

# Transport Research Bulletin

Transport Research  
Institute Newsletter

Issue No 5 – Spring/Summer 2019



Transport  
Research  
Institute

**Welcome to our Spring/Summer newsletter!**

## Intro

The Shanghai Ranking of universities offering engineering puts Napier – and so TRI – in the global top 200 for transportation, and this is not surprising given the range of activity that we undertake. We have new Horizon 2020 projects on women and data in transport, and parking; an Innovate UK project on connected autonomous buses; and several projects on innovative traffic engineering measures. We continue to produce higher and higher quality journal papers, but also influence at the national and international level with work for the Scottish Government and the European Commission. Finally, we continue to offer a cutting-edge MSc in Transport Planning and Engineering with growing student numbers, one of the very few in the world to be taught online as well as face to face.

## New appointments

**Dr Grigorios Fountas** was appointed as a member of the Editorial Advisory Board of the journal Analytic Methods in Accident Research (AMAR). The journal is published by Elsevier and focuses on the development and implementation of novel methodological approaches in various aspects of safety research.

**Dr Achille Fonzone** was promoted from the EPSRC Associate College to become a Full College Member of EPSRC (The Engineering and Physical Sciences Research Council). EPSRC is the main funding body for engineering and physical sciences research in the UK. EPSRC is part of UK Research and Innovation, a new body which works in partnership with universities, research organisations, businesses, charities, and government to create the best possible environment for research and innovation to flourish.

**Chris Oliver** was appointed Associate Research Fellow at the Transport Research Institute, Edinburgh Napier University and has been made King James IV Professor at the Royal College of Surgeons of Edinburgh. Chris is a retired orthopaedic trauma surgeon from the Royal Infirmary of Edinburgh and has over the last three decades worked on many aspects of Data Visualisation for medics and doctors. Early in his career he worked to improve bioinformatics education for surgeons and more recently has studied knowledge transfer with infographics and complex network analysis of social media networks.

## Keynote speakers and presentations

**Prof Tom Rye** is an invited independent expert member of the Cleaner Air for Scotland Review Steering Group, which is running over the next 4-5 months to identify additional possible actions to further improve air quality in Scotland. **Prof Adrian Davis** is chair of the transport working group of the review. The Review was formally announced by the Cabinet Secretary for the Environment, Climate Change and Land Reform on 6 November during a visit to British Heart Foundation Scotland's Centre for Research Excellence. The Cabinet Secretary said: "There is a clear relationship between air pollution and human health impacts, and although we have made significant progress over recent years, more remains to be done."



**Prof Adrian Davis** was invited to speak about his paper 'The UK transport policy menu: Roads, roads, and a dash of multimodalism' at Transform Scotland's Member Session meeting. The paper sets out the 4 main challenges to achieving large scale voluntary travel behaviour change in favour of healthy travel. STPR2 is set to be at the centre of the transport policy agenda in Scotland in 2019 and this session will provide a discussion on the changes we hope to see this year. "The review will bring together research being undertaken by the British Heart Foundation here in Edinburgh and others elsewhere to determine how we as a nation can take further positive steps to mitigate the impact of this hugely important subject."

### Solaris Conference 2019

Solaris system of conferences was initiated at Napier University in 2003 and the first conference on solar energy modelling was held at Craiglockhart campus in September 2003. Since then this biennial event has been held under the chairmanship of **Professor Tariq Muneer** in Greece, India, Hong Kong, Czech, Spain, Slovenia, London, China and back again in India in February (7-9), 2019. Some 120 people attended the event in February. Among the keynote speakers was also Professor Muneer who discussed the role of solar energy in making road transport sustainable via deployment of electrical vehicles. Note that one of the most polluted world city is Delhi which will only allow electric vehicles to be registered from year 2020.

### Prof Wafaa Saleh

As part of Professor Wafaa Saleh's academic activities and interest in the Middle East, she attended and presented at the 1st International Conference on Crafting Foundations for Sustainable and Inclusive Development (CRFSID-2019). The visit also included academic and scholarly activities at Manipal University. ENU had an MOU with Manipal since 2011 and there have been ongoing collaborations, including a just completed undergraduate articulation agreements in Engineering and Computing.

**Dr Grigorios Fountas** shared recent findings of his research endeavours in the ANT 2019, the 10th International Conference on Ambient Systems, Network and Technologies, which was held between 29th April and 2nd May in Leuven, Belgium. Specifically, he presented three research papers in the areas of traffic safety and public perceptions of emerging transportation technologies.

