



IAHR/IWA JOINT SPECIALIST GROUP ON URBAN DRAINAGE NEWSLETTER 32

Once per year IWA/IAHR Joint Committee on urban drainage publishes a newsletter to inform the community about recent and upcoming activities, events, conferences and publications of in urban drainage.

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CHAIRMAN'S THOUGHTS



In 1981, the IWA / IAHR Joint Committee on Urban Drainage (JCUD) was established as a joint committee of the Specialist Group on Urban Drainage (SGUD) of the International Water Association (IWA) and the Technical Section on Urban Drainage within the Technical Division II “Applied Hydraulics” of the International Association on Hydraulic Engineering and Research (IAHR). This joint oversight has been established to emphasize and promote effective interactions between experts on hydraulic aspects (main focus of IAHR) and on water quality aspects (main focus of IWA). Nearly 4 decades later, we can conclude that this marriage has been very successful, as knowledge on both hydraulics and water quality in urban drainage has developed strongly.

However, we can also conclude that the traditional focus on urban drainage, in terms of urban stormwater and wastewater infrastructures, is reaching its limits. Urban drainage is typically seen as the ‘20th century solution’ for stormwater and wastewater management, and the creativity to come with new terms (SUDS, LID, sponge city, nature based solutions, WSUD, blue-green systems...), or with terms that only say what it’s not (such as the new IWA Specialist Group on Non-Sewered Sanitation) is tremendous, irrespective the real novelty of the concepts. Consequently, new people to the field, such as MSc and PhD students, may easily get confused and may start thinking that thinking blue-green is enough.

Clearly, thinking in only two colors is not enough. Climate change, budget issues, risk management and circularity currently all put pressure on the development of urban drainage systems. Unfortunately, these pressures do not point in the same direction. Budget constraints and risk management force the urban drainage field towards asset management of urban water infrastructures with a focus on balancing costs, risks and performance. This requires further development of inspection techniques and life expectancy models. Climate change, including too much or too little water, as well as livability aspects, forces the urban drainage field to extend the focus from grey (piped infrastructures) to include blue (water), green (planted areas), brown (soil, subsurface), more grey (roads) and red (buildings), implying the need to involve urban planners, architects, road engineers and more to make sure that all aspects are covered adequately. Finally, sustainability and circularity manifests itself in the transformation of wastewater treatment plants to resource recovery plants and even stronger in the ‘novel’ sanitation field (where ‘novel’ sometimes has more to do with a lack of historical reflection than with the concepts, such as with the application of vacuum sewers 100 years after the demolition of the Liernur vacuum systems).

As such, the dimensionality of the urban drainage issues has increased dramatically. Despite this, it is extremely important to further develop the key quality of our field, which is to integrate new concepts and knowledge into urban drainage practice and science. This means for our community that it needs to be enriched by contacts with other groups that operate on the boundaries of our fields, to bridge the gaps where necessary and beneficial and to actively share the new findings within the JCUD community. In other words: the challenge for our field is to embrace diversity, while enhancing integrality.

The JCUD tries to relate closer to other (IWA/IAHR) groups, while at the same time maintaining and stimulating the ‘internal’ JCUD and WG contacts. It’s this challenge that I am happy to share with the Joint Committee members and hopefully the readers of this newsletter.

Thanks,

Jeroen Langeveld

Chair of Joint Committee on Urban Drainage

General JCUD information. The Joint Committee on Urban Drainage (JCUD) is an active Specialist Group working under both IWA and IAHR. It has, at present time, 12 voting members, each offering different global perspectives on urban drainage. The JCUD organises, once every three years, the International Conference on Urban Drainage (e.g. 2014: Malaysia, 2017: Czech Republic, 2020: Australia). Furthermore, the JCUD oversees various working groups, many of which organise its own three-yearly conference (e.g. Sewer Processes and Networks; Urban Drainage Modelling etc.). Everyone is most welcome to get engaged in the activities of the JCUD and its working groups. The JCUD attempts to stimulate contacts, exchange and discussion, e.g. by this newsletter (published annually) and by the "urban-drainage" email discussion list (see other call-out box below).

Roles and responsibilities. The committee is structured so that the load among the committee is equally weighted and to ensure that our wider members know exactly whom to contact to seek further information about the specific aspects of the JCUD's activities. To that end, please find a list below of the assigned roles and responsibilities for the JCUD committee members:

- Chair: Jeroen Langeveld
- Secretary: David McCarthy
- Treasurer: James Lenhart
- Poul Harremoës Award: Tone Merete Muthanna
- Newsletter: Manfred Kleidorfer
- Webmaster: Morten Borup
- IWA connect manager: Haifeng Jia
- IWA Specialist Group linking: Karine Borne
- IAHR connector: Juan Pablo Rodríguez Sánchez
- Young Water Professionals relation officer: Takashi Sakakibara
- Working groups coordinator: Lian Lundy
- Event coordinator: Vojtech Bareš

How to contact us? Should you have any questions about or any suggestions for the JCUD, please do not hesitate to get in contact with me or with any of the JCUD members (see list on first pages, which includes email addresses for each member). It is our desire to facilitate urban-drainage related work in order to contribute to solutions of one of the pressing needs of this world.

Urban drainage email discussion list. The urban drainage email discussion list has been set up in 1998 by David Butler and Manfred Schütze (now managed by Dr Schütze). It is an easy method of getting in touch with urban-drainage researchers and practitioners worldwide (365 members currently). To use the discussion group, you first need to subscribe (to do this, simply email listserv@jiscmail.ac.uk with your first and last name and the text "subscribe urban-drainage"). To send a message to the list, simply insert urban-drainage@jiscmail.ac.uk in your "To:" box and the email will be sent to all members, worldwide. Please do not use for commercial purposes. If you would like more information, visit www.jiscmail.ac.uk/urban-drainage.

Committee Newsletter. This annual newsletter is published to serve the international urban drainage community and meet the requirements of our parent organisations. The main purpose of the newsletter is to facilitate communications and interactions among specialists in our field, rather than to present detailed information. The most recent, and previous, newsletter(s) can be found on our website <http://www.jcud.org>. Both IWA and IAHR now distribute newsletters only electronically, and we share our newsletter on the IWA [JCUD Group on IWA Connect](#) and on the [IAHR website](#). We also distribute the Newsletter to more than 1,200 colleagues on our JCUD mailing list, which is based on the IWA and IAHR memberships, and participation in ICUD and NOVATECH conferences. Please share your electronic newsletter copy (or the link to our website) with colleagues, or refer them to the IAHR, IWA Connect and JCUD websites. Your comments on this

newsletter issue and contributions to future newsletters are most welcome (please contact Manfred.Kleidorfer@uibk.ac.at).

Young Water Professionals (YWPs) to join the JCUD. The JCUD have approved the idea of having YWP co-members to join the group, to work alongside the other committee members, gain experience and provide and execute new ideas. Up to 12 new positions will be advertised shortly. If you are interested in such a position, we invite you to contact our Young Water Professionals relation officer Takashi Sakakibara (tk-sakakibara@intl.yachiyo-eng.co.jp).

Joint Committee Activities. The 2018 annual Committee meeting was held during the Urban Drainage Modelling Conference in Palermo, Italy, 23rd September, 2018. The JCUD has also now instigated virtual meetings, of which they have three to four per year. The highlights of the minutes of these meetings follow.

