

# Professional Development Courses

2023 Programme





## How to book



**Book online—**  
[www.istructe.org/cpd-2023](http://www.istructe.org/cpd-2023)

## Contact us

**Email—**  
[training@istructe.org](mailto:training@istructe.org)

**Telephone—**  
[+44 \(0\)20 7235 4535](tel:+442072354535)

## Useful information

1.  This icon indicates that a course takes place online.
2.  This icon indicates that a course takes place in-person.
3. Unless stated otherwise, in-person courses are held at our London HQ.
4. Unless stated otherwise, courses are a full day (10:00–17:30).
5. The programme is subject to change. Please check the website for latest information.

# Welcome

The Institution of Structural Engineers' 2023 Continuing Professional Development training programme is 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](mailto:training@istructe.org)

### Why choose IStructE?

#### 1. Variety of technical and business practice CPD

The 2023 programme encompasses 70 high quality training courses covering a wide range of technical, professional and business practice topics. Many of our courses are delivered live online to make them accessible to you wherever you are in the world.

New courses for 2023 include Structural engineering for non-structural engineers. Designed for built environment professionals that work with structural engineers, this new course is intended to develop an appreciation of the discipline in order to support collaboration and communication.

#### 2. Learning pathways and courses that work together

Many of our courses complement each other and can provide a longer term learning pathway. We can support you from early career with introductory level courses through to exam preparation and chartership then on to advanced and specialist learning.

Last year we introduced a net-zero structural design course and this year we are delighted to add a new course on Influencing and leadership skills, which we see as the next step – helping engineers to influence the design brief and advocate for change.

#### 3. Flexible corporate training solutions

Every organisation is different. In 2022 we worked with more companies than ever to deliver training that met their unique needs. From Eurocodes to Writing skills we can work with you to maximise your training budgets and upskill your entire team.

If you would like to discuss in-house training, or if your organisation has professional development needs not currently met by the 2023 programme, please do get in touch on [training@istructe.org](mailto:training@istructe.org)

#### 4. Expert tutors

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

We are grateful to all our tutors for their expertise and dedication. We believe that this is what continues to set our CPD programme apart.



# Training calendar at a glance

January	Date(s)	Delivery format
Eurocode 9: design of aluminium structures	31 January	Online
February	Date(s)	Delivery format
Historic timber structures: assessment and reuse	02 February	Online
Conceptual design for structural engineers: an introduction	02 February – 02 March	Online
Net-zero structural design	02 February – 09 March	Online
Design and analysis of tall buildings	06 February	Online
Structural engineering for non-structural engineers	15 February	In-person, London
Dealing with domestic clients	28 February	Online
Eurocode 2: design of concrete structures	28 February	In-person, London
March	Date(s)	Delivery format
Temporary works design	06 – 07 March	Online
Business and strategic planning	07 March	Online
Lateral stability to building structures	14 March	Online
Demolition and structural refurbishment	16 March	In-person, London
Eurocode 3: structural steelwork design	21 March	In-person, London
Eurocode 8: an introduction to seismic design of buildings	28 March	Online
Moving into engineering management	28 – 29 March	In-person, London
Eurocode 8: worked examples of the dynamic analysis and seismic design of buildings	29 March	Online
April	Date(s)	Delivery format
Net-zero structural design	20 April – 18 May	Online
Designing for blast resilience and resistance	25 April	Online
Rapid calculations for structural engineers	26 April	Online
Conceptual design for structural engineers: an introduction	27 April – 18 May	Online
May	Date(s)	Delivery format
Drawing Gym for engineers	03 May	Online
Digital sketching for engineers	09 May	Online
Understanding structural behaviour	09 – 10 May	Online
Expert Witness: an introduction	09 May – 04 July	Online
Eurocode 6: masonry design	10 May	In-person, London
Exam preparation	15 – 17 May	In-person, London
Design and analysis of tall buildings	22 May	Online
Eurocode 3: structural steelwork design	23 May	Online
Influencing and leadership skills	tbc	Online
June	Date(s)	Delivery format
Seismic design of structures	05 – 06 June	Online
Project management for engineers	07 – 08 June	Online
Structural robustness and disproportionate collapse	08 June	In-person, London
Structural concepts – designing more efficient structures	13 June	Online
Vibration serviceability of building floors	14 June	In-person, London
Eurocode 5: the essentials of timber design	15 June	Online
Eurocode 5: connections and advanced topics in timber design	16 June	Online

July	Date(s)	Delivery format
Contract law for engineers	04 July	Online
Conceptual design for structural engineers: an introduction	05 July	In-person, London
Client appointments and terms of engagement: a legal toolkit	06 July	In-person, London
Eurocode 5: the essentials of timber design	11 July	Online
Timber design through worked examples	12 July	Online
September	Date(s)	Delivery format
Using computational design in practice	05 – 06 September	Online
Wind loading on structures to EN 1991-1-4	06 September	Online
Net-zero structural design	07 September – 05 October	Online
Design and analysis of tall buildings	11 September	Online
Eurocode 4: composite design	12 September	In-person, London
Reliability, resilience and robustness in structural engineering design	14 September	Online
Dealing with domestic clients	19 September	In-person, London
Demolition and structural refurbishment	20 September	In-person, London
Structural engineering for non-structural engineers	20 September	Online
Structural engineering with bamboo	26 September	Online
October	Date(s)	Delivery format
Steel essentials: practical design of structural steelwork	02 October	Online
Lateral stability to building structures	03 October	Online
Eurocode 6: masonry design	10 October	Online
Understanding structural design	10 – 11 October	Online
Deep basements	12 October	Online
Eurocode 7: foundation design for small practitioners	17 October	In-person, London
Protect your designs – a practical guide to intellectual property	17 October	Online
Financial fundamentals for small businesses	25 October	In-person, London
Writing skills for engineers	31 October	Online
November	Date(s)	Delivery format
Drawing Gym for engineers	07 November	Online
Net-zero structural design	09 November – 07 December	Online
Temporary works design	13 – 14 November	In-person, London
Expert Witness: going into court	14 November	In-person, London
Historic timber structures: assessment and reuse	16 November	In-person, London
Advanced conceptual design for design team leaders	16 November – 01 December	Online
Conceptual design of bridges	20 – 21 November	In-person, London
Rapid calculations for structural engineers	29 November	Online
December	Date(s)	Delivery format
Eurocode 2: design of concrete structures	05 December	In-person, London
Exam preparation	11 – 13 December	Online

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# Circular economy and reuse: guidance for designers

This publication comprises four parts, and provides actionable guidance for incorporating circular principles on engineering projects; enabling structural engineers to take the initiative on this critical transition by leading clients and project teams through the process.



**Pre-order now:**  
[istructe.org/resources/guidance/circular-economy](https://istructe.org/resources/guidance/circular-economy)

## Business practice courses

1



# Business and strategic planning



Parag Prasad

Course date:  
📅 7 March 10:00 – 13:00 GMT

## Aim

A business plan provides a living blueprint for the running and growing of a business in order to meet goals, financial targets and operational milestones. The highly practical half-day workshop teaches the skills necessary in planning the medium and long term growth of an SME.

## Learning outcomes

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

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

## Intended for

SME practice owners and senior director level staff.

## Price

	Member rate	Standard rate
Book 4 weeks in advance	£225 + VAT	£315 + VAT
Book within last 4 weeks	£255 + VAT	£355 + 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.

# Client appointments and terms of engagement: a legal toolkit



Rob Langley

Course date:  
📅 6 July

## Aim

This one-day course enables engineers to understand the complex commercial contracts, analyse issues and possible legal implications, and confidently formulate new negotiating strategies.

## 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.

## Price

	Member rate	Standard rate
Book 4 weeks in advance	£305 + VAT	£435 + VAT
Book within last 4 weeks	£345 + VAT	£485 + VAT

IN-HOUSE AVAILABLE

## Tutor

**Rob Langley** took an MA in Law, then qualified both as a Barrister and as a Solicitor, and has 40 years’ experience of engineering and construction law. Before specializing in training and consultancy, he was a law firm partner practicing in this expert field. He has been retained by numerous Professional Indemnity insurers and has represented and defended hundreds of Engineers and other design professionals. A Fellow of the Chartered Institute of Arbitrators, Rob is a busy Construction Adjudicator, and a CMC-registered Civil Mediator.

