



Institution of Railway Signal Engineers

Call for Papers

Technical Meeting – Brisbane, Queensland

Friday 14th July to Saturday 15th July 2017

Signalling: Byte by Byte

The Queensland Committee invites technical papers for presentation at the July 2017 Technical Meeting in Brisbane. The theme of the meeting is “Signalling: Byte by Byte”.

Papers of the following types are required:

- One Principles Paper
- One Maintenance Technical Paper – (i.e. Failure statistics, effectiveness of fault centres, etc., designing for reliability.)
- One Communications Technical Paper relating to the theme
- Two Current Projects Papers relating to the theme
- One Strategic Paper relating to the theme

Guidance on the context of each type of paper is attached.

Abstract Submission

Authors are invited to submit an abstract in English of around 300 words. All submissions will be peer-reviewed and assessed on originality and technical quality. The file format for your abstract should be *.doc(x). Papers must have a strong engineering content and be “fluff free”. Please do not offer system or project descriptions. It is the engineering that underlies the system that is of primary interest.

All authors must submit their abstracts before the closing date of 28th Feb 2017 to howard.revell@ansaldo-sts.com.au

Content Guidelines

Projects Paper

Aim: To describe a project

Target Audience: Everyone

Typical Structure:

- Operational context (Why is the project needed?, operational parameters [headway, line speeds rolling stock], required movements)
- Solution chosen (Highlight new design techniques)
- Equipment used (Highlight new equipment, new configurations & benefits)
- Installation/project management/programme/logistical support
- Project outcomes/lessons learnt

Examples

- 2016 - April - Atchison and Bruce - Implementation of ETCS on Adelaide Metro Network
- 2015 - March - Simmons - Regional Rail Link TCS - The view of an operator

Principles Paper

Aim: To educate audience in specific technical principles

Target Audience: Beginner to Intermediate Practitioner. To be used as a reference paper for students and new entrants to the industry.

Theme: The organising committee may nominate a theme i.e. Principles of Train Detection

Typical Structure:

- Define the principle & importance in rail context
- Generic rules and basic operation – give clear practical examples
- Implementation using different technologies
- Implementation differences between Australian states
- RAMS issues and operating during failures
- Future developments

Examples

- 2011 - T Moore - Understanding Signalling Overlaps
- 2016 - April - Lambla - Driver Advisory System Integration Steps

Standard Technical Paper

Aim: To educate audience in relevant technical developments

Target Audience: Intermediate to Advanced Practitioner.

Theme: The organising committee may nominate a theme i.e. Signal Maintenance

Typical Structure:

- Introduction
- Compare existing systems or processes in use
- Define the proposed changes and predicted benefits
- Define the implementation process and method of measuring success
- Describe the outcomes and results

Examples

- 2016 - July - Heibel - CBTC Versus ETCS - Score and Forecast
- 2013 - Oct - Alvarez and Roman - ETCS L2 and CBTC over LTE – Convergence of the radio layer in advanced Train Control Systems
- 2012 - Oct - Griffiths - Software Reliability – An Oxymoron?

Strategic Paper

Aim: Defines a strategic direction for a government/rail operator or non technical project description

Target Audience: Everyone

Typical Structure:

- Define context
- Current Situation
- Drivers for Change
- Options
- Proposed direction

Examples

- 2015 - October - Marillet et al - Headway improvement through ETCS Level 2, ATO and track sectioning optimisation
- 2014 - July - Hillcoat & Clancy - Increasing capacity in the Hunter Network - Streamlining train control
- 2013 - July - Skilton - Cost Effective Signalling - Sweating the Asset in New Zealand

General Do's and Don't's

- Concise “fluff free” content with content matched to target audience
- No sales presentations