined an engineering career in the automotive industry and academia with postgraduate qualifications in teaching, coaching and psychology. She has been teaching Finance and Management to engineers for over 10 years, based on practical lessons learned during her engineering career.

Anyone who has to give presentations, whether internally, externally, technical,

Writing skills for engineers

Penny Taylor

Course dates: 10 March | 8 November (online)

Aim

This course helps you improve the quality of your written reports and reduce the time you spend writing. It covers how to adapt your writing style for different documents and audiences. You will also learn some grammar best practice to help you write clearly and concisely.

Learning outcomes

By the end of the course, you should be able to:

- Write in a direct and concise style
- Adapt your writing style to a range of audiences
- Write efficiently and not waste time
- Use digital tools for better writing
- Evaluate where to put your effort to improve your writing

Contributes to IPD Core Objective **1.2**

Intended for

This course is relevant for anyone who has to communicate, whether through reports, articles, papers, proposals or just via email.

Entry criteria

None. However, you will be asked to complete 30 minutes of preparatory work to bring with you on the day.

Price

	Member rate	Standard rate
Book 4 weeks in advance	£305 + VAT	£415 + VAT
Book within last 4 weeks	£345 + VAT	£465 + VAT

IN-HOUSE AVAILABLE

Tutor

Penny Taylor CEng FIMechE FWES has combined an engineering career in the automotive industry and academia with postgraduate qualifications in teaching, coaching and psychology. She has been teaching Finance and Management to engineers for over 10 years, based on practical lessons learned during her engineering career.

I automatically recommended the course to a colleague.

2021 course attendee

The Institution of **StructuralEngineers**

25% off manuals and guides when you book an associated course

Email: library@istructe.org for more information or to request a discount code.

Many of our courses have an associated, Institution published manual or guide which can be a valuable supplementary resource.

Claim your exclusive 25% discount on the associated publication when you attend.

Conceptual design for structural engineers: an introduction

Course dates:

Begins 3 February (online) 10:30 GMT and 3 May (online) 10:30 BST and 3 November (online) 10:30 GMT

This popular course is delivered as a series of interactive online sessions supported by individual study. It provides a theoretical framework for understanding conceptual design in the context of structural engineering.

Sessions

- Week 1 Working with a brief
- Week 2 Developing ideas
- Week 3 Modelling and testing ideas
- Week 4 Bringing it all together

Learning outcomes:

By the end of the course, you should be able to:

- Explain the design process as a series of discrete steps
- Describe the characteristics of a good design brief and use this knowledge to write your own brief
- Describe and use techniques for idea generation
- Describe and use techniques for modelling and testing your ideas

Contributes to IPD Core Objective **2.1**

Intended for:

Structural engineers who are working towards taking the Institution of Structural Engineers Chartered Membership Exam.

Entry criteria

None. Price

	Member rate	Standard rate
Book 4 weeks n advance	£265 + VAT	£355 + VAT
3ook within ast 4 weeks	£295 + VAT	£395 + VAT

25% discount on associated publications:

See p.30 for details.

Oliver Broadbent

Tutor

Oliver Broadbent is the founder and director of Constructivist. He works with leaders, teams and organisations to help them build their creativity. He trains engineers and architects in conceptual design, and works with universities and colleges to create innovative new approaches to engineering education. Oliver is a Royal Academy of Engineering Visiting Professor in experience-led learning at Imperial College London and was awarded the Sir Misha Black Award for Innovation in Design Education in 2020.

Prefer to attend in person?

This course will be delivered in-person by Oliver as a one-day course on 1 July at our London HQ.

Conceptual design of buildings.

Conceptual design for structural engineers: advanced

Course dates: Begins 1st December (online) 10:30 GMT

Aim

A series of two-hour interactive sessions taking place over three weeks to help experienced practitioners take their conceptual design skills to the next level. There will be a focus on understanding client needs, generating, and iteratively developing ideas, effective decision making in design, and managing design teams.

Learning outcomes

By the end of the course, you should be able to:

- Characterise the design process and describe how each stage requires different skills and attitudes
- Describe how conceptual design differs from detailed design and the consequences of these differences for how design is carried out
- Use techniques for understanding the underlying need behind a client brief
- Describe a model for idea generation and use this to lead a design team through the creative process
- Understand the relationship between modelling, testing and the design brief, and use this to establish an effective iterative design process
- Understand the nature of subjective decision-making in design
- Describe strategies for building an effective design team

Tutor

Oliver Broadbent is the founder and director of Constructivist. He works with leaders, teams and organisations to help them build their creativity. He trains engineers and architects in conceptual design, and works with universities and colleges to create innovative new approaches to engineering education. Oliver is a Royal Academy of Engineering Visiting Professor in Experience-led learning at Imperial College London and was awarded the Sir Misha Black Award for Innovation in Design Education in 2020.

The Institution of **StructuralEngineers**

Master the conceptual design process

This guidance will help you:

- Generate and communicate ideas through sketching and writing
- Prepare a brief
- Develop a structural scheme
- Rapidly size elements
- Design sustainably

Conceptual design of buildings

The Institution of StructuraEngin

Buy now: www.istructe.info/conceptual-design

Intended for

Contributes to IPD Core Objective 2.1

Structural engineers with at least five years' experience in practice and experience of managing other people as part of the design process.

Entry criteria

None.

Price

	Member rate	Standard rate
Book 4 weeks in advance	£485 + VAT	£645 + VAT
Book within last 4 weeks	£535 + VAT	£715 + VAT

25% discount on associated publications:

Conceptual design of buildings. See p.30 for details.

onceptual design buildings

Deep basements

Generation Online

Demolition and structural refurbishment

Course date: 12 October (online)

Aim

This course gives guidance on the key considerations when planning the construction of deep basements. It covers using both embedded wall bottom-up and top-down construction in accordance with Eurocodes 2 and 7.

Intended for

and construction.

Entry criteria

of deep basements.

Price

Civil or structural engineers (from

contractors to consultants) with some

understanding of the design process,

or those who wish to develop their

design knowledge and experience,

in both the technical and practical

aspects of deep basement design

Graduate civil and structural engineers,

interested in the design and construction

practising design and construction

engineers, and other professionals

Learning outcomes

By the end of the course, you should be able to:

- Apply performance criteria to construction techniques and structural form considering the intended use
- Design appropriate waterproofing to achieve the desired environment
- Propose structural form and sequence to match the geotechnical conditions
- Plan construction methodology and sequence, including estimating schedule and costs
- Assess the logistics and space requirements of different equipment considering the construction methodology and ground conditions
- Design deep basements taking into account of all the above

Contributes to IPD Core Objective **2.1, 2.2, 2.5**

Tutors

Peter Cracknell is a Technical Director in Mott MacDonald's Foundations and Geotechnics Department in Croydon. He has over 40 years' experience of design and construction support, including deep box construction, with emphasis on buildability and holistic design.

Christina Mavrommati has over 20 years' experience in the geotechnical design of large-scale civil engineering works in Greece and the UK including metro stations, bridges and earthworks.

Sivilay Sayavong has over 15 years' experience in the construction industry and brings with her a wealth of geotechnical design experience and technical problem solving; particularly in heavy foundation engineering including piles and diaphragm walls.

Course date: 3 March (online)

Aim

This course provides guidance on specific aspects of demolition and refurbishment. It has a particular focus on comparing existing constructions with new constructions.

Learning outcomes

By the end of the course, you should be able to:

- Compare the differences between refurbishment and new construction
- Demonstrate an understanding of traditional construction
- Evaluate practical options for the demolition of major buildings
- Identify specific structural hazards that may occur in demolition
- Understand temporary structural support methods

Contributes to IPD Core Objective **2.5**

Intended for

Design engineers with a reasonable level of experience. However, it will be of use to all concerned with demolition and refurbishment, including contractors, client managers and advisors.

Entry criteria

The course is designed to cover specific engineering topics, and therefore will be of maximum benefit to those with a reasonable level of experience in construction.

Price

	Member rate	Standard rate
Book 4 weeks in advance	£265 + VAT	£355 + VAT
Book within last 4 weeks	£295 + VAT	£395 + VAT

	Member rate	Standard rate
Book 4 weeks in advance	£265 + VAT	£355 + VAT
Book within last 4 weeks	£295 + VAT	£395 + VAT

Tutor

Charles Treasure has over 40 years' experience in structural and geotechnical design for temporary and permanent works, and in management and coordination of the design process. He is an Associate in Wentworth House Partnership.

다. Online

Design and analysis of tall buildings

Course dates: 13 June (online) | 12 September (online)

Aim

This popular course includes guidance on the design, stability, safety and performance of tall buildings.

Learning outcomes

tall buildings

Intended for

By the end of the course, you should be able to:

• Recognise the performance of

Design effective lateral stability

• Demonstrate how to design a tall building under blast or impact loading

systems for tall buildings

Entry criteria

Practising structural engineers or postgraduate students.

Recommended reading: Feng, F (2018). Structural Dynamic. Design and Analysis of Tall and Complex Structures. Oxford: Elsevier.

- Price

Book 4 weeks £265 in advance Book within £295 last 4 weeks

25% discount on associated publications:

Safety in tall buildings and other buildings with large occupancy. See p.30 for details.

- Describe how to design tall buildings for fire safety
- Use different software to analyse tall buildings
- Apply the relevant design codes
- Contributes to IPD Core Objective 2.1, 2.2

Dr Feng Fu

Structural engineers or students who work in the tall building design sectors.

nber te	Standard rate
+ VAT	£355 + VAT
+ VAT	£395 + VAT

Tutor

Dr Feng Fu is a Fellow of IStructE, ICE and ASCE. He is Associate Editor, ASCE Journal of Performance of Constructed Facilities; and an editorial board member for proceedings of ICE's Structures and Buildings and the International Journal of Advances in Computational Design. He has worked for several world leading consultancy companies and on extensive prestigious construction projects worldwide, such as the tallest building in Western Europe, the Shard. He has published more than 100 peer reviewed technical papers and 4 textbooks.

