

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

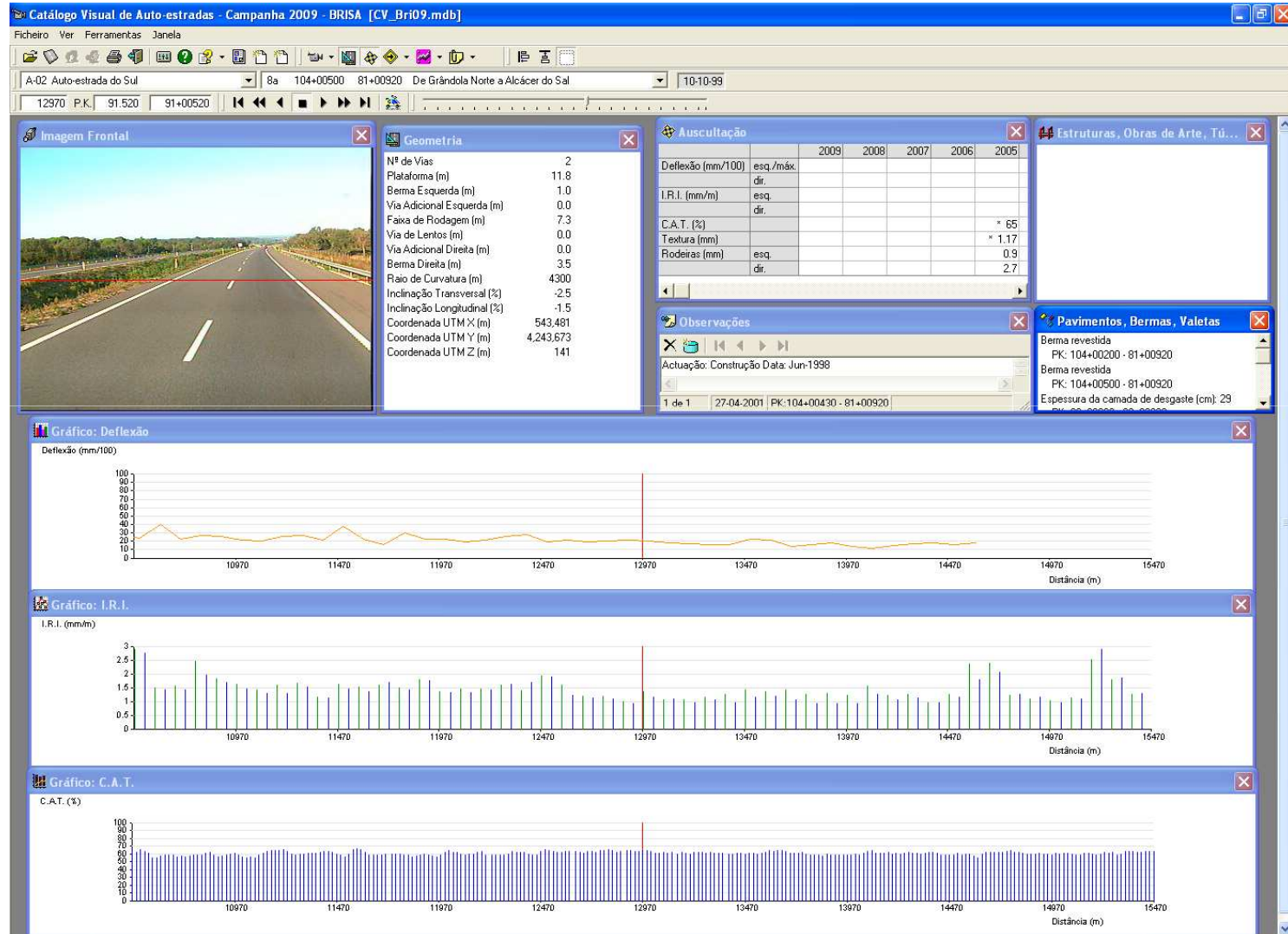
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|------------|--|--|
| 129 | <i>Pavement Management System</i> | Dora Batista (BRISA) |
| 180 | <i>Building GIS Ascendi</i> | Horácio Sá (ASCENDI) |
| 182 | Road visual Inspections for the identification of maintenance requirements | Jacobo Diaz (Spanish 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.