- **Thanks to our out-going members.** Thanks goes to Annette Semadeni-Davies, Patrizia Piro, Kevin Winter and Karsten Arnbjerg-Nielsen, who finished their term(s) with the JCUD at the end of the UDM conference in 2018. These members have all served on the committee for a number of years, and have dedicated countless hours to the service of the JCUD community. Both Patrizia and Karsten dedicated six years with the committee.
- **Extension of JCUD membership.** The extension of Tone Muthanna's and Lian Lundy's memberships were approved by the committee. The JCUD look forward to the continued support from both Tone and Lian.
- **Welcome to our newest members.** The JCUD warmly welcomes three new members to the team, serving for three initial years from September 2018: Karine Borne (France), Jim Lenhart (USA), and Morten Borup (Denmark). The JCUD are excited to have these new members on board! If you are interested in becoming a member, please see point 5.
- **Working groups.** During our meetings, we heard from many, but not all of the working groups. Those that are not active are encouraged to regain momentum. The JCUD have the following working groups: Data and Models, RTCUDS, SS&PWG, SOCOMA, IGUR, Cold Climate, WUSD, USWH and Metrology. There is a new group on asset management called Working Group on Urban Drainage Asset Management (UDAM), see Section 10. See Section 6 for detailed reports (where available) and Section 12 for contact details for each group.
- **Reports on conferences.** UDM 2018, Palermo, Italy. Giorgio Mannina reported there were 300 participants and guests, from over 40 countries. Prior to the conference, there were 5 workshops. Sincere gratitude to Giorgio Mannina and his team for the time they spent making the UDM2018 a HUGE success. NOVATECH 2019 – the dates were set – 2-5 July, 2019. A call for papers will be issued in May 2018. SPN 19 in Aalborg, Denmark. IWA World Water Congress & Exhibition 2020 will be held in Copenhagen; more than 100 abstracts and 10 workshop proposals have already been received. ICUD-2020, September 6th-11th, Melbourne, first announcement will be made at Novatech 2019. Congratulations to the USA team (led by Elizabeth Fassman-Beck and Scott Struck) for winning the bid for our next UDM, to be held in Hoboken, USA, 2021.
- **Awards given at UDM-2018.** The Conference Scientific committee recognized outstanding achievements of three young participants by bestowing the "Best young paper award". The winners awarded are: 1st Santiago Sandoval (INSA, Lyon – France); 2nd Behzad Jamali (Monash University – Australia); 3rd Antonio Manuel Moreno – Rodenas (TUDelft – The Netherlands). Congratulations to them all!
- **Future meetings.** Online each quarter, and yearly in person: 2019 – in conjunction with the Novatech conference in Lyon, France; 2020 – in Melbourne, Australia, in conjunction with the 15th ICUD; 2021 – in conjunction with the next UDM conference in Hoboken, USA.

Take care,

David McCarthy,

JCUD secretary

CALL FOR PROPOSALS TO ORGANISE THE 16TH INTERNATIONAL CONFERENCE ON URBAN DRAINAGE IN 2023

The Joint Committee on Urban drainage of IAHR and IWA is inviting the interested parties to submit proposals to host the 16th International Conference on Urban Drainage in 2023. This conference will build on success of the previous conferences in this series, which were held in Southampton (UK, 1978), Urbana-Champaign (USA, 1981), Gothenburg (Sweden, 1984), Lausanne (Switzerland, 1987), Osaka (Japan, 1990), Niagara Falls (Canada, 1993), Hannover (Germany, 1996), Sydney (Australia, 1999), Portland (USA, 2002), Copenhagen (Denmark, 2005), Edinburgh (UK, 2008), Porto Alegre (Brazil, 2011), Kuching (Sarawak, Malaysia, 2014), Prague (Czech Republic, 2017). The 15th conference is scheduled to be held in Melbourne (Australia) in 2020.

The ICUD conference aims to present the latest advances and innovative approaches in fundamental and applied research on urban drainage, taking into account meteorological, hydrological, hydraulic, water quality and socio-economic aspects worldwide. Among its specific interests are urban water quality, sewer sediments, source control, storm water management, combined sewer overflows, drainage in cold and alpine climates, real time control of urban drainage systems and the data and models related to urban water. The ICUD strives to maintain its long-standing broad international recognition as a prominent platform for the advancement of scientific knowledge in the field of urban drainage. It considers its activities in the wider context of urban water systems, with the ambition of developing and promoting a sustainable and integrated urban water management.

The proposal format is fairly flexible, but it is a good practice to include the following information:

1. Conference title (sub-themes), location, dates and duration

Dates can be indicative. The code of practice is to organize ICUD conference from the very end of August until the mid of September. It should be guaranteed that the selected conference venue is available and pre-booked for proposed dates.

2. Proponent team

The proponent team should preferably consist of wider UD community within the country/region including relevant universities, research institutes and/or other stakeholders. Specify the conference chair and co-chairs including their affiliations and short description of their professional profile. It should be clearly stated which organization is the main conference guarantor ultimately responsible for the event, including financing issues. The ICUD expect also the description how the team will be connected to the Joint Committee including the reporting during the preparation phase etc.

3. Motivation of the proponent team to organize ICUD conference.

An important paragraph showing the will, the motivation and the capability of the proponent team to organize the high quality event.

4. Conference organization and management (Local Organization Committee, Program committee, International scientific committee).

The description of both the technical organization and scientific program management. The final list of committee members is not necessarily expected at this stage. The proponent team should provide the insight into the management structure, the particular responsibilities, the procedure of selection and nomination into the committees. The scientific committees structure should take into the account the range of conference topics and also geographical, gender and age distribution of the members.

5. Proposed conference program and format

The specification of preliminary conference program including the list/number of keynote lectures, parallel sessions, special sessions, workshops, technical exhibition, technical tours. The proponents are asked to specify the duration of the event, to specify the presentation formats including the format of poster sessions. It is also welcome to provide novel ideas and formats within the conference program

6. Poul Harremoës Award competition and Mid-Career and Career Achievement Awards
All the awards have to be organized in close cooperation with the JCUD. The proponent has to provide to the awards the publicity and the relevant time slots within the conference program. The proponent has to also cover the cost for participation (conference fee, accommodation, travel) of the PHA winner from previous ICUD2020 and should provide free registration to three PHA finalist in 2023.

7. Selection of contributions (abstract/paper review) and publishing of papers/proceedings
The proponent should describe the submission procedure and evaluation phase including the preliminary dates. It should be also presented in which form the contributions will be published (including the copyrights) and if the organizers will plan/offer the postconference publishing of selected papers in peer-review journals.

8. Conference venue (meeting rooms)
The ICUD conference usually attracts 500-700+ participants. This should be taken into account when choosing the appropriate conference venue with one plenary hall and other 5-6 meeting rooms for parallel sessions.

9. Accommodation (with approximate 2019 pricing)
The list of accommodation capacities in the city in the near vicinity of the venue in the whole range of price levels. Indication of low budget accommodation for students is welcome.

10. Financial issues (budget, registration fees – discounts for IAHR and IWA members, potential sponsors or supporting authorities – documented by letters of support, if and where applicable)
The preliminary budget should provide the insight into expected incomes (fees, sponsors, local authorities) and realistic outcomes structured into the main categories such as venue rentals, catering, social program, labour costs etc.

11. Social program and post-conference tours;
Show why to come to your city and country.

12. Any other points you may consider important.

Mandatory requirements

The proposals (in English) must be submitted electronically in PDF or Microsoft Word (2003 version or later) format, and the size of the file should not exceed 7 MB; the proposal layout should not exceed 20 pages, using 12 point font. The proposals must reach the Joint Committee Secretary David McCarthy (david.mccarthy@monash.edu) by May 15, 2019. The Joint Committee will review the proposals in June 2019 and notify all proponents of its decision after the JCUD meeting being held in Lyon, France July 1-5, 2019.

If you require any clarification of the proposal specifications, please contact Vojtěch Bareš (vojtech.bares@cvut.cz).

JCUD MANAGEMENT COMMITTEE: Call for NEW member nominations

The Management Committee of the IWA/IAHR Joint Committee on Urban Drainage (JCUD) will have two vacancies later this year and is looking for possible replacements as a part of continuous revitalization of the Committee. Details follow below.

Job description: all members operate in their own way and contribute accordingly. Typical contributions include proposing to organize workshops/conferences and training courses (usually in collaboration with our working groups), organizing or contributing to publications (monographs, or journal review papers), contributing news from their country or region to the Committee's annual newsletter, participating in email discussions, attending JC meetings held annually in conjunction with drainage conferences, and promoting JC activities and visibility in general.

Qualifications: we are looking for colleagues actively involved in any aspect and sector of urban drainage. However, perhaps the most important qualification is having some time to devote to the committee activities and personal initiative in proposing and implementing new activities. One reason why our Committee has been successful in its more than 35 years of operation is our ability to attract highly motivated members to serve on the Committee. The elected candidates must be (or become, within one month of being elected) members of one of the parental organizations (IAHR or IWA), and our statutes allow only one member per country; if your country is already represented on the committee, you may have to wait till there is a vacancy, or even better, simply join in the meantime one of our working groups and start contributing to our efforts that way. The information on Joint Committee and the current membership can be found on our website: www.jcud.org.