" This had given me a solid foundation of knowledge from which to refer to in designing tall buildings in my future practice.

2020 course attendee

Design process management

Design of steel bridges

Richard Brooks

Nick Francis

Chris O'Regar

IN-HOUSE DELIVERY ONLY. AVAILABLE ON REQUEST

Tutors

Richard Brooks is a chartered

of different sectors including

and infrastructure. He is an

team of engineers.

he is responsible for managing

Nick Francis is a Chartered

structural engineer, with 15 years

experience working across a range

residential, commercial, education

Associate at Price and Myers, where

multiple large scale projects with a

Structural Engineer, Chartered Civil

Engineer, and Chartered Manager.

He is the founder and director of

Imagine Engineering, a director of

Nick specialises in the interface

between human behaviour and

Chris O'Regan is an Associate

Structural Engineer at Clarke

Nicholls Marcel. He has been

working in the field of structural

engineering for over 30 years and

draws from his experience designing and inspecting structures for a large

technical engineering.

variety of buildings.

GIRI Training and Consultancy, and

teaches at the University of Sheffield.

Aim

The highly interactive course is made up of three two-hour modules that combined offer valuable training in design process management. With a focus on design-and-build projects and ideal for contractors managing teams on site.

Session 1: Design frameworks

- Understand the RIBA Plan of Work (and IStructE Plan of Work)
- Practical application on design-and-build contract projects. •
- Best practice in design management at each stage

Session 2: Consultant design responsibilities

- Appointing a designer (PoW stage 4)
- Expectations of working with a consultant/designer
- Working with client-retained designers

Session 3: Design change management

- Reasons for redesign
- Assessing the impact of change

• Gain a better understanding of the

consultancy on a design and

build contract

of Work

responsibilities and expectations of managing/working with a design

Managing communication of change (with client and contractors)

Learning outcomes

able to:

Intended for

By the end of the course, you should be This course can be tailored for on-site project engineers (civil and structural).

Entry criteria

None.

Price

On request.

Course dates: Contact training@istructe.org

Aim

This two-day course covers the design and analysis of steel bridges to Eurocodes. It uses worked examples, including steel bridge detailing and fabrication.

Intended for

Entry Criteria

Price

Learning outcomes

By the end of the course, you should be able to:

- Select a suitable type of steel bridge
- Apply the bridge loading
- Carry out bridge idealisation and analysis
- Design key structural elements of steel bridges
- Prepare the steel bridge detailing and fabrication

Contributes to IPD Core Objective **2.1, 2.2**

	Member rate	Standard rate
Book 4 weeks in advance	£485 + VAT	£645 + VAT
Book within last 4 weeks	£535 + VAT	£715 + VAT

Understand RIBA Plan of Work and how it interacts with IStructE Plan

Manage design change

 Understand and manage the emotional response to change

Dr Ben Lau

Chris Hendy

Those relatively new to bridge engineering, whether experienced structural engineers wanting to switch discipline, early career bridge engineers, or those just wanting to refresh their knowledge of bridge design.

Some design experience in steel structures to Eurocodes.

Tutors

Dr Ben Lau is an Associate Engineer at SNC-Lavalin Atkins. He was an Associate Professor (Industry Base) within the College of Engineering at Swansea University. He has extensive design experience in bridge engineering for large scale national and international projects, particularly in designing steel bridges.

Chris Hendy is a Fellow of the Royal Academy of Engineering and Head of Bridge Design and Technology in SNC-Lavalin Atkins, providing technical leadership to more than 700 bridge engineers worldwide. He is a recognised international expert on the background and use of Eurocodes 2, 3 and 4.

Drawing Gym for engineers

Designing for blast resilience and resistance

Piroozan Aminossehe

Course date: 8 June (online)

Aim

This course demonstrates how significant blast resilience and resistance is possible with careful design, planning and detailing of a structure.

Learning outcomes

Intended for

Entry criteria

dynamics is preferable.

Price

Book 4 weeks

in advance

Book within

last 4 weeks

Practising engineers who wish to gain an

insight into current methods of structural

analysis and design against blast loads.

No specific knowledge for attending

this course is required, although some

knowledge about elementary structural

£265 + VAT

Standard

£355 + VAT

£295 + VAT £395 + VAT

By the end of the course, you should be able to:

- Describe structural responses to blast loading with reference to 'equivalent single degree of freedom' analysis
- Use pressure impulse diagrams for approximate response assessment
- Employ principles and guidelines for protective design against the effects of blast
- Design reinforced concrete structures subject to blast loading
- Apply American Society of Civil Engineers' technical guidelines to practical structural design of blast-resistant facilities

ontributes to IPD Core Objective 2.1, 2.2

Tutors

Bob Sheldon was formerly senior lecturer in protective structures at the Centre for Defence Engineering at Cranfield University.

Piroozan Aminossehe is an independent consultant, who had a key role in the design of off shore structures (South Arne in North sea) and Sizewell 'B' nuclear power station in UK as head of the specialist analysis group as well as qualified MoD 200m jetty in Faslane against external and internal blast and explosion.

Course dates:

Begins 4 May (online) 10:00 BST and 2 November (online) 10:00 BST

Aim

This course introduces a number of drawing techniques and systems. It will increase your confidence in your sketching abilities.

Learning outcomes

Intended for

By the end of the course, you should be able to:

- Draw confidently using a repertoire of techniques and drawing systems
- Draw simple geometric forms, building details in isometric, axonometric, section and simple perspectives
- Express a broad range of concepts and forms through drawing
- Draw assuredly from your 'mind's eye'
- Use non-verbal communication professionally

Engineers and designers, including product designers, architects and set designers, who are seeking 2D and 3D strategies to help visualise spatial concepts.

Entry criteria

This course is suitable for all, including non-sketchers, rusty practitioners, and those who sketch frequently but want to make drawings of a higher standard, possibly for use in presentations. Participants will be sent worksheets before the course, which will enable you to practise sketching before you attend. You will leave with another set to help you keep practising.

Price

	Member rate	Standard rate
Book 4 weeks in advance	£265 + VAT	£355 + VAT
Book within last 4 weeks	£295 + VAT	£395 + VAT

Trevor Flynr

Tutor

Trevor Flynn is Director of Drawing at Work and founder of The Drawing Gym. He teaches drawing at University College London and runs the architectural and spatial drawing module of the Architectural Association foundation course. Trevor is a visiting lecturer at the School of Architecture at the University of Bath and is a drawing instructor in several architectural and engineering offices.

Trevor was a fantastic teacher; his passion for sketching is inspiring and everything he taught was useful and communicated so well as to be absorbed easily.

Previous course attendee

Eurocode 1: actions on structures for buildings

Aim

This course will give a brief introduction to the relevant sections of EN 1990 (The Basis of Structural Design) before familiarising you with EN 1991 - Part 1 - actions on structures, which primarily relates to buildings. It will cover densities, self-weight and imposed loads, snow loads, wind loads, thermal actions (other than fire), actions during execution and accidental actions.

Learning outcomes

By the end of the course, you should be able to:

- Recognise the parts relating to Actions in Eurocode EN1990: The Basis of Structural Design, which is the head material independent code and needs to be used with every other Eurocode part
- Describe the parts and clauses relating to buildings in EN 1991-1 -Eurocode 1: actions on structures (excluding fire actions)
- Explain the UK National Annexes for EN 1991-1
- Distinguish the main differences between EN 1991-1 and BS 6399 Parts 1, 2 and 3

Contributes to IPD Core Objective 2.2, 2.3

Intended for

Chartered and graduate civil and structural engineers. It will also be of interest to building control officers, architects and chartered surveyors.

Entry criteria

None.

Price

On request.

25% discount on associated publications: Manual for the design of building structures to Eurocode 1 & Basis of Structural Design (Second edition). See p.30 for details.

Dr Gerard Canis

IN-HOUSE DELIVERY ONLY. AVAILABLE ON REQUEST

Tutor

Dr Gerard Canisius CEng **FIStructE** is a Structural and Fire Safety Risk Consultant. He is an experienced trainer and Convenor of the CEN Working Group responsible for the development/revision of ENs 1991-1-1, 1991-1-6, 1991-1-7 and 1991-3. Dr Canisius was a member of the CEN Project Team for revising EN 1990 and he previously chaired the BSI Working Group chaired the BSI working group responsible for EN1990 and several parts of EN1991.

Eurocode 2: design of concrete structures

Emily Halliwel

Jenny Burridae

Eurocode 3:

structural steelwork design

Course date: 8 December (online)

Aim

This course introduces participants to the design of concrete structures to Eurocode 2. As well as the basics of materials, cover and fire, it also considers flexure, shear, deflection and column design.

Learning outcomes

By the end of the course, you should be able to:

- Describe Eurocode 2
- Design concrete for beams, slabs and columns
- Determine cover for a typical element
- Design elements for bending, deflection, shear and axial loads

ontributes to IPD Core Objective **2.2, 2.3**

Intended for

Practising structural engineers who are

Entry criteria

A basic understanding of the Eurocode system is assumed, together with a knowledge of the design of concrete.

looking to start designing to Eurocode 2.

Price

	Member rate	Standard rate
Book 4 weeks in advance	£265 + VAT	£355 + VAT
Book within last 4 weeks	£295 + VAT	£395 + VAT

25% discount on associated publications:

Manual for the design of concrete building structures to Eurocode 2 and Standard method of detailing structural concrete: 4th edition. See p.30 for details.

IN-HOUSE AVAILABLE

Tutors

Emily Halliwell is a structural engineer for The Concrete Centre where she promotes efficient concrete design and construction. Her role includes work on the development of Eurocode 2 and providing technical guidance to designers. Prior to joining The Concrete Centre, she worked on a wide range of challenging engineering schemes, including stations, stadia and commercial buildings. She is a Chartered Member of the ICE.

Jenny Burridge leads the team of structural engineers at The Concrete Centre. She is a chartered civil and structural engineer with more than 30 years' experience in the construction industry. She has previously worked for Arup and AECOM designing award winning buildings in both the UK and mainland Europe. She is the UK representative on the CEN task group looking at revisions to the fire part of Eurocode 2 and chairs the BSI Advisory Committee for Engineering Design and Construction.

