



Wheel–Rail Interaction

Presented by the TFR Chair in Railway Engineering and the RSR Chair in Railway Safety in the Department of Civil Engineering, University of Pretoria

ECSA CPD Points

The **Wheel–Rail Interaction** short course will develop an appreciation of the multidisciplinary nature of the technology that substantially adds to the bottom line of any railway business. Knowledge of wheel–rail interaction is essential for anyone involved in the operations of railways over the full spectrum of heavy-haul and general freight to medium- and high-speed passenger traffic. You will also be provided with the necessary guidelines for best practices in heavy-haul railway operations that are related to rail and wheel interface issues.

This course is presented as part of the Railway Engineering Education Programme of the University of Pretoria.

This course is presented as part of the Railway Engineering Education Programme and as part of the Railway Occurrence Investigation Programme (ROIP) of the University of Pretoria.



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Shifting knowledge to insight



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Course content

- Macro interaction mechanics (vehicle and track)
- Micro interaction mechanics (wheel and rail)
- Contact mechanics and tribology
- Standards and interventions
- Measuring technologies and conditions assessment
- Track and vehicle maintenance strategies
- Rail grinding and lubrication
- Case studies

Learning outcomes

After successfully completing this course, you will be able to demonstrate an understanding of the best practices of heavy haul railway operations as applicable to WRI.

Who should enrol?

This course is ideal for you if you are employed as a railway, heavy haul and wheel infrastructure maintainer.

Admission requirements

Prospective delegates should at least have a Level NQF 5 (Diploma/Degree) and/or relevant experience in Railway Engineering.

Accreditation and certification

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Registration and enquiries

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Shifting knowledge to insight

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