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▶ A world of Knowledge: Rittal CPD seminars CPD



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Continuing Professional Development

Keeping your knowledge and skills current is essential if you want to be abreast of today's latest developments.

Rittal are committed to the Continuing Professional Development (CPD) programme and have developed a series of accredited seminars to keep you up-to-date with the latest industry and IT infrastructure requirements.

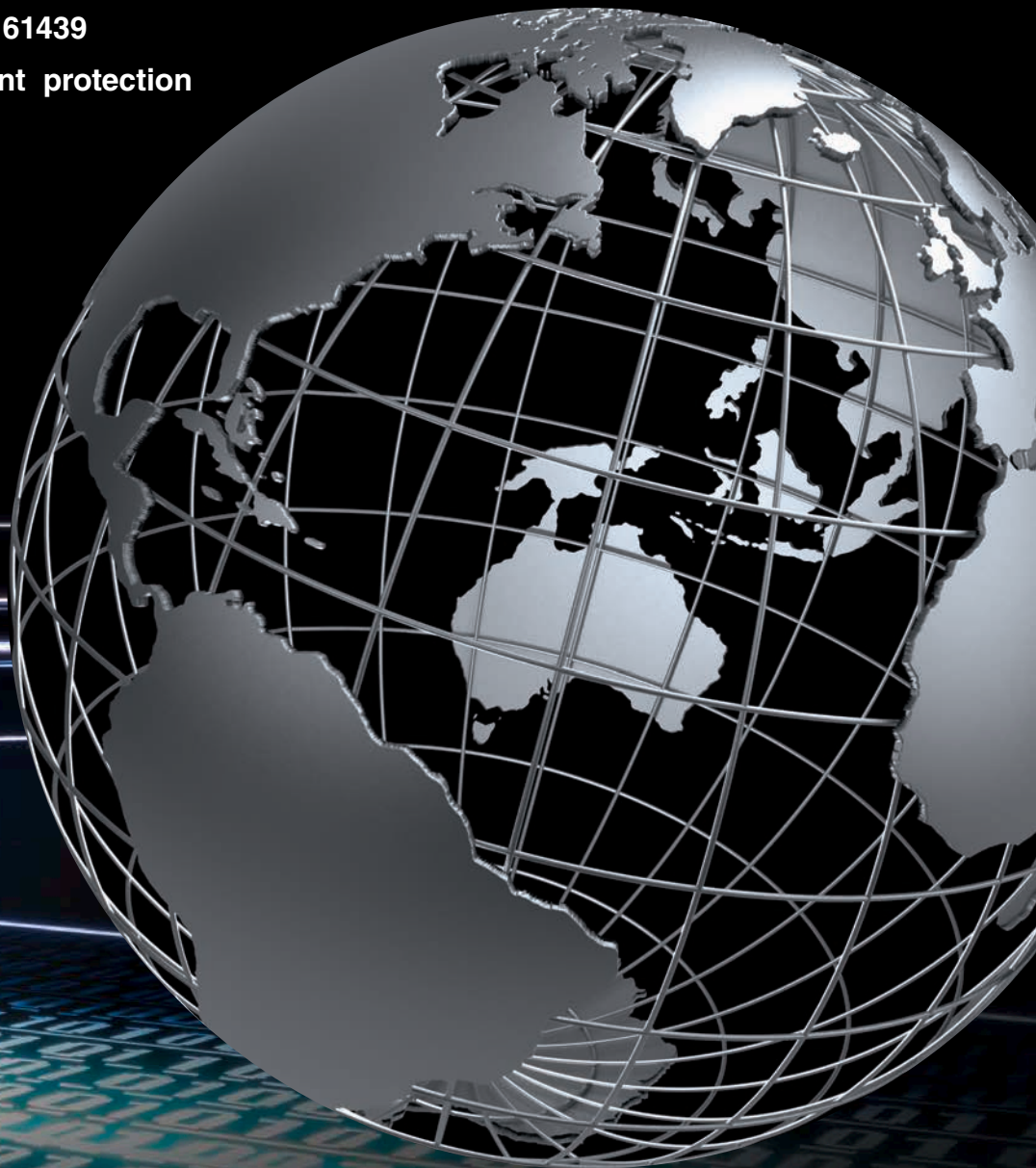
All seminars have been reviewed, assessed and approved by CIBSE to ensure that the technical content is of a high standard and offers valuable CPD qualification to delegates.