Course date: 26 May

Aim

This course examines changes between BS 5950 and Eurocode 3. The emphasis is on buildings and the provision of general rules for buildings of EN 1993-1-1 and design of joints to EN 1993-1-8.

Learning outcomes

By the end of the course, you should be able to:

- Design basic steel structures to Eurocode 3
- Navigate effectively around different parts of Eurocode 3 necessary for the design of steel structures
- Identify the practicalities of design using Eurocode 3

Contributes to IPD Core Objective **2.2, 2.3**

Intended for

Civil and structural engineers who design, or supervise the design, of steel buildings or structures.

Entry criteria

Graduate engineers and designers with some design experience in steel structures.

Price

Book 4 weeks £265 in advance Book within £295 last 4 weeks

25% discount on associated publications:

Manual for the design of steelwork building structures to Eurocode 3. See p.30 for details.

Professor Dennis Lan

IN-HOUSE AVAILABLE

nber te	Standard rate
+ VAT	£355 + VAT
+ VAT	£395 + VAT

Tutor

Professor Dennis Lam is a Chartered Civil and Structural Engineer and Chair in Structural Engineering at the University of Bradford. He has extensive practical experience in structural design and analysis, with particular expertise in steel and composite structures. He is the leading author of Structural Steelwork: Design to Limit State Theory and has published widely on structural design and analysis.

Eurocode 4: composite design

IN-HOUSE AVAILABLE

Tutor

Professor Dennis Lam is a

Chartered Civil and Structural

Engineer and Chair in Structural

Engineering at the University of

Bradford. He has extensive practical

experience in structural design and

analysis, with particular expertise

in steel and composite structures.

He is the leading author of *Structural* Steelwork: Design to Limit State Theory and has published widely on structural design and analysis.

The Institution of **Structura**Engineers

Manuals supporting the design of structures to a particular Eurocode

Visit: www.istructe.org/shop/manuals

Course date: 14 September

Aim

This course supports the practising designer with the transition to Eurocode-based design for composite building structures. It will enable you to understand the essential requirements of this code for your structural design, how the code operates and how it can support you.

Learning outcomes

By the end of the course, you should be able to:

- Design basic steel concrete composite structures to Eurocode 4
- Appreciate the Eurocode suite and its impact on UK design practice

Contributes to IPD Core Objective **2.2, 2.3**

Intended for

Civil and structural engineers who design, or supervise the design, of composite building structures.

Entry criteria

Graduate engineers and designers with some design experience in steel structures.

Price

	Member rate	Standard rate
Book 4 weeks in advance	£265 + VAT	£355 + VAT
Book within last 4 weeks	£295 + VAT	£395 + VAT

Eurocode 5:

connections and advanced topics in timber design

Course date:

30 June (online)

Aim

This course introduces advanced topics in timber design to Eurocode 5, including fasteners and connectors.

Learning outcomes

By the end of the course, you should be able to:

- Design basic and more intricate timber connections to Eurocode 5
- Appreciate the fracture mechanics aspects of wood behaviour and scientific research behind certain clauses of Eurocode 5
- Appreciate the use of dowel type fasteners and contemporary connectors for practical applications
- · Use the connections chapter of Eurocode 5 for practical design situations

Contributes to IPD Core Objective **2.2, 2.3**

Intended for

Graduates through to senior structural engineers.

Entry criteria

Familiarity with timber engineering may be beneficial. Participation at the Eurocode 5: The Essentials of Timber Design course may also be advantageous.

Price

	Member rate	Standard rate
Book 4 weeks in advance	£265 + VAT	£355 + VAT
Book within last 4 weeks	£295 + VAT	£395 + VAT

Discount

Book both Eurocode 5 courses together and save 10%.

25% discount on associated publications:

Manual for the design of timber building structures to Eurocode 5. See p.30 for details.

다. Online

Eurocode 5: the essentials of timber design

IN-HOUSE AVAILABLE

Tutor

Dr Keerthi Ranasinghe is a Senior Lecturer at the University of Wales Trinity Saint David, a member of the TRADA Technical Advisory Panel, and an independent timber engineering consultant. Keerthi is the author of several TRADA publications, including the Span Tables to Eurocode 5, and the Institution's Manual for the design of timber building structures to Eurocode 5 2nd edition.

Course date: 29 June (online)

Aim

This course offers an introduction to base and loadings Eurocodes and timber design to Eurocode 5.

Learning outcomes

Entry criteria

By the end of the course, you should be able to:

- Recognise the basics of designing timber elements to Eurocode 5
- Assess the intricacies involved in designing timber elements to Eurocode 5
- Appraise the wood technology and scientific research behind certain clauses of Eurocode 5
- Use the peripheral standards and further commercial information to design with Eurocode 5
- Use Eurocode 5 for practical design situations

Contributes to IPD Core Objective 2.1, 2.2, 2.3

Intended for

Graduates through to senior structural engineers.

be beneficial, but is not essential.

Price

	Member rate	Standard rate
Book 4 weeks in advance	£265 + VAT	£355 + VAT
Book within last 4 weeks	£295 + VAT	£395 + VAT

Discount

Book both Eurocode 5 courses together and save 10%.

25% discount on associated publications:

Manual for the design of timber building structures to Eurocode 5. See p.30 for details.

IN-HOUSE AVAILABLE

Familiarity with timber engineering may

Tutor

Dr Keerthi Ranasinghe is a Senior Lecturer at the University of Wales Trinity Saint David, a member of the TRADA Technical Advisory Panel, and an independent timber engineering consultant. Keerthi is the author of several TRADA publications, including the Span Tables to Eurocode 5, and the Institution's Manual for the design of timber building structures to Eurocode 5 2nd ed.

This course was an incredibly thorough and insightful study of structural timber design. It's impressive what we got through in two days - now I feel confident to practice problems and approach design work on my own. Plus, if your degree didn't include this as a course, it's well worth it.

2021 course attendee

Eurocode 6: masonry design

Eurocode 7:

foundation design for small practitioners

Course date: 12 May (online) | 11 October (online)

Aim

This course provides participants with detailed knowledge of masonry design to Eurocode 6 Standards and the National Annexes for Eurocodes.

Learning outcomes

By the end of the course, you should be able to:

- Explain design using masonry to Eurocode 6
- Design for vertical load
- Design for lateral load
- Identify and locate relevant information to support your future designs

Contributes to IPD Core Objective **2.2, 2.3**

IN-HOUSE AVAILABLE

Tutor

Professor John Roberts is an independent consultant and the Principal of the Technical Innovation Consultancy, which specialises in supporting innovation in construction. He currently chairs the UK panel for Eurocode 6 and is the UK project team member for the revision of the Eurocode. He is President of the International Masonry Society and Chairman of the International Advisory Panel for Masonry International.

Course date: 20 October

Aim

This course covers aspects of the geotechnical and structural design of spread and piled foundations. It is tailored for engineers working in small practices. The content is compliant with Eurocodes 2 and 7, with opportunities for comparisons with relevant British Standards.

Learning outcomes

Intended for

to Eurocodes.

Entry criteria

By the end of the course, you should be able to:

- Develop suitable foundations using ground investigation material
- Prepare scheme designs for spread and piled foundations
- Analyse the practical problems involved in the construction of foundations

Contributes to IPD Core Objective 2.1, 2.2

state design	methods.
Price	

	Member rate	Standard rate
Book 4 weeks n advance	£265 + VAT	£355 + VAT
Book within	£295 + VAT	£395 + VAT

25% discount on associated publications:

Manual for the geotechnical design of structures to Eurocode 7. See p.30 for details.

Entry criteria

Structural engineers interested in the

design of masonry to Eurocode 6.

A civil or structural engineering degree or an equivalent qualification.

Price

Intended for

	Member rate	Standard rate
Book 4 weeks in advance	£265 + VAT	£355 + VAT
Book within last 4 weeks	£295 + VAT	£395 + VAT

25% discount on associated publications:

Manual for the design of plain masonry in building structures to Eurocode 6. See p.30 for details.

Bob Benton

IN-HOUSE AVAILABLE

Tutor

Bob Benton is a Chartered Structural Engineer with experience of designing building and civil engineering structures and motorway projects. He is a visiting lecturer at the University of the West of England, where he teaches undergraduate, postgraduate and mid-career engineers. He has also authored educational material for The British Standards Institution.

Graduate engineers who wish to develop practical design skills, and mid-career engineers, particularly those working in small practices, who are designing foundations and making the transition

Participants should be familiar with limit

Eurocode 8: an introduction to seismic design of buildings

Professor Costas Georgopoulos

Course date: 10 February (online)

Aim

This course delivers key advice and guidance on seismic design of structures to Eurocode 8 as well as the application of the Eurocode. Emphasis is placed on reinforced concrete buildings although the concepts are widely applicable.

Intended for

Entry criteria

required.

Price

Book 4 weeks

in advance

Book within

last 4 weeks

Discount

Practicing structural and civil engineers

seeking guidance on the application of

Initial Professional Development, and

students, researchers and academics

with limited seismic design experience.

No previous experience in dynamics is

£265 + VAT

£295 + VAT £395 + VAT

£355 + VAT

Eurocode 8, graduates undertaking their

Learning outcomes

By the end of the course, you should be able to

- Describe E/Q damages and identify their causes
- Apply principles of conceptual design of E/Q-resistant structures in practice
- Appreciate ground motions and geotechnical aspects in structural seismic design
- Apply performance requirements and compliance criteria for various types of buildings
- Select models and methods of analysis of buildings for seismic actions
- · Carry out equivalent static analysis of simple buildings
- Carry out safety verifications
- · Carry out simple structural element design and detail

Contributes to IPD Core Objective **2.1, 2.2**

DISCOUNT FOR A COURSE PAIR

25% discount on associated publications:

and save 10%.

Manual for the seismic design of steel and concrete buildings to Eurocode 8. See p.30 for details.

