



**Program of the 4th International Symposium on Flash Floods in Wadi Systems
(4th ISFF2018)**

“Urban Flood Risk Management: Mitigation and Adaptation Measures in the MENA Region”

December 4th - 6th December, 2018, Hotel Palace d’Anfa, Casablanca

Programme du 4^{ème} Symposium International sur les Inondations Rapides dans les Bassins des Oueds (4th ISFF2018)

"Gestion du risque d'inondations urbaines: Mesures d'atténuation et d'adaptation dans la région MENA "

4-6 Décembre, Hotel Palace d’Anfa, Casablanca, Maroc

www.isff2018.com

Ice Breaker Party: Monday December 3rd, 2018	
Réception de Bienvenue: Lundi 3 Décembre 2018	
19:00-21:00	Hotel Palace d’Anfa, Casablanca

All sessions will be held in the Hotel conference hall
Toutes les sessions du Symposium auront lieu dans la salle de Conférence de l'Hôtel

1st Symposium Day: Tuesday December 4th, 2018	
1^{er} Jour du Symposium: Mardi 4 Décembre 2018	
08:00- 09:00	Registration-Enregistrement: Conference Hall - Le Hall de la salle de Conférence
09:00-10:00	Opening session - Session d'ouverture Sous l'égide du Ministère de l'Aménagement du Territoire National, de l'Urbanisme, de l'Habitat et de la Politique de la Ville Sous l'égide du Ministère l'Equipement, du Transport, de la Logistique et de l'Eau



Under the auspices of the Ministry of Land use, Urban Planning, Housing and City Policy
 Under the auspices of the Ministry of Equipment, Transport, Logistics and Water

Chair: Prof. Dalila Loudyi, Hassan II University of Casablanca, Morocco

09:10-09:15	Mot du Ministère l'Equipement, du Transport, de la Logistique et de l'Eau	<i>Ministère l'Equipement, du Transport, de la Logistique et de l'Eau, Morocco</i>
09:15-09:20	Mot du Ministère de l'Aménagement du Territoire National, de l'Urbanisme, de l'Habitat et de la Politique de la Ville	<i>Ministère de l'Aménagement du Territoire National, de l'Urbanisme, de l'Habitat et de la Politique de la Ville, Morocco</i>
09:20-09:25	Mot du Président du Conseil de la Région de Casablanca Settat	<i>Conseil de la Région de Casablanca-Settat, Morocco</i>
09:25-09:30	Mot du DG de LYDEC (Suez-Casablanca)	<i>LYDEC (Suez-Casablanca) Morocco</i>
09:30-09:40	Mot de bienvenue Université Hassan II de Casablanca	<i>Université Hassan II de Casablanca Morocco</i>
09:40-09:50	Présentation de l'ISFF, ses objectifs et ses perspectives	<i>Kyoto University, Japan</i>

10:00-11:20 Session 1-1
 Climate change and hydrometeorological data analysis
 Changement climatique et analyse des données hydrométéorologiques

Chair: Prof. Sameh Kantoush, Kyoto University, Japan

10:00-10:20	Keynote: On the change, variability and predictability of hydrological extremes in a desert environment	Prof. Taha Ouarda Chaire de recherche du Canada en hydro-climatologie statistique, Institut National de la Recherche Scientifique, Québec, Canada
10:20-10:35	Changement climatique observé et projeté au Maroc Observed and future climate change in Morocco	Khalid El Rhaz, S. Moutia and R. Sebbari Direction de la Météorologie Nationale, Casablanca, Morocco
10:35 –10:50	Rainfall-runoff analysis of the Wadi Bili catchment in the Red Sea Governorate of Egypt	Franziska Tügel, A. Abdelrahman, A. Hadidi and R. Hinkelmann Technical University, TU Berlin, Germany



10:50-11:05	Rainfall and Wadi Flow Data Monitoring and Analysis in Oman	Ayisha Al Khatri Ministry of Regional Municipalities and Water Resources, Muscat, Oman
11:05-11:20	Climate change and water resources management in the coastal El Jadida-Safi subbasin, Morocco	Mounia El Azhari and D. Loudyi Faculty of Sciences and Technics, Mohammedia, Morocco