Application procedure: you can either nominate yourself for JCUD membership, or you can nominate another person (ideally after establishing their willingness to serve, otherwise this will have to be done by JCUD), and submit electronically the following two documents to the current JC Chairman, Dr Jeroen Langeveld (j.g.langeveld@tudelft.nl), copied to JC secretary Associate Professor David McCarthy (david.mccarthy@monash.edu): (a) A brief CV, and (b) a statement of activities you would like to contribute to the JC programme. Neither document must exceed one page, using a 10-point font or larger.

Deadline: June 23, 2019 The applications received will be distributed to the JCUD members for assessment and voting; the results will be announced sometimes after the JC meeting in Lyon

International Working Group on Data and Models (IWGDM)

Chairman: Prof. Manfred Kleidorfer, Unit for Environmental Engineering, University of Innsbruck, Technikerstrasse 13, 6020 Innsbruck, Austria, Phone: +43 512 507 62134, Fax +43 512 507 62199, E-mail: manfred.kleidorfer@uibk.ac.at

Secretary: Dr. João P. Leitão, Eawag: Swiss Federal Institute of Aquatic Science and Technology, Überlandstrasse, 133, 8600 Dübendorf, Switzerland. joaopaulo.leitao@eawag.ch

Young scientist representative: Ico Broekhuizen, PhD Student Urban Water Engineering, Luleå Tekniska Universitet, Sweden. icobro@ltu.se

Website: <https://sites.google.com/view/iwgdm/>

- In 2018 the Working Group on Data and Models organized the 11th International Conference on Urban Drainage Modelling 23-26 September, Palermo, Italy (Conference Chair: Giorgio Mannina) – see section 10 for a detailed description.
- Based on reviewer feedback and internal evaluation the Best Student Paper Award at UDM was awarded to Santiago Sandoval, Behzad Jamali is 2nd and Antonio M. Moreno Rodenas 3rd
- The group received two applications to organize the Urban Drainage Modelling Conference in 2021 , from
 - School of Environment, Tsinghua University, China (represented by Siyu Zeng)
 - Stevens Institute of Technology, USA (represented by Elizabeth Fassman Beck and Scott Struck)

A vote, which was open to all participants at UDM decided that the next UDM 2021 will be organized by Stevens Institute of Technology (42 vs 33 votes) in New York

- Inspired by the JCUD's idea to involve more young scientist, the group decided to have a third position next to chair and secretary for a young scientist (<35) who is involved in decisions and discussions. For the first time Ico Broekhuizen (Luleå Tekniska Universitet), who volunteered during UDM to help with the website is that person. The next time, most probably at UDM 2021 we will vote for this position. The main idea is to enable people to get deeper involved without asking for a full commitment for 6 years.
- The group thanks outgoing Chair Dr. David McCarthy for his work in the last years. The New chairman is Manfred Kleidorfer (Uni Innsbruck), new secretary Joao Paulo Leitao (EAWAG) and Young scientist representative: Ico Broekhuizen (Luleå Tekniska Universitet)
- The group plans to organize a workshop on "Benchmark of Urban Flood Models" at Novatech conference 2019 – more information will be announced at the Novatech website <https://www.novatech.graie.org>

The Real-Time Control of Urban Drainage Systems (RTCUDS) Working Group

Chairman: Chair: Assoc. Prof. Morten Borup, Technical University of Denmark, Denmark, morb@env.dtu.dk

Secretary: Job van der Werf, Delft University of Technology, the Netherlands

The RTCUDS group has a new chair and secretary. Initial activities will develop a new web page for the working group to act as a 'go-to place' for people looking for active and historical RTC projects around the world. The next focus will be to find more participants for the group

Sewer Systems and Processes Working Group (SS&PWG)

Chair: Dr. Jeroen Langeveld. Delft University of Technology, Stevinweg 1, 2628 CN Delft, the Netherlands. Phone: + 31 6 1897 6283, Email: j.g.langeveld@tudelft.nl

Vice-Chair/ Chair of next SPN conference: Prof. Jes Vollertsen, Department of Civil Engineering, Aalborg University, Thomas Manns Vej 23, DK-9220 Aalborg, Denmark, Phone: +45 99408504, E-mail: jv@civil.aau.dk

Secretary: Dr Asbjørn Haaning Nielsen, Department of Civil Engineering, Aalborg University, Thomas Manns Vej 23, DK-9220 Aalborg, Denmark, Phone: +45 9940 9817, E-mail: ahn@civil.aau.dk

Website: <http://www.sspwg.org>.

The activities of the SS&PWG group have focused around supporting preparation of the 9th International Conference on Sewer Processes and Networks (SPN9; <http://www.spn9.dk/>). This conference will be hosted by Aalborg University (Denmark) from August 27-30, 2019. Work on the 2nd version of the 'Solids in sewers' book is progressing.

International Working Group on Urban Rainfall (IGUR)

Chairman: Prof. Simon Beecham, Division of Information Technology Engineering and the Environment, University of South Australia, Room P1-22A, Bld P, Mawson Lakes Campus, Adelaide, Australia; Phone: +61 8 8302 3200; e-mail: simon.beecham@unisa.edu.au.

Secretary: Dr. Thomas Einfalt, hydro & meteo GmbH & Co. KG, Breite Strasse 6-8, D-23552 Lübeck, Germany; Phone: +49-451-7027333; Fax: +49-451-7027339; e-mail: einfalt@hydrometeo.de.

Website: <http://www.kuleuven.be/hydr/gurweb>

The International Group on Urban Rainfall (IGUR) organized a special session at the 13th Hydroinformatics Conference (13HIC) which was held in Palermo, Italy from 1-6th July 2018. The special session was titled Climate Change Impacts and Flood Forecasting in Urban Areas and it was held on Wednesday 4th July 2018. The papers attracted good audiences and interesting discussions that ran the sessions well over time (through lively discussion rather than poor time management). The presenters discussed both field and modelling studies conducted in a wide range of countries including Belgium, Eire, Germany, Canada, Russia, China and the UK. The papers covered topical subjects such as:

- the development of high resolution pluvial flood maps
- dynamic flood inundation forecasting, using offline two-dimensional hydrodynamic models
- the development of a spatio-temporal statistical downscaling approach to deriving extreme rainfall IDF relations at ungauged sites in the context of climate change
- evaluation and stochastic simulation of storm precipitation for city underground utilities under climate change conditions
- real-time nowcasting and monitoring, and
- hydro-energy capacity in urban drainage systems under climate change.

The IGUR, together with ETH Zürich, co-organised the 11th International Workshop on Precipitation in Urban Areas (UrbanRain18 - <http://www.urbanrain.ethz.ch/>) which took place in December 2018 in Pontresina, Switzerland. The workshops are held every three years in southern Switzerland and are organized by ETH Zurich. Three keynote lectures were held on the topics of

- Space-time precipitation patterns (Efrat Morin, Israel)
- Rainfall crowd sourcing (Marie-Claire ten Veldhuis, The Netherlands)
- Climate change impact analysis (Patrick Willems, Belgium)

Two topical workshops took place on: Rainfall from commercial microwave link networks (Martin Fencl, Czech Republic) and Ensemble precipitation nowcasting with pySTEPS (Loris Foresti, Switzerland). The workshop was very successful and led to numerous discussions on the core topics of radar data, nowcasting / forecasting, rainfall modelling and analysis,

microwave link data and climate change. With a participation of more than 70 persons from five continents, it was again a perfect size for fruitful talks. The topics, abstracts and some papers are available on the workshop website.

In the FloodCitiSense project, TU Delft are working on early warning services for extreme rainfall for urban water management (3 case cities: Birmingham, Brussels, Rotterdam). Included are citizen observatories and crowdsource information.

Kapil Gupta is reviewer of chapter 4 (sea level rise in coastal cities) of a special report by IPCC to be published in September 2019. Thomas Einfalt will be reviewer of a technical document or standard on radar data processing and quality assurance by WMO which will be extended to be a common WMO/ISO document. Other reviewers from IGUR are welcome. Li-Pen Wang will participate. Peter Steen Mikkelsen announced that the 2020 IWA World Water congress will be in Copenhagen. For this he invites everybody to contribute to practical congress items such as a radar workshop. IWA report on metrology: Jean-Luc Bertrand-Krajewski (INSA Lyon) and Francois Clemens (TU Delft) have launched the writing of a book on metrology. This includes chapters on rainfall (subchapters on rain gauges and radar by Patrick Willems and Thomas Einfalt), uncertainties and other aspects of measurement and its evaluation.