Book both Eurocode 8 courses together

Tutor

Professor Costas Georgopoulos CEng FHEA FCS FIStructE FICE

is Chair of Structural Engineering Practice at Kingston University London. He is also a practising engineer with many years' unique multi-sector experience in seismic design such as conventional buildings in Greece and state-of-theart structures in the UK (Trident Submarine Refitting Facility at Rosyth and Sizewell B Nuclear Power Station). Costas' expertise on EC8 includes consulting engineering worldwide, teaching PG programmes, supervising dissertations, authoring the IStructE's forthcoming Examples for the seismic design of steel and concrete buildings to Eurocode 8 and being a member of the BSI National Expert Committee for the Eurocode.

Generation Online

Eurocode 8:

worked examples of the dynamic analysis and seismic design of buildings

Course date: 11 February (online)

Aim

This course delivers key advice through the use of worked examples on seismic design of structures to Eurocode 8 as well as the application of the Eurocode, Emphasis is placed on reinforced concrete buildings although the concepts are widely applicable.

Learning outcomes

By the end of the course, you should be able to

- Understand the dynamic analysis of buildings
- · Carry out the dynamic analysis of a 2DOF frame by hand
- Appreciate the principles of conceptual design of E/Q-resistant structures
- Describe the provisions of Eurocode 8
- Apply the performance requirements and compliance criteria of Eurocode 8
- Carry out building element design to Eurocode 8 by hand

Contributes to IPD Core Objective **2.1, 2.2**

Intended for

Structural and civil practising engineers seeking guidance on the application of Eurocode 8, graduates undertaking their Initial Professional Development, and students, researchers and academics with limited seismic design experience.

Entry criteria

For direct entry to day 2, it is expected that attendees have some experience in dynamic and seismic analysis.

Price

	Member rate	Standard rate
Book 4 weeks in advance	£265 + VAT	£355 + VAT
Book within last 4 weeks	£295 + VAT	£395 + VAT

25% discount on associated publications:

Manual for the seismic design of steel and concrete buildings to Eurocode 8. See p.30 for details.

Professor Costa Georgopoulos

Tutor

Professor Costas Georgopoulos CEng FHEA FCS FIStructE FICE is Chair of Structural Engineering Practice at Kingston University London. He is also a practising engineer with many years' unique multi-sector experience in seismic design such as conventional buildings in Greece and state-of-theart structures in the UK (Trident Submarine Refitting Facility at Rosyth and Sizewell B Nuclear Power Station). Costas' expertise on EC8 includes consulting engineering worldwide, teaching PG programmes, supervising dissertations, authoring the IStructE's forthcoming Examples for the seismic design of steel and concrete buildings to Eurocode 8 and being a member of the BSI National Expert Committee for the Eurocode.

Eurocode 9: design of aluminium structures

Exam preparation day

Course date: 8 February (online)

Aim

The aim of this course is to help attendees use structural aluminium. It introduces basic considerations as well as giving guidance on using Eurocode 9. It includes design examples.

Intended for

other applications.

Entry criteria

helpful.

Price

The course is primarily intended for

Eurocode 9 for the design of buildings,

civil engineering and structural works

including bridges. The basic principles

and content will also be useful for other

Some prior experience of design of steel

or aluminium structures would be

engineers who will use aluminium in

structural engineers who will use

Learning outcomes

By the end of the course, you should be able to:

- List the considerations necessary when deciding to design in structural aluminium rather than in steel
- Determine how to select the most appropriate aluminium alloys for a structural application
- Examine the pros and cons of different material forms and jointing methods
- Perform limit state calculations in accordance with the Eurocode

contributes to IPD Core Objective **2.2, 2.3**

Tutor

Dr Meini Su is a Senior Lecturer in Structural Engineering at the University of Manchester. Prior to that, she was an assistant professor at Shenzhen University, China. She studied at The University of Hong Kong and Imperial College London. Her principal research interests lie in the areas of structural testing, numerical modelling and the development of design guidance for aluminium alloy structures and reinforced concrete structures in marine environment.

Course date: **15 December (online)**

Aim

This one-day course helps participants prepare for the IstructE's Chartered Membership Exam, in accordance with the Institution's guidelines.

Learning outcomes

By the end of the course, you should be able to:

- Describe the general principles and techniques to successfully complete the examination
- Demonstrate these principles by discussing real questions on a bridge, steel building, concrete building and a 'general' building
- Assess the requirements of the exam and what the examiners expect to see

Intended for

Anyone who is preparing to sit The Institution of Structural Engineers Chartered Membership Exam.

Entry criteria

None.

Price

Book 4 weeks in advance

Book within last 4 weeks

	Member rate	Standard rate
Book 4 weeks in advance	£265 + VAT	£355 + VAT
Book within last 4 weeks	£295 + VAT	£395 + VAT

Tutor

Stephen Vary has worked in industry on building and process plant structures. He has also taught Structural Design at Universities in the UK and abroad.

A great start to my exam preparation.

2019 course attendee

Member rate

£265 + VAT

£295 + VAT

Exam preparation course

Course dates:

6 – 8 June (online) | December (please check website)

Aim

This comprehensive three-day course is designed to prepare you for the IStructE's Chartered Membership exam; enabling you to approach the exam with confidence.

Learning outcomes

By the end of the course, you should be able to:

- Plan your own preparation for the exam
- Recognise what is required to pass each element of the exam
- Formulate distinct and viable solutions to exam questions
- Employ conceptual tools to develop efficient solutions to exam questions

Contributes to all IPD Core Objectives

Intended for

Anyone who is preparing to sit The Institution of Structural Engineers Chartered Membership Exam and who intends to answer non-bridge questions.

Entry criteria

None.

Price

	Member rate
Book 4 weeks in advance	£585 + VAT
Book within last 4 weeks	£655 + VAT

Tutors

Paul Toplis is a partner at Price & Myers consulting engineers with over 30 years' experience of designing buildings. He is personally involved in producing sketch drawings, calculations and specifications for projects – bringing 'hands on' experience to the course.

Chris Smaller is a Chartered Civil and Structural Engineer with over 30 years' experience, including the design of high profile buildings in all structural materials. Chris works in all sectors and is involved with new commercial, industrial and retail developments, refurbishments and conservation work.

Victoria Edmondson is a Chartered Structural Engineer with over 15 years' experience in the UK and abroad. She is passionate about coaching the next generation of structural engineers.

Matt Goswell has worked for a number of London-based structural consultants on projects such as the Oval cricket ground, KPMG Canary Wharf and The Shard. To broaden his horizons, Matt moved into the energy sector, predominately working as a lead engineer on onshore facilities across the world.

All the tutors are marking examiners for The Institution of Structural Engineers Chartered Membership Exam.

The Institution of StructuralEngineers

On-demand Professional Review Interview preparation course

A new practical online course to help you maximise your interview preparation, build your portfolio and increase your chances of success in an accessible and flexible way.

With this course, you will learn to:

- Develop your portfolio
- Understand how to prepare for the interview
- Learn valuable interview techniques
 Grow your confidence for interview
- Identify any gaps in your preparation

On-demand exam preparation course

Whether you're planning to attend an exam preparation day or not, this online course can be used as supplementary learning and development. Prepare for your Chartered Membership Exam wherever you are in the world.

You will learn to:

- Plan your own preparation for the exam
- · Recognise what is required to pass each module
- Create viable solutions to exam questions
- Use conceptual tools to develop answers
- Identify any gaps in your preparation

Get started at istructe.org/onlineexamprep

Price: £295 + VAT for 12 month access www.istructe.info/PRI-course

Historic timber structures:

assessment and reuse

Course date: 2 February (online) | 18 November (online)

Aim

This course introduces timber as an engineering material, with a focus on its use in historic structures. It covers non-destructive techniques for condition assessment and strategies for the reuse of heritage structures.

Learning outcomes

By the end of the course, you should be able to:

- Recognise timber as an engineering material and explain the inherent strengths and weaknesses of this organic and 'living' material
- Identify the cellular structure of timber in relation to softwoods and hardwoods
- Appreciate the timber grading rules to softwoods and hardwoods, and employ the rules and strategies in assigning strength classes to timber used in existing structures
- List the non-destructive testing techniques available in assessing timber used in historic structures
- Distinguish the simple structural forms of constructions used in historic structures

ontributes to IPD Core Objective **2.3**

Intended for

Graduates through to senior structural engineers.

Entry criteria

Familiarity with timber engineering may be beneficial, but is not essential.

Price

	Member rate	Standard rate
Book 4 weeks in advance	£265 + VAT	£355 + VAT
Book within last 4 weeks	£295 + VAT	£395 + VAT

25% discount on associated publications:

Manual for the design of timber building structures to Eurocode 5 (2nd edition). See p.30 for details.

Tutors

Dr Keerthi Ranasinghe is the Principal Structural Engineer supporting the TRADA advisory line. Keerthi sits on the TRADA Technical Advisory Panel and the BSI and European (CEN) technical committees on Eurocode 5, as well as being a member of the Project Team updating the connections chapter of Eurocode 5. Keerthi is the author of several popular publications, including the Institution's Manual for the design of timber building structures to Eurocode 5 2nd edition.

Mr. Philip O'Leary is the section leader for Timber Technology Investigations at BM TRADA, the technical authority behind TRADA. With around 30 years of postqualifying experience, Phil has published in local and international journals about wood science. Phil is the leading authority at TRADA for Visual Strength Grading and is also the Assessor for Qualified Visual Strength Graders.

Lateral stability of **building structures**

Course dates:

21 March (online) 14:00 - 18:00 GMT 3 October (online) 14:00 - 18:00 BST

Aim

This half-day course covers the methods by which the lateral stability of a building structure is achieved.

Learning outcomes

Entry criteria

By the end of the course, you should be able to:

- Describe the methods of achieving lateral stability in buildings
- · Recognise how robustness impacts on lateral stability
- Identify second order effects on building structure frames
- Illustrate development and projection of load paths in frames
- Identify and exploit vertical and horizontal stability systems

Contributes to IPD Core Objective 2.1, 2.2

Intended for

Graduate structural engineers who are expected to develop their understanding of the stability of complex, real world building structures.

