


Content Date:
20 April – 4 May

Live Q&A:
5 May – 3.00pm

A close-up photograph of a rock surface with various textures and colors, including grey, brown, and orange. The image is partially obscured by a large blue circle on the right side of the page.

BEST PRACTICE GUIDES ROAD MATERIALS WORKSHOP

COURSE INFORMATION

Zia Rice is joined by three of her colleagues in the delivery of this e-workshop which covers the contents of the ARRB best practice guide for road materials. The e-workshop consists of four modules which correspond to the four main chapter headings in the guide and aims to provide useful and practical information related to the best practice use of a range of road materials.

The e-workshop covers fit for purpose use of material, the different materials used within a pavement and the different pavement layers, the use of recycled materials as well as an introduction into laboratory testing and material characterisation. The e-workshop also covers sourcing, extraction, and specification of granular materials, in addition to stabilisation of materials and an introduction into field quality testing. There are several worked examples throughout the e-workshop to help consolidate the information which is covered, and also to demonstrate common processes undertaken during the design and construction of our sealed and unsealed pavement assets.

LEARNING OUTCOMES

- Understanding of what the Road Materials Best Practice Guide covers and why this information is important
- Broad appreciation of what influences material performance within a pavement context
- Understanding the idea of a fit-for-purpose material in relation to pavement performance to encourage sustainable use of available material
- Awareness of the different materials typically used in road pavement applications and the role of recycled materials
- Foundation understanding of the different tests used to classify and characterise road pavement materials both in the laboratory and in the field
- Knowledge of granular material sourcing and extraction and how to develop local material specifications

OUTLINE OF COURSE

- **Module 1: Asset management**
 - Fit for purpose material use
- **Module 2: Design**
 - Module 2.1: Material components of a pavement
 - Module 2.2: Concrete components of a pavement
 - Module 2.3: Recycled materials for pavement applications
 - Module 2.4: Introduction into material stabilisation
 - Module 2.5: Laboratory material testing and characterisation
- **Module 3: Construction**
 - Module 3.1: Sourcing, extraction and specification of materials
 - Module 3.2: Stabilisation of materials continued
 - Module 3.3: Field quality tests
- **Module 4: Operations and maintenance**
 - Materials used for maintenance or rehabilitation of sealed surfaces and granular materials

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PRESENTERS



ZIA RICE

Zia Rice is one of the main authors of the road materials best practice guide. She joined the ARRB Western Australian office in 2016 having completed her degree in Civil Engineering at the University of Western Australia in 2012, and also holds a Masters in Pavement Technology. Previously she worked as a consulting engineer where she gained extensive experience in geotechnical engineering and design.

With her background in geotechnics, Zia has undertaken several research projects focussed around granular pavements. Notably, her investigation into the use of non-standard pavement materials and naturally occurring materials has led to the development of Austroads guidance to encourage fit for purpose use of these materials.



DR JAMES GRENFELL

Dr Grenfell is a Principal Professional at ARRB (Australian Road Research Board). He has been working within Sustainability and Resilience since the beginning of 2020. This has allowed him to bring his pavement engineering expertise to Sustainability and Resilience, whilst also increasing the research carried out in the recycled materials space.

He is now leading Module 2 of Austroads APT6311 Use of crushed glass in road infrastructure and undertaking joint NACoE/WARRIP work to investigate the use of recycled and reclaimed plastic in safe, sustainable future road infrastructure. Previously he was working within pavement structures as part of Future Transport Infrastructure, having joined ARRB in February 2017.



STEVE MIDDLETON

Steven is a Civil Engineer with a Masters of Pavement Technology and 8+ years' experience in the pavements engineering field. He joined the Australian Road Research Board's (ARRB) Western Australian office in 2019 and he has worked on both road and airport projects in Western Australia and Queensland.

He has experience in visual condition surveys, destructive and non-destructive investigations, pavement design, tender preparation, and contract management.



DR JEFFREY LEE

Dr Jeffrey Lee is a pavement specialist with experience in the design and condition assessments of flexible and concrete pavements for highways and airports. His pavement design knowledge is complimented by a solid background in geotechnical engineering. He has worked on different roadwork projects in Australia and the United States as a researcher and engineering consultant. Dr Lee is a Principal Professional Leader at ARRB

WHO SHOULD ATTEND?

Local government staff at all levels who are involved with the building and maintenance of roads, including recent graduates, support staff, contractors, consultants and senior engineers.

Also those in the private sector who are involved with the building and maintenance of roads.

