

COLLABORATIVE RESEARCH CENTER 837

INTERACTION MODELING IN MECHANIZED TUNNELING

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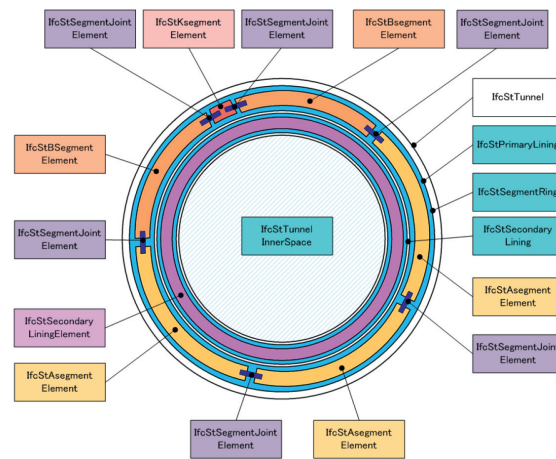
Guest lecture on Modeling of Tunnels for Construction and Maintenance

Prof. Nobuyoshi Yabuki

Osaka University, Japan

In this talk, first, a product model of shield tunnels, called IFC-ShieldTunnel, which was developed several years ago by us in Japan, will be presented by putting emphasis on conceptualization of shield tunnels, geometric modeling of soil layers, and implementation and visualization of instance files. Next, a product model for representing cut & cover tunnels will be presented. The motivation of modeling cut & cover tunnels is not just visualization and compatibility to various 3D CAD systems but for modeling and representing changes of constructed structures with the process model like 4D models. Finally, our on-going research on modeling degradation of reinforce concrete (RC) entities will be briefly introduced.

02.11.2011 – 10:00 h – IA 5/56



IFC Shield Tunnel Product Model

Prof. Yabuki is a full Professor in the Division of Sustainable Energy and Environmental Engineering, Osaka University. He obtained his Ph.D. and M.S. in Civil Engineering at Stanford University and B.E. at the University of Tokyo. His research interests include applications of VR and AR, 3D laser scanning, BIM, product models, data mining, sensors, GPS, etc. to civil engineering. He is currently the Chair of the Committee on Applied Computing in Civil Engineering in Japan Society of Civil Engineers.

Guests are sincerely welcome!