IN COLLABORATION





# Contract law for engineers



Rob Langley

Course date:  
📅 4 July

### Aim

Through case studies of practical issues arising from commercial contracts, this one-day course outlines the essential terminology of commercial contract, and explains the essentials of contractual relationships.

### 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.

### Price

	Member rate	Standard rate
Book 4 weeks in advance	£305 + VAT	£435 + VAT
Book within last 4 weeks	£345 + VAT	£485 + VAT

### Tutor

**Rob Langley** took an MA in Law, then qualified both as a Barrister and as a Solicitor, and has 40 years’ experience of engineering and construction law. Before specialising in training and consultancy, he was a law firm partner practicing in this expert field. He has been retained by numerous Professional Indemnity insurers and has represented and defended hundreds of Engineers and other design professionals. A Fellow of the Chartered Institute of Arbitrators, Rob is a busy Construction Adjudicator, and a CMC-registered Civil Mediator.

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

IN COLLABORATION



# Dealing with domestic clients



Rob Langley

Course dates:  
📅 28 February 13:00 – 17:00 GMT  
📅 19 September 13:00 – 17:00 BST

### Aim

This half-day course is intended for engineers working in the domestic and small commercial sectors. It provides a solid understanding of the specific contractual and legal issues that might be posed, and it outlines the common legal mistakes that can be avoided.

### 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**

### Intended for

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.

### Price

	Member rate	Standard rate
Book 4 weeks in advance	£225 + VAT	£315 + VAT
Book within last 4 weeks	£255 + VAT	£355 + VAT

### Tutor

**Rob Langley** took an MA in Law, then qualified both as a Barrister and as a Solicitor, and has 40 years’ experience of engineering and construction law. Before specialising in training and consultancy, he was a law firm partner practicing in this expert field. He has been retained by numerous Professional Indemnity insurers and has represented and defended hundreds of Engineers and other design professionals. A Fellow of the Chartered Institute of Arbitrators, Rob is a busy Construction Adjudicator, and a CMC-registered Civil Mediator.

“Extremely useful. I’ve set aside half a day this week to amend my standard proposal and pull together some stock answers to common client questions!

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# Become an IStructE Expert Witness



## Promote and demonstrate your experience as an Expert Witness

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

Join today:  
[www.istructe.org/expert-witness-register](http://www.istructe.org/expert-witness-register)

## Expert Witness: an introduction

### Course dates:

 30 May – 2 June 09:30 – 13:30 BST

### Aim

This 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 Witness
- 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.

### Price

	Member rate	Standard rate
Book 4 weeks in advance	£565 + VAT	£755 + VAT
Book within last 4 weeks	£625 + VAT	£845 + 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.



The course offered many opportunities for interaction, facilitated by the very competent course presenters and the very good notes which accompanied it.

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# Expert Witness: going into court

Course date:  
📅 14 November

### Aim

This course is designed to provide the knowledge and experience of being in court. Cross-examination by a practising barrister in a protected environment will be carried out to improve technique and increase confidence in the case of being called to give evidence.

### Learning outcomes

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 cross-examination and how to handle them

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

### Intended for

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

### Price

	Member rate	Standard rate
Book 4 weeks in advance	£305 + VAT	£435 + VAT
Book within last 4 weeks	£345 + VAT	£485 + 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.

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# Financial fundamentals

Course date:  
📅 25 October

### Aim

This course provides an overview of accounting principles and an explanation of accounting terminology. It also covers how to understand key financial documents.

### Learning outcomes

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**

### Intended for

Anyone who must interpret or produce financial figures in their role.

### Price

	Member rate	Standard rate
Book 4 weeks in advance	£305 + VAT	£435 + VAT
Book within last 4 weeks	£345 + VAT	£485 + VAT



Penny Taylor

IN-HOUSE AVAILABLE

### Tutor

**Penny Taylor** 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.

# Influencing and leadership skills



Nick Zienau

Course dates:  
📅 Begins 9 May 09:30 – 12:30 BST

## Aim

Develop powerful tools for leading and influencing the people you work with. This practical course, to be delivered as 5 three-hour workshops across 10 weeks, aims to develop awareness about yourself and your impact on others, helping you to share your expertise and influence the direction of a project.

## Learning outcomes

By the end of the course, you should be able to utilise tools of leading and influencing to:

- Gain and maintaining trust
- Negotiate and agree goals and expectations
- Help people think things through
- Help people accept and work with their feelings
- Confidently give advice where it is really needed
- Challenge the gap between intentions and behaviours
- Overcome resistance to constructive honesty

Contributes to IPD Core Objective **1.2, 3.1**

## Intended for

This course is intended for senior engineers that wish to influence decision-making. It is a great follow up to the net-zero design course and can help you put the skills learnt into practice.

## Price

	Member rate	Standard rate
Book 4 weeks in advance	£655 + VAT	£855 + VAT
Book within last 4 weeks	£725 + VAT	£935 + VAT

## Tutor

**Nick Zienau** has worked as a consultant facilitating organisational change, training leaders and coaching executives in communication and relationships for the past 25 years – working in the UK and many countries in Europe. His passion is for work with socially engaged leaders and organisations. That often takes him back into education, in work with NGOs and other not-for-profit organisations, and with enterprises who take their social impact seriously.

# Moving into engineering management



Penny Taylor

Course dates:  
📅 28 – 29 March

## Aim

Discover how to be successful in your management career and whether management is the direction for you. This interactive two-day course gives first time managers a toolbox of techniques to use for managing engineers and other technical staff.

## Learning outcomes

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
- Understand what is expected of you as a Manager or Team Leader
- Know the difference between leadership and management, and how to be good at both
- Create a high-performing and happy team

Contributes to IPD Core Objective **3.1**

## Intended for

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

## Price

	Member rate	Standard rate
Book 4 weeks in advance	£565 + VAT	£755 + VAT
Book within last 4 weeks	£625 + VAT	£845 + VAT

IN-HOUSE AVAILABLE

## Tutor

**Penny Taylor** 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.

“The Course was truly insightful and inspiring. The team exercises were fun and engaging – difficult at times, but always focused on putting the material into practice. Highly recommended.”



# Project management for engineers



Derek Bell

Course dates:  
📅 7 - 8 June

## Aim

This two-day course addresses the challenges of managing projects in an engineering context. It includes practical project management tools and techniques, that can be applied to all projects, whether they be large or small.

## 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
- Address the issues of managing multiple projects

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

## Intended for

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

## Price

	Member rate	Standard rate
Book 4 weeks in advance	£565 + VAT	£755 + VAT
Book within last 4 weeks	£625 + VAT	£845 + 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.

# Protect your designs – a practical guide to intellectual property



Rob Langley

Course dates:  
📅 17 October 13:00 – 17:00 BST

## Tutor

**Rob Langley** took an MA in Law, then qualified both as a Barrister and as a Solicitor, and has 40 years' experience of engineering and construction law. Before specializing in training and consultancy, he was a law firm partner practicing in this expert field. He has been retained by numerous Professional Indemnity insurers and has represented and defended hundreds of Engineers and other design professionals. A Fellow of the Chartered Institute of Arbitrators, Rob is a busy Construction Adjudicator, and a CMC-registered Civil Mediator.

## Learning outcomes:

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

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

## Intended for:

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

## Price

	Member rate	Standard rate
Book 4 weeks in advance	£225 + VAT	£315 + VAT
Book within last 4 weeks	£255 + VAT	£355 + VAT

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# Writing skills for engineers

Course dates:  
📅 31 October

## Aim

This course intends to help improve the quality of written reports and reduce time spent writing. It covers how to adapt writing style for different documents and audiences. It will provide some grammar best practice to help with clear and concise writing.

## 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 suitable for anyone who has to communicate, whether through reports, articles, papers, proposals or via email.

## Price

	Member rate	Standard rate
Book 4 weeks in advance	£305 + VAT	£435 + VAT
Book within last 4 weeks	£345 + VAT	£485 + VAT



Penny Taylor

IN-HOUSE AVAILABLE

## Tutor

**Penny Taylor** 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.

# Technical Courses

2



# Advanced conceptual design for design team leaders



Oliver Broadbent

### Course dates:

Begins 16 November 09:30 – 11:30 GMT

IN-HOUSE AVAILABLE

### Aim

A series of interactive sessions designed to help experienced practicioners 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

Contributes to IPD Core Objective **2.1**

### Intended for

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

### Price

	Member rate	Standard rate
Book 4 weeks in advance	£485 + VAT	£675 + VAT
Book within last 4 weeks	£535 + VAT	£745 + VAT

**25% discount on associated publications:**  
*Conceptual design of buildings.*  
See p.31 for details.

### 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 was appointed 1851 Royal Commission Fellow in Regenerative Design in 2022 and was awarded the Sir Misha Black Award for Innovation in Design Education in 2022.



