

NEWSLETTER

NUMBER 24 November 2018

Coordination Paulo Pinho, Edition Sílvia Sousa



RESEARCH CENTRE FOR TERRITORY TRANSPORTS AND ENVIRONMENT

<http://citta.fe.up.pt/>

RECENT PUBLICATIONS

Almeida R, Vasconcelos L, Bastos Silva A.
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Promet - Traffic & Transportation. Vol. 30,
2018, No. 2, 231-239). Available from:
<http://www.fpz.unizg.hr/traffic/index.php/PROMTT/article/view/2573>.

Amorim, M., Ferreira, S., & Couto, A.
(2018). Emergency Medical Service
Response: Analyzing Vehicle Dispatching
Rules. Transportation Research Record,
0361198118781645.
doi:10.1177/0361198118781645.

Amorim, M., Lobo, A., & A. Couto (2018).
Tolling Motorways in the Time of Economic
Downturn: The Case of Portugal. Transport,
33(6), forthcoming.

Duarte, F., Ferreira, A. and Fael, P. (2018),
Road pavement energy harvesting device to
convert vehicles mechanical energy into
electrical energy, Journal of Energy
Engineering (ISI Journal), American Society
of Civil Engineers, 144 (2), 1-14.
[https://ascelibrary.org/doi/10.1061/\(ASCE\)
EY.1943-7897.0000512](https://ascelibrary.org/doi/10.1061/(ASCE)EY.1943-7897.0000512).

Duarte, F., Ferreira, A. and Fael, P. (2018),
Integration of a mechanical energy-storage
system in a road pavement energy-
harvesting device, Energy (ISI Journal),
Institution of Civil Engineers, 171 (2), 70-
81.

[http://www.icevirtuallibrary.com/doi/abs/
10.1680/jener.16.00028](http://www.icevirtuallibrary.com/doi/abs/10.1680/jener.16.00028)

Duarte, F., Ferreira, A. and Champalimaud,
J. (2018), Waynergy People: application in
an operational environment, Energy (ISI
Journal), Institution of Civil Engineers, 171
(2), 82-89.
[http://www.icevirtuallibrary.com/doi/abs/
10.1680/jener.16.00010](http://www.icevirtuallibrary.com/doi/abs/10.1680/jener.16.00010).

Ferreira, S., Kokkinogonis, Z., & Couto, A.
(2019). Using real-life alert-based data to
analyse drowsiness and distraction of
commercial drivers. Transportation
Research Part F: Traffic Psychology and
Behaviour, 60, 25-36.
doi:<https://doi.org/10.1016/j.trf.2018.10.03>.

Ferreira, S., Amorim, M., & Couto, A.
(2018). Exploring clinical metrics to assess
the health impact of traffic injuries.
International Journal of Injury Control and
Safety Promotion, 25(2), 119-127.
doi:10.1080/17457300.2017.1341936.

Lobo, A., Amorim, M., Rodrigues, C., &
Couto A. (2018). Modelling the operating
speed in segments of two-lane highways
from probe vehicle data: a stochastic
frontier approach. Journal of Advanced
Transportation, 2018, article ID 3540785, 10
pages. doi: 10.1155/2018/3540785.

EDITORIAL

Dear Reader,

At the time of writing we have not yet received any official communication from FCT about the visit of the evaluation panel to our centre as part of the current R&D centres' evaluation process. There are reasons to believe that the visit will only take place next year. Indeed, FCT has already asked all R&D centres to prepare and submit a proposal to request funding for 2019. According to FCT instructions this proposal cannot exceed the average of the annual amounts of funding received in the last couple of years. In practice, it represents a second extension of the previous package of funding. The first covered the current year of 2018. This is obviously a sign that the evaluation process of the R&D centres is already delayed and will be prolonged into the next year.

If one recalls that the evaluation process started in 2017 and the centre's reports were submitted in January of 2018, it is very likely that the entire evaluation process will not be finished before the summer of 2019. Two years or more for an evaluation process of research activities, which, as we all know, are increasingly dynamic and competitive, by their very nature, is hardly acceptable, not to speak of the increased costs involved. And more resources absorbed by the administration of the evaluation machine means fewer resources for the centres' activities, the ultimate objective of a funding institution like FCT.

Having said that, one has to recognise that, independently of the final results, which we all expect to be fair, the serious preparation of a demanding and important evaluation process such as the current one, always brings some fringe benefits to the R&D centres involved that cannot be ignored. In our case, and among some other activities and thoughts, it fostered a thorough and collective reflection on the ethical issues associated to our research activities and to the internal workings of our centre.

Based on an excellent position paper prepared by one of our senior researchers, António Ferreira, all members of the centre were invited to discuss a wide range of ethical issues related to the development of research, dealing with urban, environmental and transport planning. In practice it was another opportunity to bring together senior and junior researchers from Oporto and from Coimbra in a long session, which accounted with a high level of participation. In the end several contributions were gathered and incorporated into the initial draft guidelines, which, through this participatory process, became a truly collaborative document of the Centre. Soon the final version will be available for download from our website.

Speaking about the website, a reference has also to be made here to the important coordinating role of Sara Santos Cruz in the reconstruction, updating and expansion of our website, over the last months, after having been victim of a hackers' attack last Summer. A word of appreciation should also go to our informatics technician Manuel Guimarães for the technical development of the new site in a rather short period of time given the evaluation process under way.

