

LISBOA 2010
MAY 25/28
16th World Meeting

Theme 4: Road Finances & Management

Workshop 4.5:

Road Maintenance Management



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Workshop 4.5: Road Maintenance Management

- Theme 4: Road Finances & Management
- President: *Max von Devivere* (German Asphalt Institute)
- Moderator: *Maria de Lurdes Antunes* (Portuguese Laboratory of Civil Engineering)

Workshop 4.5:

Selected papers

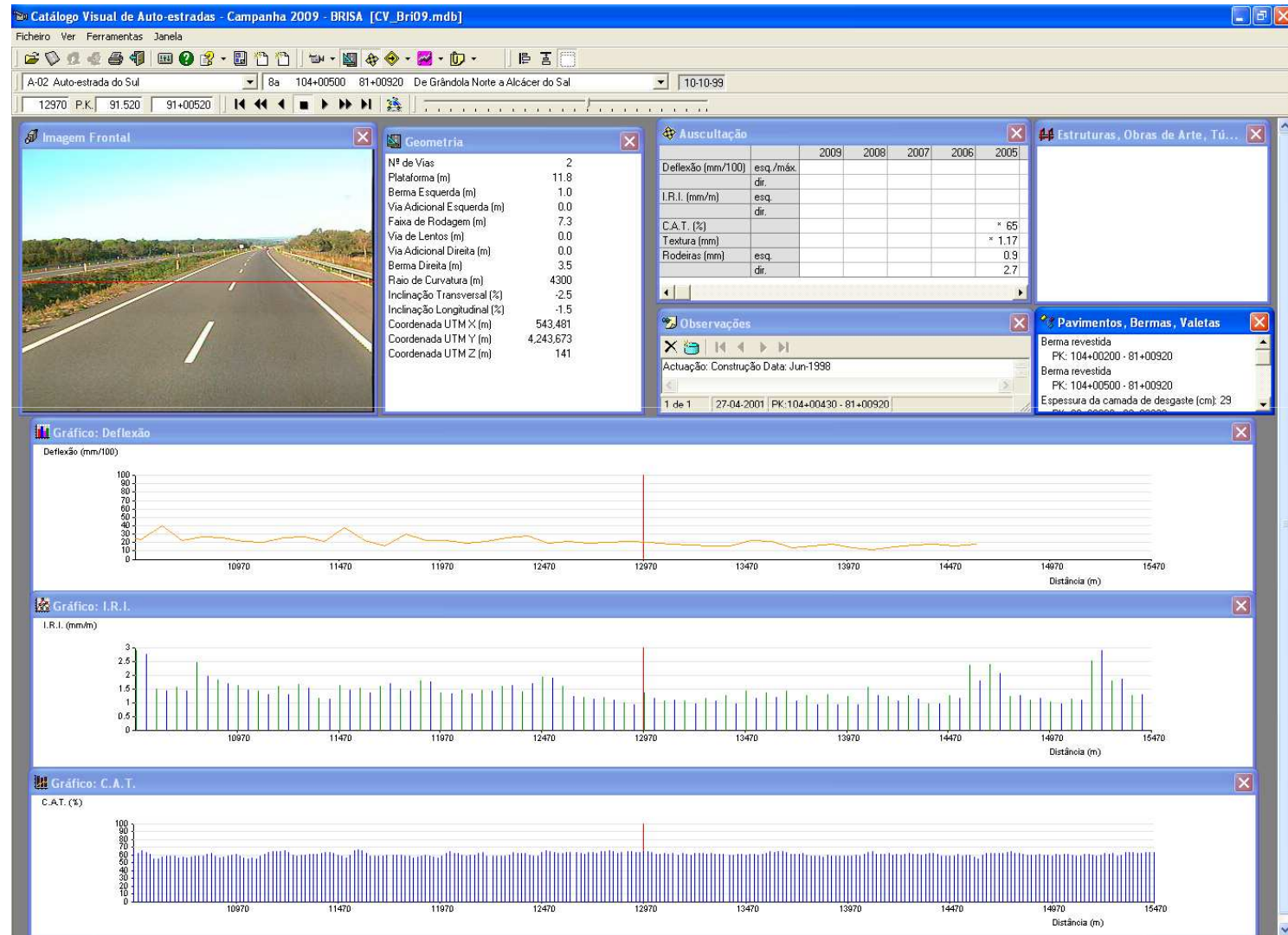
129	<i>Pavement Management System</i>	Dora Batista (BRISA)
180	<i>Building GIS Ascendi</i>	Horácio Sá (ASCENDI)
182	Road visual Inspections for the identification of maintenance requirements	Jacobo Diaz (Spanish Road Association)
188	Introduction of Performance Based Maintenance Contract in Expressways in Japan	Takatoshi Tomita (NEXCO-West)
467	Design and maintenance of rural roads, and their management and costs of production	Nacira Saoudi (Univ. Sciences et Technologie Houari Boumediene)
469	Establishment of Management system for maintenance activities in urban road networks – case study in Benghazi – Lybia	Jamal Beitelmal (Univ Garyounis, Benghazi)



129: Pavement Management System

- **Authors:** Armando Santos & Dora Batista
- **Summary:**
 - PMS used by BRISA, a portuguese concessionaire (2400 km concession)
 - Based on detailed periodic assessment of the pavements condition (surface defects, FWD deflections, rut depth, IRI, CAT and MPD)
 - Different levels of quality and associated thresholds
 - Different investment strategies
 - Discussion of the main advantages and drawbacks of the system

129: Pavement Management System





180: Building GIS Ascendi

- Authors: Horácio Sá
- Summary:
 - Development of a web based platform for aggregation of information concerning all relevant aspects of the infrastructure under concession (1300 km), in Portugal
 - Data from different phases in the infrastructure's life cycle: Design and construction; Operation and maintenance
 - Identification of main difficulties and outlines next steps



182: Road visual Inspections for the identification of maintenance requirements

- **Authors:** Jacobo Diaz & Elena de la Pena
- **Summary:**
 - Methodology used in Spain for visual inspection of road infrastructures aiming at the identification of maintenance requirements.
 - Addresses road surface, traffic signs, road markings, road restrains, guidance equipment.



188: Introduction of Performance Based Maintenance Contract in Expressways in Japan

- **Authors:** Hidekatsu Fujimoto, Takatoshi Tomita & Masato Mastsumoto
- **Summary:**
 - Presents an overview of performance based maintenance contracts, and highlights its benefits, in comparison with traditional forms of contracting maintenance works.
 - Describes the implementation of performance based maintenance contracts in different assets of the intercity expressway concession in Japan, presents indicators used and acceptance criteria.
 - Discusses the lessons learned from a pilot project.



467: Design and maintenance of rural roads, and their management and costs of production

- **Authors:** Nacira Sauodia and S. Haddadia
- **Summary:**
 - Describes the main issues associated with the design and maintenance management of rural roads in Algeria
 - Presents a case study from a road in the vicinity of Bouira, on a mountaneous region
 - Describes the main difficulties associated with the maintenance of the road and presents some recommendations.



469: Establishment of Management system for maintenance activities in urban road networks – case study in Benghazi – Lybia

- Authors: Jamal Beitelmal and Hamida Orafy
- Summary:
 - Describes the development of a Pavement Maintenance Management System (PMMS) for the city of Benghazi in Lybia
 - The PMMS is based on the Pavement Condition Index (PCI) derived from visual assessment of pavement condition
 - Presents an application of the PMMS to arterial roads in the city of Benghazi
 - Presents some recommendations for the implementation of the PMMS.