The impact of what I have learned on my future practice is massive. It changed my way of thinking and provided me tools to do so.

# Conceptual design for structural engineers: an introduction



Oliver Broadbent

### Course dates:

Begins 2 February 09:30 – 11:30 GMT

Begins 27 April 09:30 – 11:30 BST

IN-HOUSE AVAILABLE

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.

### Price

	Member rate	Standard rate
Book 4 weeks in advance	£275 + VAT	£385 + VAT
Book within last 4 weeks	£305 + VAT	£425 + VAT

**25% discount on associated publications:**  
*Conceptual design of buildings.*  
See p.31 for details.

### 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 was appointed 1851 Royal Commission Fellow in Regenerative Design in 2022 and was awarded the Sir Misha Black Award for Innovation in Design Education in 2022.

## Prefer to attend in person?

This course will be delivered in-person by Oliver as a one-day course on 5 July at our London HQ.



# Conceptual design of bridges



Ian Firth

IN-HOUSE AVAILABLE

Course dates:  
20 – 21 November

This two-day course is an essential introduction to the conceptual design process for bridges covers two key areas; selecting a structural form to suit the constraints of a site and arranging materials and components to meet the demands of the structure in an elegant and logical way.

### Learning outcomes:

- By the end of the course, you should be able to:
- Identify how the conceptual design of a bridge is informed by physical and environmental site constraints, along with social, cultural and historical factors.
  - Read a bridge design
  - Explain basic structural systems typically used in bridges
  - Select appropriate structural forms and materials
  - Form, develop and communicate a concept

### Intended for:

Engineers with little or no experience of conceptual design of bridges, those wishing to explore conceptual design of bridges from an architectural perspective, and experienced engineers wishing to refresh their conceptual design thinking.

### Price

	Member rate	Standard rate
Book 4 weeks in advance	£485 + VAT	£675 + VAT
Book within last 4 weeks	£535 + VAT	£745 + VAT

Contributes to IPD Core Objective 2.1

### Tutor

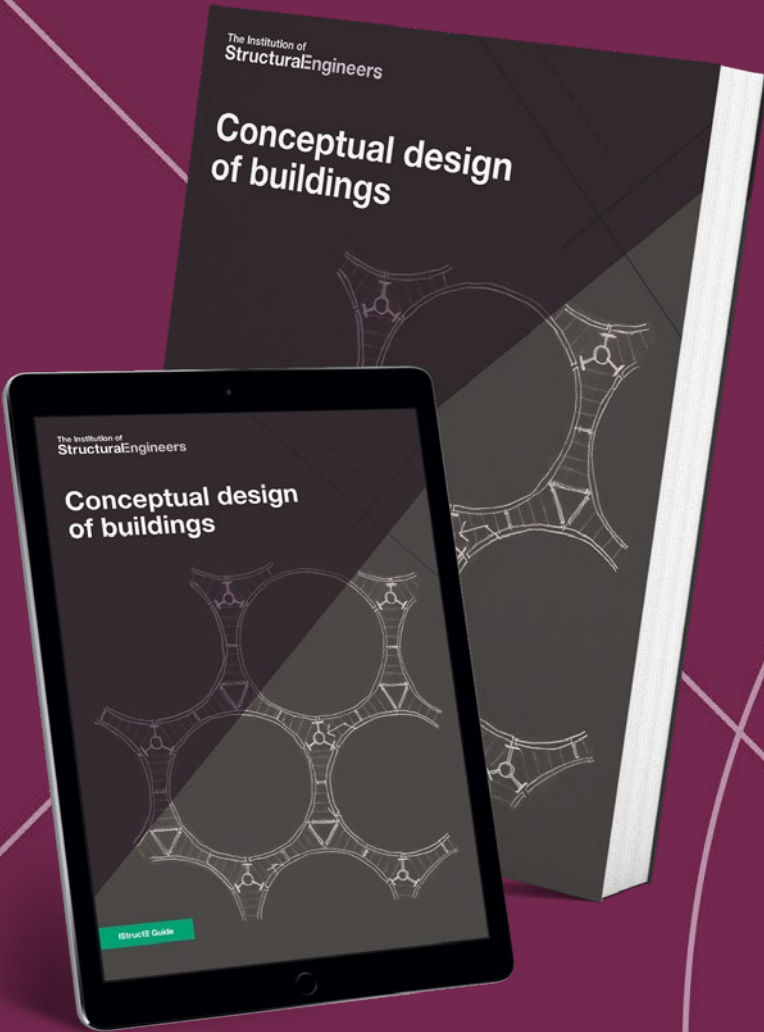
**Ian Firth** is a Past President of the Institution of Structural Engineers. He is a world-leading expert in bridge design and construction. During his career, Ian has been involved with the assessment and strengthening of several famous bridges. He is also responsible for the design of many award-winning bridges such as the Swansea Sail Bridge, the Third Way bridge in Taunton and the Destructor Bridge in Bath.

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



Buy now:  
[www.istructe.info/conceptual-design](http://www.istructe.info/conceptual-design)

# Deep basements

Course date:  
📅 12 October

## 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.

## 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

## Intended for

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 and construction.

## Price

	Member rate	Standard rate
Book 4 weeks in advance	£275 + VAT	£385 + VAT
Book within last 4 weeks	£305 + VAT	£425 + VAT

## Tutors

**Christina Mavrommati** is a Project Director at Mott MacDonald, with 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** is a Technical Manager at Bachy Soletanche. With 15 years’ experience in the construction industry, she brings with her a wealth of geotechnical design experience and technical problem solving; particularly in heavy foundation engineering including piles and diaphragm walls.

“The course was very informative. Real world examples with associated problems discussed and explained.

# Demolition and structural refurbishment

Course dates:  
📅 16 March  
📅 20 September

## Aim

This course provides guidance on specific aspects of demolition and refurbishment from an engineering perspective whilst addressing safety, environmental and sustainability influences.

## Learning outcomes

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

- Identify structural construction types and principles
- Evaluate practical options for the demolition or refurbishment of major buildings
- Identify specific structural hazards that may occur in demolition
- Understand temporary structural support methods in demolition and refurbishment
- Gain more knowledge of CDM principles relating them to demolition and refurbishment works
- Enhance environmental and sustainable influences in your decision process

Contributes to IPD Core Objective 2.5

## Intended for

The course is not a design course but presents engineering principles behind the “cut and carve” of structures, façade retentions, basement works, back propping, stability bracing and consideration of plant loadings on buildings. Whether a consultant, a contractor, a client or SHEQ professional if you have an interest in the demolition and structural refurb sector then this course is for you.

## Price

	Member rate	Standard rate
Book 4 weeks in advance	£275 + VAT	£385 + VAT
Book within last 4 weeks	£305 + VAT	£425 + VAT



Robert Millard

## Tutor

**Robert Millard** has 24 years construction industry experience both in the contracting and consultancy sectors across many sectors. Most recently the past 8 years have been spent leading an engineering team providing demolition / construction engineering support working across many London demolition, structural refurbishment and new build projects. As a chartered Engineer and Chair of the Temporary Works Forum Robert is a strong believer in knowledge sharing for the betterment of our industry.



# Design and analysis of tall buildings



Dr Feng Fu

## Course dates:

6 February | 22 May | 11 September

## Aim

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

## Learning outcomes

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

- Recognise the performance of tall buildings
- Design effective lateral stability systems for tall buildings
- Demonstrate how to design a tall building under blast or impact loading
- 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**

## Intended for

Structural engineers who work in the tall building design sectors.

## Entry criteria

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

## Price

	Member rate	Standard rate
Book 4 weeks in advance	£275 + VAT	£385 + VAT
Book within last 4 weeks	£305 + VAT	£425 + VAT

**25% discount on associated publications:**

*Safety in tall buildings and other buildings with large occupancy.*  
See p.31 for details.

## Tutor

**Dr Feng Fu** is a Fellow of IStructE, ICE and ASCE. He is an Associate Editor of the ASCE Journal of Performance of Constructed Facilities; and recently became an associate editor for the ASCE Journal of Structural Engineering.. 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.