The last IGUR meeting took place at the UrbanRain18 in Pontresina. The IGUR website will be completely reorganised and should be available during 2019. The next IGUR meeting will be at 10th International Novatech Conference: L'Eau dans la Ville, Lyon, France: 1-5 July 2019. The most recent information related to IGUR activities as well as the meeting reports can be found on the group's website which is regularly updated, see www.kuleuven.be/hydr/gurweb.

International Working Group for Water Sensitive Urban Design (IWGWSUD)

Co-Chair: Assoc. Prof. Dr Megan Farrelly, School of Social Sciences, Monash Water for Liveability Centre, CRC Water Sensitive Cities; 20 Chancellors Walk, Monash University, Wellington Rd Clayton VIC 3800; Ph: +61 3 9905 4618, megan.farrelly@monash.edu

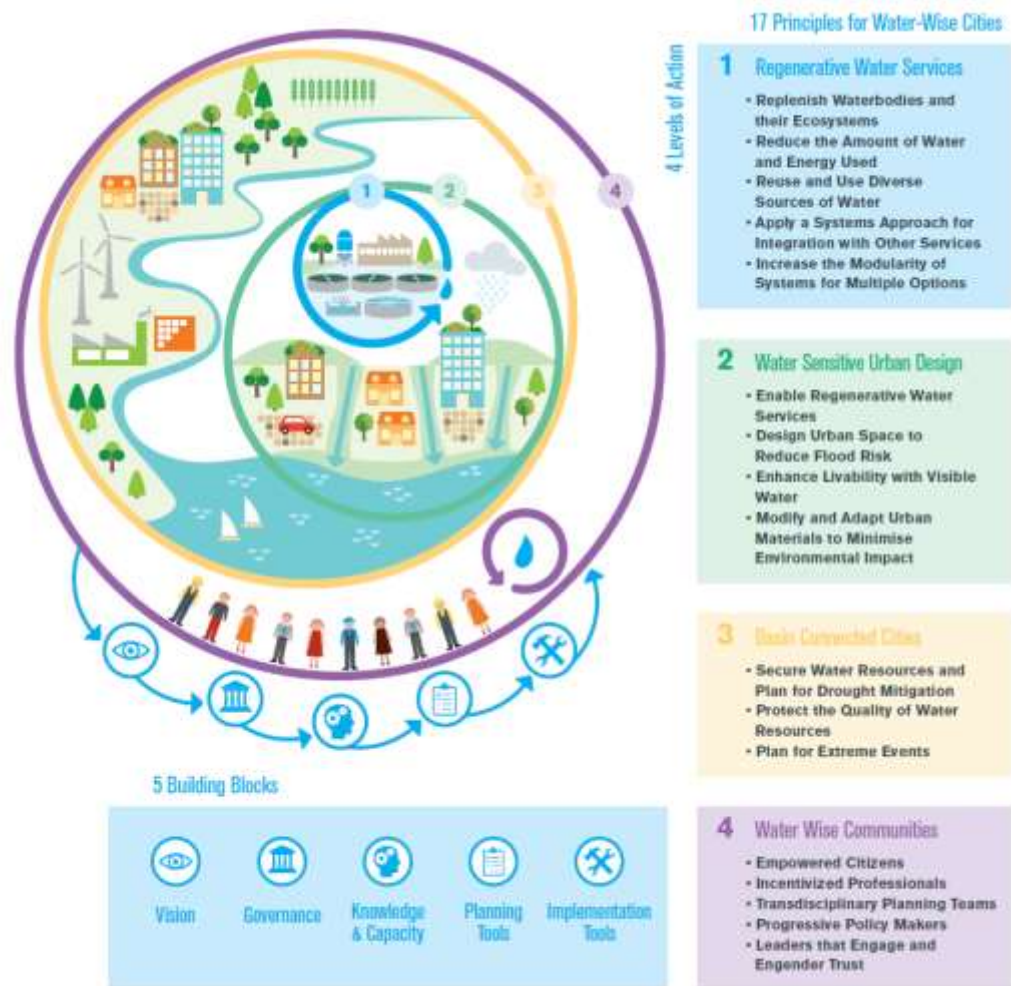
Co-Chair: Dr Briony Rogers, School of Social Sciences, Monash Water for Liveability Centre, CRC Water Sensitive Cities; 20 Chancellors Walk, Monash University, Wellington Rd Clayton VIC 3800; Ph: +61 3 9905 2581, briony.rogers@monash.edu

Secretary: Mr Charlie Stillwell, North Carolina State University, Biological and Agricultural Engineering, mstillwell.charles@gmail.com.

Over the course of 2018 the Working Group Chairs developed a number of strategies for increasing the profile and activity of the Working Group. Following on from our *WSUD –Where are we at?* Workshop in Prague (ICUD 2017), we have negotiated with the journal *Water* to prepare a Special Issue that will focus on [*Governance, Innovation and Water Sensitive Urban Design*](#). This special issue will make a call for papers shortly, in line with two other Special Issues focused on WSUD practices. We will be requesting to use a portion of our funding to cover the open access fees for two papers (approx. €1500/paper) which contributes perspectives and research from a developing country context. The final touches to advertisement flyers are being made and we anticipate the special issues will be announced shortly.

[Water Sensitive Urban Design](#): Convened by Prof. Richard Ashley and Mr Paul Shaffer

In a similar fashion, interdisciplinary WSUD practice will also be promoted through the new IWA Publishing journal *Blue-Green Systems*. A/Prof. Megan Farrelly was appointed to the Editorial Board in Sept 2018 and the journal is now receiving submissions – we encourage all relevant submissions!). Over the course of 2018 the Chairs worked to put into action the strategic priority of the group regarding raising the profile of WSUD – related developments and advancements, we have advanced our discussions with the team responsible for 'Cities of the Future' to improve strategic alignment and profile of WSUD practices – By way of explanation – the Cities of the Future have 17 principles grouped into sub-headings of which WSUD is #2 (See Figure Below). Given the 'Cities of the Future' program feature WSUD principles prominently, we are working with them to funnel emerging insights and practical examples in this space to continue to promote WSUD-related activities.



Source: *The Principles for Water-Wise Cities*. Produced by *Cities of the Future*. IWA Publishing.

ICUD 2020 Melbourne: co-Chairs have met with Conference Chair (David McCarthy) to discuss innovative conference design format that can promote greater engagement with the interdisciplinary nature of urban drainage and increase our relevance to industry. We will be designing two workshops (i) aimed at scholars specifically engaged in WSUD research and (ii) one that explicitly involves industry and academics together. Planning is underway for a series of workshops to be held during the ICUD2020. We anticipate using our funds to support attendance at the workshops/conference for an individual (PhD or ECR) from a developing country context. Following our conversations with A/Prof. McCarthy, the WSUD co-chairs will be involved in shaping:

- the format and design of parallel and keynote/plenary sessions
- assist in the framing of the “call for papers”
- develop guidance for session chairs to ensure they reflect on the presentations, but also engage with the impact and relevance of the presentations to a broader audience.

Our aim in undertaking this is to not lose sight of the need for technical streams, but rather have a greater reflection on the need for a more prominent profile for WSUD and its interdisciplinary core and (ii) engaging with alternative delivery formats at the conference that engage in sharing more practical experience insights (alongside research insights) to assist in advancing WSUD practices. The intent here is to elaborate on the ‘how’ – which is far too often missing from the practical application of the research insights.

