

Permanent Way Institution NSW

Track and Electrical

Technical Meeting



Thursday 23rd February 2023 at 5:00pm

Register to attend the event in person at the Sydney Masonic Centre via the PWI website (pwinsw.org.au) or the QR code on the right) where a Microsoft Teams Meeting link will also be available.

Bring a colleague along to join us for the first technical meeting of the year!



Mott MacDonald is a global engineering, management and development consultancy. Mott MacDonald's purpose is to improve society by considering social outcomes in everything we do, relentlessly focusing on excellence and digital innovation, transforming our clients' businesses, our communities and employee opportunities.

Mott MacDonald has 18,000 people working in 135 countries, with 170 permanent offices in 50 countries and a 150 year legacy. Mott MacDonald has been contributing to projects in Australia for over 40 years, with a range of developments in the transport, advisory, built environment, water, energy, defence and education sectors.

Sanaya Kerawala (NSW Track Team Lead) and Jonathan Barnes (Technical Director - Track) will be sharing their experience of opportunities and lessons in designing a greenfield rail alignment, with a high speed perspective.

Opportunities and Lessons in Designing a Greenfield Alignment, with a High Speed Perspective

This presentation will discuss the opportunities and lessons learned in designing a greenfield alignment, with a view to understanding how we can apply best practice to future greenfield projects and the prospects of high speed rail in Australia. As new railways often require new systems and innovation, we have an obligation as industry professionals to ensure that we challenge conventional thinking and existing practices to develop value engineered solutions that consider whole life costs and sustainability whilst enabling a future-proofed system.

Drawing on experience of designing high speed rail in the UK and other greenfield rail projects internationally, this presentation will outline the key considerations in designing a greenfield alignment and the challenges associated in selecting an optimised route, trackform and componentry, balancing often competing design criteria, such as environmental factors, passenger comfort, operations and maintenance and cost.



The meeting will conclude at 6:30pm. Please join us for networking drinks and finger food following the meeting.

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The Permanent Way Institution NSW is the institution for rail infrastructure engineering. Our purpose is to share knowledge, build community and to support industry capability development for people working in rail infrastructure systems.

The PWI NSW was formed in 1974 and is one of the largest and most active sections of the Permanent Way Institution worldwide.

The PWI NSW has expanded its offering to members in 2022 by launching our Electrical / OHW Subcommittee, with dedicated networking events, electrical forums and expanded technical meetings.

Andrew Pearce, Project Director for Canberra Metro Operations will present on the considerations and challenges for the transition to LRV battery charging for wire free running on existing rail infrastructure.

PWI Electrical Technical Talk

Andrew Pearce is a Project Director for Canberra Metro Operations (CMET) with 20 years' experience working on infrastructure and rail projects both in Australia and abroad. With a range of experience in design, construction and operations he was most recently the CMET Engineering Director from 2018 to 2022 before transferring to Project Director for new the LRV purchase and lead into the rail expansion project 2A.

Stage 2 of Canberra Light Rail will be wire-free through the Parliamentary Triangle, with five new wire-free LRVs introduced from 2024 to allow the existing fleet to be retrofitted with batteries.



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