16th WaterNet/WARFSA/GWP-SA

Integrated Water Resources Management and Infrastructure Planning for Water Security in Southern Africa

Le Meridien Ile Maurice Hotel (http://www.lemeridien-mauritius.com/)
Mauritius
28th - 30st October 2015

Background

The 16th WaterNet/WARFSA/GWP-SA Symposium will be held on the island of Mauritius from the 28th – 30th of October 2015 under the theme: **Integrated Water Resources Management (IWRM) and Infrastructure Planning for Water Security in Southern Africa.** The University of Mauritius is the lead host of the 16th Symposium.

The Symposia have been held annually in the Eastern and Southern African region for the past 15 years to promote interaction among policymakers, academics, practitioners from water and related sectors, and cooperating partners. Together, they identify regional issues, gaps and priorities that require further research and support. Great emphasis will be placed on integration of knowledge, particularly involving scholars from the natural, medical and social sciences.



Sub-Themes

Policymakers, academics, practitioners from water and related sectors, and cooperating partners are invited to register and attend the symposium and get an opportunity to listen and debate presentations focusing on different sub-themes as detailed below. Authors wishing to present the results of their work should now submit their abstracts targeting the sub-themes below.

Hydrology and Global Change

For effective planning, design, management and utilisation of water resources, it is important to improve our understanding of different components of the hydrological cycle and the spatial and temporal distribution of water now and in the future. However, water balance dynamics are highly complex and require integration of information from multiple domains at different scales. Furthermore, in Southern Africa, there is limited reliable data available for application of conventional prediction tools so as to manage water resources in a sustainable way. Global change impacts are further providing additional hurdles to the understanding and management of hydrological processes in these regions. Hydrology is important in integration as major rivers cross national and sub-national boundaries.

The papers in this sub-theme therefore should focus on addressing studies and models that enhance not only our understanding of the water cycle's response to natural and man-made changes at different scales, but also how these changes can be managed in a sustainable manner taking into account global change.

Water and Environment

The natural environment is considered an integral part of the water resources and its needs must be considered and protected in water resources management. It is increasingly realised that greater investment is needed to protect aquatic ecosystems from the negative impact of human developments. The challenge remains to strike the right balance between



allocating water for direct human use (agriculture, power generation, domestic purposes and industry) and indirect use (sustaining of ecosystem goods and services) in view of challenges like global change. Downstream water users depend on sufficient flows of acceptable quality water from upstream. These interactions frequently cross national boundaries. For islands states, the status of inland water influences natural beauty such as coral reefs and exotic vegetation that attract tourists and provide important cultural services.

The papers in this sub-theme should illustrate recent advances and best practices in environmental impact assessment, determining environmental water requirements, the inclusion of the environment in water resources development and river basin management, wise water use for sustenance of ecosystems and people's livelihoods as well as studies of water quality in the IWRM framework.

Water, Land and Agriculture

Agriculture is the major land use and livelihood strategy as well as the greatest user of water in Southern Africa. Owing to a growing population, persistent droughts, erratic rainfall and extreme weather events, food production and the exploitation of forest products and biodiversity have been on the increase, thus risking the stability of the interaction between surface and ground water resources including wetland ecosystems. Southern Africa needs efficient water infrastructure for agricultural production that supports the livelihoods of its populations and the regions' overall economic development. The region has an abundance, relative to other regions, of renewable water resources. However, infrastructure challenges in the production of crops like sugarcane in countries such as Mauritius, South Africa and Zimbabwe currently prevents the available water resources from reaching their maximum potential. In addition, the majority of smallholder farmers rely on rain-fed agriculture with a few adaptation strategies being adopted.

This sub-theme puts together papers that illustrate the impact of water management practices and policies on water, crop, livestock and land productivity, livelihood security, wetlands ecology and downstream water requirements.

Water and Society

When available water is limited in quantity or quality or its distribution is uneven, this can be a source of cooperation or of contestation among users. The situation is complicated by changes caused by global change, droughts, floods and water borne diseases. Water access and benefit sharing, are a source of power. The IWRM approach is aimed at enhancing the management of the available freshwater resources in a coordinated manner involving all stakeholders, policy makers, planners and women as well as tackling the issue of resource access and benefit sharing. Society in any setting interacts



with water resources as well as developments and management structures for water. Water governance approaches and structures adopted by different countries have an effect of water security. The Southern African region also has a number of transboundary watercourses whose management has to involve all the riparian states, through river basin organisations (RBOs) and the allocation of the freshwater having to be done in an equitable manner. The SADC protocol on shared water resources is a major step in the recognition of the principle of equity and its integration into regional development.

