CALL FOR PAPERS

Low Voltage Design & Maintenance Conference
(Including Application of AS/NZS 3000)

July 21st & 22nd 2015 - Brisbane, Australia

Are you an electrical engineer, technologist or technician working with low voltage (LV) in the mining, industrial, oil and gas or utilities industry? We are looking for a number of presenters to submit a topic idea and present their papers at the upcoming **LV Design & Maintenance Conference** which has been developed to promote best practice in this area.

This conference will be of special interest to the electrical engineering community, as regulators are demanding continual improvement in low voltage design, maintenance and safety outcomes.

This conference aims to review the application and best practice in the requirements laid down in the standard AS/NZS 3000:2007, commonly known as Australia-New Zealand Wiring Rules. For those installations covered in the scope of this standard, its provisions are mandatory and must be followed. Any engineer involved in planning and design of electrical systems, installation or maintenance must have a clear idea about the various requirements contained in the standard.

The primary purpose of the AS3000 standard, like many of its various other equivalent national standards, is to ensure the safety of personnel, livestock and property against the dangers (e.g electric shock and fire) arising from the use and handling of electrical equipment and appliances.

Low Voltage Design - The conference will cover the standard which provides minimum requirements for the design and installation so as to provide safe functioning in operation. The installation can range from a substation, auxiliary systems, interconnecting cables/lines and the user's facilities such a plant, factory, office facility, home and mine site. Equipment includes switchgear, transformers, converters, cables, lines, batteries, earthing systems, capacitors, reactors, buildings and structures.

Low Voltage Maintenance - In addition to LV design and installation, LV maintenance is a challenging undertaking and the Australian industry needs to have the sustainability and reliability of ageing equipment at the forefront of their minds when planning and designing their upcoming projects. The conference will discuss problems that arise from equipment maintenance and how industry can overcome these issues through well planned maintenance programs, adherence to standards/regulations and forward thinking.

IDC TECHNOLOGIES

Technology Training that Works

This overall objective is to provide participants with relevant electrical engineering know-how which they can apply directly in their workplaces. Join your peers in a vigorous and positive exchange of views, building your career and public profile and making a contribution to Australian electrical engineering practice in this vital area!

IDC Technologies conferences are non commercial. The focus is on providing practical applications and solutions – probably the best way to showcase your technologies and engineering skills. In particular we are seeking practical case studies, applications and the newest developments in this critical subject.

SUGGESTED TOPICS:

Low Voltage Design & Installation

- Design of an electrical installation
- Low voltage safety
- Standards and regulations
- Power system protection
- Electrical systems, earthing and bonding
- Application areas
- Alterations, additions and repairs alternative arrangements
- Protection for safety
- Selection and installation of electrical equipment, switchgear and controlgear
- Inspection and testing
- Arrangement and control of electrical
- installation
- Devices for isolation and switching
- Fault protection
- Devices for protection against overcurrent
- and short circuit
- Coordination and discrimination
- Protection against earth leakage current, overvoltage and undervoltage
- Switchboards
- Circuit arrangements, protection coordination, limits of LV feeder lengths for proper earth fault detection (as per AS/ NZS 3000:2007)
- Calculating the demand of electrical systems for proper conductor sizing (as per AS/NZS 3000:2007)
- Earthing in electrical installations
- Special Electrical Installations (Baths, showers and fixed water containers)
- Hazardous Areas
- Emergency Systems

Testing and Verification Requirements of the Standard

- Visual inspection
- Testing
- Common inspection and test methods for low voltage, Multiple Earthed
- Neutral (MEN) electrical installation as per AS/NZS 3017
- Periodic verification of existing electrical installations of low voltage AC
- supply system as per AS/NZS 3019

IDC TECHNOLOGIES

Technology Training that Works

Low Voltage Maintenance

- Replacement versus reconditioning of electrical equipment
- Managing ageing equipment
- Maintenance programs and asset management strategies
- Electrical safety related to LV equipment
- Reliability centered maintenance (RCM) of LV equipment
- RCM risk analysis - Assessment of switchboards, circuit breakers, rotating machines, transformers
- Condition based maintenance (CRM) of LV equipment
- Testing and maintenance of cables, circuit breakers, switchgear
- LV maintenance – Rotating equipment
- Medium-voltage contactors
- Isolation tagging and locking systems
- Low voltage circuit breaker testing
- Switchgear life extensions
- Battery Testing
- Cable maintenance and testing
- Maintenance issues causing arc flash and blast

We are seeking presentations that:

- Provide practical examples and case studies.
- Offer less material on theory, more on problem and resolution or new technology improvement.
- Contain in-depth information about AS/NZS 3000
- Include more technical & practical design implementation techniques
- Cover the whole design process, limitations, latest development and regulations.
- Provide specific and detailed technical topics/issues

All Submissions Welcome

What is required from you?

- A **100 word abstract,** which outlines the topic you, would like to present. This needs to be submitted 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 sarah.montgomery@idc-online.com

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For further information on this event or to discuss sponsorship opportunities contact:

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