



# CALL FOR PAPERS



**Do you work in the electrical domain, in the mining, industrial, power, defence, oil & gas, construction, transport, manufacturing, utilities or renewable energy industries?**

Due to the outstanding success of the **2022 Earthing Conference UK**, IDC Technologies is planning a 2023 conference to run in Birmingham, **4 & 5 May**.

As they say, 'knowledge is power'. Poor earthing practices can be the cause of difficult-to-diagnose problems; this conference aims to offer practical and cutting-edge solutions to protect life and property.

If you are an expert working in the field of electrical engineering we would love you to present at the 2023 Earthing Conference UK. It is an opportunity to connect with industry leaders and to share your experience, along with academic research, relating to earthing in 2023 and beyond.

The Conference will explore issues, provide solutions and discuss ideas on earthing from a global perspective. Bonding, grounding, surge protection, shielding, LV and MV earthing, earthing for renewable systems and EV chargers, lightning protection of electrical and electronic systems, and innovative earthing solutions - are all possible topics for presentations that would be well-received at this conference.

Earthing has been under-represented over the years. This conference will attempt to fill the technical knowledge gaps, improve practices in the industry, and present a unified practical approach for the UK and Europe.

**We are seeking speakers** who can cover design, installation, testing and inspection procedures for industrial and commercial power systems. We also want content on earthing and surge protection for telecommunications and IT systems, including the impact of lightning (with simple techniques for minimising its impact).



### **Suggested topics:**

- Earthing in High Voltage installations
- Earthing in Medium and Low Voltage installations and buildings
- Earthing, testing and measurements
- Portable Earthing Leads
- Protection for overhead lines, substations, underground cables
- Earthing systems for solar, wind, hydro
- Earthing systems for residential and commercial EV chargers
- Lightning protection and minimalisation
- Innovative Solutions
- HV and LV earthing systems interconnection
- Data centre earthing considerations
- Earthing in Telecommunications and IT systems
- Surge protection practice
- Earthing modelling and software
- Sheath bonding methods, sheath voltage limiters
- Standards, best practices and innovative solutions
- UPS earthing systems
- Noise and harmonics effects & mitigation

### **POWER SYSTEMS**

- System earthing
- Earthing of renewable energy systems
- Earthing of EV charging systems
- Equipment grounding & earthing of structures
- Electrical safety earthing
- Static earthing
- Solid, impedance, touch potentials
- Electric shock
- Earth leakage protection
- Design
- Protection

### **EARTHING**

- Design and testing
- Earthing electrodes
- Measurement
- Neutral earthing
- Corrosion problems in earthing
- Earthing of surge protection devices

### **BONDING**

- Sizing conductors
- Parasitic & stray currents
- Interference

- Hazardous areas
- Inspection procedures
- Equipotential grids

### **EARTHING, COMMS & INSTRUMENTATION**

- Protection of instrumentation
- Instrumentation, radio & telemetry transmitters
- Telephone networks
- IT & wireless networks
- Mobile radio networks
- System bonding

### **TESTING**

- Earth resistivity
- Earth loop impedance
- Grid resistance
- Earth continuity

### **INSTALLATIONS**

- High voltage & low voltage
- Substations
- Augmentation of buried grids
- Geotechnical issues
- Hazardous areas
- Mining and oil & gas

- Marine and offshore
- Mobile plant
- Domestic electrical wiring
- Transmission, distribution & rail

#### **LIGHTNING**

- Protection design
- Non-conventional lightning systems
- Side flash and preventive measures
- Down conductor installation and termination
- Grid design
- Bonding
- Surge impedance
- Probabilistic risk factors

#### **STANDARDS & REGULATIONS**

- Standards and best practice
- State and utility regulations
- The need for new standards
- Inspection and testing
- BS 50522, BS 7430, BS 7354,
- BS 7671 – UK Wiring Regulations
- IEEE Std 80, ENA TS 41-24

#### **SOFTWARE**

- Load flow studies
- Fault load studies
- Equipment sizing
- Earth potential rise

#### **UPS SYSTEMS**

- Power quality
- Standby sources
- Solid state systems
- Redundancy
- UPS configurations

#### **SURGE PROTECTION**

- Bonding practice
- Surge protection practice
- Positioning and selection of lightning/surge arrester

#### **ELECTRICAL NOISE & MITIGATION**

- Categories of noise
- Harmonics
- Frequency analysis
- Electrostatic/capacitive coupling

**All submissions are welcome.**

**IDC Events** do not allow vendors to 'sell' their products in training sessions, instead the focus is on practical applications and solutions – which is, ultimately, the best way to showcase your technologies and engineering skills. In particular, we are seeking case studies, technical content, applications and the newest developments and research in this critical subject.

This event is an excellent opportunity to network with your industry peers, and to gain significant insights into earthing and related electrical safety practices, which are established, new and emerging.

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#### **What is required from you?**

- A **100-word abstract**: an outline of the topic you would like to present. Please submit this electronically as soon as possible, to secure your place.
  - Once your topic is approved, your **technical paper and PowerPoint slides** will be due six weeks prior to the event.
  - Speaking slots are allocated on topic suitability and on a first come first served basis, so please register your interest today by emailing [zynka.malone@idc-online.com](mailto:zynka.malone@idc-online.com)
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