Finally, I would like to thank all the members of the local organizing committee of our highly successful 11th annual conference, which took place in Coimbra in the past month of October on the theme: The Portuguese-speaking area and the future of cities. A special word of appreciation should go to Arminda Almeida for all her dedication, enthusiasm and overall coordinating role, and to Anabela Ribeiro for the initial idea of articulating the CITTA conference with the PLURIS congress. This option brought together participants from these two events coming from both sides of the Atlantic, enabling a wider and richer exchange of views and inspiring debates in both the plenary sessions and the parallel sessions.

Paulo Pinho

RECENT PUBLICATIONS

Paiva, C., Buck, A. and Ferreira, A. (2018), Sub-ballast performance in Brazilian railway infrastructures, *Construction and Building Materials (ISI Journal)*, 190, 164-169. <https://doi.org/10.1016/j.conbuildmat.2018.09.093>.

Santos, J., Ferreira, A., Flintsch, G., and Cerezo, V. (2018), A multi-objective optimization approach for sustainable pavement management, *Structure and Infrastructure Engineering: Maintenance, Management, Life-Cycle Design and Performance (ISI Journal)*, 14 (7), 854-868. <https://doi.org/10.1080/15732479.2018.1436571>.

Torres, M. F., Ferreira, S., Sousa, A. J., Moreira, L., & Torres, R. (2018). Welcome to engineering: Gender equality in learning and integration among first year students. *International Journal of Engineering Education*, 34, 45-55.

RECENT CONTRACTS, PROTOCOLS AND AWARDS

PAVENERGY - Pavement Energy Harvest Solutions - Soluções de Geração de Energia nos Pavimentos. *Total funding* €185.000,00. *Funding body*: Fundação para a Ciência e Tecnologia. *Ref*: PTDC/ECM-TRA/3423/2014. *Start*: 1/06/2016. *Duration*: 3 years. <http://pavenergy.dec.uc.pt>.

AUTODRIVING - Modelling the Driver Behaviour in Automated Driving Using a Driving Simulator (POCI-01-0145-FEDER-028526), Started.

AWAREE - A data driven towards driver attention (MIT-EXPL/STS/0125/2017), Started.

SIMUSAFE - Simulator of behavioural aspects for safer transport (H2020|SC|Transport - H2020|Societal Challenges|Transport), Ongoing.

Bastos-Silva, A.M.; Seco, A.J.M.; Vasconcelos, A.: Technical Responsibility for the Project "Estudo de Gestão de Tráfego da Cidade de Vial Real"; Awarding Entity CMVR; 2017-2018.

FEUP; "Masterplan da rede viária estruturante do Concelho de Vila do Conde", Câmara Municipal do Vila do Conde

FEUP; "Avaliação das condições de circulação da Via de Cintura Interna na cidade do Porto", Câmara Municipal do Porto.

Seco, A.J.M.; Technical Coordination of the Project "Planeamento da Concessão da Rede de Transporte Coletivo Municipal, Intermunicipal e Inter-Regional da CIM-RC"; Awarding Entity - CIM-RC; 2017-2018.

Silva, J.P.; Technical Coordination of the Project "Road Safety Plan for the Municipalities of the Inter Municipal Community of the Region of Leiria"; 2018.

Ferreira, A.; Honorable Mention in Research: International Publications by the Faculty of Sciences and Technology of the University of Coimbra.

RESEARCH GROUP 3

The TEM-Transport Engineering and Management CITTA's research group is incurring in a productive period amongst its main objectives of contributing to a safe and high quality mobile environment, through the design and implementation of innovative solutions of speed management, namely by better understanding and modelling road users' behavior. In parallel significant research and development work is being carried out in the areas of life-cycle assessment of transport infrastructures and towards improving the energy efficiency of urban transport infrastructures.

Different elements of the research group are currently enrolled in a number of significant research projects, such as the ongoing PAVENERGY-Pavement Energy Harvest Solutions, and SIMUSAFE-Simulator of Behavioural Aspects for Safer Transport, to the starting AUTODRIVING-Modelling the Driver Behaviour in Automated Driving, and the also starting project AWAREE-A data driven towards Driver Attention.

Results from these and other lines of research are being presented to the academia, through more than a dozen of independently refereed papers which have recently been published in reference specialist international journals.

At the same time, the submission for discussion and dissemination of the research has been extensively carried out through the presentation of papers in relevant conferences, both at the national and at the international level.

At the national level presentations were produced at the MIT Portugal Annual Conference, the CITTA 11th Annual Conference on Planning Research and at PLURIS2018.

At the international level a much higher number of participations were registered in different conferences or symposiums covering the wide range of research topics covered by this research group: 31st ICTCT Conference; CETRA 2018; Sixth International Symposium on Life-Cycle Civil Engineering; EWGT 2018; 32º Congresso de Ensino e Pesquisa em Transportes ANPET; 4th International Conference on Road and Rail Infrastructure; International Society for Asphalt Pavements (ISAP) Conference; 6th World Conference on Information Systems and Technologies; EDULEARN18 Conference; 3rd World Multidisciplinary Civil Engineering - Architecture - Urban Planning Symposium.

Members of the group have also been involved in the organization of the PLURIS2018 AND 31ST ICTCT conferences, and have participated as members of scientific committees.

Finally, it is also worth mentioning the involvement by members of the TEM research groups in significant collaborations with Portuguese Public Authorities responsible for different transport systems planning and management. Especially relevant have been collaborations related with the development of specialized Mobility Plans for the municipalities of Vila Real, Vila do Conde, Leiria and Oporto. Also significant is the comprehensive the regional Public Transportation Network planning process being carried out for the CIM-RC regional authority, which covers nineteen municipalities.

Alvaro Seco

