



IRF
GLOBAL

Implementing Pavement Management Systems

Porto, Portugal
July 25-29, 2022



Workshop



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Background

Pavement Management systems have been designed to provide information on the functional and structural condition of roads so that road owners can offer a smooth and safe ride to road users at the lowest possible cost. They also provide reliable information to decision makers about the condition of the road network for maintenance and rehabilitation planning and funding. However, the problem with PMS systems has traditionally been that they have supported reactive maintenance whereby the road is repaired by mainly standard methods after a specified amount of visible damage has occurred on the pavement.

The goal of the training workshop will be to help those working with PMS systems better understand the damage mechanisms that affect the lifetime of paved and gravel road networks and how they can be monitored with different technologies. Theoretical and practical examples will be given on how organizations adopt more economical proactive maintenance policies. The contents will be based on the latest research results as well as the hands-on experiences of the course instructor.

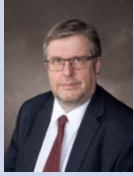
Learning Objectives

- ✓ Understanding the role of Pavement Management in Road Asset Management
- ✓ Better understanding the pavement deterioration mechanisms and root causes of road damages
- ✓ Learning about old and new road survey techniques and their outputs
- ✓ Understanding the important role of daily maintenance in economic pavement management
- ✓ Understanding the economic and other benefits of moving towards proactive maintenance

Target Audience

- Road Authorities & Operators
- Road Design Consultants
- Road Contractors
- Maintenance Personnel
- Pavement Design Engineers
- Pavement Management System Providers
- Academia

Instructor



Timo Saaranketo
Managing director, Roadscanners Oy

Dr. Timo Saarenketo is the managing director of Roadscanners Oy. He also works as an Adjunct Professor at the Tampere University. He is internationally known “Road Doctor” specialized in Non-Destructive Testing based road and bridge and other traffic infrastructure asset diagnostics and management. He has specialized and made innovations in Ground Penetrating Radar (GPR) and other Non-Destructive Testing based road and bridge and other traffic infrastructure analysis and diagnostics, pavement design, rehabilitation design, road material surveys and site investigations. A special interest is also low traffic volume road condition management in cold climate areas. Since 1998 Saarenketo has been working in different roles in ROADDEX projects, which focuses on road condition and pavement management policies and technologies of low volume roads in Northern Europe.

During recent years, Dr Saarenketo has been working intensively on how modern technologies can be implemented in intelligent asset management processes and how they can improve the productivity of asset management that further leads to cost savings in annual paving costs. Another research task has been the effect of autonomous vehicles and super heavy trucks on pavement structure performance. Since 2015 he has been working in Finland in PEHKO project that has successfully implemented digitalization and new road diagnostics technologies and proactive maintenance in the management of paved road in three areas in Finland. This project has been awarded by IRF in 2018 by Global Road Achievement Award in the category of Asset Preservation & Maintenance Management.

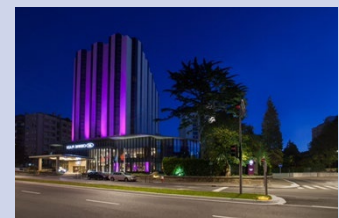
Registration (hotel accommodation not included)

- **2,000 Euros IRF Members /Groups of 3 or More**
- **2,300 Euros Non IRF Members**
- **975 Euros Delegates from Portugal**

Register at: <https://www.irf.global/event/pvmt22-ws-porto>

Seminar Hotel:

Crowne Plaza Porto
Address: Av. da Boavista 1466, 4100-114
Porto, Portugal



For support, please contact melabyad@irf.global

Agenda

July 25

- 9:00 – 9:30 Opening Introductions
- 9:30 – 10:30 Pavement Management, past, present and future
- 10:30 – 12:00 Basic principles of loading induced stresses and strains, permanent deformations, thermodynamics and material performance
- 12:00 – 13:00 Lunch
- 13:00 – 14:30 Pavement distress types and their root causes, pavement distress monitoring
- 14:30 – 15:00 Pavement distress monitoring techniques
- 15:00 – 16:30 Functional condition monitoring techniques

July 26

- 09:00 – 09:30 Monitoring traffic and loading
- 09:30 – 12:00 Structural condition survey techniques and their analysis, QC/QA
- 12:00 – 13:00 Lunch
- 13:00 – 14:00 Sampling and material testing techniques
- 14:00 – 15:00 Drainage structures and their maintenance
- 15:00 – 15:30 Moisture monitoring techniques
- 15:30 – 16:30 Pavement performance diagnostics, lifetime analysis
- 16:30 - Discussions

July 27

- 09:00 – 16:30 Pavement Management Systems Implementation

July 28

- 09:00 – 12:00 Pavement management Systems Implementation
- 12:00 – 13:00 Lunch
- 13:00 – 14:30 Diagnostics based pavement performance solutions
- 14:30 – 16:00 Towards proactive pavement maintenance
- 16:00 – 16:30 Summary and discussions

July 29

- 09:00 – 12:00 Field Trip.

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International Road Federation

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