11:20-11:35	Coffee break - Pause Café	
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11:35-13:15	Session 1-2 Flood vulnerability and risk assessment Vulnérabilité et évaluation du risque des inondations	
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Chair: Dr. Kamal El Kadi, EDF, France		
11:35-11:55	Keynote Flood Prediction in Low-Gradient Urbanized Coastal Watersheds: Sharing Lessons-Learned and Challenges from South Louisiana, USA	Prof. Emad Habib University of Louisiana at Lafayette, Louisiana, USA
11:55-12:10	Reinsurance company tools for assessing flood economic losses in Morocco	Dr. Issam Mouyan Société Centrale de Réassurance, Centre Africain des Risques Catastrophiques Casablanca, Morocco
12:10-12:25	Impacts of Floods on the Sultanate of Oman	Omaima Al Manji Ministry of Regional Municipalities and Water Resources, Muscat, Oman
12:25-12:40	Flash flood hazard assessment and mitigation strategies in the arid wadi systems of Egypt	Mohammed Abdel-Fattah, S. Kantoush, M. Saber and T. Sumi Disaster Prevention Research Institute (DPRI), Kyoto University, Japan
12:40-12:55	Database model structured by Merise conception for processing flood hazard in Morocco	Meriam Lahsaini and H. Tabyaoui



ROYAUME DU MAROC
MINISTÈRE DE L'ÉQUIPEMENT, DU TRANSPORT,
DE LA LOGISTIQUE ET DE L'EAU



المملكة المغربية
وزارة التجهيز والنقل
واللوجستيك والماء

وزارة إعداد التراب الوطني والتعمير والإسكان وسياسة المدينة
Ministère de l'Aménagement du Territoire National, de l'Urbanisme,
de l'Habitat et de la Politique de la Ville



		Faculty of Sciences and Technics, Fez, Morocco
12:55-13:15	Plenary discussion - Discussion	

13:15-14:30	Lunch and Poster session 1- Déjeuner et Session posters 1	
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14:00-14:30	1st Poster session – 1^{ère} Session Posters	
Chair: Dr. Mohammed Amin Hafnaoui, CRSTRA-Algeria and Dr. Ahmed Hadidi, GUTech-Oman		

14:30-16:05	Session 1-3 Hydrologic and hydraulic modelling of flood Modélisation hydrologique et hydraulique des inondations	
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Chair: Prof. Taha Ouarda, Institut National de la Recherche Scientifique, Canada

14:30-14:50	Keynote Next Generation of coastal and urban flood modelling	Dr. Riadh Ata and Dr. Kamal El Kadi Abderrezzak EDF, France
14:50-15:05	Reconstitution de la crue du 25 octobre 2016 sur le bassin Saquia Al Hamra à travers la modélisation hydrologique-Hydraulique Reconstitution of October 25th, 2016 flood in the Saquia al Hamra basin through hydrological-hydraulic modelling	Dr. Moulay Driss Hasnaoui Water Department, Ministry of Equipment, Transport, Logistics and Water, Morocco
15:05-15:20	Modélisation hydraulique de l'inondation d'octobre 2011 de la ville d'El Bayad en Algérie Hydraulic modelling of Octobre 2011 floods in El Bayad city, Algeria	Mohammed Amin Hafnaoui, A. Hachemi, M. Madi and Y. Farhi Centre de Recherche Scientifique et Technique sur les Régions Arides - CRSTRA , Algeria
15:20-15:35	Delineation of catchment boundary in wadis' downstream in south Batina, Oman	Ahmed Hadidi and E. Holzbecher German University of Technology in Oman GUTech, Oman



15:35-15:50	Hydrological modeling of stormwater: Possibilities and applications - Case of STORM software	Nour el Houda EL HAMOUMI Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Morocco
15:50-16:05	Composite modelling approach to study compound flooding in coastal areas	Dorina Dragancheva, J. Pan, V. Penchev, J. Zhang, S. Shukrieva, M. Xiong, D. Ting Wang, P. Penchev and J. Wang Bulgarian Ship Hydrodynamics Centre, Bulgaria Nanjing Hydraulic Research Institute, China

16:05-16:20	Coffee break - Pause Café	
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16:20-18:00	Session 1-4 Hydrologic and hydraulic modelling of flood Modélisation hydrologique et hydraulique des inondations	
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Chair: Prof. Ekkehard Holzbeche, GUTech, Oman.		
16:20-16:35	Aménagement hydrologique du bassin versant de l'Oued el Malleh pour lutter contre l'érosion hydrique et les inondations des centres urbains Contribution to hydrological management of Wadi Maleh watershed for erosion and flood control downstream for urban centers and cities protection	Addelfattah Naouri Direction régionale des Eaux et Forêts, DREFLCD, Casablanca, Morocco
16:35-16:50	Floodplain modelling for 1D steady - unsteady flow: case study of Sidi Ifni Wadi, Morocco	Saad Aicha, A. Milewski and L. Benaabidate Polydisciplinary Faculty Taroudant, Morocco
16:50-17:05	Risk of coastal flood in the Azemmour site	Hassan Ayad, D. Loudyi and M. Chagdali Faculty of Sciences Ben Msik, Casablanca, Morocco
17:05-17:20	Event modelling and simulation of the extreme hydrological contributions of the Zat watershed , High Atlas, Morocco	Myriam Benkirane, M. Saidi, N. Laftouhi, B. El Mansouri and I. Salik Faculty of Sciences, Marrakech, Morocco



