NINTH INTERNATIONAL CON ON URBAN DRAINAGE MODE

UDM-2012, BELGRADE, SERBIA, 3-6 SEPTEMBER 2012

BY DUŠAN PRODANOVIĆ



UDM-2012 was the ninth in the series of highly successful Urban Drainage Modelling conferences. It was organized by the University of Belgrade, Faculty of Civil Engineering as a tribute to retirement of Professor Čedo Maksimović, the co-founder and the spiritus movens of the whole UDM conference series. Total of 252 participants from 34 countries attended UDM-2012 and four pre-conference workshops.

Modelling of urban drainage systems emerged in the 1970s, following the advent of computers. It started with rather humble efforts to model surface runoff and flow in sewer systems. The rise in computing power and measurement equipment provided a fertile ground for the development of a range of advanced methodologies for the design, observation, analysis, optimization and management of sewer systems. Today, urban drainage modelling is a mature scientific and technical discipline that looks at interactions between various urban water systems and the urban environment. With the challenges presented by climate change, the ever growing urban population, and limited natural resources, and the opportunities provided by research investments, it is no surprise that urban drainage modelling is in its golden age.

The first UDM conference was organized by Professor Čedo Maksimović and the late Professor Miodrag Radojković from the University of Belgrade in 1986. Since then, the conferences have been organized on four continents (twice in Dubrovnik, Russia, UK, USA, Germany, Australia and Japan), with Prof. Čedo Maksimović being the spiritus movens of the whole series. The UDM-2012 held in Belgrade, from 3 to 6 September 2012, was ninth conference in the series, organized by Joint IAHR/IWA Committee on Urban Drainage (JCUD). Former co-workers of Prof. Maksimović, all members of the Local Organizing Committee, were also paying him a tribute with this conference at the moment when he has reached the retirement age.

The UDM-2012 conference has gathered 252 urban drainage specialists, with 169 papers peer reviewed and selected by the International Scientific Committee out of 290 submitted abstracts. The four internationally recognized keynote speakers gave the exceptional keynote lectures establishing the scene of urban drainage in forthcoming future:

- Tony Wong (Australia): Emerging trends in modelling integrated urban water systems
- David Khan (Bangladesh): Historical development of hydroinformatics tools in Bangladesh and challenges and state-of-the-art in urban drainage modelling
- Jörg Rieckermann (Switzerland) "If you can't measure it, you can't manage it" – Intelligent sewer operation requires better information
- Wolfgang Rauch (Austria): Modelling transitions in urban drainage management

Short lecture abstracts, together with biographies, could be found at: http://hikom.grf.bg.ac.rs/9UDM/KeynoteLectures.html

A total of 138 papers selected for oral presentation were presented in three parallel sessions. Additional 31 papers were presented as posters in two poster sessions. Main topics at the Conference were: Data issues, Modelling,

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Applications, Management and Special topics. Since most authors allowed us to publish their presentations, you can find them, together with short abstract, on the website: http://hikom.grf.bg.ac.rs/9UDM/AllSubmissions.html

During the UDM-2012, four successful all-day pre-conference workshops were organized:

1. Towards more Flood Resilient Cities – joining practitioners and researchers to discuss possible ways to increase flood resilience of cities and urban areas.
2. MicroPollutants in sewer and drainage systems – with two sessions: metrology and monitoring, and data sets at international level.
3. DHI software for urban water modelling seminar – attended by designers and urban sewer system operators.
4. Integrated UDM system modelling with XPSWMM – workshop supported by the Serbian Chamber of Engineers with more than 50 participants.

More details about workshops could be found at http://hikom.grf.bg.ac.rs/9UDM/Workshops.html

The UDM-2012 conference will be memorable for the excellent venue, great organization, the informal relaxing atmosphere so conducive to discussion, and the stimulating cultural and social events. Many long-lasting partnerships and friendships were built during the Conference, and captured by camera: http://hikom.grf.bg.ac.rs/9UDM/PhotoGallery.html. The next UDM will be organized by Université Laval, Quebec, Canada in September 2015 (udm2015@modeleau.org).



