

Technical Committee 3.4: Environmental
Sustainability in Road Infrastructure and Transport

Call for papers

International Seminar

Environmental Sustainability of Road Transport: Air Pollution, Noise and Relationship with Energy Transition and Climate Change



Cluj-Napoca, Romania & online

**NEW! SELECTED PAPERS TO BE PUBLISHED
IN THE ROMANIAN JOURNAL OF TRANSPORT INFRASTRUCTURE
A CLARIVATE WoS - INDEXED JOURNAL**

20-22 October 2021

Background

PIARC's Technical Committee 3.4: Environmental Sustainability in Road Infrastructure and Transport, the Romanian National Committee of PIARC and the Department of Railways, Roads and Bridges of the Cluj-Napoca Technical University are organizing the "Environmental Sustainability of Road Transport: Air Pollution, Noise and Relationship with Energy Transition and Climate Change" International Seminar. You are warmly invited to attend this event, which will take place between 20 and 22 October 2021 in Cluj-Napoca, Romania, or as an online guest.

Objectives

The seminar aims to provide an opportunity to share research findings, practices and experiences between designers, contractors, researchers, administrators and stakeholders. The measurement, assessment and mitigation measures in reducing emissions from traffic operations, along with the technical aspects of road pavements' acoustic performance will be included in the seminar. Furthermore, issues regarding the challenges of traffic noise management, as well as the implications and consequences of traffic, materials and evolving vehicle fleets on climate change and energy transition will be discussed.

This event will also represent a valuable output for the wider objective of investigating and assessing how road administrations could help improve air quality through specific techniques, real time evaluation of air pollution, use of low-cost air quality sensors and implementing operational mitigation measures.

Topics

Professionals, academics and researchers from all countries are warmly invited to attend the seminar and submit papers on the following themes:

Real time measurement and assessment of vehicle emissions to assist in decision making for improving air quality with consideration of energy transition:

- different types, accuracy and applications of low-cost air quality sensors for real time data;
- examples and implications of real time monitoring traffic operations (by using low-cost sensors);
- real time control and traffic management strategies related to air pollution;
- implications of a changing vehicle fleet (longer term view): adapting what and how we measure;
- air quality impact of the Covid-19 pandemic;
- changes in traffic volume, composition of vehicle fleet and travel patterns due to the Covid-19 pandemic.

Road pavements acoustic durability with regard to sustainable development and climate change:

- methods, devices and criteria for pavement acoustic durability;
- measurements and prediction of noise;
- optimisation of acoustic parameters through improvements in pavement design, construction and maintenance;
- research and analysis of noise reduction with the use of low-noise pavements;
- sound absorption and noise reduction analysis;
- noise prediction using computer modelling;
- urban planning in the field of noise control;
- acoustical implications for sustainable development;
- energy transition assessment;
- noise barriers in the context of renewable energy;
- integration of GIS with noise measurements, models and prediction;
- noise maps and environmental protection programs against noise;
- measurement techniques, including applications on low-noise pavements;
- criteria for selecting solutions to reduce noise;
- traffic noise regulations and administrative policy requirements;
- road noise implications on CO₂ emissions and climate change;
- impact of vehicle fleet changes on road noise;
- health, ecological and economic effects of road traffic noise;
- innovative materials;
- the transport sector of the Paris Agreement;
- influence of the road condition (technical state, cleanliness etc.) on noise.

A **special session on road transport impact in wildlife habitats** will be organised, including the following topics:

- Noise effects on animals health and breeding success, birds, bats and insects;
- Convergence in noise mitigation (sensible protected areas / urban-rural areas).

Key dates

NEW! Abstract submission deadline: **13 August 2021**

Full paper submission deadline: **17 September 2021**

Seminar program

The seminar outline includes:

- Wednesday 20 October 2021:
 - Introductory session;
 - Parallel sessions, panel discussion and roundtables;
- Thursday 21 October 2021:
 - Parallel sessions, panel discussion and roundtables;
 - Concluding session;
- Friday 22 October 2021:
 - Technical visit (depending on available regulations).

Languages

The official languages of the Seminar are:

- Romanian;
- English.

Simultaneous translation will be provided.

Abstract submission

Technical papers are invited for Seminar presentation and publication.

Abstracts should:

- be submitted in a Microsoft Word or Open Access document file;
- be written in English or Romanian;
- include the following: paper title, authors, affiliation, contact e-mail, abstract (max. 300 words).

Abstracts should be sent as an attached file via e-mail to **seminar_piarc@utcluj.ro**

Paper publication

NEW! Selected papers will be published in a **special issue** of the peer-reviewed **Romanian Journal of Transport Infrastructure** (ISSN 2286-2218, <https://sciendo.com/journal/RJTI>) and will be **indexed in Clarivate Web of Science**.

Participants. Sponsorship

This event will provide an excellent opportunity to connect with international experts and present your latest research, products and technologies to a wide audience. The seminar aims to provide a meeting point for:

- road administration at various levels;
- designers & consultants;
- contractors;
- architects & urban designers;
- scientists & researchers;
- education staff;
- students.

NEW! A variety of **sponsorship packages are available**, ensuring advertisement and providing the best visibility and interaction opportunities.

Scientific committee

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 - Mr. Alexandru PETCOVICI, Eng. (National Company for Road Infrastructure Admin., Romania)

Registration

Registration fees are:

- EUR 150 for physical attendance;
- EUR 70 for online attendance.

You are welcome to fill in and send the attached pre-registration form.

NEW! Online registration and payment will be available shortly.

Venue

The seminar will take place at the superb Grand Hotel Italia***** in Cluj-Napoca, Romania. Lodging and travel information will be provided in due time.

Online participation will also be available for all attendees, including speakers.

Contact

For any information, do not hesitate to contact us by e-mail: seminar_piarc@utcluj.ro

International Seminar

Environmental Sustainability of Road Transport: Air Pollution, Noise and Relationship with Energy Transition and Climate Change

PRE-REGISTRATION FORM

Please check one or more of the appropriate boxes:

- I am planning to attend the Seminar in person
- I am planning to attend the Seminar through the online platform
- I would like present a scientific or technical paper
- I would like present a product / technology

Name:

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Thank you!