### Students

In April 2019, various MSc students and academic staff members of the Transport Research Institute visited Ljubljana, Slovenia, in the context of a field trip to a city with major transportation advances over the last 15 years. The staff of the Urban Planning Institute (UIRS) in Ljubljana warmly welcomed the TRI representatives through a set of presentations and tours across the city's pedestrian, cycling and public transport infrastructure. It should be noted that over the last two decades, the sustainable transportation network of Ljubljana has been significantly expanded, whereas in 2016, the city won the European Green Capital award.

### Projects

**Dr Achille Fonzone**, **Prof Christiane Bielefeldt** and **Dr Damian Stantchev** attended a meeting in Southend-on-Sea of the European H2020 project entitled "Sustainable Urban Neighbourhoods Research and Implementation Support in Europe" (SUNRISE). SUNRISE is a 4-year study that focuses on mobility challenges at the neighbourhood level in 6 cities across Europe and the Middle East.

The research within **SUNRISE** has the ambitious goal of identifying mobility problems and solutions to alleviate them, overseeing the implementation of measures and their evaluation, and transferring and sharing knowledge between cities. The study involves people representing different parts of society, as well as businesses, NGOs, local authorities, and academic institutions. It is also inclusive of often under-represented groups of society such as migrants, women, older and young people. This study aims to demonstrate that only the proactive involvement of local communities in urban mobility planning through co-creation and co-evaluation is likely to produce lasting and publicly embraced solutions to urban mobility challenges.



TRI, following the successful completion of **CIVITAS** projects such as DYN@AMO, CAPITAL and PUSH&PULL, has been entrusted with the role of an evaluation manager, overseeing the evaluation of specific measures and the overall co-creation process. Following the Consortium meeting in Southend-on-Sea, the project successfully went through its first review meeting in Brussels and in the next few months will start the implementation of measures identified during a co-creation process by local neighbourhoods in the cities of Bremen, Budapest, Jerusalem, Malmo, Southend-on-Sea and Thessaloniki, and the collection of data for their evaluation.

Along with Richard Hall, Managing Director of Lothian Buses, and Ross Martin, Glasgow Connectivity Commissioner, **Dr Cowie** gave a presentation to the SEStran Bus Stakeholders Congress on Friday 8th February. With specific reference to the bus industry, Jonathan presented an overview of the Transport Bill 2018 currently going through the Scottish Parliament, and his views, based on his ongoing research, as to the appropriateness of the provisions of the bill in addressing the issues facing the Scottish bus industry at the moment.

Dr Cowie was in Mechelen in Belgium as part of the EU Interreg project Surflogh, where TRI and Sestran are working with four other project partners examining the commercial possibilities for urban freight consolidation centres. At the steering group meeting, Jonathan presented the early results of the critical literature review and then with the other partners visited the pilot which is being established in the city. This should provide interesting contrasts with the pilots in Edinburgh and also Groningen, as the approaches being taken to the establishment of these is quite different in each city.

All cities and regions face challenges related to freight flows entering and leaving central areas which negatively impact on air quality, noise, road safety, climate and the general attractiveness of the centre. SURFLOGH aims to examine, through action research, the role of strategically located urban freight centres in connecting long-distance freight transport to last mile distribution. TRI are working in conjunction with SEStran in leading on the development of business models for urban freight hubs. The prime pilot in Edinburgh, an e-cargo bike last mile delivery service, has been established for just under a year, and in conjunction with the business partner, research is on-going with regards to current issues and the potential business opportunities that the initiative presents.

### Press releases/Media appearances

- Prof Tom Rye was quoted in a piece on new charges for car parking at work in the Scotsman. As part of the budget, the Scottish Government is allowing councils to set a levy on workplace car parking spaces.
- Professor Tom Rye wrote for the Evening News about the costs of the Edinburgh tram extension.
- Prof Tom Rye was interviewed by Scotland on Sunday as part of an assessment of the Workplace Parking Levy.
- Prof Adrian Davis presented to Holyrood committee on 20mph speed limits in Local Transport Today.

Adrian Davis undertook a series of interviews with senior Road Policing officers across Scotland in order to better understand their views and rationale on 20mph speed limits. Mark Ruskell, MSP, who commissioned the work, currently has a Bill being considered in the Scottish Parliament to make 20mph speed limits the default on all restricted roads in Scotland which are currently 30mph.