# Design process management



Richard Brooks



Nick Francis



Chris O'Regan

Contact: [training@istructe.org](mailto:training@istructe.org)

IN-HOUSE DELIVERY ONLY. AVAILABLE ON REQUEST

## Aim

The highly interactive course is made up of three two-hour modules that offer valuable training in design process management. With a focus on design-and-build projects it is 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
- Managing communication of change (with client and contractors)

## Learning outcomes

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

- Understand the responsibilities and expectations of managing/working with a design consultancy on a design and build contract
- Understand RIBA Plan of Work and how it interacts with IStructE Plan of Work
- Manage design change
- Understand and manage the emotional response to change

## Intended for

This course can be tailored for on-site project engineers (civil and structural).

## Price

On request.

## Tutors

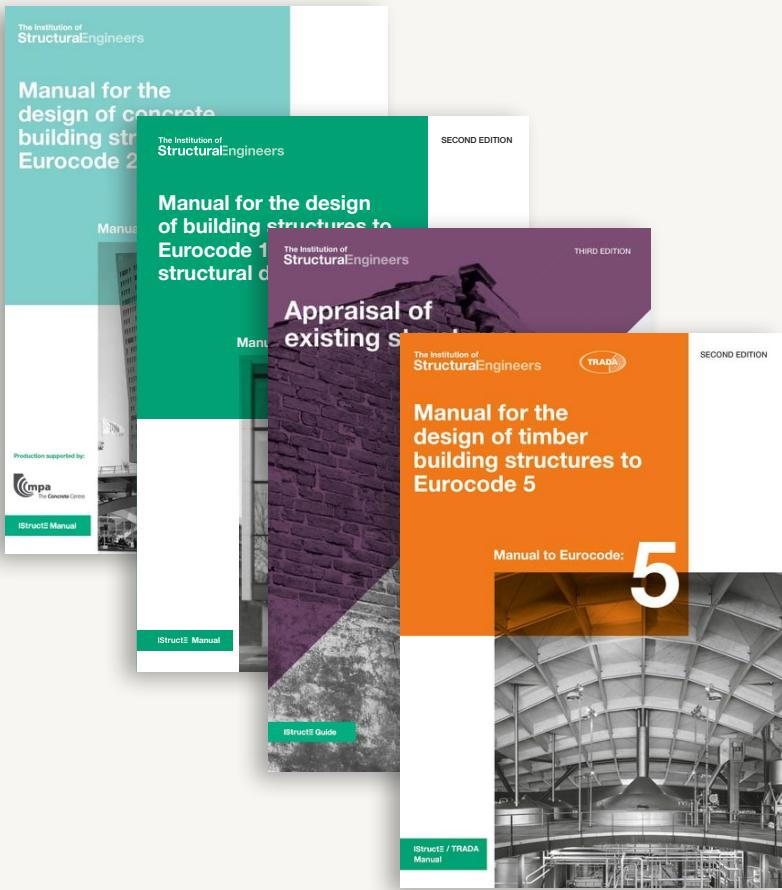
**Richard Brooks** is a chartered structural engineer, with 15 years experience working across a range of different sectors including residential, commercial, education and infrastructure. He is an Associate at Price and Myers, where he is responsible for managing multiple large-scale projects with a team of engineers.

**Nick Francis** is a Chartered Structural Engineer, Chartered Civil Engineer, and Chartered Manager. He is the founder and director of Imagine Engineering, a director of GIRI Training and Consultancy, and teaches at the University of Sheffield. Nick specialises in the interface between human behaviour and technical engineering.

**Chris O'Regan** is a Chartered Structural Engineer and an Associate Director at Mason Navarro Pledge. 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 variety of buildings.

# The Institution of StructuralEngineers

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



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

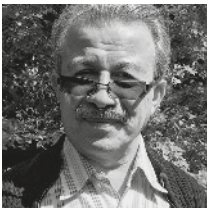
Claim your exclusive 25% discount on the associated publication when you attend.

Email: [library@istructe.org](mailto:library@istructe.org) for more information or to request a discount code.

# Designing for blast resilience and resistance



Bob Sheldon



Piroozan Aminossehe

Course date:

25 April

Aim

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

Learning outcomes

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

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

Intended for

Practising engineers who wish to gain an insight into current methods of structural analysis and design against blast loads.

Price

	Member rate	Standard rate
Book 4 weeks in advance	£275 + VAT	£385 + VAT
Book within last 4 weeks	£305 + VAT	£425 + VAT

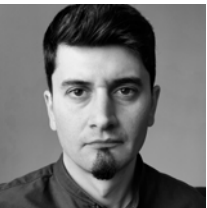
Tutors

**Bob Sheldon** was formerly senior lecturer in protective structures at the Centre for Defence Engineering at Cranfield University. Bob is now an independent consultant for security engineering and protective structures.

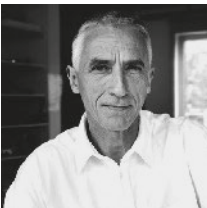
**Piroozan Aminossehe** is an independent consultant, who had a key role in the design of off shore structures (South Arne in North sea) and Sizewell ‘B’ nuclear power station in UK as head of the specialist analysis group as well as qualified MoD 200m jetty in Faslane against external and internal blast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

“The presentations were full of expert content and delivered at a top expert level. The course’s included real-life examples, which were used to explain the concepts and show how to effectively carry out calculations.

# Digital sketching for engineers



Radu Axinte



Trevor Flynn

Course dates:

Begins 9 May 10:00 – 12:00 BST

Aim

This interactive course provides a comprehensive foundation in digital sketching for Windows office and Apple users. The exercises are forward looking, including how to use Google Earth co-ordinates to locate a structure, then produce exploded sketch-over diagrams. The programme is synced for people to sketch digitally over to work with Revit, CAD, BIM Rhino systems to help with efficiency and collaboration in the design process.

Learning outcomes

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

- Draw confidently using digital software
- Use features of Sketchbook including layers, colour and line thickness
- Make quick, professional sketch-overs and annotation to communicate concepts and communicate a process (e.g. construction sequence)
- Use the speed of digital tools to create and edit drawings
- Gain confidence using a tablet and stylus
- Sketch over imported 3D models and Google Earth

Contributes to IPD Core Objective **1.2**

Intended for

- Early career engineers and designers
- Practicing engineers who want to develop digital sketching skills
- Senior engineers managing design teams that practice digital sketching

Entry criteria

- Attendees must have access to Sketchbook Pro software and an Apple (recommended iPad) or Windows (recommended Surface Pro) device and stylus.

Price

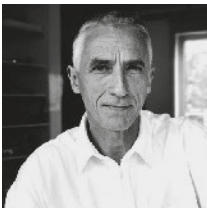
	Member rate	Standard rate
Book 4 weeks in advance	£275 + VAT	£385 + VAT
Book within last 4 weeks	£305 + VAT	£425 + VAT

Tutor

**Radu Axinte** is an architect who has worked on some of the most iconic architecture projects in London. A highly skilled freehand artist and watercolorist he combines a passion for sketching with an appetite for digital image-making.

**Trevor Flynn** is the Director of Drawing At Work and founder of The Drawing Gym. He designs and teaches courses at Dyson, Foster and Partners, The Design Museum London, UCL, Bath University and The Architectural Association.

# Drawing Gym for engineers



Trevor Flynn

Course dates:

- 📅 Begins 3 May 10:00 – 12:00 BST
- 📅 Begins 7 November 10:00 – 12:00 GMT

Aim

The course takes place as a series of two-hour interactive sessions over four weeks supported by independent study. The course introduces a number of drawing techniques and systems. It will increase your confidence in your sketching abilities.

Learning outcomes

- 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

Contributes to IPD Core Objective 1.2

Intended for

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

Price

	Member rate	Standard rate
Book 4 weeks in advance	£275 + VAT	£385 + VAT
Book within last 4 weeks	£305 + VAT	£425 + VAT

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.”

# Dynamic response of wind-excited flexible structures



Dr Alessandro Palmeri



Dr Giorgio Barone

Course date:

📅 14 June

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.

Price

	Member rate	Standard rate
Book 4 weeks in advance	£275 + VAT	£385 + VAT
Book within last 4 weeks	£305 + VAT	£425 + VAT

25% discount on associated publications:  
*Manual for the design of timber building structures to Eurocode 5 (2nd edition).*  
See p.31 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 reliability- and 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.”



