



SENIOR ROAD EXECUTIVES PROGRAMME TM 2017

ROAD ASSET MANAGEMENT

Acknowledgements

The Senior Road Executives Course is organised by the University of Birmingham in collaboration with the International Road Federation. The University wishes to thank the contributors to the course. These are:

- The World Bank



- The International Road Federation



- The speakers who are introduced in the following pages.

Dr Michael Burrow, champion of the Road Asset Management Module, would like to express his sincere thanks to the following people:

- Dr Harry Evdorides, SRE programme leader, University of Birmingham
- Mr Dean Chilton-Davies, Administrator, University of Birmingham
- Ms. Susanna Zammataro, International Road Federation
- The invited speakers, and;
- You the delegates



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Dear Course Delegate,

On behalf of the University of Birmingham and the International Road Federation, I would like to welcome you to the Road Asset Management module of the 2017 Senior Road Executives Programme. We have put together a programme of lectures, workshops and site visits to offer you a forum for learning and discussion, and also for sharing and exchanging knowledge and expertise. The speakers this week are world authorities in their field and they will be most pleased to answer your questions and listen to your views. Please interact with them as much as possible. I hope that you will enjoy the course but also that you will take the opportunity to have a look around the University campus and also the surrounding area. You will notice a lot of new building work being carried out around the campus including our new library and our new sports hall with its Olympic sized swimming pool. Try to visit the Barber Institute of Fine Arts, one of the world's finest small art galleries where admission is free, and it is just a few minutes walk from the Department of Civil Engineering. Here you can see paintings by world renowned artists including amongst others Renoir, Monet, Manet, van Gough, Le Trec, Maigret and Constable. When you find time may I suggest that you visit Birmingham city centre, once at the heart of the Britain's industrial revolution and now famous for the Bullring shopping centre. It has many kilometres of canals which played a vital role in transporting goods during much of the early parts of the industrial revolution. Many famous industrial pioneers and scientists such as Matthew Bolton, Josiah Wedgwood and Erasmus Darwin were born in the West Midlands area and together they formed the renowned Lunar Society. Great philanthropists, many of whom made their fortunes from the industrial revolution, have given much of their wealth to the benefit of succeeding generations. Perhaps the best example is that of the Cadbury family. Their legacy is the enchanting district of Bournville developed in 1879 when the Cadbury family moved their chocolate factory to the area. The Cadburys began to develop their factory in the new suburb and built beautiful houses and recreational facilities for their workforce. Loyal and hard-working workers were treated with great respect, relatively high wages and good working conditions. Cadbury also pioneered pension schemes, joint works committees and a full staff medical service. Bournville and the chocolate factory are a 15 minute walk from the University and are well worth visiting.

Enjoy the course as much as you can and if you have any queries our administrative staff and I would be only too pleased to help.

Kind Regards,

A handwritten signature in black ink, appearing to read 'M Burrow', is written in a cursive style.

Dr Michael Burrow
Module 3 Leader
2017 SRE Course: Module 3 - Road Asset Management

Day 1: Monday 26th June 2017
State of the Art Practices

Session

0815-0845		Registration
0845-0915	1	Introduction Module Leader: Dr Michael Burrow
0915-1100	2	Where, Why, How and What of Road Management Professor Martin Snaith, University of Birmingham, UK
1100-1130		Break: Tea/Coffee
1130-1300	3	Changes to Highway Maintenance Management Practices in the UK Lila Tachtsi, Atkins
1300-1400		Lunch
1400-1530	4	Data Collection – A UK Perspective Peter King, Halcrow
1530-1600		Break: Tea/Coffee
1600-1730	5	Increasing the capacity of the UK Motorway Network Prof. Neil Hoose, Bittern Consulting Ltd

Module Champion



Dr Michael Burrow is a senior lecturer in the School of Civil Engineering. He is a key member of the UoB's world renowned team of road specialists which developed a suite of cutting edge road asset management decision support tools the products of which are used world-wide. Dr Burrow publishes his research widely and has more than 75 peer reviewed publications in the area of infrastructure design and asset management. His research focus is associated with pro-poor sustainable infrastructure asset design and management and he leads two large road research projects for the UoB; one funded by the Ethiopian Roads Authority is associated with improving the sustainability of Ethiopia's national roads; the second is a

