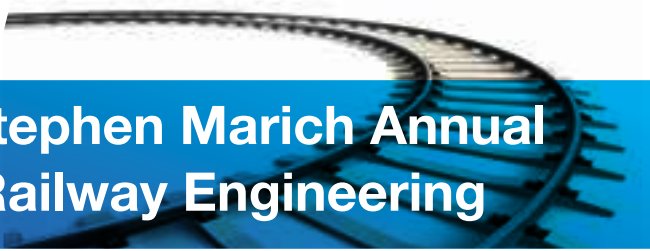


Institute of Railway Technology

presents the



Inaugural Stephen Marich Annual Lecture in Railway Engineering

Tuesday, 18 March 2014

at

Queens Hall

Parliament House

Melbourne, Australia



MONASH University



About the lecture

The Stephen Marich Annual Lecture in Railway Engineering has been organised by the Institute of Railway Technology, the leading track and vehicle railway research center in Australia. This annual railway industry event honours the 40 year contribution of Dr Stephen Marich to the industry. Dr Marich is one of the pioneers of heavy haul railway research in Australia.

The annual lecture series will be a key forum for sharing deep technical knowledge about railway engineering from leading experts in railway technology.

The event will also be a major networking opportunity, bringing together industry, academia and government representatives in railway technology and management. This event is endorsed by the Railway Technical Society of Australasia (RTSA).

Tonight the inaugural lecture will be delivered by Dr Marich and his keynote address will be entitled "The Wheel/Rail Interface – Past, Present and Future".



Marich Annual Lecture in Railway Engineering

About Dr Stephen Marich



Dr Stephen Marich has been involved in railway research and development for over 40 years, and played a pivotal role in the development of the Australian heavy haul rail industry from its inception in the early 1970's.

A graduate of the University of New South Wales, he led the railway research activities at the former BHP Melbourne Research Laboratories until his semi-retirement in 1998.

Since then he has been directly involved in the development and implementation of a range of wheel/rail management strategies and track designs across all sectors of the rail industry.

An author or co-author of over 90 technical papers, and the author of two postgraduate courses in railway engineering, Stephen received the Railway Technical Society of Australasia Individual Award in 2000, and in 2003 was inducted into the International Heavy Haul Association Hall of Fame.

"During his career, Steve Marich has made significant advancements in rail and wheel metallurgy overcoming serious problems in service failures and shortened service life. Based on his work, heavy haul operators like BHP Iron Ore and other Western Australia iron-ore railways were able to overcome rail and track problems that limited their efficiency and capacity"

IHHA website.



Synopsis

The Wheel/Rail Interface – Past, Present and Future



The primary subject matter of this presentation is the Wheel/Rail Interface, which has been of particular interest to the speaker for many decades. The lecture will concentrate mainly on the Australian experience.

The topics that will be discussed include:

- Some basic principles of wheel/rail interaction
- The early activities conducted in the 1970's and 1980's, primarily on behalf of Mt Newman Mining, which essentially set the guidelines for subsequent activities in Australia
- The factors that are influenced by the wheel/rail interface
- Some of the potential specific consequences of having adverse wheel/rail interaction characteristics
- The improvements in component and operational performance that can and have been achieved with the increasing control of the wheel/rail interface
- Potential future activities that will achieve further improvements to railway systems.

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