# Eurocode 1:

## actions on structures for buildings



Dr Gerard Canisius

**Contact: [training@istructe.org](mailto:training@istructe.org)**

IN-HOUSE DELIVERY ONLY. AVAILABLE ON REQUEST

### Aim

This course will give a brief introduction to the relevant sections of EN 1990 (Basis of Structural Design) before familiarising you with EN 1991 – 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 EN 1990: Basis of Structural Design, which is the head material-independent code.
- Describe the parts and clauses relating to buildings in EN 1991-1
- 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.

### 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.31 for details.**

### Tutor

**Dr Gerard Canisius** is a Chartered Structural Engineer and Fellow of the IStructE who works as a Risk Management Consultant. He is an experienced trainer and was a member of the recent CEN Project Teams for revising EN 1990 and developing guidance on robustness of structures. He is the 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 and was also the Convenor of BSI's Working Group for those standards and EN 1990.

# Eurocode 2:

## design of concrete structures



Emily Halliwell



Jenny Burridge

### Course dates:

**28 February**  
 **5 December**

IN-HOUSE AVAILABLE

### Aim

This course covers the design of common structural elements to Eurocode 2. Participants will be introduced to concrete material properties and learn about designing for durability and fire. The course considers how Eurocode 2 approaches for flexure, shear, axial load and deflection can be used to design concrete beams, slabs and columns.

### 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

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

### Intended for

Practising structural engineers who are looking to start designing to Eurocode 2.

### Price

	Member rate	Standard rate
Book 4 weeks in advance	£275 + VAT	£385 + VAT
Book within last 4 weeks	£305 + VAT	£425 + 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.31 for details.**

### 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 and IStructE.

**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.

# Eurocode 3: structural steelwork design



Professor Dennis Lam



Bob Benton

### Course dates:

- 21 March
- 23 May

IN-HOUSE AVAILABLE

### Aim

This course provides an introduction to structural steelwork design to Eurocode 3 for building design.

### Learning outcomes

- By the end of the course, you should be able to:
- Design simple building structures to Eurocode 3
  - Navigate effectively around parts of Eurocode 3 necessary for the design of steel structures
  - Understand the basic differences of design to BS5950 and Eurocode 3
  - Design tension members
  - Design compression members
  - Design restrained and unrestrained beams
  - Design column base plates
  - Design simple joints
  - Identify the practical issues in steel buildings design

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.

### Price

	Member rate	Standard rate
Book 4 weeks in advance	£275 + VAT	£385 + VAT
Book within last 4 weeks	£305 + VAT	£425 + VAT

**25% discount on associated publications:**  
*Manual for the design of steelwork building structures to Eurocode 3.*  
**See p.31 for details.**

### Tutors

**Professor Dennis Lam** presents the in-person course. He 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.

**Bob Benton** presents the online course. He 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.

“The course was well presented and well explained by Professor Lam.”

# Eurocode 4: composite design



Professor Dennis Lam

### Course date:

- 12 September

IN-HOUSE AVAILABLE

### Aim

This course supports the practising designer with composite design to Eurocode 4. It will enable an understanding of the essential requirements of this code in structural design and how the code operates.

### Learning outcomes

- By the end of the course, you should be able to:
- Navigate effectively around parts of Eurocode 4 for the design of steel concrete composite structures
  - Understand the basic principles of composite construction
  - Understand the basic differences of design to BS5950-3 and Eurocode 4
  - Design composite slabs with metal deck flooring
  - Design composite beams with metal deck flooring
  - Design composite columns
  - Identify the practical issues in composite structures designing to Eurocode 4.

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.

### Price

	Member rate	Standard rate
Book 4 weeks in advance	£275 + VAT	£385 + VAT
Book within last 4 weeks	£305 + VAT	£425 + 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 5: connections and advanced topics in timber design



Dr Keerthi Ranasinghe

Course date:  
16 June

IN-HOUSE AVAILABLE

### Aim

This course introduces timber connections in detail and several other advanced topics in timber design to Eurocode 5. Topics covered include: connections with dowel-type fasteners, nails, screws, dowels and bolts; timber composites; notched members and slots and holes in timbers; splitting of timber and other brittle failures; design for durability; introductions to the fire and bridges parts of Eurocode 5.

### 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

DISCOUNT FOR A COURSE PAIR

### Intended for

Graduates through to senior structural engineers.

### Entry criteria

Participation at the Eurocode 5: The essentials of timber design course may be advantageous.

### Price

	Member rate	Standard rate
Book 4 weeks in advance	£275 + VAT	£385 + VAT
Book within last 4 weeks	£305 + VAT	£425 + VAT

### Tutor

**Dr Keerthi Ranasinghe** is the Principal Engineer for Structural Timber at BM TRADA and Warringtonfire. Formerly an academic with research and teaching experience both in the UK and abroad, Keerthi has delivered these timber courses at the Institution since 2008. 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*. Keerthi sits in British and European Standardisation Committees related to timber design and was also a project team member that wrote the connections chapter to the second edition of Eurocode 5.

### Discount

Savings are available when you book both Eurocode 5 courses. See p.31 for details.

**25% discount on associated publications:**

*Manual for the design of timber building structures to Eurocode 5 (2nd edition)*.

See p.31 for details.

# Eurocode 5: the essentials of timber design



Dr Keerthi Ranasinghe

Course dates:  
15 June  
11 July

IN-HOUSE AVAILABLE

### Aim

This course offers an introduction to timber design to Eurocode 5. Topics covered include, but are not limited to: solid timber and engineered timber products; material properties and modification factors; design of beams, columns and connections; and discussions on deflections and vibrations. A quick introduction to loading and Eurocodes is also given.

### Learning outcomes

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.

### Price

	Member rate	Standard rate
Book 4 weeks in advance	£275 + VAT	£385 + VAT
Book within last 4 weeks	£305 + VAT	£425 + VAT

### Discount

Savings are available when you book both Eurocode 5 courses. See p.31 for details.

**25% discount on associated publications:**

*Manual for the design of timber building structures to Eurocode 5 (2nd edition)*.

See p.31 for details.

### Tutor

**Dr Keerthi Ranasinghe** is the Principal Engineer for Structural Timber at BM TRADA and Warringtonfire. Formerly an academic with research and teaching experience both in the UK and abroad, Keerthi has delivered these timber courses at the Institution since 2008. 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*. Keerthi sits in British and European Standardisation Committees related to timber design and was also a project team member that wrote the connections chapter to the second edition of Eurocode 5.

“

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.

# Manuals supporting the design of structures to Eurocodes



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for practicing structural engineers

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## Eurocode 6: masonry design



Professor John Roberts

IN-HOUSE AVAILABLE

Course dates:

10 May

10 October

### Aim

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

### Learning outcomes

On completing the course participants will have:

- An overview of the design of masonry to the Eurocode
- An understanding of masonry materials
- Been introduced to the standards supporting the use of masonry
- An understanding of how to design for vertical load
- Completed design examples for vertical load and concentrated load
- An understanding of how to design for lateral load
- Completed a design example for lateral load
- The knowledge to find relevant information to support their future designs

Contributes to IPD Core Objective 2.2, 2.3

### Intended for

Structural engineers interested in the design of masonry to Eurocode 6.

### Price

	Member rate	Standard rate
Book 4 weeks in advance	£275 + VAT	£385 + VAT
Book within last 4 weeks	£305 + VAT	£425 + VAT

25% discount on associated publications:

*Manual for the design of plain masonry in building structures to Eurocode 6.*  
See p.31 for details.

### 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.



# Eurocode 7: foundation design for small practitioners

Course date:  
17 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

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

### Intended for

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 to Eurocodes.

### Price

	Member rate	Standard rate
Book 4 weeks in advance	£275 + VAT	£385 + VAT
Book within last 4 weeks	£305 + VAT	£425 + VAT

25% discount on associated publications:  
*Manual for the geotechnical design of structures to Eurocode 7.*  
See p.31 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.

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# Eurocode 8:

## an introduction to seismic design of buildings

Course date:  
📅 28 March

### 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.

### 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



Professor Costas Georgopoulos

IN-HOUSE AVAILABLE

### Tutor

**Professor Costas Georgopoulos** 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-the-art structures in the UK (Trident Submarine Refitting Facility at Rosyth and Sizewell B Nuclear Power Station). Costas is also author of the IStructE's *Examples for the seismic design of steel and concrete buildings to Eurocode 8*.