DFID funded project through RECAP which is improving rural road asset management in Sub-Saharan Africa. Dr Burrow's teaching focus mirrors that of his research and his specialisation is that of road asset management. Dr Burrow has worked with partners from over 23 countries worldwide and his links with industry internationally. He has a number of external appointments including acting as the Chairman of Highway Management Services Ltd (HMS), which provides highway maintenance management software and consultancy to road agencies worldwide.

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Speakers



Professor Martin Snaith, OBE is an Emeritus Professor of Highway Engineering at the University of Birmingham. His areas of specialism include the management of resources for the operation of road networks, analytical processes for the investigation and the design of road maintenance options. His extensive and continuing research focuses on the optimisation of network condition with the minimisation of both user and agency costs. An integral part of this is the definition of network condition and capital value- research into this is continuing in partnership with Roads Service (Northern Ireland). His teaching interests include road maintenance, materials and management on the MSc

programmes at the University of Birmingham and Universities of Auckland and Canterbury (NZ). Professor Snaith participates in number of professional development programmes both in the UK, with the Senior Road Executives Programme, and overseas to enhance the knowledge of "roading" throughout the World. His recent external appointments have included:

- (i) Commonwealth Scholarship Commissioner.
- (ii) Highways Advisor: Roads Service, Northern Ireland, New Zealand Transport Agency.
- (iii) Board Member, HDMGlobal, HMS Ltd
- (iv) Royal Academy of Engineering; Industrial Secondment Scheme Steering. Group (Chair),
- (v) Bournville Village Trust: Trustee



Mrs Lila Tachtsi is the Director for Transport Asset Management in Atkins. Lila has more than 25 years post degree experience in transport asset management and engineering both in the UK and overseas. Her recent work includes advising the Central and Local Government in the UK on issues related to the development and implementation of asset management policies and practices, and the development of tools and training material to enable practitioners to embed a successful and effective asset management approach. She is also working with all trunk road agencies in implementing asset valuation. Lila has been involved with a number of high profile national reviews, including the 2009 Winter Service Review and the 2013 Potholes Review. She passionately believes in collaborative working and sharing lessons learnt and good practice. She is a presenter on the CIPFA Highways

Asset Management Planning Network, a member of the ICE Building Capacity and Professionalism Panels, a member of the World Road Association Asset Management Technical Committee, a Council member of the Institute of Asset Management and Vice Chair of WRA(UK).

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Mr Peter King has recently retired from his role as an Associate Director with Halcrow where he led a pavement management team based in Worcester, UK. Peter has extensive experience in pavement design and maintenance, local authority highway maintenance, pavement asset management, and materials behaviour in UK and overseas. He has wide experience of assessment of existing pavements and refurbishment designs, including heavy duty pavements. He was Project Director for the Roads Board project to introduce automated surveys (SCANNER Surveys) in England and Wales, involving comparison of different types of condition assessment across the

UK. The work of the team included analytical pavement design, preparation of asset management plans, and pavement condition assessment etc. for a wide range of clients.



Dr Neil Hoose is a graduate Civil Engineer with an MSc in Transport and a Ph.D. in the application of computer vision techniques to transport. He has a track record in leading transport related projects in both industry and academia, including director level appointments in consultancy and manufacturing. His experience ranges from academic research and teaching through project management to manufacture and supply of electronic systems to the traffic data and control industry. Since 1999 he has been an independent consultant in intelligent transport systems and has built up over 25 years' experience in the sector. Alongside particular experience in traffic monitoring technologies and traffic control and data systems, he is involved in Smart Motorways, connected vehicle-infrastructure systems and travel information systems. His consultancy activities encompass both public sector and private sector clients and range from strategy and policy through to operation and maintenance. In addition,

Neil is a Visiting Professor and part time Senior Research Fellow at the Centre for Transport Studies, Imperial College, London.