Attendees must be practising structural engineers who are familiar with building structures and have a minimum of one year's experience.

Price

	Member rate	Standard rate
Book 4 weeks in advance	£185 + VAT	£245 + VAT
Book within last 4 weeks	£215 + VAT	£285 + VAT

25% discount on associated publications:

- Stability of buildings Parts 1 and 2: General philosophy and framed bracing
- Stability of buildings Part 3: Shear walls • Stability of buildings Part 4:
 - Moment frames (These titles may also be purchased as a three volume package.)
 - Practical guide to structural robustness and disproportionate collapse in buildings

See p.30 for details.

Chris O'Rega

Tutor

Chris O'Regan is an Associate Structural Engineer at Clarke Nicholls Marcel. Chris created this highly interactive course in 2017 and has been delivering it ever since. Chris has been working in the field of structural engineering for over 30 years and draws from his experience from developing structures for a large variety of buildings ranging from music halls through to stadia and everything in between.

Net-zero structural design

Will Arnold

Oliver Broadber

Rapid calculations for structural engineers

Course dates:

Begins 4 February (online) 10:30 GMT and 26 May (online) 15:30 BST and 22 September (online) 9:30 BST

Aim

This brand new course is delivered as a series of interactive online sessions supported by individual study. It will enable you to design structures with net zero emissions.

Intended for

on a day-to-day basis.

(launching Autumn 2021)

Entry criteria

Price

Book 4 weeks

in advance

Book within

last 4 weeks

Near chartered and chartered structural

engineers, involved in structural design

Must have completed the Embodied

£485 + VAT

£535 + VAT £715 + VAT

£645 + VAT

Carbon Basics on-demand course

Learning outcomes

By the end of the course, you should be able to

- Communicate what Net Zero means and how to achieve it
- Identify opportunities for reducing carbon in design, including through reimagining briefs
- Specify materials in a way that is beneficial for the industry, not just your project
- Think holistically beyond just structure, towards low carbon overall design
- Understand the basics of offsetting, its limitations and opportunities

Tutors

Will Arnold is Head of Climate Action at the IStructE. He leads the Institution's response to the climate emergency, bringing this action into all aspects of the organisations work including the publication of bestpractice emergency guidance. Prior to his current role, he was a practising structural engineer at Arup for over ten years. He sits on the Structural Awards judging panel and is a member of the Editorial Advisory Group for The Structural Engineer.

Oliver Broadbent is the founder and director of Constructivist. He works with leaders, teams and organisations to help them build their creativity. He trains engineers and architects in conceptual design, and works with universities and colleges to create innovative new approaches to engineering education. Oliver is a Royal Academy of Engineering Visiting Professor in Experience-led learning at Imperial College London and was awarded the Sir Misha Black Award for Innovation in Design Education in 2020.

Course date: Please check website

Aim

Generation Online

This half-day online course provides a theoretical framework for rapid problem-solving concept calculations. Applying this to practical exercises' attendees will learn how to undertake rapid calculations for different structural members using a small scheme as an example and considering deflection, limit, and materials.

Learning outcomes

Intended for

By the end of the course, you should be able to

- Understand the difference between rapid concept calculations and detailed design calculations
- · Employ a useful framework for rapid calculations using typical structural design problems
- Use your own experience to inform your rapid design calculations
- Consider the types of questions to ask and have the confidence to answer them quickly

for the Chartered Membership Exam.

Entry criteria

Price

None.

	Member rate	Standard rate
Book 4 weeks in advance	£185 + VAT	£245 + VAT
Book within last 4 weeks	£215 + VAT	£285 + VAT

This course is suitable for early career structural engineers and those preparing

Tutors

Rachael De'Ath has more than 18 years' design experience working for Arup and 3 years lecturing at the University of Bristol to teach design, alongside her work in industry. She prefers working on re-use projects, where the existing structure is creatively re-imagined into something new. She was named as one of the Women's Engineering Society 'Top 50 female engineers' in 2018.

Resilience-based design of structures

Caroline Field

Dr Alessandro Palmer

Seismic design of structures

Course date: 19 September (online)

Aim

This interactive online course will share current state-of-the-art frameworks for the adoption of resilience-based design in professional practice, demonstrating advantages compared to a traditional prescriptive design and providing examples of how they benefit the client.

Learning outcomes

By the end of the course, you should be able to:

- Differentiate between reliability, risk and resilience when quantifying structural performance
- Understand how systems thinking can be used to understand complexity and facilitate resilience
- Develop a knowledge of performance-based analysis methods and when to use them
- Understand the need for integration across the construction industry and the role structural engineers can play in decision making when working beyond the codes

Contributes to IPD Core Objective **2.1, 2.2**

Intended for

Practising civil and structural engineers who are keen to achieve resilience and robustness in structural design beyond the application of prescriptive codes of practice. It will also be of interest to those from other construction disciplines who wish to obtain a basic introduction to performance-based structural engineering and the concept and practical application of resilience in design practice.

Entry criteria

Price

None.

	Member rate	Standard rate
Book 4 weeks in advance	£265 + VAT	£355 + VAT
Book within last 4 weeks	£295 + VAT	£395 + VAT

Tutors

Caroline Field MSc, CEng MICE is an Associate Director in the Resilience, Security and Risk team at Arup and is the Energy Sector lead for the Resilience Shift. She is active in developing standards in resilience. Caroline recently received the Royal Academy of Engineers Visiting Professorship Award and is supporting Loughborough University's Civil Engineering Department as a Visiting Professor of Structure and Infrastructure Resilience.

Dr Alessandro Palmeri leads

the Structures and Materials Group at Loughborough University. His research focuses on applications of structural dynamics, including bridge, earthquake and wind engineering, and probabilistic methods, including reliabilityand performance-based design.

Course dates: 6 - 9 June (online) 10:00 - 14:00 BST

Aim

C Online

This course introduces seismic design of civil engineering structures. It builds on the basics of structural dynamics and engineering seismology. The course focusses on seismic loading and design codes, conceptual seismic design principles and analysis for seismic loading, and design and detailing of structural members.

Learning outcomes

By the end of the course, you should be able to:

- Identify situations where earthquake loading must be included in the design of structures and how to define this loading
- Understand the basic principles of seismic design and select appropriate performance requirements for structures subjected to earthquake loads
- Select an appropriate structural configuration for a building situated in a seismic zone
- Analyse a building for seismic loading
- Design and detail reinforced concrete structures
- Have an appreciation of seismic design and detailing of steel and steel-concrete composite structures
- Have an appreciation of seismic design of highway bridges

ontributes to IPD Core Objective 2.1, 2.2

Intended for

Practising structural design engineers and consultants seeking guidance on seismic design of structures, graduates undertaking their Initial Professional Development, and students, researchers and academics with limited seismic design experience.

Entry criteria

Participants should be familiar with the principles of structural design and the basics of structural dynamics.

Price

	Member rate	Standard rate
Book 4 weeks in advance	£485 + VAT	£645 + VAT
Book within last 4 weeks	£535 + VAT	£715 + VAT

25% discount on associated publications:

Manual for the seismic design of steel and concrete buildings to Eurocode 8. See p.30 for details.

Dr Agathoklis Giaralis

Prof Konstantinos Daniel Tsavdaridis

Dr Panagiotis Mergos

IN COLLABORATION

Tutors

Dr Agathoklis Giaralis is the Director of the Research Centre for Civil Engineering Structures at City, University of London (CUoL). His research output documented in over 90 peer-reviewed articles are in structural dynamics and earthquake engineering with a focus on probabilistic seismic analysis methods and on vibration control devices for high seismically performing structures.

Prof Konstantinos Daniel

Tsavdaridis is Professor of Structural Engineering in the Department of Civil Engineering at City, University of London (CUoL). His research is centred around steel and steelconcrete composite structural systems and he has published over 160 peer-reviewed articles. He specialises in the design of seismicresistant connections and he has performed full and large-scale experiments and advanced computational modelling.

Dr Panagiotis Mergos is Senior Lecturer in Structural Engineering and the Programme Director of the MSc in Civil Engineering Structures at CUoL. He has worked for 18 years in seismic design and assessment of structures as a researcher and as a consultant and he is panel member of the UK Mirror Group MG2 developing the next interation of Eurocode 8, Part 1.

다 Online

Stadium design

Steel essentials: practical design of structural steelwork

Course date: 10 November

Aim

This course demonstrates the similarities between stadium engineering and other types of design. It stresses the importance of the Class 3 structure review regulations and the critical compliance with stadium design guides.

Learning outcomes

By the end of the course, you should be able to:

- Debate structural solutions for compliance with geometric viewing requirements
- Develop the structural form in association with the architect
- Demonstrate critical dynamics for other design team members that may impact on the structural form
- · Appreciate the importance of the design for construction

contributes to IPD Core Objective **2.1, 2.2**

Tutor

Angus Cormie is Chief Engineer at J&D Pierce Steel Fabricators and a Chartered Structural Engineer who has spent most of his professional life in contracting. He has designed many stadia and helped develop innovative solutions for the build process. Angus regularly presents papers on design and construction related topics.

Intended for

Graduate engineers approaching chartership. The course is also relevant for other engineers who need an understanding of stadium design.

Entry criteria

None.

Price

	Member rate	Standard rate
Book 4 weeks in advance	£265 + VAT	£355 + VAT
Book within last 4 weeks	£295 + VAT	£395 + VAT

3 October (online) Aim

Course date:

This course presents practical guidance on key aspects of preliminary scheme development and detailed scheme design in structural steelwork.