Working Group on Urban Storm Water Harvesting (USWH)

Chair: Prof Alberto Campisano, Dept. Civil Engineering and Architecture, University of Catania, Viale A. Doria 6, 95125 Catania, ITALY; Phone: +39 0957382730, Fax: +39 0957382748, Email: acampisa@dica.unict.it
Secretary: Dr Matthew Burns, Melbourne School of Land & Environment, The University of Melbourne, Building 379, Parkville, Vic, 3010, Australia. E-mail: matthew.burns@unimelb.edu.au

This year the group has undertaken the following activities:

- The WG hosted a specialized workshop within the conferences SWWS2018 (IWA 15th Small Water and Wastewater Treatment systems & 7th Resource Oriented Sanitation held in Haifa (Israel) on 14-18 October 2018 (www.swws2018.org.il).
- Melbourne University is currently working with a local water authority on the design and implementation of the “Talking Tank Technology”. The idea is that stormwater harvesting systems can receive live rainfall forecasts and release water to the drainage system before the storm arrives. People interested can contact Matthew Burns at (matthew.burns@unimelb.edu.au).
- The group is starting to work together to summarise and compare relevant standards and guidelines from around the globe about domestic rainwater harvesting. People interested can contact Alberto Campisano at (alberto.campisano@unict.it).

Looking forwards, the following activities are planned:

- The WG is planning to host a specialized session on USWH during the next Novatech conference in Lyon. Interested people can contact Alberto Campisano (alberto.campisano@unict.it).
- The group have recently announced plans to co-edit a special edition in *Water* on "Urban Rainwater Harvesting Systems: Research and Future Perspectives".

Working Group on Metrology of Urban Drainage

Chair: Prof Francois H. L. R. Clemens, Delft University of Technology, Stevinweg 1, 2628 CN Delft, the Netherlands.
Phone: +31 15 278 5450, Email: F.H.L.R.Clemens@tudelft.nl

The first initiative of the WG on ‘Metrology in Urban Drainage’ is to draft an IWA publication entitled “Metrology in Urban Drainage: Plug & Pray”. This report aims at bringing together experience on monitoring in urban drainage for research and practical purposes alike. In this sense the report will address scientist as well as practitioners. Since summer 2017, more than 20 authors are working on this report that is scheduled to be presented to the drainage community during the 9th SPN conference in Aalborg (Denmark) this year. At the same conference the WG will have its first formal meeting; all are cordially invited to participate and bring in ideas for new initiatives. In 2015 and 2017 European Junior Scientist Workshops (EJSW) were organised on metrology with a further EJSW workshop to be held in May 2019 (15 participants so-far registered). The draft IWA report will be used in the workshop as course materials.

Working Group on Urban Drainage Asset Management (UDAM)

Chair: Nicolas Caradot, KWB Berlin, Email: nicolas.caradot@kompetenz-wasser.de
Vice-chair: Frédéric Cherqui, INSA Lyon/Melbourne University, Email: fcherqui@gmail.com
Secretary: Franz Tscheikner-Gratl, Norwegian University of Science and Technology

Website: <https://udam.home.blog>

Behind the acronym UDAM stands a new working group of the Joint Committee on Urban Drainage, whose goal is to give a platform to everyone working on Urban Drainage Asset Management. This working group formed the last year.

EURO-SAM: the roots of this working group are the series of European research workshops on Sewer Asset Management (EURO-SAM) in the last five years. These workshops aim to share recent research results and to facilitate collaboration between researchers. This network is organizing a free of charge workshop each year in June (Lyon, 2013; Berlin, 2014;

Amsterdam, 2015; Strasbourg, 2016; Innsbruck, 2018). The next workshop will be held in Delft, The Netherlands, in June 2019, hosted by TU Delft. More information here: <https://udam.home.blog/euro-sam>

Other activities: see 'News' section for more detailed information

Want to join? We invite you to register freely on our website to become a full member (<https://form.jotform.co/udam/join>), receive information on asset management events and exchange with the community.

Working Group on Urban Drainage in Cold Climates (UDCC WG)

Chair: Prof Maria Viklander, Lulea University of Technology, Maria.Viklander@ltu.se

Secretary: Assoc. Prof Tone Merete Muthanna, Norwegian University of Science and Technology, email: tone.muthanna@ntnu.no

Secretary: Prof Lian Lundy, Middlesex University, UK email: L.Lundy@mdx.ac.uk

After a quiet period, discussions within the group have focused on approaches to 'breathe new life' into the CC group. Agreed actions include:

- Refocus and rename the group: the current name of the group inadvertently suggests a limited relevance to countries outside of Sweden and Norway (not our intention). We plan to relaunch the group under the name 'Managing wet weather in cool and colder climates'
- Specifically target new members in other cool and colder climates (e.g. Scotland, Iceland, Finland, Russia, the USA and Canada)
- Include a specific focus on managing wetter winters forecast under climate change scenarios.

As a way to relaunch the group (both in terms of awareness of its broader scope and activities), we have committed to co-edit a special volume of the open-access journal 'Water' on stormwater management in cool and cold climates.

Working Group on Source Control for Stormwater Management (SOCOMA)

Chair: Gilles Rivard, Lasalle NHC inc., Canada, gilles.rivard@lasllenhc.com

Vice-Chair: Prof Sylvie Barraud, INSA Lyon, France, sylvie.barraud@insa-lyon.fr

Secretary: Prof. Tim Fletcher, University of Melbourne, Australia, tim.fletcher@unimelb.edu.au

SOCOMA's activities have focused on the development of collaborative paper on the following topic: Benefits and effectiveness of LID practices at the watershed scale. Co-authors from different countries were solicited during UDM 2018 to collaborate on this paper, with the objective of giving a state-of-practice review from different countries. A presentation of the paper is planned for Novatech in 2019 in Lyon. A technical Workshop at Novatech is also planned, on a topic yet to be defined.

NEWS FROM IAHR

IAHR Secretariat contacts: IAHR, Paseo Bajo Virgen del Puerto 3, 28005 Madrid, Spain; Tel: +34 91 335 7908; Fax: +34 91 335 7935; E-mail: iahr@iahr.org, URL <http://www.iahr.org>. For more information on IAHR activities and free subscription of the IAHR e-newsletter 'NewsFlash', please contact the IAHR Secretariat: IAHR@IAHR.org

The International Association for Hydro-Environment Engineering and Research (IAHR), founded in 1935, is a worldwide independent organisation of engineers and water specialists working in fields related to the hydro-environmental sciences and their practical application. Activities range from river and maritime hydraulics to water resources development and eco-hydraulics, through to ice engineering, hydro-informatics and continuing education and training. IAHR stimulates and promotes both research and its application, and by so doing strives to contribute to sustainable development, the optimisation of world water resources management and industrial flow processes. IAHR accomplishes its goals by a wide variety of member activities including: working groups, research agenda, congresses, specialty conferences, workshops and short courses; Journals, Monographs and Proceedings; by involvement in international programmes such as UNESCO, WMO, IDNDR, GWP, ICSU, and by co-operation with other water-related (inter)national organisations.

IAHR publishes **five international scientific journals** from its headquarters in Madrid, Spain and Beijing, China in collaboration with Taylor and Francis and Elsevier – the Journal of Hydraulic Research (which is more scientific), the Journal of River Basin Management, the Journal of Applied Water Engineering and Research (which more practice-oriented and is published jointly with the World Council of Civil Engineers), the Journal of Ecohydraulics (from 2016) and RIBAGUA - Revista Iberoamericana del Agua (from 2014). In addition the International Journal of Hydro-Environment Research (JHER) is published by the IAHR Asia Pacific Division in collaboration with the Korea Water Resources Association (KWRA) and Elsevier, and IAHR offers its members discounts for several other journals including the Journal of Hydroinformatics, Journal of Sediment Research and the Urban Water Journal.

IAHR publishes a quarterly magazine for its members called **HydroLink**, and a series of monthly NewsFlash e-Newsletters for the international water community.

IAHR is sponsoring **organization of many conferences** of potential interest to the urban drainage community; for full information, please visit their website www.iahr.org.

One of the most important activities is the bi-annual **IAHR World Congress**, which typically attracts between 800 and 1500 participants from around the World. Based on four main themes, the congress offers technical programmes, seminars, technical workshops, presentations, plenary sessions and social events alike, and the respected Ippen, Kennedy and Schoemaker Awards are presented. This congress is the place for the hydraulic engineering community to meet across borders and exchange experiences, seek advice and get inspired.