Costas has such a wealth of experience and familiarity with the subject, it was honestly incredible. I honestly believe that we could have gone for hours more. The course notes were incredibly considered and informative. Highly recommended.

# Eurocode 8:

## worked examples of the dynamic analysis and seismic design of buildings

Course date:  
📅 29 March

### Aim

This course delivers practical advice through the use of worked examples on dynamic analysis, conceptual design for earthquake resistance and seismic design of structural elements to Eurocode 8. Emphasis is based on concrete and steel 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 post graduate 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	£275 + VAT	£385 + VAT
Book within last 4 weeks	£305 + VAT	£425 + VAT



Professor Costas Georgopoulos



Dr. Kong Kian Hau

### Tutor

**Professor Costas Georgopoulos** 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-the-art structures in the UK (Trident Submarine Refitting Facility at Rosyth and Sizewell B Nuclear Power Station). Costas is a member of *BSI B/525/8 expert committee on Eurocode 8*.

**Dr. Kong Kian Hau** is a Senior Lecturer with the Department of Civil & Environmental Engineering at the National University of Singapore (NUS). Awarded the NUS President Graduate Fellowship in 2002, his PhD thesis focused on far-field effects of long-distance earthquake tremors from Sumatra to buildings in Singapore. Dr. Kong is a practicing qualified engineer who specializes in Buildings & Infrastructure Projects (including bridges) with more the 15 years of experience. Dr Kong is co-author of the IStructE's *Examples for the seismic design of steel and concrete buildings to Eurocode 8*.



# Eurocode 9:

## design of aluminium structures



Dr Meini Su

Course date:  
📅 31 January

### 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.

### 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**

### Intended for

The course is primarily intended for structural engineers who will use Eurocode 9 for the design of buildings and other civil engineering and structural works including bridges. The basic principles and content will also be useful for engineers who will use aluminium in other applications.

### Price

	Member rate	Standard rate
Book 4 weeks in advance	£275 + VAT	£385 + VAT
Book within last 4 weeks	£305 + VAT	£425 + VAT

### Tutor

**Dr Meini Su** is a Senior Lecturer in Structural Engineering at the University of Manchester. She studied at The University of Hong Kong and Imperial College London. Her principal research interests lie in the areas of structural testing, numerical modeling and the development of design guidance for aluminum alloy structures and reinforced concrete structures in marine environment. She is serving in the British Standard Institution (BSI) B/525/9 - Structural use of aluminum.

# Exam preparation

Course dates:  
🏠 15 – 17 May  
📅 11 – 13 December

### 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.

### Price

	Member rate
Book 4 weeks in advance	£595 + VAT
Book within last 4 weeks	£655 + VAT

### Tutors

**Paul Toplis** is a consultant 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.

# Historic timber structures: assessment and reuse



Dr Keerthi Ranasinghe

### Course dates:

- 2 February
- 16 November

### 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

Contributes to IPD Core Objective **2.3**

### Intended for

Graduates through to senior structural engineers.

### Price

	Member rate	Standard rate
Book 4 weeks in advance	£275 + VAT	£385 + VAT
Book within last 4 weeks	£305 + VAT	£425 + VAT

**25% discount on associated publications:**  
*Manual for the design of timber building structures to Eurocode 5 (2nd edition).*  
**See p.31 for details.**

### Tutors

**Dr Keerthi Ranasinghe** is the Principal Engineer for Structural Timber at BM TRADA and Warringtonfire. Formerly an academic with research and teaching experience both in the UK and abroad, Keerthi has delivered these timber courses at the Institution since 2008. 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*. Keerthi sits in British and European Standardisation Committees related to timber design and was also a project team member that wrote the connections chapter to the second edition of Eurocode 5.

**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 post-qualifying 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



Chris O'Regan

### Course dates:

- 14 March 14:00 – 18:00 GMT
- 3 October 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

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.

### Price

	Member rate	Standard rate
Book 4 weeks in advance	£205 + VAT	£285 + VAT
Book within last 4 weeks	£225 + VAT	£315 + 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.31 for details.**

IN-HOUSE AVAILABLE

### Tutor

**Chris O’Regan** is a Chartered Structural Engineer and an Associate Director at Mason Navarro Pledge. 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 Broadbent

### Course dates:

- Begins 2 February 14:00 – 16:00 GMT
- Begins 20 April 14:00 – 16:00 BST
- Begins 7 September 09:30 – 11:30 BST
- Begins 9 November 14:00 – 16:00 GMT

### Aim

This popular course is delivered as a series of interactive online sessions across five weeks, supported by individual study. It will enable you to design structures with net-zero emissions.

### 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

### Intended for

Near-chartered and chartered structural engineers, involved in structural design on a day-to-day basis.

### Entry criteria

Must have completed the Embodied Carbon Basics on-demand course.

### Price

	Member rate	Standard rate
Book 4 weeks in advance	£485 + VAT	£675 + VAT
Book within last 4 weeks	£535 + VAT	£745 + VAT

IN-HOUSE AVAILABLE

### 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 best-practice 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 was appointed 1851 Royal Commission Fellow in Regenerative Design in 2022 and was awarded the Sir Misha Black Award for Innovation in Design Education in 2022.

“

I haven't attended such an interactive and engaging online course before. Will and Oliver's enthusiasm and energy really came across.

“

Topic discussions with Will, Oliver and all participants were useful. The course has delivered all the items that I hoped it would and more. It has installed a foundation from which I can go away and build on. I have a better understanding of how to communicate low carbon ideas with the design team and clients.







# Rapid calculations for structural engineers

## Course dates:

- 📅 26 April 10:00 – 13:30 BST
- 📅 29 November 10:00 – 13:30 GMT

## Aim

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

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 others quickly

## Intended for

This course is suitable for early career structural engineers and those preparing for the Chartered Membership Exam.

## Price

	Member rate	Standard rate
Book 4 weeks in advance	£205 + VAT	£285 + VAT
Book within last 4 weeks	£225 + VAT	£315 + VAT

## Tutors

**Rachael De’Ath** has more than 19 years design experience. She worked at Arup for the majority of this and has recently started a new role with Marbas, a smaller engineering consultancy, to open their new Bristol office. She also spent 3 year lecturing at the University of Bristol and continues to be a guest lecturer. She prefers working on re-use projects, where the existing structure is creatively re-imagined into something new. She was names as one of the Women’s Engineering Society’s ‘Top 50 female engineers’ in 2018.

“Rachael De’Ath hosted brilliantly. It was really well paced and engaging, with good examples of when we can use these tricks. I feel like it will be very helpful for the Structures Exam, as well as general use.





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## Reliability, resilience and robustness in structural engineering design



Caroline Field



Dr Alessandro Palmeri

Course date:  
📅 14 September

### 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
- Appreciate the role of robustness and resilience in the design of structures
- Understand the role of aleatory and epistemic uncertainties in the design of structures
- Decide which design situations are best suited for the adoption of performance-based approaches, and justify their use in the professional practice
- Break down the application of performance-based design into sequential stages, from assessing the relevant hazards to estimating the resulting losses
- Recommend a range of structural and non-structural solutions to enhance resilience and robustness

### 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.

### Price

	Member rate	Standard rate
Book 4 weeks in advance	£275 + VAT	£385 + VAT
Book within last 4 weeks	£305 + VAT	£425 + VAT

### Tutors

**Prof Caroline Field** is a Partner at PA Consulting and leads their resilience business. Caroline has a background in asset and infrastructure resilience with over 26 years of professional experience including 12 years in counter terrorism, blast mitigation and physical security and 7 years in earthquake engineering and dynamics.

**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 reliability- and performance-based design.

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

# Seismic design of structures



Dr Agathoklis Giaralis



Prof Konstantinos Daniel Tsavdaridis



Dr Panagiotis Mergos

IN-HOUSE AVAILABLE

### 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, CUoL. His research is centred around steel and steel-concrete composite structural systems and he has published over 160 peer-reviewed articles. He specialises in the design of seismic-resistant 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 iteration of Eurocode 8, Part 1.

# Steel essentials: practical design of structural steelwork



Richard Dixon

Course date:  
📅 2 October

### Aim

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 their suitability for specification
- Responsibilities for different parties under UKCA 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.