Learning outcomes

By the end of the course, you should be able to:

- Compare steel construction options available at preliminary scheme development and determine the optimum design solution
- Apply a simple methodology for preliminary sizing of members to enable budget costing to be developed
- Judge the significance of steel grade and subgrade for structural steelwork and how to specify them
- · Describe the responsibilities for different parties under CE Marking
- Describe key aspects of robustness and corrosion protection
- · Design for fire and assess the benefits of critical temperature calculation for fire protection
- · Identify resources available to assist with the use of structural steelwork in construction

Contributes to IPD Core Objective **2.1, 2.2, 2.3**

Intended for

Primarily, structural engineers, but the course has been structured to concentrate on good practice in steel construction rather than focus on how to complete design calculations.

Entry criteria

Familiarity with steel construction would be helpful, but is not essential.

Price

	Member rate	Standard rate
ook 4 weeks advance	£265 + VAT	£355 + VAT
ook within ast 4 weeks	£295 + VAT	£395 + VAT

25% discount on associated publications:

Manual for the design of steelwork building structures to Eurocode 3. See p.30 for details.

Richard Dixon

Tutor

Richard Dixon is a chartered engineer who has worked in the steel industry for the last 20 years. Before partnering with Steel for Life, he worked for British Steel/Corus/ Tata Steel in various roles. Recently, he led the Structural Advisory Service at Tata Steel in the joint venture with the BCSA to promote efficient design in structural steelwork to the UK construction industry.

C Online

Structural design against deflection

Structural engineering with bamboo

Course date: 22 June

Aim

This course provides engineers with an introduction to structural concepts and shows how their implementation can lead to physical measures for creating desirable distributions of internal forces in structures which can assist in the process of designing against deflection.

Learning outcomes

By the end of the course, you should be able to:

- Identify and analyse four key structural concepts and their implementation
- Recognise intuitive ways to interpret structural behaviour
- Appreciate innovative engineering solutions for reducing deflections
- Identify physical measures embedded in existing structures which effectively reduce deflections
- Recognise the interaction between structural concepts and design practice

ontributes to IPD Core Objective 2.1

Tutor

Dr Tianjian Ji is a Reader in Structural Engineering at the University of Manchester. He developed "Seeing and Touching Structural concepts" for gaining an intuitive understanding by using simple physical models and appropriate practical examples. He is the author of two books, "Understanding and Using Structural Concepts" and "Structural Design Against Deflection".

The course will enable me to provide more efficient designs based on basic

concepts rather than complex computer analysis. Especially important at initial design stage where limited time is available to provide solutions to structural problems.

2019 course attendee

Course date: 13 July (online)

Aim

This course will equip attendees with practical knowledge about structural design with bamboo stems (culms). The course considers aspects of concept design, detailed design and durability by design.

Learning outcomes

By the end of the course, you should be able to:

- Describe the structural characteristics of bamboo culms
- List and interpret the advantages and limitations of using bamboo culms as a structural product
- Identify where and how bamboo culms may be used appropriately within a building structure
- Determine the capacity of bamboo culms and their connections through basic calculations
- Examine the state-of-the-art of structural design with engineered bamboo

Contributes to IPD Core Objective **2.1, 2.2, 2.3**

Intended for

Structural engineers in developed countries who work with glulam and timber and are exploring alternatives. Structural engineers working in developing countries with an interest in building with sustainable materials.

Entry criteria

Price

None.

	Member rate	Standard rate
Book 4 weeks in advance	£265 + VAT	£355 + VAT
Book within last 4 weeks	£295 + VAT	£395 + VAT

Intended for Graduate engineers approaching

chartership. The course is also relevant for experienced engineers who wish to enhance their holistic comprehension of structural design against deflection.

Entry criteria

Participants are encouraged to read as much as possible at www.structuralconcepts.org before attending the course.

Price

David Truiille

Seb Kaminsk

Tutors

David Truiillo

David has been researching bamboo for over 20 years and has authored or co-authored more than 25 publications on the subject, including the IStructE Technical Papers on bamboo within The Structural Engineer. He has led the development of two ISO standards for bamboo, which are now British Standards (BS ISO 22157 and BS ISO 19624). He is actively participating in the revision of ISO 22156 (Structural Design), and Chapter G of Colombia's building code.

Seb Kaminski

Seb is a structural engineer in Arup's Specialist Technology & Research Team. He is a specialist in the use of bamboo, especially for housing, and led the IStructE Technical Papers on Bamboo within The Structural Engineer. Seb is currently involved in the revision of ISO 22156 (Structural Design of Bamboo) and the development of a testing guide for bamboo shear walls and runs international training courses in using bamboo structurally.

다 Online

Structural robustness and disproportionate collapse

Temporary works design

Course dates: Contact training@istructe.org

Aim

This course equips practising engineers to undertake the full structural design of a building. including designing a robust building to avoid disproportionate collapse. The course covers designing buildings of Class 1 - 2B and alterations/change of use of existing buildings.

Learning outcomes

Intended for

of buildings.

Price

Book 4 weeks

in advance

Book within

last 4 weeks

publications:

Entry criteria

Newly chartered or almost chartered

Two to six years in a consulting

25% discount on associated

and disproportionate collapse in

See p.30 for details.

Practical guide to structural robustness

buildings and Manual for the systematic

risk assessment of high-risk structures against disproportionate collapse. Also available as a two-volume package.

almost or recently chartered.

engineering company, unless you are

£265 + VAT

£355 + VAT

£295 + VAT £395 + VAT

engineers who are independently doing

the outline, scheme and detailed design

By the end of the course, you should be able to:

- · Describe the layout and structure of a robust building and explain what makes a building vulnerable
- Summarise which legislation is relevant to disproportionate collapse and identify key clauses
- Classify buildings into their types, with respect to building use and size
- Outline different approaches for achieving robustness
- Determine a strategy for robustness compliance for buildings of different material types, use and size
- Analyse an existing building that is being altered or extended and develop an outline scheme for robustness using guidance from London District Surveyors Association

Contributes to IPD Core Objective 2.1, 2.2

Tutor

Ruth Haynes is a Chartered Civil Engineer with 20 years' experience in consultancy. She worked as a Party Wall surveyor in central London for a number of years and prior to this ran her own engineering consultancy. She has also worked in Dhaka inspecting clothing factories in the wake of the Rana Plaza collapse and currently works for MDIS which provides warranties for new buildings.

Course dates: 9 – 10 February | 5 – 6 October

Aim

This two-day course provides participants with an understanding of the basic principles of temporary works design.

Learning outcomes

Intended for

By the end of the course, you should be able to:

- Describe the principles of basic temporary works design methodologies
- Explain temporary loads, potential modes of failure and practical considerations
- Calculate concrete pressures and design formwork, falsework and back-propping
- Design a simple trench support scheme
- Apply basic wind loading and design a site hoarding
- Design outrigger spreader pads for mobile cranes
- Design a simple needling scheme
- Apply the principles behind temporary works for demolition, facade retention and structural propping, basement construction and scaffolding design
- Discuss loads and modes of failure

contributes to IPD Core Objective 2.2, 2.5

Civil or structural engineering graduates from contractors to consultants with some basic understanding of the design process, or those who wish to further their design knowledge and experience.

Entry criteria

Basic university level engineering knowledge is assumed. Participants will be required to carry out engineering calculations.

Price

	Member rate	Standard rate
Book 4 weeks in advance	£485 + VAT	£645 + VAT
Book within last 4 weeks	£535 + VAT	£715 + VAT

Tutor

Ray Filip is a Fellow of the Institution of Civil Engineers with over 33 years' experience in the field of temporary works design and management. He has spent 20 years working for contractors in the UK and abroad and is a member of the committee responsible for revising BS5975 (British Standard for temporary works). Ray is currently a self-employed consultant having formed RKF Consult Ltd in 2007.

The best course I have been on, very useful. Ray presented brilliantly and left no stone unturned.

Ray was very good at explaining the various topics and was able to answer all questions.

Previous course attendees

Timber workshop: design through worked examples

Course date: 5 October (online)

Aim

This advanced practical workshop will teach complex timber engineering through worked examples. It encourages problem-solving through teaching tools and group discussion.

Learning outcomes

By the end of the course, you will learn about:

- Member sizing
- Tapered and curved members
- Connections, moment connections & avoiding brittle failures
- Fire design
- Stability and vertical diaphragm walls
- Vibration analysis
- Strength and stiffness of cross laminated timber
- Glued-in rods

Contributes to IPD Core Objective **2.1, 2.2, 2.3**

Intended for

Graduate and entry level engineers wishing to fast track their timber design experience.

Experienced engineers with current projects wishing to refresh their timber knowledge.

Entry criteria

Attendance at the Eurocode 5: The Essentials of Timber Design course or familiarity with timber engineering to Eurocode 5.

Price

	Member rate	Standard rate
Book 4 weeks in advance	£265 + VAT	£355 + VAT
Book within last 4 weeks	£295 + VAT	£395 + VAT

25% discount on associated publications:

Manual for the design of timber building structures to Eurocode 5 (2nd edition). See p.30 for details.

Tutor

Dr Keerthi Ranasinghe is the Principal Structural Engineer supporting the TRADA advisory line. Keerthi sits on the TRADA Technical Advisory Panel and the BSI and European (CEN) technical committees on Eurocode 5, as well as being a member of the Project Team updating the connections chapter of Eurocode 5. Keerthi is an independent timber engineering consultant and is also the Senior Lecturer and Programme Director for Civil Engineering at the University of Wales Trinity Saint David. Keerthi is the author of several popular publications, including the TRADA Span Tables to Eurocode 5, and the Institution's Manual for the design of timber building structures to Eurocode 5 2nd edition.

다 Online

Understanding structural behaviour

Understanding structural design

Course dates: 18 - 19 May (online)

Aim

This two-day course shows engineers how to arrive at a qualitative solution to both create a structure and check computer results.

Intended for

Recent graduates from BEng or MEng

it will also be of interest to those from

to obtain a basic introduction to

structural engineering.

Entry criteria

None.

