



# SMART PAVEMENTS NOW

18-20 SEPTEMBER

## EVENT PROGRAM

DAY 1: SMART MATERIALS & DESIGN

DAY 2: ASSET MEASUREMENT DEVICES

DAY 3: SUSTAINABILITY AND SAFETY

NATIONAL TRANSPORT  
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# Wednesday 18<sup>th</sup> September

## Pavement Design and Smart Materials

|               |   |   |  |
|---------------|---|---|--|
| 9:00-10:30    | <b>Plenary Session</b><br>Location - Flinders-Monash Auditorium   |   |  |
| 9:00-9:15     | Welcome - ARRB CEO Michael Caltabiano   |   |  |
| 9:15-9:45     | <b>Matt Bereni</b> (ARRB Future Transport Infrastructure Leader)  |   |  |
| 9:45-10:30    | Guided ARRB Research Lab Tours  |   |  |
| 10:30 - 11:00 | <b>Morning Tea</b>  |   |  |
| 11:00 - 12:30 | <b>Presentation Sessions</b>  |   |  |
|               | <b>Stream 1 - Recycled Materials</b><br>Location - Flinders   | <b>Stream 2 - Asphalt</b><br>Location - Monash  |  |
| 11:00-11:30   | Recycled Crushed Glass in Asphalt<br><b>Dr. James Grenfell</b>  | In-Pavement Temperature Monitoring at Four Australian Locations for Full-Depth Asphalt<br><b>Dr. Elsabe van Aswegen</b> |  |
| 11:30-12:00   | Investigation on the use of RAP from CRM Asphalt<br><b>Zia Rice</b>   | The use of Mix-Specific Fatigue Relationships in the design of Asphalt Pavements<br><b>Joe Grobler</b>                  |  |
| 12:00-12:30   | Implementing Increased use of RAP<br><b>Dr. Elsabe van Aswegen</b>  | Evaluation and Characterisation of Nanosilica-Modified Asphalt Materials<br><b>Dr. James Grenfell</b>                   |  |
| 12:30-13:30   | <b>Lunch</b>  |   |  |
| 13:30-16:30   | <b>Masterclasses/Workshops</b>  |   |  |
|               | <b>Stream 1 - Crumb Rubber</b><br>Location - Innovation Labs 1 & 2  | <b>Stream 2 - Workshop</b><br>Location - Monash   | <b>Stream 3 - Workshop</b><br>Location - Flinders  |
| 13:30 - 14:00 | Passenger Tyre Crumb Rubber<br><b>Melissa Lyons</b>   | Advanced modelling of pavement materials and structures<br><b>Dr. Didier Bodin &amp; Dr. Negin Zhalehjo</b>             | FTIR Characterisation of Bitumen<br><b>Michael Caltabiano &amp; Shannon Malone</b>   |
| 14:00 - 15:00 | Transfer of CRM Asphalt Technology to QLD & WA (NACoE and WARRIP Perspectives)<br><b>Joe Grobler &amp; Dr. Elsabe van Aswegen</b>                                 |   | Innovations in Binder Characterisation and Testing<br><b>Dr. Robert Urquhart &amp; Dr. Young Choi</b>  |
| 15:00-15:15   | <b>Afternoon Tea</b>  |   |  |
|               | <b>Stream 1 - Masterclass</b><br>Location - Innovation Labs 1 & 2   | <b>Stream 2 - Masterclass</b><br>Location - Monash  | <b>Stream 3 - Masterclass</b><br>Location - Flinders   |
| 15:15-16:30   | Austrroads Guide to Pavement Technology Part 4F: Bituminous Binders & Part 4K: Selection and Design of Sprayed Seals<br><b>Dr. Young Choi &amp; Steve Patrick</b> | New Developments in the Thickness Design of Strengthening Treatments for Flexible Pavements<br><b>Geoff Jameson</b>     | Transfer of Intelligent Compaction to Australia<br><b>Dr. Jeffrey Lee</b><br>(Participants to pre-download the VETA intelligent compaction software, available online; and bring laptop) |