### Price

	Member rate	Standard rate
Book 4 weeks in advance	£275 + VAT	£385 + VAT
Book within last 4 weeks	£305 + VAT	£425 + VAT

**25% discount on associated publications:**

*Manual for the design of steelwork building structures to Eurocode 3.*  
**See p.31 for details.**

Course dates:  
📅 5 – 6 June

### Aim

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
- Appreciate seismic design and detailing of steel and steel-concrete composite structures
- Appreciate seismic design of highway bridges

Contributes 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 post graduate students, researchers and academics with limited seismic design experience.

### Price

	Member rate	Standard rate
Book 4 weeks in advance	£485 + VAT	£675 + VAT
Book within last 4 weeks	£535 + VAT	£745 + VAT

**25% discount on associated publications:**

*Manual for the seismic design of steel and concrete buildings to Eurocode 8 and worked examples.*  
**See p.31 for details.**



# Structural concepts – designing more efficient structures



Dr Tianjian Ji

Course date:  
📅 13 June

### Aim

This course provides engineers with an enhanced intuitive understanding of four structural concepts and their implementation routes and measures for creating desirable distribution of internal forces and for achieving more efficient structures.

### 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

Contributes to IPD Core Objective **2.1**

### Intended for

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

### Price

	Member rate	Standard rate
Book 4 weeks in advance	£275 + VAT	£385 + VAT
Book within last 4 weeks	£305 + VAT	£425 + VAT

### 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.

# Structural engineering for non-structural engineers



Chris O'Regan

Course dates:  
📅 15 February  
📅 20 September

### Aim

A guide to the field of structural engineering in relation to buildings for construction industry professionals.

### Learning outcomes

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

- Appreciate how forces due to gravity and other effects are resisted in a building’s structure
- Demonstrate a knowledge of the tools available to the structural engineer to counter these effects
- Appreciate the concept of efficient design and its impact on embodied energy
- Appreciate finite element analysis methods
- Develop an appreciation of key engineering concepts and terminology

Contributes to IPD Core Objective **3.1**

### Intended for

Construction industry professionals and those who might need an understanding of structural engineering in their day-to-day job, but are not trained structural engineers.

### Price

	Member rate	Standard rate
Book 4 weeks in advance	£275 + VAT	£385 + VAT
Book within last 4 weeks	£305 + VAT	£425 + VAT

### Tutor

**Chris O’Regan** is a Chartered Structural Engineer and an Associate Director at Mason Navarro Pledge. 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.

# Structural engineering with bamboo



David Trujillo



Seb Kaminski

Course date:  
📅 26 September

## 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 global north who work with glulam and timber and are exploring alternatives. Structural engineers working in global south with an interest in building with sustainable materials.

## Price

	Member rate	Standard rate
Book 4 weeks in advance	£275 + VAT	£385 + VAT
Book within last 4 weeks	£305 + VAT	£425 + VAT

## Tutors

**David Trujillo** has been researching bamboo for over 23 years and has authored or co-authored more than 30 publications on the subject, including the IStructE Technical Papers on bamboo within The Structural Engineer. He is a member of the committee that drafted four ISO standards for bamboo (some of which are now British Standards).

**Seb Kaminski** is a structural engineer in Arup’s Specialist Structures Team and a specialist in the use of bamboo, especially for housing in seismic areas.. He led the IStructE Technical Papers on bamboo within The Structural Engineer and was also involved in the revision of ISO 22156 (Structural Design of Bamboo).

# Structural robustness and disproportionate collapse



Gavin Knowles

Course date:  
📅 8 June

## 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

- 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
  - Have an appreciation of fire protection of different building materials and how fire safety plays a role in all building design

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

## Intended for

Newly chartered or almost chartered engineers who are independently doing the outline, scheme and detailed design of buildings.

## Price

	Member rate	Standard rate
Book 4 weeks in advance	£275 + VAT	£385 + VAT
Book within last 4 weeks	£305 + VAT	£425 + VAT

**25% discount on associated publications:**  
*Practical guide to structural robustness and disproportionate collapse in buildings* and *Manual for the systematic risk assessment of high-risk structures against disproportionate collapse*. Also available as a two-volume package. **See p.31 for details.**

## Tutor

**Gavin Knowles** is a lecturer at the University of Bath and prior to this has worked in practice as a Chartered structural engineer. His previous projects including many education and office buildings, along with conservation and refurbishment projects, interweaved with diverse structures, such as rammed chalk-walled houses, recycled material stages at WOMAD Festival and the odd sculpture. He now teaches Structural Design, Conservation and leads on student design projects.



# Temporary works design

### Course dates:

-  **6 – 7 March**
-  **13 – 14 November**

### Aim

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

### Learning outcomes

- 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**

### Intended for

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.

### Price

	Member rate	Standard rate
Book 4 weeks in advance	£485 + VAT	£675 + VAT
Book within last 4 weeks	£535 + VAT	£745 + VAT

### Tutor

**Ray Filip** has over 35 years’ experience in the field of temporary works design and management and is a Fellow of the Institution of Civil Engineers. 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.

# Timber workshop: design through worked examples

### Course date:

-  **12 July**

### 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 and 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	£275 + VAT	£385 + VAT
Book within last 4 weeks	£305 + VAT	£425 + VAT

**25% discount on associated publications:**  
*Manual for the design of timber building structures to Eurocode 5 (2nd edition).*  
See p.31 for details.



Dr Keerthi Ranasinghe

### Tutor

**Dr Keerthi Ranasinghe** is the Principal Engineer for Structural Timber at BM TRADA and Warringtonfire. Formerly an academic with research and teaching experience both in the UK and abroad, Keerthi has delivered these timber courses at the Institution since 2008. 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*. Keerthi sits in British and European Standardisation Committees related to timber design and was also a project team member that wrote the connections chapter to the second edition of Eurocode 5.

# Understanding structural behaviour



Mark Moppet

Course dates:  
📅 9 – 10 May

IN-HOUSE AVAILABLE

## Aim

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

## 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 computational 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

## Intended for

Recent graduates from BEng or MEng courses. As the course is non-numerical, it will also be of interest to those from other construction disciplines who wish to obtain a basic introduction to structural engineering.

## Price

	Member rate	Standard rate
Book 4 weeks in advance	£485 + VAT	£675 + VAT
Book within last 4 weeks	£535 + VAT	£745 + VAT

## Tutors

**Mark Moppett** has 37 years of experience and was Senior Partner and then Managing Director at Booth King from 2006 to 2021. He is now Director and remains a fully practising engineer, committed to the training and development of engineers. Prior to his role at Booth King, Mark was an Associate with international consultancy Arup in London, Hong Kong and latterly Manchester, delivering projects both nationally and internationally.



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

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

# Understanding structural design



Mark Moppet

Course dates:  
📅 10 – 11 October

IN-HOUSE AVAILABLE

## 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 computational output and member sizing.

## Learning outcomes

- 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

## Intended for

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.

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

## Entry criteria

Attendance at the Understanding structural behaviour course is recommended.

## Price

	Member rate	Standard rate
Book 4 weeks in advance	£485 + VAT	£675 + VAT
Book within last 4 weeks	£535 + VAT	£745 + VAT

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

## Tutors

**Mark Moppett** has 37 years of experience and was Senior Partner and then Managing Director at Booth King from 2006 to 2021. He is now Director and remains a fully practising engineer, committed to the training and development of engineers. Prior to his role at Booth King, Mark was an Associate with international consultancy Arup in London, Hong Kong and latterly Manchester, delivering projects both nationally and internationally.



# Using computational design in practice



Harri Lewis

### Course dates:

5 – 6 September 10:00 – 17:30 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 of computational design 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
- Recognised how and why various data structures are used

Contributes to IPD Core Objective **2.2**

### Intended for

Professional engineers.