Price

Book 4 weeks

in advance

Book within

last 4 weeks

other construction disciplines who wish

£485 + VAT

£535 + VAT £715 + VAT

Standard

rate

£645 + VAT

courses. As the course is non-numerical,

Learning outcomes

By the end of the course, you should be able to:

- Apply a qualitative approach to the solution of a range of framed structures
- Apply checking protocols for computer output and establish a reliable interpretation of the results
- Apply the qualitative approach to the approximate analysis of structures as an aid to the creation of the structural model
- Determine appropriate protocols for the development of these skills in the design office

Contributes to IPD Core Objective 2.1, 2.2

IN-HOUSE AVAILABLE

Tutors

Dr David Brohn CEng FIStructE teaches structural engineering in the UK and internationally. David pioneered the 'Brohn Test' in the early 1970s, leading the way in evidencebased tracking of levels of understanding structural behaviour amongst graduates. He was awarded The Institution of Structural Engineers President's Award in recognition of his visionary approach to the education of students and graduates.

Tim Lai is founder of The Structural Exam and Operations Director for New Paradigms. He teaches budding graduates in the UK and internationally about structural engineering, finance and entrepreneurship. Formerly an Engineering Leadership Award winner with the Royal Academy of Engineering, he worked at Shell as an Offshore Structural Engineer before venturing into entrepreneurship. Tim is also an accredited journalist writing at Forbes.com.

The level of interaction, course content, delivery quality of the course and the course material was excellent.

2020 course attendee

Course dates: 18 – 19 October (online)

Aim

This two-day course extends the principles developed in the Understanding Structural Behaviour course. It covers more complex real structures and failures; and the important skills of approximate analysis for checking computer output and member sizing.

Learning outcomes

Intended for

By the end of the course, you should be able to:

- Review the modelling process
- Recognise the fundamental behaviour of structural elements
- Appreciate overall structural equilibrium
- Describe the behaviour of 3D structures
- Interpret and explain the behaviour of real structures
- Reduce complex structures to simpler forms
- · Comprehend the approximate analysis of sub-frames for member sizing
- Describe the case studies: Swiss Re HQ, London, and Centre Pompidou, Paris

Contributes to IPD Core Objective 2.1, 2.2

The course is excellent preparation for The Institution of Structural Engineers Chartered Membership Exam.

Entry criteria

Attendance at the Understanding structural behaviour course is a recommended prerequisite.

Price

Book 4 weeks

IN-HOUSE AVAILABLE

Recently qualified graduates under training who wish to improve their skills in structural modelling. The course will also be of interest to experienced engineers who are returning to the structural design office.

nber te	Standard rate
+ VAT	£645 + VAT
+ VAT	£715 + VAT

Tutors

Dr David Brohn CEng FIStructE

teaches structural engineering in the UK and internationally. David pioneered the 'Brohn Test' in the early 1970s, leading the way in evidencebased tracking of levels of understanding structural behaviour amongst graduates. He was awarded The Institution of Structural Engineers President's Award in recognition of his visionary approach to the education of students and graduates.

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Using computational design in practice

Harri Lewis

Course dates: 20 – 23 September (online) 09:30 – 13:30 BST

Aim

This practical course introduces engineers to various computational design methods and systems. You will experiment with visual programming (using Grasshopper) and text-based programming (using C#). You will see how automation can improve engineers' workflows. No previous experience is required.

Learning outcomes

By the end of the course, you will have:

- Generated parametric structural layouts
- Seen and implemented various options for parametrically analysing structures
- Explored the differences between visual and text-based programming
- Recognise how and why various data structures are used

Contributes to IPD Core Objective 2.2

Tutor

Harri Lewis is an expert in applying and teaching computational methods for structural design. He is the co-founder of Mule Studio, an award-winning design studio who specialise in computational design, industrial design, architecture and teaching. He is a chartered engineer who previously worked in the Specialist Modelling Group at Foster + Partners and Ramboll Computational Design.

Intended for

Student or professional engineers.

Entry criteria

None.

Price

	Member rate	Standard rate
Book 4 weeks in advance	£485 + VAT	£645 + VAT
Book within last 4 weeks	£535 + VAT	£715 + VAT

25% discount on associated publications: Computational engineering.

See p.30 for details.

I enjoyed very much the overall course structure. Particularly

structure. Particularly, the introduction of software and plugins set the scene of the course

2019 course attendee

Wind: dynamic response of wind-excited flexible structures

Dr Giorgio Barone

C Online

Wind: wind loading on structures to EN 1991-1-4

Course date: 21 September (online)

Aim

This course covers the theoretical background. technical aspects and Eurocode provisions for the analysis and design of flexible structures exposed to wind loads.

Learning outcomes

By the end of the course, you should be able to:

- Distinguish between and simulate dynamic wind loads on structures
- Describe vortex shedding phenomena on tall structures (such as chimneys and tall buildings) and their design implications
- Propose means to suppress wind-induced responses (wind-resistant design and various damping solutions)

Intended for

Civil or structural engineers with an interest in the analysis and design of wind-excited flexible structures, such as chimneys, tall buildings and transmission towers.

Entry criteria

This course covers concepts of structural dynamics. It complements the Wind Loading on Structures to EN1991-1-4 course, which covers the

DISCOUNT FOR A COURSE PAIR

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basic principles underlying EN 1991-1-4. Participants may find it beneficial to have some familiarity with the fundamental concepts of structural dynamics, Fourier analysis and matrix calculations.

Price

	Member rate	Standard rate
Book 4 weeks nadvance	£265 + VAT	£355 + VAT
Book within ast 4 weeks	£295 + VAT	£395 + VA

Discount

Book both Wind courses together and save 10%

25% discount on associated publications:

Manual for the design of timber building structures to Eurocode 5 (2nd edition). See p.30 for details.

Contributes to IPD Core Objective 2.2

Tutors

Dr Alessandro Palmeri leads the Structures and Materials Group at Loughborough University. His research focuses on applications of structural dynamics, including bridge, earthquake and wind engineering, and probabilistic methods, including reliabilityand performance-based design.

Dr Giorgio Barone is a lecturer in structural engineering at Loughborough University. His research, expertise and interests include structural dynamics, with emphasis on earthquake and wind engineering, as well as lifecycle engineering and maintenance optimisation of ageing structures.

It was all very useful as it provided me with a great overview on structural dynamics.

2019 course attendee

Course date: 20 September (online)

Aim

This course introduces EN 1991-1-4 for determining wind actions on structures. It outlines the basic principles behind the code and covers each step of the procedure for calculating the wind loads on structures. Attention is given to important features introduced by the UK NA.

Learning outcomes

By the end of the course, you should be able to:

- · Describe the basic principles of EN 1991-1-4
- Determine site-specific wind data for a site in the UK
- Determine the design wind loads on a typical building structure and its cladding

Contributes to IPD Core Objective **2.2**

Intended for

Recently graduated civil and structural engineers who wish to study wind effects on structures in greater detail.

Entry criteria

Participants should have a first degree in civil or structural engineering.

Price

	Member rate	Standard rate
Book 4 weeks in advance	£265 + VAT	£355 + VAT
Book within last 4 weeks	£295 + VAT	£395 + VAT

Discount

Book both Wind courses together and save 10%

25% discount on associated publications:

structures to Eurocode 5 (2nd edition). See p.30 for details.

Manual for the design of timber building

Tutor

John Owen is Associate Professor at the University of Nottingham, where he has taught structural analysis and design since 1993. He has research interests in wind engineering and structural dynamics and has conducted research on tubular structures and structural health monitoring. John is a Fellow of the UK Wind Engineering Society, where he was also Chair from 2009-2012.

Frequently asked questions

Q. How is the Institution HQ managing the risks of **COVID-19?**

Delegate safety will always be our highest priority. We have implemented enhanced health and safety measures and are complying fully with government guidance and recommendations. Contact us if you have any concerns.

on associated publications?

as a valuable supplementary resource to the live teaching – and where relevant, are identified in the course description. An exclusive 25% discount training@istructe.org. is available to course participants. Email library@istructe.org to claim your discount code.

Q. Why are some courses more expensive than others?

Our pricing is benchmarked against training offered by other professional engineering bodies.

IStructE members pay circa 25% less than the standard (non-member) rate.

If you book more than one month prior to the course date you can take advantage of the reduced early booking rates.

Any surplus generated is Gift Aided back to the Institution to further its charitable aims.

Q. Are there reduced rates for students/the unemployed/ those on low incomes?

The CPD programme is generally aimed at postgraduates and those further on in their careers. It is therefore not suitable for undergraduate students, and so we have not set a student rate. However, any Institution member who is paying the Low Income Reduction (LIR) Q. How can I get 25% discount membership subscription fee can claim the same percentage reduction on course bookings. The LIR rate is often The Institution's manuals and guides act an option for postgraduate students, or those on low incomes or not in employment, etc. If you believe this applies to you, please contact

Q. Are the courses mostly in London?

The 2022 professional development programme will be delivered either online or at our London headquarters.

Alternatively, many of our courses can be delivered to your teams on your premises, at a place and time that suits your organisation.

Q. Can you livestream or record the courses so that they can be watched remotely?

Our courses are run as workshops with a limited number of participants. This is so we can give tutors the opportunity to build hands-on, individual and group work into the day and give participants the chance to ask questions. This format doesn't lend itself to livestreaming or filming in the same way as a lecture.

Q. Can I get a VAT invoice?

Yes. When you book, a VAT invoice will automatically be generated for you. Please contact training@istructe.org for any issues.

Terms and conditions

By booking your place on a Continuing Professional Development Course you are entering into a binding agreement. Your booking is confirmed as soon as payment is received. If you request an invoice to pay by BACS, your booking will not be confirmed until payment has reached our account.

If you are attending in-person training you are advised to take out appropriate travel insurance, as we will not accept any liability for travel, accommodation or other expenses incurred as a consequence of a possible Course cancellation or postponement. In any event, The Institution of Structural Engineers will not accept liability for any loss, including incidental or consequential damages, etc.

