

Permanent Way Institution NSW

Technical Meeting



Thursday 21st February 2019 at 5.00pm

The Castlereagh Boutique Hotel, 169 Castlereagh Street, Sydney

middleton
Group

Middleton Group is an Australian owned and operated, specialist electrical consulting engineering organisation, providing turnkey solutions in traction power. Our team has extensive experience managing rail projects, and also offer both traction power and rail-related power systems. We have built a reputation of delivering on client expectations with sound technical capability combined with many years of project execution experience.

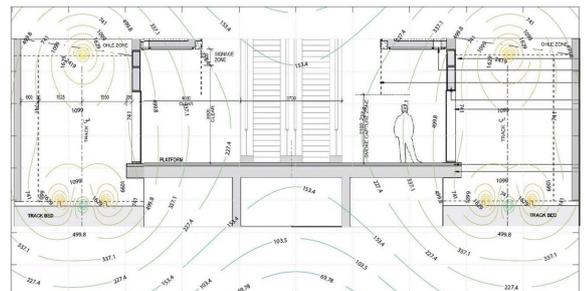
The February PWI technical meeting is proudly sponsored by **Middleton Group**. Stephen Goh and Keith Middleton from Middleton Group will present an overview of EMC, Electrolysis, and Earthing & Bonding in traction railway systems and provide expert insight into practical mitigation techniques and strategies.

Electrolysis, EMC, Earthing and Bonding - how the dark magic keeps us safe

From being almost an afterthought in recent years, Electromagnetic Compatibility (EMC), Electrolysis, and Earthing & Bonding have emerged as critical issues within the railway network. The shift in focus has been caused by a number of drivers.

Safety is a key factor as one of the major challenges with EMC is for projects to meet medical guidelines and international railway standards while also keeping Sensitive Receivers (SR) within the manufacturer's permissible DC magnetic field limits.

This presentation will provide an overview of EMC, Electrolysis, and Earthing & Bonding in traction railway systems before delving into the practical considerations of mitigation techniques and strategies. Don't miss out on this unique opportunity to hear from internationally recognised experts as they uncover the dark magic and how we can all stay safe.



Stephen Goh has 32 years of railway experience spanning all modes of rail systems in all facets of design. He is a specialist in traction power systems including modelling/design, earthing, bonding & electrolysis, and electromagnetic compatibility (EMC). He is currently the Principal Consultant & Traction Power Lead for Middleton Group.

Keith Middleton is a specialist power engineering consultant with 23 years' experience providing consultancy services to the rail, power, water, airports and heavy industrial markets. Keith has worked with a number of rail sector clients, including Metro Trains Melbourne, Yarra Trams and Transport for NSW to plan, design and deliver critical power infrastructure to support various upgrades to train and tram networks.

The meeting will conclude at 6.30pm, please join us for networking drinks and finger food following the meeting