The UK's first full-sized autonomous bus is now being trialled by Stagecoach in a Manchester bus depot. This forms the basis for a more significant autonomous vehicle trial due to get underway in 2020. That will see five buses operating in autonomous mode in public service between Fife and Edinburgh, across the Forth Road Bridge Corridor as part of the CAV Forth Project. Edinburgh Napier University is involved in the development of autonomous buses. This much more ambitious trial brings together Stagecoach, Transport Scotland, ADL, Fusion Processing, ESP Group, Edinburgh Napier University and the University of the West of England.

**Suzanne Meade**, Research Fellow at TRI joined: Orla Hegarty, architect and assistant professor in the School of Architecture, Planning and Environmental Policy at UCD; Frank McDonald, author and former environment editor of The Irish Times; and Catherine Martin, Deputy Leader of the Green Party in a panel debate on 'The Last Word'.



There are not enough houses or apartments being built to deal with the demand for affordable housing. But of the homes that are being built, are they in the right locations? Are we making the same mistakes we made a decade ago in building housing estates in Dublin's commuter counties, which could be contributing to urban sprawl and a return to lengthy commutes?

With the declaration by Nicola Sturgeon of a "climate emergency" we were given the opportunity by The Scotsman newspaper to outline in an opinion platform piece, "How Cycling can transform Scotland's cities". We explain why sustainable transport must be understood as critical in any strategy for Scotland to go "further and faster" in tackling climate change. The Scottish Government has said it must achieve net-zero greenhouse gas emissions by 2045. Although Scotland has been innovative in carbon reduction, transport remains an Achilles heel. Sustained and strong political leadership in delivering nothing less than transformational change is required.

### Events/meetings

The Transport Research Institute had an active participation in the **98th Annual Meeting of the Transportation Research Board (TRB)**, which was held between 13 and 17 January in Washington, D.C. The TRB Annual Meeting is an internationally renowned transportation forum that attracts more than 13,000 professionals across the globe.

### Upcoming events

#### 5<sup>th</sup> Annual Electric Vehicle Event

Edinburgh Napier University will be holding its **5<sup>th</sup> Annual Electric Vehicle Event** at our Craiglockhart Campus in Edinburgh on **Wednesday 9th October**. Michael Matheson MSP, Cabinet Secretary for Transport, Infrastructure and Connectivity has confirmed that he will give the keynote address. We have confirmed speakers from:

- Andy Robinson, Head of ULEV delivery, Transport Scotland
- Magnus Lindgren, Senior Advisor at the Swedish Transport Administration and Deputy Head of Electric Road Program, Trafikverket, Sweden who will speak about the electric road programme
- Energy Saving Trust on the e-bike grant fund scheme
- James McKemey, Head of Insights, PodPoint, the UK's leading provider of electric vehicle charging
- Dr Jonathan Cowie on the SURFLOGH project
- Colin Cochrane, Edinburgh Napier University student talking about his research on "Design of a Solar Sourced, Electrically Powered Rickshaw"
- Keith Alcock, Edinburgh Napier University student talking about his research on "The thermal management of Lithium-ion batteries using foam material"

There will also be vehicles on display outside the Rivers Suite. Kia will showcase the e-Niro which was awarded car of the year and VW will showcase the e-Golf. Exhibition stands will be on display in the Chapel and foyer area. SWARCO, Peddlesmart, Electric Cycle Company and Co-Wheels Car Club have confirmed they will have stands. We are grateful to Transport Scotland for their continued support. If you are interested in attending, would like to exhibit at the event or like further information, please email: [evseminar@napier.ac.uk](mailto:evseminar@napier.ac.uk) or call: 0131 455 2951.

#### The 54<sup>th</sup> UK Conference on Human Responses to Vibration

The conference is organised by Edinburgh Napier University School of Engineering and Reactec Ltd. and will take place in Edinburgh on the 24<sup>th</sup> to 26<sup>th</sup> September 2019. The Conference provides a technical forum for exchange of information, dissemination of research findings and the opportunity to be updated on current issues related to human exposure to vibration. Presented papers will cover all aspects of hand-transmitted vibration, whole-body vibration and motion sickness. Guidelines for authors, important dates, registration, delegate and exhibitor fee payment information is provided on the conference website.

For general enquiries regarding the conference, please contact: [54UKHRV2019@napier.ac.uk](mailto:54UKHRV2019@napier.ac.uk)