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Proceedings

Papers presented at UDM-2012 are available

- in paper, as the two-page extended abstracts: URBAN DRAINAGE MODELLING, Proceedings of the Ninth International Conference on Urban Drainage Modelling, Belgrade, Serbia, 4-6 September 2012, ISBN 978-86-7518-155-2, soft cover.
- in e-version with full papers: Urban Drainage Modelling, Proceedings of the Ninth International Conference on Urban Drainage Modelling, Belgrade, Serbia, 4-6 September 2012, ISBN 978-86-7518-156-9.



Gala dinner – Prof. Maksimovi


Gala dinner – Traditional welcome with bread and salt



Best conference paper award (Gregor Burger, Austria)

With this issue Hydrolink inaugurates a new column updating news of past topics wich have been covered by our magazine in previous articles. Particularly, in this issue a follow-up report on the 2011 tsunami disaster in Japan is published. As our readers will remember the tragic event was related by Prof. Hitoshi Tanaka (Tohoku University, Japan, and Chairman of Asia Pacific Division of IAHR) in Issue 3 of the year 2011 of Hydrolinkwhich included an editorial entitled “Could David overpower Goliath (again)?” From the updating news it seems that even if it is an arduous fight we could have many successes.

Michele Mossa, Editor

FOLLOW-UP REPORT ON THE 2011 TSUNAMI DISASTER IN JAPAN

BY HITOSHI TANAKA

Almost two years have passed since the devastating tsunami disaster in 2011. In order to prevent future tsunami disasters, reconstruction of sea dyke is ongoing in many places in Japan (Fig.1). It is demonstrated during the 2011 tsunami that structural measures alone are not sufficient to prevent such huge tsunami disasters. During the course of designing of coastal structures, height of historical tsunami has been investigated, including the 869 Jogan Tsunami which caused flooding and resultant sediment deposits on the Sendai Plane. They are classified into two levels: Level 1 with relatively higher possibility of occurrence around 100 years, and Level 2 with extremely lower possibility but causes devastating disaster (Fig.2). Coastal structures are designed to secure safety against Level 1 tsunami, whereas against Level 2 tsunami, multiple defense approach should be employed by combining structural and nonstructural measures. Due to the extreme height of the incoming tsunami waves during the 2011 tsunami, they propagated to upstream rivers with massive force, causing damages to various hydraulic facilities for operation and maintenance along the rivers. Hence upstream area will be defended either by elevating the existing river embankment or by constructing a floodgate at a river entrance.



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Fig. 1 Reconstruction of sea dyke along the Sendai Coast (Jan. 31, 2013. courtesy of Sendai Office of River and National Highway)

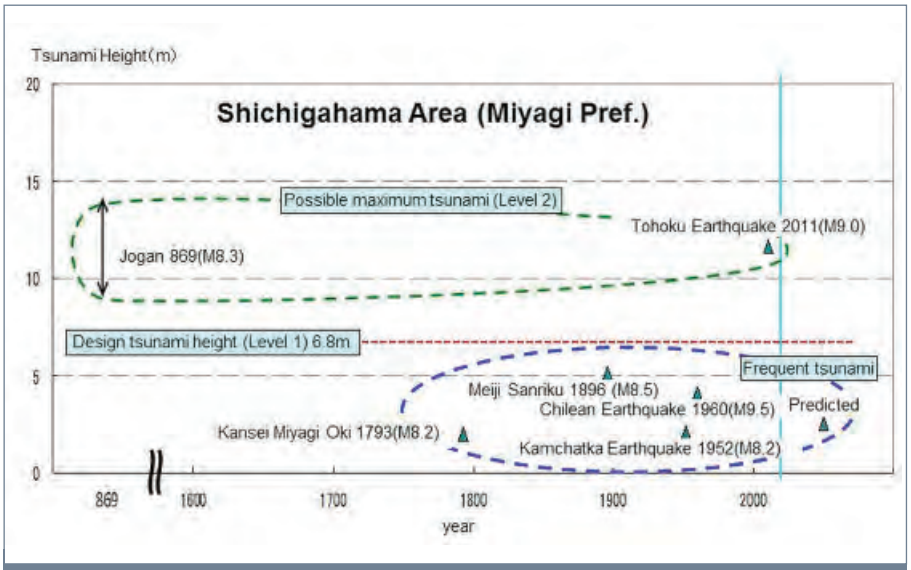

Fig. 2 Classification of past tsunamis into two levels (courtesy of Miyagi Prefectural Government)