17:20-17:35	Application of modeling tools for assessment of flood risk and establishment non structural mitigation: Case study of Malleh dam failure located upstream of Mohammedia city	Ali El Bilali and A. Taleb Hydraulic Basin Agency of Bouregreg and Chaouia & Faculty of Sciences and Technique of Mohammedia, Morocco
17:35-18:00	Plenary discussion - Discussion	

2nd Day of Symposium : Wednesday December 5th, 2018

2^{ème} Jour du Symposium: Mercredi 5 Décembre 2018

09:00-10:35	Session 2-1 Flood adaptation and mitigation measures Mesures d'adaptation et d'atténuation au risque des inondations	
Chair: Prof. Tetsuya Sumi, Kyoto University, Japan		
09:00-09:20	Keynote: Science-community interface: capacity building for managing natural disasters of flash floods in Egypt, Jordan, Sudan and Yemen	Dr. Abdelaziz Zaki Science National Professional Officer, UNESCO, Cairo, Egypt
09:20-09:35	De l'Annonce à la Prévision des crues : Préparation et Gestion de crise From Announcement to flood forecasting: Preparation and crisis Management	Salah Belmatrik, Ayoub Nafii Hydraulic Basin Agency of Bouregreg and Chaouia, Benslimane, Morocco
09:35-09:50	Flash floods mitigation and adaptation in Oman	Ahmed Al Barawani Ministry of Regional Municipalities and Water Resources, Muscat, Oman
09:50-10:05	Identification of potential dam sites using GIS and remote sensing techniques.	Fatima Ezzahra El Ghazali and N. Laftouhi Faculty of Sciences, Marrakech, Morocco



10:05-10:20	Floods mitigation fo Al Kharj city, Kingdom of Saudi Arabia	Mohamed El Manadely King Abdul Aziz University, Jeddah, Saudi Arabia
10:20-10:35	Development of flood early warning system for flashy wadies: Gash wadi as a case study; Sudan	Elhadi Adam, B. Barsi and Y. Mohamed University of Kassala, Sudan

10:35-10:50	Coffee Break - Pause café
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10:50-13:00	Session 2-2 Urban planning and green infrastructure Urbanisme et infrastructure verte
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Chair: Dr. Riadh Ata, EDF, France		
10:50– 11:10	Keynote Planification urbaine et prévention du risque d'inondation au Maroc Urban planning and flood risk control in Morocco	Mme. Lamia Guerouani Department of Urban Planning- Ministry of Land use, Urban Planning, Housing and City Policy (MATNUHPV), Morocco
11:10-11-25	Traitement de la problématique de l'assainissement pluvial par le Schéma Directeur de l'Aménagement Urbain (SDAU) de la région du Grand Casablanca Stormwater management through Urban Planning Master Plan (SDAU) of the Great Casablanca region	Mr. Mohamed Najib Derrak Casablanca Urban Agency, Morocco
11:25-11:40	Intégration de la gestion de l'eau pluviale dans l'aménagement du territoire Integration of rainwater management into land use planning	Saad Azaoui LYDEC, Casablanca, Morocco
11:40-11:55	Interdisciplinary and interlocked spatial-temporal studies to enhance efficiency	Laurent Schmitt, P. Namour, P. Breil, M. Lafont, L. Grospretre, N. Jacob-Rousseau, O.



	and sustainability of environmental management of streams impacted by urbanization (Yzeron catchment, city of Lyon, France)	Navratil, H. Delile, D. Eschbach and B. Cournoyer University of Strasbourg, France
11:55-12:10	Les documents d'urbanisme à l'épreuve de la gestion des risques d'inondations, cas de la ville de Kénitra au Maroc Urban planning documents in the test of flood risk management: Case of the city of Kenitra, Morocco	Khadija Karibi and O. Messous National School of Architecture, Rabat, Morocco
12:10-12:25	Evaluation of Shoreline Change: A Case Study from the Wadi Al Maawil Watershed	Amna Al Ruheili College of Agricultural and Marine Sciences, Sultan Qaboos University, Oman
12:25-12:40	Climate change adaptation strategy- Taipei's Wenshan flood prevention and drainage plan as a case study	Cheng-Sheng Pong, Shih-Bin Lin and Yung-Chia Hsu Public Works Department, Taipei City Government, Taiwan
12:40-13:00	Plenary discussion -Discussion	

13:00-14:15 Lunch and Poster session 2- Déjeuner et Session posters 2

13:45-14:15 **2nd Posters session - 2^{em} Session Posters**
Chair: Dr. Mohammed Amin Hafnaoui, CRSTRA-Algeria and Dr. Ahmed Hadidi, Gutech-Oman



