

International Workshop on Performance-based Infrastructure Asset Management

**ITU MACKA Facilities Istanbul, 6-9 July 2008
Hosted by Istanbul Technical University**

Supported by US-NSF, USDOT-FHWA, Turkish Infrastructure Agencies
and Agencies from Canada, EC, Japan and Switzerland

Workshop Objectives:

(1) To bring an international, multi-disciplinary group of engineers and scientists from academe, government and industry together in Istanbul. Istanbul offers a unique backdrop for any international workshop, as a city nearly as old as civilization itself and serving as a bridge between the West and the East. Istanbul exposes a multitude of problems and serves as a laboratory for prospective solutions for the infrastructure concerns of future mega-cities.

The workshop is intended as a forum for discussing how innovative paradigms and concepts may be integrated and leveraged to advance the engineering and management of infrastructures in general, and highway transportation infrastructure in particular. The presentations and panel discussions have been designed to explore the inter-relations and synergies between asset management, performance-based engineering, multi-hazard risks, multi-domain systems identification, applied systems analysis, health monitoring and intelligent systems in addition to interdependence, resilience and sustainability.

(2) To initiate an Ontology of PBIAM. This will help overcome the fragmentation that is obstructing effective integration and leveraging of concepts and paradigms with potential to innovate engineering and management of infrastructures. Ontology has been leveraged as a mechanism for creating a unified worldview and language in highly complex emerging fields of study that face integration challenges. Space, defense, AI, IT are examples.

(3) To develop an International Collaborative Research Agenda on PBIAM. This Agenda will incorporate an in-depth understanding and sharing of recent experiences and advances towards PBIAM in Europe, the Middle and Far East, and North America. It will also permit an understanding of how different social and cultural institutions and related human systems in different regions of the world impact PBIAM applications.

Organization:

Workshop sponsors:

US-NSF, USDOT-FHWA, Rutgers University CAIT
With the auspices of USDOC-NIST, USEPA, US Army Corps of Engineers
European, Canadian and Japanese institutions

Istanbul Technical University, Istanbul Municipality, TCK, TUBITAK
Private Industries

Chairs:

Ugur Ersoy, Professor Emeritus, METU, Professor BU, Honorary Chair
Faruk Karadogan, President of ITU, Honorary Chair
Mehmet Ali Tasdemir, Dean of Engineering, ITU - Conference Host and Chair
Tugrul Tankut, Professor Emeritus, METU – Conference Co-Chair

International organizing committee:

Wenger, Sinaishin (NSF), Wlaschin (FHWA), Gaj (FHWA), Ghasemi (FHWA), Wu (NIST), Albee (USEPA), Mlakar (USArmy Corps), Aktan (Drexel), Tasdemir (ITU), Pala (ITU), Tankut (METU), Wenzel (Austria), Mufti (Canada), Fujino (Japan)

Local organizing committee:

Yayla (ITU), Yaman (METU), Tiras (KGM), Yigit (Depar International), Yilmaz (ArgenTours), Toklu (YT)

Technical committees:

- **Committee for International Research Agenda:**
 - o **Secretaries:** Catbas (UCF), Ghandehari (Brooklyn Poly)
 - o **Review Board:** Wenger (NSF), Gaj (FHWA), Casey (FHWA), Albee (EPA), Mlakar (USArmy), Kerley (VDOT/AASHTO), Chase (VTRC/UVa), Cullari (FHWA), Dunn (NJDOT), Fujino (Japan), Wenzel (EC), Balaguru (Rutgers), Meyer (GTech), Haimes (UVa), Comfort (UPitt), Frangopol (Lehigh), Yigit (Depar, Ankara), Klatter (the Netherlands), Kaneuji (Kajima, Japan), Tadros (ISIS), Wade (ISIS), Saiidi (UNReno), Mordini (Italy), Kuhn (NJDOT), Gomez (VTRC)
- **Ontology Committee:**
Mollaghasemi, Fayez, Moon, Gurian, Montalto
- **Committee on Performance Measures for the Highway Infrastructure System:**
Aktan, Maher, Yen, Ghasemi, Gucunski, Madanat, Womack, Lowdermilk, Celik, Aktan, H., Moon, Gurian, Montalto, Brown, Bemanian, Halling, Chen, Feltrin