This sub-theme addresses human development and socio-political aspects of water and its management.

Sustainable Water Distribution and Sanitation

Water is a scarce resource in a number of mainland SADC countries but also in islands states. Globally water-borne and related diseases kill an estimated 5 million people- mostly children. Recently, the situation has been worsened by climate change related impacts like floods especially in areas with poor sanitation. At the start of the water supply and sanitation decade, an estimated 1 billion people lacked access to safe water while 2.2 billion lacked access to adequate sanitation. Lack of a sustainable approach to the provision of water and sanitation has resulted in an unacceptable high population of people without access to safe water and adequate sanitation globally, thus necessitating the need for appropriate and sustainable water and sanitation systems. In order to address the issue of lack of access to water in the SADC region and beyond, there is need for the local population to be sensitised on the judicious use of this precious resource through water reuse and encouragement of water recycling.

The papers in this sub-theme should address sustainable water supply and sanitation development, technological advances in water reuse and recycling, water utility management and linkages to public health livelihoods and climate change impacts.

Water Resources and Infrastructure Management

Progress in developing and implementing IWRM and water efficiency plans have so far been varied across countries in the SADC region. Infrastructure development and management is the focus theme for the coming years in the SADC region as it has been accepted by the governments of the region that development in general is closely associated with the status of the built infrastructure. Water infrastructure is not an exception to the aforementioned observation especially in a water stressed region like SADC.

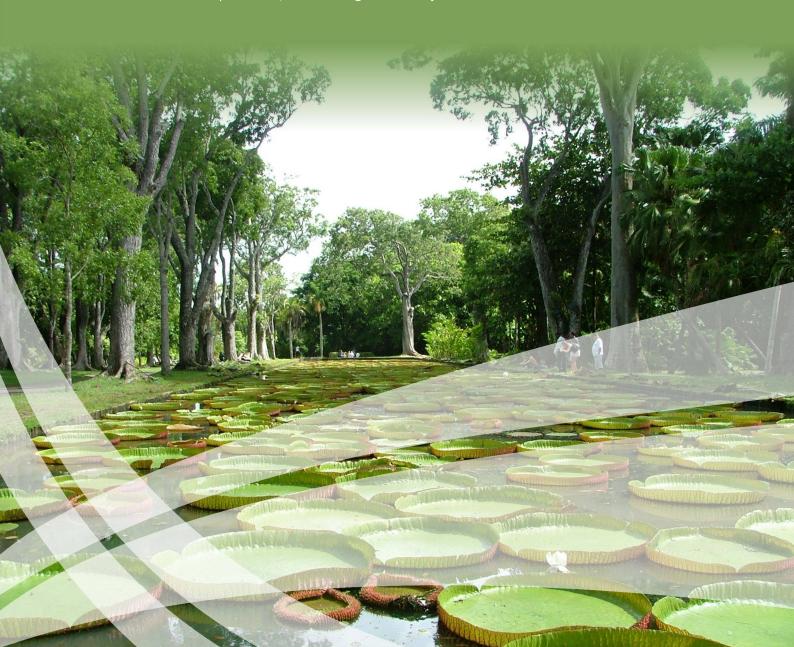


Papers in this sub-theme should demonstrate practical experiences in the development and the management of water infrastructure, the implementation of IWRM planning and application of modelling tools for effective water management at sub-national, national and transboundary level. The papers in this sub-theme will further interrogate innovations and experiences in water resources planning and management and river basin management at different institutional and spatial scales.

