

DOWN TO EARTH CONFERENCE 2022

CALL FOR PAPERS

8-9 June 2022

Crowne Plaza Hunter Valley,
Pokolbin, NSW

A conference dedicated to earthing & lightning protection, facilitating the open exchange of information for novices and professionals, asset owners and suppliers.

DTEC2022

CALL FOR PAPERS

The Australian Earthing Institute, with the support of the Electrical Branch of the Newcastle Division of Engineers Australia, will host the sixth Australian

Down to Earth Conference (DTEC) from Wednesday 8th through Thursday 9th June 2022 at Crowne Plaza Hunter Valley, Pokolbin, NSW, Australia.

DTEC is the premier Earthing Conference in the Oceanic region and provides opportunities for:

- Earthing and lightning protection specialists to present their recent experiences and the latest advances.
- Opportunity to discuss recent developments in national and international standards.
- Electrical contractors to share installation, maintenance and testing practices.
- Engineers to publish peer-reviewed technical papers.
- Asset owners, regulators, educators, and interested engineers to increase awareness of issues significant in the field and discuss how they are being handled.
- Earthing practitioners, past conference attendees and people new to the field to get together and share experiences.
- Suppliers and consultants to showcase their capabilities and products.

It is envisaged that the technical programme will consist of two components:

- Presentation of **Peer Reviewed Papers** addressing recent advances in earthing and lightning protection related fields. Suitably accepted papers will be published by Technical Co-Sponsors, as well as the Conference Proceedings.
- Presentation of **Conference Papers** covering recent experiences such as technically challenging installations/designs, applications of tools/methods, report on any incidents of wider interest, provide updates on research topics, and introduce any new tools/materials. Presented Conference Papers will be published in the Conference Proceedings.

Keynote speakers and invited papers will provide an opportunity for participants to hear from a range of professionals, including suppliers, designers, users, researchers and academics. The conference will include an industry exhibition during all breaks. The anticipated technical streams follow over the page.

Upon acceptance of your paper abstract you will receive a detailed speaker's kit outlining the next steps to take for submission of the final paper and your presentation at the conference.

Please submit abstracts of up to 400 words to submissions@dttec2022.com or contact the Technical Chair.

Technical Chair

DTEC Committee

enquiries@dttec2022.com

IMPORTANT DATES, GENERAL POLICIES & REQUIREMENTS

IMPORTANT DATES

DESCRIPTION	DAY
Final date for receipt of papers	18 th February 2022
Notification of acceptance of abstract	4 th March 2022
Final date for receipt of papers	25 th March 2022
Notification of acceptance of paper	29 th April 2022
Final date for Presenting Author registration	26 th May 2022
Final date for submission of presentation and revised paper	16 th May 2022
Conference date	8 th – 9 th June 2022

GENERAL POLICIES & REQUIREMENTS

- All authors must read and accept copyright licence agreement.
- Peer review of full manuscripts will take place. Papers submitted after the 18th February cannot be peer reviewed.
- Submission acknowledges consent to publication of your abstract in the conference program book.
- Only PEER REVIEWED papers will be published with Technical co-sponsors. All papers will be published in the conference proceedings.
- The presenting author will be required to register for the Conference and submit a full paper in order to ensure their presentation is included in the final program. Presenters who have not registered by the deadline date time will be removed from the program.
- All papers must be original work. A paper intended for peer review should not be submitted if the work is to be published or presented at a major national or international meeting prior to the Down to Earth Conference.
- All peer reviewed papers must be completed electronically via <https://easychair.org/conferences/?conf=dtec2022>.
- A paper must contain sufficient information so that if published it will be a complete report independent of presentation. The text should not contain statements alluding to results nor conclusions that refer to results that are not presented within the text.
- All papers must be prepared according to the template provided. Abstracts and papers will only be accepted and published if submitted using the correct format in the supplied template.
- There is no limit to the number of papers that may be submitted by an individual but the technical committee reserves the right to limit the oral presentations to one per person.
- The Conference Managers will not be held responsible for paper submissions not received via the website or for submission errors caused by internet service outages, hardware or software delays, power outages or unforeseen events.
- DTEC is primarily a face-to-face conference. Alternative arrangements may be sought where government orders or restrictions in relation to COVID-19 prohibit presenters from attending. For further information, please email enquiries@dtec2021.com.

TOPICS

COMPLIANCE

- Standards development - present & future
- Best practice - relevance of standards & regulations
- Installations with multiple earths
- Special installations or circumstances
- Application of Risk
- Coordinating between standards
- Consequences of electric shock to humans and animals

PROTECTION

- Earth fault protection schemes
- Earth fault detection
- Coordination with touch and step requirements
- Current sensor technologies
- Recorded fault events

CONSTRUCTION

- Sizing conductors
- Parasitic & stray currents
- Interference
- Corrosion
- Equipotential grids
- Control of static

LIGHTNING

- Shielding Design
- Down conductor installation and termination
- Grid design
- Bonding arrangements
- Interference with secondary systems
- Probabilistic design
- Transient earth potential rise
- Damage mitigation

INDUSTRIES

- Rail
- Utilities
- Mining
- Tunnelling
- Renewables

RISK

- ALARP vs sfairp
- Risk mitigation
- Cost vs risk
- Probabilistic design
- Coincidence - to measure or to estimate
- Public or personally imposed risk

ANALYSIS

- Modelling techniques
- Mapping of legislative requirements
- Earth return response
- Mutual effects
- Reliance on earth system interconnections
- Earth potential rise

INTERFERENCE

- Telecommunications
- Conveyors
- Rail
- Pipelines
- Electrolysis
- Mining supplies

TESTING

- Soil resistivity
- Earth loop impedance
- Grid resistance
- Hazard assessment
- Correlation with design
- Procedures - consistency, efficiency and accuracy
- Equipment
- Earth continuity
- Case studies
- Identification of anomalies
- Fortuitous connections
- Incident investigations

INSTALLATIONS

- High voltage installations
- Low voltage installations
- Augmentation of buried grids
- Renewables
- Embedded generation
- Geotechnical issues
- Power station and large industrial complexes
- Underground and open cut mines
- Marine & offshore
- Mobile plant
- Rail networks
- Project coordination
- Hazardous areas
- Safe work procedures