Rittal's technical personnel are available to visit your offices to give a technical presentation on an agreed topic(s), lasting approximately one hour.

The opportunity for an informal question and answer session is also provided. Alternatively our fully equipped demonstration centres at Rotherham and Canary Wharf in London, offer the perfect venues as alternatives should you require.

The seminars take the form of short informative presentations to provide a concise understanding of the topics.

- Building a Data Centre in the perfect Storm
- Challenging “The Edge” – IoT
- Open Compute Project & Open19 Project
- Cloud computing & software defined Data Centres
- Data Centre energy efficiency
- Energy efficient Cooling
- An introduction to IEC 61439
- Enclosures – equipment protection



This CPD covers IT infrastructure information for consideration in the remodelling, refurbishment, regeneration and relocation of a data centre. This seminar is based around the particular aspects of data centre management using the real life example and case study from Nottingham County Council.

Nottingham County Council (NCC) and the communities it serves are reliant on the ICT services delivered from its data centre. Connecting 130,000 users across 700 buildings and 60,000 computers to over 600 applications and systems, from email to children's learning in schools, paying its workers to loaning books from libraries, delivering meals to homes to safeguarding vulnerable adults and children, ICT is at the heart of their service delivery.

Learn how NCC delivered a new state of the art data centre whilst still coping with the perfect storm and practicalities of migration, updating, maintaining and continuing to deliver essential IT services.

At the end of the seminar, delegates will have an understanding of:

- The critical role of project management
- Constraints of different technology Selections
- Coping with Migrating essential services
- Key issues and constraints of a new data centre development

Target Audience - Including Competence Level:

The course is aimed at all levels of mechanical engineers in the positions of Facilities Manager and Engineers, Estates Managers, Electrical Engineers and IT Managers.

Duration and Format of Course:

45 min Workshop / power point presentation

Course Locations:

Courses can be presented at consultant and contractor's offices or at our office showroom and demonstration centres in Canary Wharf London & Rotherham South Yorkshire or at Rittal's production factory in Plymouth

Course attendance Fee:

Free of charge



Challenging “The Edge” – IoT looks at the rise of Edge data centres.

It considers how the growth of cloud storage, alongside the need for higher speed and low latency, has fuelled Edge Computing to support new technology such as 5G, as well as the rise in video content, and machine-to-machine learning (IoT).

In contrast to existing data centres, Edge data centres will be smaller and situated nearer users, in a mesh network.

At the end of the seminar, delegates will have an understanding of:

- The concept fourth industrial revolution - Industry 4.0
- IoT – the interconnection of small sensors on a large scale
- How the converging of IT and FM is vital for system performance
- Future demands
- The Physical location requirements of edge computing

Target Audience - Including Competence Level:

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Open Compute Project & Open19 Project

This seminar explores the concept of Open Compute Project (OCP). Originally developed by Facebook in order to share know-how to build low-cost, highly efficient data centres particularly those used by hyper-scale cloud platforms.

The main thrust is to radically alter the way power is distributed to the server by switching to locally derived DC power, lowering power requirements and increasing airflow around the components, thereby reducing cooling costs.

Alongside this is LinkedIn's Open19 project, which focuses on edge computing alongside the core data centre hardware, and unlike OCP, uses a licensing framework that lets companies protect their IP while still being actively involved.

At the end of the seminar, delegates will have an understanding of:

- An 'open platform' for Server and storage hardware based on a new form factor
- Use DC power supplies for the hardware
- Open racks incl. mechanical mounting
- Improved cooling
- The impact in reduced operating/maintenance costs

Target Audience:

The course is aimed at all levels of expertise within engineering departments including: Electrical Engineers, Design Engineers, Panel Design Engineers, Facility Managers and Estate Managers.

Duration and Format of Course:

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This seminar looks at how cloud computing has changed our whole perspective on current computing.

It will look at how the cloud enables better management of the data for analytical purposes as well as shared access from internet enabled devices.

The CPD also examines how the need for data center capacity for edge computing and the Internet of Things will lead to new data center form factors, as well as new cloud computing and networking approaches. It also looks the arguments both for and against the rapid build-out of data centers at the edge and an assessment of the types of workloads they will likely support.

