Applying BIM in tunnelling

Karavanke tunnel, is an 8 km long, single tube, bidirectional motorway tunnel connecting Austria and Slovenia. It is a trans-alpine tunnel with an overburden as high as 1,000 m in squeezing ground conditions with recorded displacements of over 1 m. Beside the new tunnel, the project itself consists of the approach highway including several structures (bridges, retaining structures, etc.), transport roads as well as disposal areas.

Building on past experience and developed processes, the iC Consulting team were confident that the Karavanke tunnel with all its complexity would be a perfect BIM pilot project for Austrian Highway Authority (ASFINAG) on the Austrian side of the tunnel and Slovenian Highway Authority (DARS) – on the Slovenian side.

The goal of the BIM pilot project was the systematic implementation of BIM methodology to the road tunnel project, and exploration of the benefits and challenges throughout planning, executing and controlling the BIM related activities (Creation of Employers Information Requirements and BIM execution plan, 3D, 4D and 5D modelling, model-based quality control, geological modelling and usage of models in operational phase (CAFM – Computer Aided Facility Management).

The presentation will summarise the challenges and benefits of implementing BIM methodology in Pre-contracts stage, during Cost Estimation as well as managing Delivery of this typical long NATM tunnel.

Technical Session – Tuesday, 22nd August 2017

5:30pm – 6:00pm Assembly, light refreshments
6:00pm – 7:00pm Presentation
7:00pm – 7:30pm Questions, Discussion

Venue: University of Technology Sydney
Building 11 - Level 0 - Room 100
83-117 Broadway, Ultimo, NSW

Cost: EA and ATS Members – Complimentary
Non-Members: - $30

MARKO ŽIBERT – HEAD OF TUNNELLING & GEOTECHNICS, ELEA IC
Practicing tunnelling engineer, researcher and geotechnical engineering professional with more than 15 years of experience on large infrastructure projects at home and abroad. Actively involved in developing innovative use of 3D geological, geotechnical and BIM modelling tools as well as development of risk assessment methods for various infrastructure applications. Currently he is heading a group of young tunnelling, geotechnical and geological experts actively involved on numerous projects around most European countries, Turkey and Middle East. He is keen to work with professionals from different engineering fields transferring the knowledge to tunnelling industry. He is a partner at Elea iC, part of iC group of companies, a multiengineering global firm supporting public & private clients as well as contractors on projects on all continents. iC experts in digital engineering are heavily involved in standardizing bodies such as Open BIM society and ITA WG 22 on information modelling in tunnelling as well they are in developing teams of several software developers.

MARTIN LAH, B.SC.C.E. (HEAD OF BIM IMPLEMENTATION, iC CONSULENTE)
Civil engineering professional wit 10 years of experience in implementation of BIM methodology. He started his career as a BIM Facilitator at a general contracting company, where he was developing and implementing re-engineering processes in order to increase quality, reduce costs and shorten the execution time of construction projects. In 2011 he continued his professional work at BIM Consulting company as a Head of projects where he was developing, planning, executing, controlling and coordinating BIM consulting services that were implemented to construction companies and investment projects in order to assure clients best value for money throughout the lifecycle of the investment projects. He joined the iC consulente in 2015 where he is responsible for organizational BIM implementation.

Please register via this link: http://www.cvent.com/d/m5qrb3/4W

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