The 38th IAHR World Congress "Water: Connecting the World" will be held from 1-6 September 2019 in Panama City, Panama and is organized around 6 themes:

- Hydraulic Structures
- Ports and Coastal Engineering
- Water Management and Hydro-informatics
- Hydro-Environment
- River and Sediment Management
- Climate Change and Extreme Events

More information: <http://www.iahrworldcongress.org/>

NEWS FROM IWA HQ

[Gavà, first Spanish city to endorse the IWA Principles for Water-Wise Cities](#)

Gavà becomes the first city in Spain, and number thirty in the world, to take the first step to become a water-wise city. The signing of the Principles for Water-Wise Cities of the International Water Association (IWA) places Gavà...

[New IWA Governing Member in Sri Lanka](#)

The IWA network has expanded its reach and diversity with the addition of a new governing member in Sri Lanka, the country that will host the IWA Water and Development Congress 2019, from 1 to 5 December in Colombo. Joining IWA as...

[Launch of Water Efficiency Labelling report](#)

The UN High Level Panel on Water state “The replacement of inefficient taps, toilets, showerheads, washing machines, and dishwashers with more efficient models can have significant effects on water consumption in the home, reduc...

[IWA and IDB launch the digital platform “AquaRating Community of Practice”](#)

A digital platform with the purpose of promoting a transformation in the improvement of the management of companies in the water sector worldwide: AquaRating Community of Practice AquaRating, a systematized method of comprehensive... (*Español*)

[LET2019- The 16th IWA Leading Edge Conference on Water and Wastewater Technologies - Edinburgh/United Kingdom, 10 Jun-14 Jun 2019](#)

The IWA Leading Edge Conference on Water and Wastewater Technologies is designed to be the place where new ideas are introduced and the opportunity is provided to interact with the “best of the best”. [Call for papers open until 01 April 2019!](#)

[International Young Water Professionals Conference – Toronto, Canada, 23-27 June 2019](#)

IWA aims to empower young talent, like yourselves, to contribute to delivering the solutions for sustainable water management (IWA Vision). This conference is one of the vehicles in which we support young water professionals to develop themselves to be at the forefront of decision making. [Register today!](#)

[IWA Water and Development Congress & Exhibition 2019 – Colombo, Sri Lanka, 01 Dec-05 Dec 2019](#)

The development event for water professionals. Water is one of the most critical issues facing the world today. With developing and emerging economies confronted with some of the biggest water challenges they also represent some of the biggest opportunities to get our water future right. More information and deadlines [here](#).

[IWA to co-organise the Singapore International Water Week Water Convention until 2024](#)

The Water Convention has been a successful collaboration between IWA and SIWW to facilitate exchange and co-creation of innovative ideas between water industry experts, regulators, practitioners, researchers and academics to address global water challenges. [Read more...](#)

Selected books

Regenerative Sanitation: A New Paradigm For Sanitation 4.0

Thammarat Koottatep, Peter Emmanuel Cookey & Chongrak Polprasert

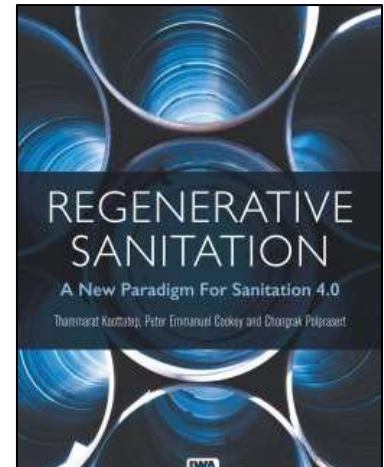
ISBN: 9781780409672

February 2019 • 350 pages • Paperback

IWA Members price: £ 74.00 / US\$ 111.00 / € 93.00

<https://www.iwapublishing.com/books/9781780409672/regenerative-sanitation-new-paradigm-sanitation-40>

This book proposes Regenerative Sanitation as the next era of sanitation management, seeing sanitation as a complex and dynamic system comprising of social-ecological, technological and resource systems. Maximal benefits to society rely on a cyclical integration of the three subsystems, linking ‘technological design’ and the ‘delivery platform’ to achieve optimal and sustained sani-solutions. It also looks towards more progressive trajectories such as resource recovery and reuse rather than just amelioration. It explores the contributions to food security, livelihood support, urban regeneration, rural development and even local economies.



The Roadmap to Low Carbon Urban Water Utilities: An International guide to the WaCCLiM approach

Simone Ballard, Jose Porro & Corinne Trommsdorff

ISBN: 9781780409917

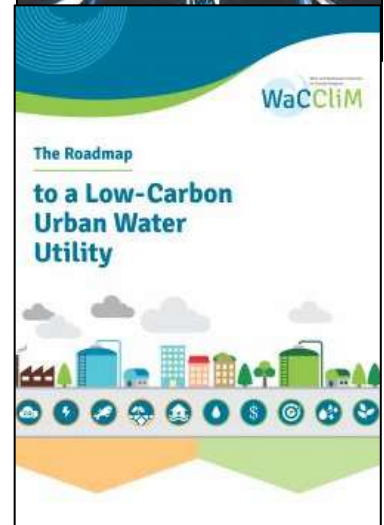
September 2018 • 52 pages • Paperback

IWA Members price: £ 11.00 / US\$ 17.00 / € 14.00

Also available as an **Open Access ePDF**

<https://www.iwapublishing.com/books/9781780409917/roadmap-low-carbon-urban-water-utilities-international-guide-wacclim-approach>

Because only a few “early adopters” utilities have embarked on transitioning to innovative low-carbon models, this roadmap intends to support others to understand and champion the need for contribution to a carbon neutral future and to guide them through the change. It is directed at urban water utility managers planning future actions, as well as at stakeholders who will support the utility action plans. It potentially applies to all utilities worldwide, but was specifically written for those in emerging economies where service performance and data management challenges are often prominent.



Selected journal papers

Adapting to urban flooding: a case of two cities in South Asia

(OPEN ACCESS)

Ismat Ara Pervin, Sheikh Mohammad Mahbubur Rahman, Mani Nepal, Abdul Kalam Enamul Haque, Humayun Karim, Ganesh Dhakal

Water Policy, Feb 2019

<https://doi.org/10.2166/wp.2019.174>

A stormwater user fee model for operations and maintenance in small cities

Fabiane Andressa Tasca, Alexandra Rodrigues Finotti, Roberto Fabris Goerl

Water Science & Technology, Jan 2019

<https://doi.org/10.2166/wst.2019.043>

Applicability of Preissmann box scheme for calculation of transcritical flow in pipes

Yanmei Wang, Chengcai Zhang, Zhansong Li, Bin Sun, Haolan Zhou

Water Supply, Jan 2019

<https://doi.org/10.2166/ws.2019.010>

Estimation of costs for monitoring urban water and wastewater networks

Marta Cabral, Dália Loureiro, Maria do Céu Almeida, Dídia Covas

Journal of Water Supply: Research and Technology – AQUA, Jan 2019

<https://doi.org/10.2166/aqua.2019.043>

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The 11th International Conference on Urban Drainage Modelling 23-26 September, Palermo, Italy

Background

The International Conference on Urban Drainage Modelling (UDM) deals with the main and advanced topics related to modelling the urban drainage system (e.g., water quality and quantity, urban flooding and modelling, urban flood forecasting and risk analysis, socio-economic interactions and modelling tools, etc...) by focusing the attention on the interrelationships among the entire water cycle, environment and society.

The International Conference on Urban Drainage Modelling (UDM) series started back in 1986 in Dubrovnik, former Yugoslavia. The second edition of UDM was organized in 1991 also in Dubrovnik. After the first two editions in Dubrovnik, the conference has travelled across the globe to the River Volga (1994), London (1998), Orlando (2001), Dresden (2004), Melbourne (2006), Tokyo (2009), Belgrade (2012) and Québec (2015). In 2018 the conference has been organized in Europe once again.

11th UDM2018

The 11th UDM was hosted by University of Palermo from 23-26 September 2018 – Palermo, Italy (Figure 1). The conference was organized by Palermo University and four outstanding scientific societies working in the water sector: the International Water Association (IWA), the International Association for Hydro-Environment Engineering and Research (IAHR), the Environmental and Water Resources Engineering | ASCE, the International Environmental Modelling and Software Society (iEMSs). Over 300 extended abstracts have been submitted. Each of them was assessed by at least three members of the scientific committee. Overall, 250 extended abstracts have been selected for presentation at the conference, with over 200 oral presentations and around 50 posters.