At the end of the seminar, delegates will have an understanding of:

- The need for datacenter capacity
- New cloud computing and networking approaches
- The Physical elements to be considered
- Arguments both for and against the rapid build-out of data centers at the edge
- Key issues and constraints of DCiM

Target Audience - Including Competence Level:

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This seminar involves the different strategies that can be implemented to maximize energy efficiency of the data centre and the potential gains and compromises that could occur.

From simply switching things off to advanced DCIM measurement, this presentation covers a broad spectrum of technologies and processes that can be implemented.

At the end of the seminar, delegates will have an understanding of:

- Data Networks
- Data Centres
- Computer rooms
- Heating and Ventilation
- IT Infrastructure for Building Management

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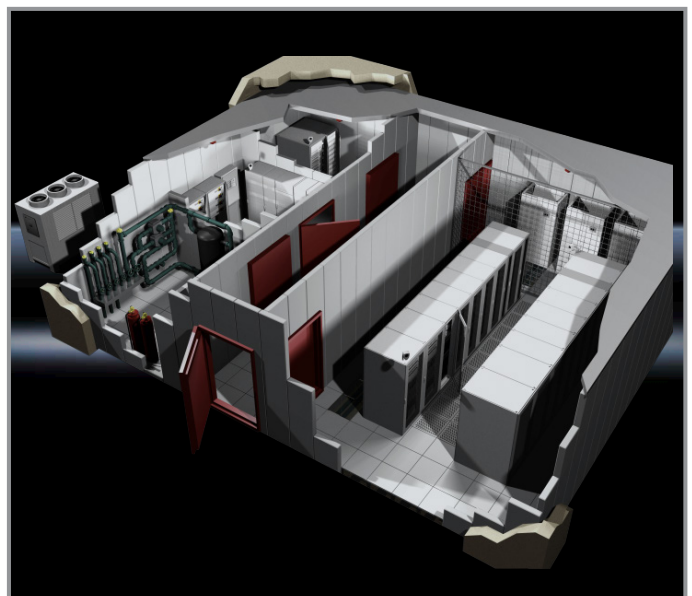
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This seminar provides an overview to the importance of the adequate provision of appropriate cooling when specifying .

Thermal performance, more than any other element, will form the base line for the design of any enclosure. So much of today's selection criteria for an optimal enclosure solution centres around thermal performance and, depending on the application, size, external ambient and internal heat load, can each have an impact on the design used to solve the system cooling. As equipment becomes smaller and requires dissipation of larger heat loads, a larger portion of the design effort should be dedicated to optimising the thermal efficiency of the system.

At the end of the seminar, delegates will have an understanding of:

- Need for enclosure cooling
- The cost of ignoring overheating
- Tell-tale signs that an existing enclosure is too hot
- Methods used to establish the enclosure internal temperature
- Suitability of cooling solutions for particular environments
- Impact of incorrect installation
- Importance of service and maintenance

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CPD An Introduction to the application of IEC 61439

This seminar has been designed to give a brief introduction to the IEC 61439 standard that will be in place from November 2014 and how it should be applied to the design and manufacture of low voltage assemblies in the UK to be compliant.

The standard looks at the low voltage and control gear assembly as a total system and not as individual components. The four key elements of the system are: enclosures, climate control, busbars and mechanical devices. How these parts react together and perform under test conditions is a major consideration of the new standards.

Key areas of the IEC 61439 are:

- **Impact of heat rise**
- **Type testing replaced with design verification**
- **New terms and definitions**
- **New construction and performance requirements**

Target Audience:

The course is aimed at all levels of expertise within engineering departments including: Electrical Engineers, Design Engineers, Panel Design Engineers, Facility Managers and Estate Managers.

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This seminar provides an overview to the considerations needed to ensure the correct and safe specification of industrial enclosures

The presentation highlights that the choices made when specifying an enclosure can be one of the most important parts in protecting your investment. How, providing the right environment for the equipment being installed will deliver the best solution, safety and reliability.

At the end of the seminar, delegates will have an understanding of:

- What is an enclosure and why is it important?
- Equipment Protection
- IP and IK ratings and the effects of modification
- Maintenance considerations
- Energy savings
- Noise levels
- Enclosure Security
- Heating and ventilation considerations
- Standards & approvals

Target Audience - Including Competence Level:

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- Enclosures
- Power Distribution
- Climate Control
- IT Infrastructure
- Software & Services

CPD 07/18RA

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