



Optimal Management of Systems of Structures

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Abstract

Obtaining a technical and economic/financial optimum for Maintenance, Repair and Rehabilitation (MRR) strategy for city and highway facilities requires a comprehensive life cycle description of all network objects. System for Optimal Management (SOM) developed by AGA Group, Inc. in 2003–2006 links said description to a location, characteristics of transport infrastructure, operation and repair traditions and technologies. At present, SOM-AGA is being successfully implemented in the capital of Russia (Moscow) and facilitates whole business process of network inventory formation, inspection, forecasting and MRR-planning.

Unlike known products, SOM is an all-purpose technology system, which provides service for virtually any object of the urban and transport infrastructure, including bridges, tunnels, drainage lines, sewerage and roads. SOM suggests many special service functionalities, including but not limited by detail forecast of structure deterioration, developing of inspection schemes and sketches, data storing and processing.

SOM objectives are attained on the basis of expandable standardized descriptions of structural elements and adjustable deterioration models for them. SOM unique, first time developed features, like automated quality assurance of inspection results and flexible MRR-modeling process, significantly decrease labor consuming and cost of structures' management.

Biography

Research work focuses on broad theoretical and applied aspects of system engineering. Specific areas include: Bridge & other transportation structures management; Intelligent Transportation systems; Equipment management and operation optimisation.

Education:

1979	Dipl. Engineer	University for Automobile and Road Construction, Russia
1986	Ph.D. (Candidate of Science)	Skochinsky Mining Institute, Russia
2006	Doctor of Science	Moscow State Mining University, Russia

Publications: 76 publications and patents *Web site:* <http://www.againc.net/en/home>

Info

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