Senior Road Executives Programme 2017

Day 2: Tuesday 27th June 2017
Low Volume Roads

	Session	
0900–0905	1	Introduction to Day 2 Module leader
0905-1030	2	Sustainable LVR Road Maintenance in Developing Countries Rob Petts, Intech Asset Management
1030-1100		Break: Tea/Coffee
1100-1230	3	Rural Road Asset Management in Sub Saharan Africa Kingstone Gongera,
1230-1300		Photograph
1300-1400		Lunch
1400-1530	4	Rural Transport Services, An African Perspective John Hine, Cardno IT Transport
1530-1600		Break: Tea/Coffee
1600-1800	5	Sustainable Road Development – worldwide experiences Juan Quintero, World Bank
1800		End

Speakers



Mr Robert Petts started his career as a mechanical engineering trainee and then graduated as a civil engineer. He qualified as a Chartered Civil, Highways and Agricultural Engineer and has over 40 years of experience of running civil engineering projects in over 30 countries in the African, Asian, Middle Eastern, Pacific and European regions. He specialises in the management and maintenance of roads including the development of technologies; encompassing paving, equipment, intermediate and local resource based methods, institutional development, technical and economic feasibility, management systems, private sector development and training. He has served as a member of a number of bodies including, the World Road Association (PIARC) Committees (C3, C20 and TC2.5: Committee Secretary) on Rural Roads & Accessibility, the Appropriate Development Panel and The International Development Policy and Practice Panel of the UK ICE, Rural Transport adviser for the Global Transport Knowledge Partnership (IRF), and is an Officer of the Gold Medal of Sahametrei (Cambodia Government Adviser). He is an Honorary Senior Research Fellow for the University of Birmingham.

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Mr John Hine has over 40 years' experience of working on transport problems of developing countries specialising in the fields of rural and national transport planning, road appraisal and freight transport. He has worked in 27 African and Asian countries and is an author of over 50 papers and research reports. He has been an external examiner and supervisor of 10 PhD and MPhil candidates. Over the last two years John has been working as an independent consultant. He has just completed a report for the SSATP/World Bank on the planning and prioritisation of rural transport infrastructure and services. John worked for four years (2005-2009) with the World Bank working as the Thematic Group Leader for Rural Transport in the Transport Anchor Unit. He also spent 29 years with the Transport Research Laboratory, TRL, undertaking a wide range of research and consultancy assignments, with long term postings in Ghana, Pakistan and Indonesia. In addition he has also worked as a Transport Economist for the Ethiopian Roads Authority (2002-2005) and with the Ministry of Transport in Tanzania (2009-2012).

Mr Juan D. Quintero, Environmental Consultant, a former Sr. Environmental Specialist at the World Bank, has over 35 years of experience in risk assessment, mitigation and compensation of environmental and social impacts of development projects. He has extensive experience in managing environmental assessments and management plans of infrastructure involving complex environmental and social issues. Mr. Quintero has coordinated the preparation of Strategic EAs in the energy, road, urban transport, tourism, water and sanitation sectors and has provided training in Strategic Environmental assessment and Cumulative Impact Assessment high and mid level government officials in Mexico, Brazil, Colombia, Argentina, El Salvador, Dominican Republic, Turkey, India, Nepal, and China. He has worked on road development projects in most countries in Latin America and most recently in Vietnam and China. His most recent publications include "Biodiversity Offsets and Infrastructure", "Protecting Natural Habitats in Road Development: A Multi-level Approach", "Mainstreaming Conservation in Infrastructure Projects" and "Green Infrastructure in Tiger Range Countries: a Multi-Level Approach".

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Day 3: Wednesday 28th June 2017
The Environment

	Session	
0900–0905	1	Introduction to Day 3 Module leader
0905-1030	2	Rural Earth Road Maintenance Schemes: The South American Perspective Juan Quintero, World Bank
1030-1100		Break: Tea/Coffee
1100-1230	3	Managing the Environmental and Social Impacts of Road Works Juan Quintero, World Bank
1230-1300	4	Presentation of Certificates
1300-14000	5	Lunch