Abstracts

Authors are invited to submit their abstracts for presentation at the symposium for oral, poster or special session presentations. Abstracts should be:

- A maximum of 350 words
- The format for all text should be font size 12, Times New Roman and single-spaced
- The title should be no more than 16 words in title case
- Author's names should be written in such a way that the initials appear first followed by the last name
- The authors names should indicate one corresponding author* (with an asterisk) and the email of the corresponding author
- The affiliations of authors should be shown through letter superscripts (such as a, b, c)
- Five keywords should be included in alphabetical order
- The abstract on the full paper should include a clear statement of the theoretical issue to be addressed, the research methodology to be presented, and a concise summary of the findings/conclusion
- Work must be unpublished at time of presentation
- Maximum of 3 submissions per author, either as single author or joint co-author are allowed



Submission of Abstracts

All abstracts will be handled and reviewed electronically via the conference's EasyChair submission https://easychair.org/conferences/?conf=16wnsymp. Note that you will need to set up an EasyChair account (if you do not already have one) before you login for your submission. Several roles have been set on the platform for the 16th WaterNet/WARFSA/GWP-SA Symposium, kindly register as an author, all other roles will be done through invitation. When completing the submission form on EasyChair, you will see a space which asks for an abstract to be typed in. This is not the place for your full abstract! In this field, please enter a short statement (no more than 50 words) summarizing your paper. Further down the page you will upload your full abstract as an attachment (as a pdf., doc or .docx). Make sure your attachment is fully anonymised, i.e. no names or affiliations or other identifying information about authors should be included in the document itself, in the filename, or in the document properties (properties are accessible via the File menu in MS Word). Before uploading, please ensure that all special characters display properly. You should receive confirmation of submission of your paper from Easy Chair immediately after submission by email; if you have not, please bear in mind that any emails received might be found in your spam folder.

The submission form in EasyChair also asks you:

- Your theme, your preferred presentation type/paper or a poster (note that the final decision will be taken by the programme committee)
- Whether you are under 35 years old
- Any keywords that do not appear in the topics list that may facilitate the review process

Guidelines for writing a good abstract are available at:

http://waternetonline.c2.co.zw/annual-symposium/authors

Selection Criteria

All abstracts submitted for oral/poster presentation will undergo a peer review process and the results will be communicated to the corresponding author.



Special Sessions

All organisations interested in convening special sessions should submit their proposals on the digital platform. Please note that you will be required to show the relevance of the workshop to the symposium and the expected number of participants. The proposals need to be motivating, and will be allocated on a first come/first served basis. Each special session will be allocated approximately four hours. However, if more time is required the organisers should state this in the proposal. The proposal should state the materials and equipment that will be required.

PLEASE NOTE: Abstracts for special sessions should adhere to the deadlines and will be peer reviewed like all others.

Elservier Journal of Physics and Chemistry of the Earth (JPCE)

After the symposium authors will have an opportunity to submit their papers for review and publication in a special edition of the Journal of Physics and Chemistry of the Earth. It is a journal published by the Elsevier and the normal peer review process will apply. Guidelines for submitting a paper to this journal are available at:

http://www.elsevier.com/journals/physics-and-chemistry-of-the-earth/1474-7065/guide-for-authors

Submissions will be online via

Elsevier Editorial System (EES), http://ees.elsevier.com/jpce. More details on submission will be announced at the symposium.

Deadlines



Registration fees

Early bird registration USD 350

Payable before 4 September 2015

Student registration USD 300

Local (Mauritius) student registration USD 250

Normal registration USD 400

Payable before 16 October 2015

Late registration USD 500

Payable after 16 October 2015

Local (Mauritius) exhibitors USD 500

Special sessions USD 500

International exhibitors USD 1,000

Payable by before 16 October 2015

Payment details

Bank Name: State Bank of Mauritius
Account Name: University of Mauritius
Account Number: 61926000014607
Swift Code: STCBMUMU

IBAN: MU44STCB1170026000014607000US

Account Type: USD

Bank Postal Address: SBM Tower, 1 Queen Elizabeth Ave, Port Louis, Republic of Mauritius



Registration

Online registration can be done on: http://goo.gl/forms/nc1JJS06vk

Or https://docs.google.com/forms/d/10tY6llzY2x4ipsG9QG8_th1lalBdoZZFnqlsRFysGxc/viewform?c=0&w=1

For Further Information

Details on the Symposium will be uploaded and updated at the websites indicated as they become available.

http://www.uom.ac.mu/

http://www.waternetonline.org

http://www.gwp.org/en/GWP-SouthernAfrica/

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Accommodation

Those attending the symposium are strongly advised to book their accommodation early since October is the peak period for tourists in Mauritius.

http://waternetonline.c2.co.zw/annual-symposium/travel-and-accommodation