Figure 1: UDM2018 Official Logo

The conference hosted more than 300 participants coming from over 40 Countries. The core idea of the organizers was to create an outstanding forum for promoting the discussion amongst scientists, professionals and academia on urban drainage thus providing to women and men of the urban drainage field decisive ideas.

Placement of UDM conference in the local context

The core idea behind the organization of a such impressive conference was also to provide a networking among Palermo (with its history, monument, culture...), participants with their 40 countries and local decision makers. Therefore, a strategic location was used for the opening session: the Royal Palace which is the venue of the Sicilian Parliament. Furthermore, the main local, national and international authorities have been invited at the opening session: Prof. Roberto Lagalla (Regional Councilor for educational training; Delegate of the President of Sicilian Region), Prof. Lorenzo Fioramonti (Secretary of the Ministry of Education, Research and University), Prof. Leoluca Orlando (Major of the Town of Palermo), Prof. Fabrizio Micari (Rector of Palermo University), Prof. Maurizio Carta (President of the Polytechnic School - Palermo University), Prof. David McCarthy (Chair of the International Working Group on Data & Models -IWA), Prof. Jeroen Langeveld (Chair of the IWA/IAHR Joint Committee on Urban Drainage), (Figure 2).



Figure 2: Opening ceremony at The Royal Palace

Plenary lectures

The conference had nine main topics related to urban drainage (i.e., Drainage and impact mitigation; Frontiers in urban drainage; Receiving water quality; Rainfall in urban areas; Urban hydrologic and hydraulic processes; Tools, techniques and analysis in urban drainage modelling including real-time control; Modelling interactions and integrated systems; Transport and sewer processes including micropollutants and pathogens and Water management, society and climate change) and for each of them a keynote by a referral researcher was presented (Figure 3 and Figure 4).



Figure 3: From the left: Gustaf Olsson, Steven Chapra, Peter A. Vanrolleghem, Jean-Luc Bertrand-Krajewski, Anthony Jakeman and Giorgio Mannina.



Figure 4: Keynote speakers moments at UDM2018.

Specifically, the keynotes were held by the following professors, whose contributions are highly inspiring:

- ✓ Prof. Jean-Luc Bertrand-Krajewski (France) his lecture was on “Frontiers in water quality and quantity processes in sewers: monitoring and modelling”;
- ✓ Prof. David Butler (United Kingdom), his lecture was on “From Rainwater Harvesting to Rainwater Management Systems”;
- ✓ Prof. Steven Chapra (United States), his lecture was on “Advances in river water quality modelling & management: where we come from, where we are, and where we’re going?”;
- ✓ Prof. Ana Deletic (Australia) (Figure 5), her lecture was on “Modelling to support the planning of sustainable urban water systems”;
- ✓ Prof. Anthony Jakeman (Australia), his lecture was on “Uncertainty in environmental water quality modelling: where do we stand?”;
- ✓ Prof. Gustaf Olsson (Sweden), his lecture was on “Controlling Urban Drainage Systems”;
- ✓ Prof. Peter A. Vanrolleghem (Canada), his lecture was on “Advances in modelling particle transport in urban storm- and wastewater systems”.



Figure 5: Plenary hall during prof. Ana Deletic keynote

Parallel sessions

The UDM sessions were held at the modern Conference building located within the University of Palermo’s Campus (Figure 6).



Figure 6: Some moments during the conference sessions and coffee break

The program was organized considering two types of presentations: oral and poster. Oral presentations were platform and flash. The conference program was very rich and exciting, it was divided into 9 Platform Sessions (each with 4 parallel sessions), 2 Flash Poster Sessions and 1 Poster Session.

Conference Proceedings and special issues

Two books of conference proceedings were published one edited by Springer and one edited by the local organizers. The Springer proceedings book titled “New Trends in Urban Drainage Modelling” is indexed in Scopus and available on line, representing a timeless heritage for the scientific community. The book addresses the latest research advances, innovations, and applications in the field of urban drainage and water management presented during the UDM2018.

The selected papers from the conference will be published in one of the five special issue linked to the UDM2018. In particular, there are existing publication efforts under way to publish papers in:

- ✓ “Frontiers in Urban Drainage Management”, special issue of Journal of Environmental Management (Elsevier);
- ✓ “Urban Drainage modelling”, special issue of Journal of Hydrology (Elsevier);
- ✓ “Blue green infrastructure in urban areas”, special issue of Urban Water (Taylor & Francis);
- ✓ “Advances in the quality of receiving water models, special issue of Environmental Science and Pollution Research (Springer);
- ✓ “Urban Drainage Modelling”, special issue of Water Science and Technology (IWA Publishing).

Best young paper award

Young professionals represent the future of urban drainage sector development, their work has to be recognized and supported. With this aim, the Conference Scientific committee recognized outstanding achievements of three young participants by bestowing the “Best young paper award”. The winners awarded are: 1st Santiago Sandoval (INSA, Lyon – France); 2nd Behzad Jamali (Monash University – Australia); 3rd Antonio Manuel Moreno – Rodenas (TUDelft – The Netherlands).



From the left: David McCarthy, Santiago Sandoval and Manfred Kleidorfer; 1st Prize to Santiago Sandoval (INSA, Lyon – France)

Social and other events

The conference offered an intensive social program with one special event per day.



Figure 9: The Gala Dinner at at the Theatre Massimo Opera House

This structure was decided with the final idea to foster networking and enjoy the conference favoring a stimulating and pleasant atmosphere. Social events included: Ice-Breaker at the large courtyard of the ancient Theatines Convent (17th century); Opening Ceremony and Welcome Cocktail in the wonderful scenery of the Royal Palace of Palermo (12th century); Dinner at Botanic Garden, the largest in Europe; Gala Dinner at the Theatre Massimo Opera House (Figure 9 and Figure 10), the largest theatre in Italy and one of the largest in Europe.



Cute detail at the Theatre Massimo Opera House – Gala Dinner

During the opening session one new Journal and a book of International Water Association (IWA) have been launch to over 300 delegates.

The [new Journal](#) titled “Blue-Green Systems” has been launched by the Co-Editor in Chief, Ana Deletic (Pro Vice-Chancellor (Research) at the University of New South Wales (Figure 11). Also in attendance were the Associate Editors David McCarthy, (Monash University, Australia), Manfred Kleidorfer (University of Innsbruck, Austria) and Managing Editors Peter Bach (EAWAG, Switzerland) and Kefeng Zhang, (University of New South Wales, Australia).



Figure 11: From the left: David McCarthy, Sara Bosshart (open access publisher – IWA), Ana Deletic, Peter Bach, Manfred Kleidorfer, Kefeng Zhang

The new book titled “[Advances in wastewater treatment](#)” (Figure 12) is edited by Prof. Giorgio Mannina, Prof. Geroge Ekama (University of Cape Town, South Africa), Prof. Hallvard Ødegaard (Norwegian University of Science and Technology, Norway) and Prof. Gustaf Olsson (Lund University, Sweden).



Figure 12: The IWA “Advances in wastewater treatment” book launched by prof. Giorgio Mannina

During the conference, the first workshop of the IWA [Task Group on Membrane Bioreactor Modelling and Control](#) has been organized.

The 4th edition of the “[Advanced Course on Innovative Wastewater Treatment and Mathematical Modelling](#)” supported by IWA has been organized just after the conference, from 27 to 30 September 2018. The course dealt with the recent advances and trends currently under development in the context of wastewater treatment and modelling. The course hosted 30 participants coming from over 10 Countries (Figure 13). Six eminent experts have taught at the course:

- ✓ Prof. Kartik Chandran, Columbia University – USA
- ✓ Prof. George A Ekama, University of Cape Town - South Africa
- ✓ Prof. Jacek Makinia, Gdańsk University of Technology- Poland
- ✓ Prof. Giorgio Mannina, University of Palermo- Italy
- ✓ Prof. Hallvard Ødegaard, Norwegian University of Science and Technology – Norway
- ✓ Prof. Gustaf Olsson, Lund University – Sweden



Figure 13: Participants and lecturers of the 4th Advanced Course on Innovative Wastewater Treatment and Mathematical Modelling

Online Outputs and Follow up Activities

Conference Proceedings (both books) have been provided to participants, all conference details have been published at the conference website (www.udm2018.org).