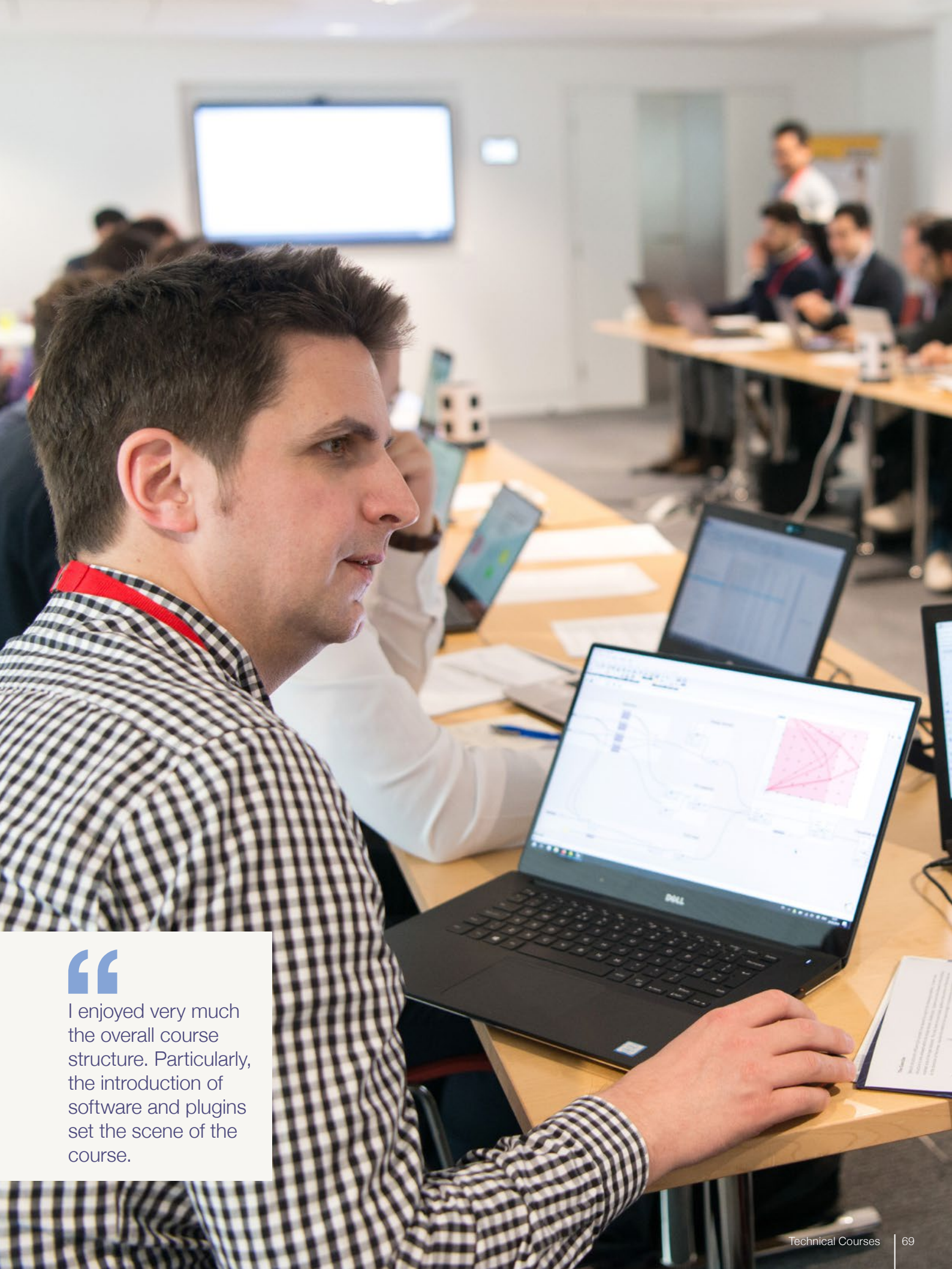
### Price

	Member rate	Standard rate
Book 4 weeks in advance	£485 + VAT	£675 + VAT
Book within last 4 weeks	£535 + VAT	£745 + VAT

**25% discount on associated publications:**  
*Computational engineering.*  
See p.31 for details.

### 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.



I enjoyed very much the overall course structure. Particularly, the introduction of software and plugins set the scene of the course.



# Vibration serviceability of building floors

Course date:  
📅 14 June

## Aim

The current demand for many floors is open plan, slender and lightweight. As such, vibration and not strength govern their design. This course will equip engineers to appreciate state-of-the-art vibration serviceability design and assessment for low-frequency, high-frequency floors, cross-laminated timber and other lightweight floors and best practice in testing and mitigation.

## Learning outcomes

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

- Master the basic terminology used in floor vibration serviceability
- Undertake basic vibration serviceability checks of a typical floor structure
- Appreciate the vibration mitigation technologies available to reduce embodied carbon pertinent to floor vibration serviceability
- Carry out basic vibration serviceability check for a floor featuring an active mass damper

Contributes to IPD Core Objective **2.2**

## Intended for

Structural and civil engineers dealing with the pervasive problems of building floor vibration, including low-frequency, high-frequency, mass timber and modular floors.

## Price

	Member rate	Standard rate
Book 4 weeks in advance	£275 + VAT	£385 + VAT
Book within last 4 weeks	£305 + VAT	£425 + VAT



Professor Aleksandar Pavic



Dr Paul Reynolds



## Tutors

**Professor Aleksandar Pavic** is a Professor of Vibration Engineering at the University of Exeter, with expertise in vibration serviceability of building floors. His co-authorship or contribution has been recognised in state-of-the-art design guidelines pertinent to floor vibration serviceability which are currently used in the UK and internationally for checking floors, footbridges and grandstands. He is also the Managing Director of Full Scale Dynamics Ltd, a 15-year old university spin-off company specialising in commercial testing, monitoring and performance assessment of full-scale civil engineering structures.

**Dr Paul Reynolds** is an expert in civil engineering vibration with specialism in structural vibration control. He is CEO of FSD Active Limited, an innovative technology company who have brought to market CALM®FLOOR, which is the world's first volume produced active mass damper product for floors. He was previously Professor of Structural Dynamics and Control at the Universities of Sheffield and Exeter and still holds an honorary Professorship in Exeter.

# Wind loading on structures to EN 1991-1-4

Course date:  
📅 6 September

## 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.

## Price

	Member rate	Standard rate
Book 4 weeks in advance	£275 + VAT	£385 + VAT
Book within last 4 weeks	£305 + VAT	£425 + VAT

## 25% discount on associated publications:

- *Manual for the design of timber building structures to Eurocode 5 (2nd edition).*
- *Manual for the design of building structures to Eurocode 1 & Basis of structural design (2nd edition).*

See p.31 for details.



John Owen

## 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 can I get 25% discount on associated publications?

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

## Q. Why are some courses more expensive than others?

IStructE members pay circa 30% 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 lower early booking rates.

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

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

## Q. Are there reduced rates for students or those that are unemployed or 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) membership subscription fee can claim the same percentage reduction on course bookings. The LIR rate is often an option for postgraduate students, or those on low incomes or not in employment, etc. If you believe this applies to you, please contact **training@istructe.org**.

## Q. Are the courses mostly in London?

The 2023 professional development programme will be delivered primarily online with some courses held 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 live courses be recorded to watch back on-demand?

No. 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: I have booked on a course. What happens now?

You will receive a booking confirmation when you book then joining instructions and further information two weeks prior to the course date.

If you have any queries please get in touch with **training@istructe.org** at any time.

## Q. I'm interested in attending a course pair. How do I get the discount?

Some of our one-day courses are paired with another relevant course and can form a two day course. If you are interested in attending courses marked as a pair you can claim a 20% discount on the second course when booking. Please email **training@istructe.org** to request a discount code.



# 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](mailto: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 or cancel your invoice. If you cancel less than one month before the Course no refund will be given. If an invoice was requested and you request a cancellation less than a month before the Course, you will still be liable to complete payment.

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 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](mailto: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 this tag on the course page, although we may be able to deliver other courses from our programme in-house also. The offer is subject to the courses' relevant trainers' availability

## 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**

“

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**

**Book your course:**  
Visit [www.istructe.org/cpd-2022](http://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](http://www.istructe.org/thestructuralengineer)

**Watch** technical lectures on our Youtube channel:  
[www.youtube.com/theinstitutionofstructuralengineers](http://www.youtube.com/theinstitutionofstructuralengineers)

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



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in this key area

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Contribute to your IPD and CPD

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Streamline your Professional Review Interview

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"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



"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

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**Register:**  
[www.istructe.org/sbcertificate](http://www.istructe.org/sbcertificate)





# 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).

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.

**Find all the CPD information you need at:**  
**[www.istructe.org/training-and-development](http://www.istructe.org/training-and-development)**

**Book online:**  
**[www.istructe.org/cpd-2023](http://www.istructe.org/cpd-2023)**

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