# Thursday 19<sup>th</sup> September

## Asset Measurement Devices

|               |   |  |  |
|---------------|---|--|--|
| 9:00-10:30    | <b>Plenary Session</b><br>Location - Flinders-Monash Auditorium   |  |  |
| 9:00-9:05     | Welcome to Day 2  |  |  |
| 9:05-9:30     | <b>Dr Michael Moffatt</b> (ARRB National Asset Management Leader)   |  |  |
| 9:30-10:00    | <b>Joe Grobler</b> - NACoE Spotlight  |  |  |
| 10:00-10:30   | <b>Natalie Lockwood</b> - WARRIP Spotlight  |  |  |
| 10:30 - 11:00 | <b>Morning Tea</b>  |  |  |
| 11:00-12:30   | <b>Presentation Sessions</b>  |  |  |
|               | <b>Stream 1 - Accelerated Testing</b><br>Location - Monash  | <b>Stream 2 - Masterclass</b><br>Location - Flinders   |  |
| 11:00-11:30   | Increasing the use of low-cost light-cemented granular materials in new and rehabilitated pavements<br><b>Dr. James Grenfell</b>          |  |  |
| 11:30-12:00   | Advanced Characterisation of Unbound Granular Materials (XL-Wheel Tracking) for Marginal or Recycled Materials<br><b>Dr. Didier Bodin</b> | Skid Resistance Management<br>Part 1: <u>Theory</u><br><b>Paul Hillier</b>   |  |
| 12:00-12:30   | Improving the Cost-Effectiveness of Foamed Bitumen Stabilised Pavements<br><b>Dr. James Grenfell / Dr. Didier Bodin</b>                   |  |  |
| 12:30-13:30   | <b>Lunch</b>  |  |  |
| 13:30-16:30   | <b>Masterclasses/Workshops</b>  |  |  |
|               | <b>Stream 1 - Site Visit</b>  | <b>Stream 2 - Masterclass</b><br>Location - Flinders   | <b>Stream 3 - Survey Technology</b><br>Location - Monash   |
| 13:30-14:00   |   |  | iPAVe and iSSAVe Presentations<br><b>Dr Michael Moffatt, Brittany Croft</b>  |
| 14:00-14:30   | Field trip to Accelerated Loading Facility (Dandenong)<br><b>Dr. James Grenfell</b>   | Skid Resistance Management<br>Part 2: <u>Measurement</u><br><b>Paul Hillier</b>  | Ground Instrumentation for iPAVe and FWD<br><b>Dr. Jeffrey Lee</b>   |
| 14:30-15:00   |   |  | Guided Expo of ARRB's Data Collection and Surveying Equipment<br><b>Paul Van Damme</b>   |
| 15:00-15:15   | <b>Afternoon Tea</b>  |  |  |
|               | <b>Stream 1 - Site Visit</b>  | <b>Stream 2 - Whole-Day Masterclass</b><br>Location - Flinders   | <b>Stream 3 - Workshop</b><br>Location - Monash  |
| 15:15-16:30   | CONTINUED<br>Field trip to Accelerated Loading Facility (Dandenong)<br><b>Dr. James Grenfell</b>  | Skid Resistance Management<br>Part 3: <u>Practice</u><br>(incl. High Friction Surface Guide to Good Practice)<br><b>Paul Hillier &amp; Steve Patrick</b> | Asset Transformation for CAVs<br><b>Dr. Charles Karl, Dr. Ian Espada, Dickson Leow, Anthony Germanchev &amp; Samantha Taylor</b> |

# Friday 20<sup>th</sup> September

## Sustainability & Safety

|               |  |  |  |
|---------------|--|--|--|
| 9:00-10:30    | <b>Plenary Session</b><br>Location - Flinders-Monash Auditorium  |  |  |
| 9:00-9:05     | Welcome to Day 3   |  |  |
| 9:05-9:30     | <b>Samantha Taylor</b> (ARRB Sustainability and Resilience Leader)   |  |  |
| 9:30-10:00    | <b>Jerome Carslake</b> - National Road Safety Partnership Program  |  |  |
| 10:00-10:30   | <b>Paul Hillier</b> - Famous Road Crashes in History   |  |  |
| 10:30 - 11:00 | <b>Morning Tea</b>   |  |  |
| 11:00-12:30   | <b>Presentation Sessions</b>   |  |  |
|               | <b>Stream 1 - Road Conditions &amp; Safety</b><br>Location - Monash  | <b>Stream 2 - Heavy Vehicle Impacts/Considerations</b><br>Location - Innovation Labs 1 & 2 | <b>Stream 3 - Sustainable Design</b><br>Location - Flinders  |
| 11:00-11:30   | How Road Surface Condition Affects Crash Risk<br><b>Dr. Peter Cairney</b>                                    | Heavy Vehicle Ride Quality - Fleet Ride Index<br><b>Ulysses Ai</b>                         | Argument for Sustainable Design - Economical and Environmental<br><b>Samantha Taylor</b>                       |
| 11:30-12:00   | Motorcyclist Safety and Surface Condition<br><b>Dr. Blair Turner</b>   | Long Term Pavement Performance<br><b>Dr. Tim Martin</b>                                    | Life-cycle cost implications of extreme rain and flood events and management strategies<br><b>Tyrone Toole</b> |
| 12:00-12:30   | Using Data To Manage Road Safety<br><b>Lisa Steinmetz</b>  | Heavy Vehicle Road Reform<br><b>Ulysses Ai</b>   | Greenhouse Gas Modelling<br><b>Margaret Brownjohn</b>  |
| 12:30-13:30   | <b>Lunch</b>   |  |  |
| 13:30-16:30   | <b>Masterclasses/Workshops</b>   |  |  |
|               | <b>Stream 1 - Crash Investigations &amp; Surfacing</b><br>Location - Monash                                  | <b>Stream 2 - Workshop</b><br>Location - Flinders  |  |
| 13:30-14:00   | Crash Investigations - A How-To Guide<br><b>Tia Gaffney</b>  | Greenhouse Calculator<br><b>Brook Hall &amp; Margaret Brownjohn</b>                        |  |
| 14:00-14:30   | Effects of Adverse Weather and Road Surface Related Lessons from Crash Investigations<br><b>Paul Hillier</b> |  |  |
| 14:30-15:00   |  |  |  |
| 15:00-15:15   | <b>Afternoon Tea</b>   |  |  |
|               | <b>Stream 1 - Crash Investigations &amp; Surfacing</b><br>Location - Monash                                  | <b>Stream 2 - Masterclass</b><br>Location - Flinders                                       |  |
| 15:15-16:30   | Incident Investigation Plenary and Q & A<br><b>Tia Gaffney &amp; Paul Hillier</b>                            | Austroads Guide to Asset Management 2018<br><b>Dr. Tim Martin</b>                          |  |

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