Definitions

For the purposes of these terms and conditions:

the "Course" refers to the Professional Development workshop or lecture

"Participant" means a person for whom you have ordered or purchased a place to the Course including yourself (if you are an individual)

"Venue" means The Institution of Structural Engineers, 47-58 Bastwick Street, London, EC1V 3PS, UK (unless otherwise stated). "we", "us" and "our" means IStructE Limited, a company registered with Companies House and incorporated in England and Wales (registered number 2444141). IStructE Limited is the wholly-owned trading subsidiary of The Institution of Structural Engineers. The registered address for IStructE Limited is 47-58 Bastwick Street, London, EC1V 3PS

"you" and "your" means, if you are acting as a consumer, the person named on the Course booking and if you are acting as a business, the organisation named as the "Company" on the Course booking.

Price and Payment

Ticket prices are exclusive of VAT.

Bookings should be made online and paid via Visa or Mastercard. You can also request to pay by BACS. An invoice will be supplied within two working days.

Payment must be received by The Institution of Structural Engineers within 14 days of the invoice date or 48 hours before the start of the course, whichever comes earlier.

Your place on the Course is confirmed once payment has been received in cleared funds. You will receive confirmation of your booking by email.

We reserve the right to change (for a reasonable alternative) the delivery format, start and finishing times, dates, speaker or presenter and the venue of the Course without incurring any liability to you.

The price does not include any travel costs or any costs of accommodation. The price relates solely to attendance at the course, (which includes refreshments and a buffet lunch for full day face-to-face courses only).

Special requirements

Special requirements must be requested at least five working days prior to the Course. Any requests made after this date cannot be guaranteed and additional charges may apply, including, but not limited to vegan or kosher menus; special access requirements.

Communication

You accept that communication with us may be electronic. We may contact you by email or provide you with information by posting notices on our website. For contractual purposes, you agree to this electronic means of communication and you acknowledge that all contracts, notices, information and other communications that we provide to you electronically comply with any legal requirement that such communications be in writing. This condition does not affect your statutory rights.

We may give notice to you at either the email or postal address you provide to us on booking, or in any of the ways specified. Notice will be deemed received and properly served immediately when posted on our website, 24 hours after an email is sent, or three days after the date of posting of any letter. In proving the service of any notice, it will be sufficient to prove, in the case of a letter, that such letter was properly addressed, stamped and placed in the post and, in the case of an email that such email was sent to the specified e-mail address of the addressee.

All notices given by you to us must be given to The Institution of Structural Engineers, 47-58 Bastwick Street, London, EC1V 3PS, UK, or by email to **training@istructe.org**.

Cancellations

Cancellations can be requested online or by email. If you cancel on or before one month before the Course date, we will refund your booking fee in full. If you cancel less than one month before the Course no refund will be given.

If we cancel the course, we will refund all booking fees paid. We do not, however, accept liability for travelling, accommodation or any other expenses incurred as a result of any cancellation or postponement of the Course.

Our liability for loss or damage incurred as the result of cancellation or postponement of the Course is limited to the amount of your booking fee.

If the Course is postponed for reasons beyond the direct control of the organisers (Force Majeure), this booking will be transferred to the revised date of the Course and all these Terms and Conditions shall apply to any such transferred booking.

If, one month before a course, we haven't received a minimum number of bookings, we may need to cancel a

course. We will offer a full refund or a transfer to a future date.

The Course

A substitution of a Participant named on your booking can be requested by giving written notice to us. We reserve the right to accept or deny your request.

During the Course the presenter may use their own copyrighted material. Any unauthorised recording, copying or posting of this material is an infringement of their copyright.

We reserve the right to refuse entry to the Course to any Participant if, in our opinion or the opinion of the presenter, the Participants' behaviour is considered inappropriate. In this case they may be refused entry or asked to leave and excluded from the Course without refund or compensation. Reasonable security searches at the Venue may take place.

Liability

The Institution of Structural Engineers shall not be liable to you or any Participant (whether such liability arises in contract, tort (including negligence) or otherwise for:

any loss of profit, loss of or damage to reputation or goodwill or any indirect, special or consequential damages, loss, costs, claims or expenses of any kind; and/or

any loss or damage arising from a failure or delay in performing our obligations under the Contract to the extent that such failure or delay was caused or contributed to by an act or omission by you or any Participant.

The exclusions and limitations of liability shall not apply to any loss suffered by any person arising out of:

the fraud and/or fraudulent misrepresentation of the person seeking to rely on the exclusion or limitation; and

death or personal injury resulting from negligence on the part of the person seeking to rely on the exclusion or limitation.

You are responsible for taking appropriate insurance cover in connection with your attendance at the Course. Where a Participant is travelling from outside of the United Kingdom to attend the Course, appropriate travel insurance should be purchased independently and in advance of any travel or travel bookings.

The views expressed by any presenter at the Course are representative of the presenter's own opinions and cannot in any way be attributed to us. We are not liable for the content of the Course, although we take reasonable checks to ensure that it is appropriate.

Correspondence Address:

Professional Development Courses IStructE Limited

47-58 Bastwick Street London EC1V 3PS

Email: training@istructe.org

In-house training

Tailored training to help you achieve individual, team and organisational objectives.

For many of our courses, we can offer delivery to your teams in your premises, at a place and time that suits your organisation.

There are two possibilities: one is that our trainer can deliver an identical course to the one they deliver as part of the Institution's Professional Development course programme. The trainer can also design and deliver a more bespoke course, based on your teams' and organisations' specific needs.

We've highlighted the courses that have the in-house training option by featuring the tag on the course page, although we may be able to deliver other courses from our programme in-house also.

Tailored prices

In-house training prices are based on the unique training solution that you require. Costs are negotiated when we discuss and agree your requirements with you. Contact us if you require more information on how our tailored pricing works.

training@istructe.org

Book your course:

Visit www.istructe.org/cpd-2022

Take advantage of our discounts-

10% off all courses when you book more than a month in advance

25% off a course's associated publication where listed

Big discounts when you book pairs of complimentary courses (where stated)

Consider other great ways to gain CPD-

Read The Structural Engineer www.istructe.org/thestructuralengineer

Watch technical lectures on our Youtube channel: www.youtube.com/ theinstitutionofstructuralengineers

Stream interactive webinars from our new technical webinar series. Or, watch the recording ondemand for accessible and easy to consume content.

The team at IStructE were instrumental in helping us achieve a fully re-vamped training programme that delivers the very best in available technical training to our staff. We have been able to adapt the course offerings to suit our own timetable and also to deliver the courses successfully in an online environment. Our employees have been hugely impressed by the quality of the teaching and the professionalism of the delivery team. I am very grateful to the team at the IStructE for their assistance and flexibility and for helping us develop an exciting and diverse training programme."

IN-HOUSE AVAILABLE

The Institution of **StructuralEngineers**

Join the Affiliate Scheme

Instant savings on Professional Development courses

Become an Affiliate for just £50 and you'll save an average of £75 for each day-long CPD course you attend.

Other benefits include:

- Digital subscription to of The Structural Engineer
- Discounts on publications
- Access to Institution events
- and much more

The Institution of StructuralEngineers

On-demand technical webinars

Watch recorded webinars on-demand whenever convenient. The webinars have been developed to meet the needs of members around the world and provide accessible CPD.

Available webinars include:

Graphic statics webinar series: Structural design and analysis through geometry

Speakers: Phillippe Block & Juney Lee

Introduce graphic statics, and show how to combine them with computational tools to gain new insights, discover design methods and explore analysis techniques.

Novel materials series: How to get novel materials adopted on projects: R&D to construction

Speakers: Rosie Goldrick, James Norman & Pete Walker

The climate emergency is challenging engineers to consider a broader palette of non-traditional and/or novel structural materials.

This webinar series looks at some of the alternatives, encouraging engineers to consider designing with these new materials and explaining how to deliver them successfully within projects.

Browse all on-demand webinars:

istructe.org/resources

Join today:

Price: From £45.50 +VAT

Latest innovations in designing seismic-resilient steel structures Speakers: Fabio Freddi & Massimo Latour

Discover innovations in the design of seismic-resilient steel structures and explore how alternative low-damage strategies have been subject to extensive research in recent years.

Take a step closer to becoming professionally qualified.

Certificate in structural behaviour

An internationally recognised mark of competence

Show employers and clients your understanding in this key area

Contribute to your IPD and CPD

Streamline your Professional Review Interview

Online exam preparation course

"The certificate helped me improve my skills in approximate analysis and drawing bending moment and force diagrams. As a result, I was given the opportunity to work on new multi-billion dollar projects."

> Hemant Gor, **Chartered Member**

Register: www.istructe.org/sbcertificate

"It's the only qualification that gives students the opportunity to achieve professional goals during their higher education. It gave me an extra edge over other candidates and helped me get a new job."

> Tarun Mittal, Student Member

"I can say for definite that for exam candidates like me, working internationally, this course is going to have an enormous impact; it is really positive for my exam preparation."

> Dawson Preethi, **Graduate Member**

Register: www.istructe.org/onlineexamprep

The Institution of Structural Engineers

Prepare for your Chartered Membership exam wherever you are in the world

Progress through your exam preparation in a structured manner at your own pace

12 months of unlimited access to all materials

Statistics show that candidates who attend a preparation course perform better in the exam. The online exam preparation course provides an accessible and flexible way to get ready for the exam.

The Institution of **Structura**Engineers

CPD mandatory reporting scheme

Structural engineering is constantly evolving and keeping up to date with technical and professional developments is essential.

If you're a practising, professionally qualified member of the Institution (Fellow, Chartered, Associate, Associate-Member or Technician Member) we may contact you and ask you to submit a CPD Record as part of the Mandatory Reporting Scheme. Your record should outline how you have accumulated 30 CPD 'hours' per annum. If you don't submit a record upon request, you may be removed from membership (although we would always consult with you first and mitigating circumstances can be taken into account).

Find all the CPD information you need at: www.istructe.org/training-and-development

Attending one of our CPD courses is a great way to demonstrate CPD but there are many other options.

You can demonstrate your development by working with Institution committees, panels and study groups; watching recorded lectures and conferences; reading The Structural Engineer and other Institution publications; volunteering your time for education and careers activities; and through your own practical experience.

Book online: www.istructe.org/cpd-2022

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