Organizers provided also rich [Video](#) and [Photo gallery](#). Video and photo gallery contain pictures of all Platform, Flash and Poster sessions and memorable time spent together during the Social events.

International Sponge City conference, 8-10 September, Xi'an, China

The 2018 International Sponge City Conference kicked off on the morning of September 9, 2018 in Xi'an. Regarded as the world's largest, most academically prestigious and internationally attended event for sharing and exchanging ideas on sponge city development, the conference drew 2000 representatives from different countries, all looking to share their unique experiences and insights. Especially, all the 30 national pilot sponge cities of China exhibited their construction achievement, which showing Chinese wisdom and solutions for the construction of a global ecological civilization.



The international conference, with the theme of “Experience Sharing and Gathering Momentum for Win-Win Cooperation”, was comprised of the 4 technical training course, plenary section and 32 parallel sections. In the plenary section, 7 keynote speeches were presented, the keynote speakers included Mr. Zhang Linwei, Prof. Robert Traver, Prof. Ren Nanqi, Prof. David Butler, Prof. Gerald E. Galloway, Prof. Xia Jun, and Prof. Ana Deletic.



The conference were hosted by China Urban Water Association (CUWA), Housing and Urban-Rural Development Department of Shanxi Province, and Xi'an Municipal People's Government. Several international societies co-organized the conference, such as International Water Association (IWA), American Society of Civil Engineers, Environmental & Water Resources Institute (ASCE- EWRI), Water Research Foundation, USA (WRF), Chinese American Water Resources Association (CAWRA), Canadian Society for Civil Engineering.

Contact:

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The New Working Group on Urban Drainage Asset Management (UDAM)

Behind the acronym UDAM stands a new working group of the Joint Committee on Urban Drainage, whose goal is to give a platform to everyone working on Urban Drainage Asset Management.



What is asset management? Asset management is a broad domain. It aims at minimizing the total cost of owning and operating assets while delivering the level of service expected by the customers. It contains the knowledge, tools and practices to maintain performance and to mitigate risks in a cost-efficient manner in a changing environment.

Is it a new topic? Not really, the topic is at the core of the activity of utilities but it gets more visibility due to the fact that parts of the assets approach the end of their technical lifetime and decisions about future developments are at hand. A typical city of 100,000 to 500,000 people may have between 1,000 km and 5,000 km of buried network for wastewater collection. The maintenance and replacement costs of the networks could amount to million euros and major share of the annual budget for cities. Asset management typically include technical activities such infrastructure inspection, condition assessment, risk assessment, short-term rehabilitation planning, long-term financial planning, operation and maintenance (O&M) optimization but also policy, governance and social issues.



Figure 1: Impressions from the last meeting in Innsbruck

So why a new working group on urban drainage asset management? Although asset management is a key component of utilities activities, research activities are traditionally focused on the understanding of meteorological, hydrological, hydraulic and water quality aspects. Asset management is still underestimated in the urban drainage research community even if utilities and municipalities have to face major issues such as infrastructure aging, network performance and adaptation to climate change. Furthermore, urban drainage systems are in continuous evolution and integrate a growing diversity of infrastructure such as sewer pipes, manholes and stormwater control measures. Even if each infrastructure has its own specificities, there is a need to consider interactions and mutual influences of the urban drainage components and to propose sustainable solutions for the entire system. Therefore, the main objectives of this new working group are to:

- Increase the visibility of urban drainage asset management within the urban drainage community and within the water community.
- Create interactions between the existing urban drainage asset management community (e.g. sewer) and growing communities such as the one focusing on stormwater control measures or nature based solutions.
- Gather and share knowledge on asset management: decision aid systems, inspection techniques, O&M practices, condition assessment, rehabilitation strategies, etc.
- Create a link between the urban drainage community and the IWA specialist group on strategic asset management.



Figure 2: Euro-SAM workshops

The roots of this working group are the series of European research workshops on Sewer Asset Management (EURO-SAM) in the last five years. These workshops aim to share recent research results and to facilitate collaboration between researchers. This network is organizing a free of charge workshop each year in June (Lyon, 2013; Berlin, 2014; Amsterdam, 2015; Strasbourg, 2016; Innsbruck, 2018). The next workshop will be hold in Delft, The Netherlands, in June 2019, hosted by TU Delft. You can find more information here: <https://udam.home.blog/euro-sam>.

Who is behind the working group? An international and very friendly team will lead the group: Nicolas Caradot (chair) from KWB Berlin, Frédéric Cherqui (vice-chair) from INSA Lyon/University of Melbourne, and Franz Tscheikner-Gratl (secretary) from TU Delft. The group is open to any researcher or practitioner interested in urban drainage asset management. We invite you to register freely on our website to become a full member (<https://form.jotform.co/udam/join>), receive information on asset management events and exchange with the community.

What are we actually doing? Ongoing works include the organization of the EURO-SAM workshops, the redaction of a position paper related to research needs in sewer asset management and the organization of dedicated sessions on asset management topics in international conferences such as UDM, ICUD, SPN and NOVATECH. There are already many ideas for future activities and any enthusiastic proposition from the members will be highly welcome!

Interested in collaboration or joining? Contact the leading committee of the working group (F.Tscheikner-Gratl@tudelft.nl) or register easily via the group's website: <https://udam.home.blog>.

Contact:

Nicolas Caradot (chair) from KWB Berlin, Frédéric Cherqui (vice-chair) from INSA Lyon/University of Melbourne, and Franz Tscheikner-Gratl (secretary) from TU Delft

UPCOMING EVENTS

A table listing the forthcoming conferences and workshops (as of March, 2019) appears below. This table can be also used when planning future JCUD events to avoid conflicting schedules. Even though we strive for accuracy, please always check the primary sources of information for possible updates and changes.

Conference or Workshop Name	Location	Event Dates	Submission dates	URL
IWA Leading Edge Conference on Water and Wastewater Technologies	Edinburgh, United Kingdom	10. – 14. June 2019	closed	http://iwa-let.org/
12th IWA International Conference on Water Reclamation and Reuse	Berlin, Germany	16. – 20 June 2019	closed	http://iwareuse2019.org/
International Young Water Professionals Conference	Toronto, Canada	23.-27. June 2019	closed	http://iwa-youngwaterprofessionals.org/
NOVATECH	Lyon, France	1.-5. July 2019	closed	https://www.novatech.graie.org/
IWA Water and Development Congress & Exhibition 2019	Colombo, Sri Lanka	4. – 7. Aug. 2019	closed	http://www.waterdevelopmentcongress.org/
SPN9, 9 th Int. Conference on Sewer Processes and Networks	Aalborg, Denmark	27.- 30.Aug. 2019	closed	http://spn9.dk/
Watermatex 2019	Copenhagen, Denmark	01.-04. Sept 2019	March 2019	http://www.watermatex2019.org/
38 th IAHR World Congress	Panama City, Panama	01.-06. Sept. 2019	closed	http://iahrworldcongress.org/
LESAM 2019	Vancouver Canada	23.- 27. Sept 2019	March 2019	http://www.iwa-network.org/events/lesam-2019/
8th IWA-ASPIRE Conference & Exhibition 2019	Hong Kong	31. Oct- 2 Nov. 2019	March 2019	http://www.iwaaspire2019.org/
16th International Specialised Conference on Small water and wastewater systems 2019	Perth, Australia	1 – 5 Dec 2019	15 July 2019	http://www.iwa-network.org/events/15th-international-specialised-conferences-on-small-water-and-wastewater-systems/
IWA Water and Development Congress & Exhibition	Colombo, Sri Lanka	1 – 5 Dec 2019	March 2019	http://www.waterdevelopmentcongress.org

14 th International Conference on Hydroinformatics	Mexico City, Mexico	June 2020	TBA	http://www.hic2020.org/
15 th ICUD	Melbourne, Australia	September 2020	TBA	http://www.icud2020.org/
IWA World Water Congress 2020	Copenhagen, Denmark	18. Oct – 23 Oct. 2020	TBA	http://worldwatercongress.org/
12 th Urban Drainage Modelling Conference	New York, USA	Aug/Sept 2021	TBA	

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WRITE TO US!

The Newsletter is an opportunity to share information: points of view; policy developments; research; activities and events; worldwide. If you have an interesting project, comments, or are planning a conference or workshop, send it to us, including contact point for more information.

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