14:15-16:20		Session 2-3 Sediment management and flood control structures Gestion des sédiments et structures de protection contre les inondations	
Chair: Prof. Mohamed El Manadely, King Abdulaziz University, Saudi Arabia			
	Keynote	Prof. Tetsuya Sumi	
14:15-14:35	Integrated reservoir sedimentation management in arid and semi-arid countries under climate change	Disaster Prevention Research Institute (DPRI), Kyoto University, Japan	
14:35-14:50	Optimization bias in dam sedimentation management	Tobias Landwehr, M. Irie and C. Pahl-Wostl Osnabrück University, Germany	
14:50-15:05	Integrated management of flash floods in Wadi basins considering sedimentation and climate change	Mohamed Saber, T. Al Harrasi, S. Kantoush, M. Abdel-Fattah and T. Sumi Disaster Prevention Research Institute (DPRI), Kyoto University	
15:05-15:20	The characteristic of sediment transport of flash floods in arid regions	Yusuke Ogiso, T. Sumi, S. Kantoush and M. Saber Kyoto University, Japan	
15:20-15:35	Mechanical behavior of concretes based of sediment of dam reservoirs in Morocco case study: Dam Mohamed Ben Abdelkrim El Khattabi	Ali Kerdad, L. Mouhir, A. Zakaria and K. Zahidi Faculty of Sciences and Technics, Mohammedia, Morocco	
15:35-15:50	Resource potential of reservoir sediment for functional material for purifying drinking water	Mitsuteru Irie, M. Tafu, M. Fuji and J. Tarhouni Miyazaki University, Japan	
15:50-16:05	Coupled Flow and Sediment Transport in Shallow Water	Ekkehard Holzbecher and A. Hadidi German University of Technology in Oman, GUTech, Oman	
16:05-16:20	Modelling daily suspended sediment load by using Artificial Neural Network and Wavelet	Samir Bengherifa, Abdelouahab Lefkir and Abdemalek Bermad National School of Public Works (ENSTP) & National Polytechnic School (ENP), Algeria	



16:20-16:35 Coffee Break – Pause café

16:35-17:50 **Session 2-4**
Groundwater management
Gestion des eaux souterraines

Chair: Prof. Emad Habib, University of Louisiana at Lafayette, USA

16:35-16:55	Keynote Water table rise in Muscat urban areas: Causes and impacts	Prof. Abdalla Osman Sultan Qaboos University Muscat, Oman
16:55-17:10	Floods control dams surface water recovery for groundwater artificial recharge : Case of Settat plain dams and Berrechid aquifer, Morocco	Mohamed Sinan, M. Dchieche and N. Naser Hassania School of Public Works (EHTP) & Hydraulic Bassin Agency of Bouregreg and Chaouia, Morocco
17:10-17:25	Ingenuity of traditional management of surface water and groundwater in Morocco: Case of the Medina of Fez	Mouhcine Ayacine, A. Taleb, M. El Bouchikhi and K. Obda Faculty of Humanities of Fez- Saïts, Fez, Morocco
17:25-17:50	Plenary discussion - Discussion	

17:50-18:10 **Closing Session**
Closing Remarks and Announcement of 5th ISFF2019
Conclusions et Annonce du 5^{ème} ISFF2019

Chair: Prof. Tetsuya Sumi, WRRRC, DPRI, Kyoto University, Japan

17:50-18:00	Closing Statement and Concluding Remarks on the 4 th ISFF	Prof. Dalila Loudyi FSTM, Hassan II University of Casablanca Morocco
18:00-18:10	The Fifth International Symposium on Flash Floods in Wadi Systems	Prof. Sameh Kantoush WRRRC, DPRI, Kyoto University, Japan



Dinner - Diner Gala

Wednesday December 5th , 2018

Mercredi 5 Décembre 2018

19:15-23:00	Headquarters of Casablanca-Settat county council at Habous/ Siège du conseil de la Région Casablanca-Settat au Habous
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3rd Day of Symposium: Thursday December 6th, 2018

3^{ème} Jour du Symposium: Jeudi 6 Décembre 2018

Field trip - Sortie sur le terrain

Visit to Wadi el Malleh dam and Mediouna storm water basin for flood control

Visite du Barrage de oued EL Malleh et le Bassin d'Orage de Mediouna pour la

protection contre les inondations

8:00-13:30	Field trip program- Programme de la sortie sur le terrain Casablanca – Mohammedia - Mediouna
8:00	Departure from the hotel - Départ de l'hôtel, Casablanca
9:30	Arrival to Wadi El Malleh Dam for flood control - Arrivée au Barrage de Oued El Malleh de protection contre les inondations Guided visit by engineers of the River Basin Agency of Bouregreg and Chaouia - Visite guidée par les ingénieurs de l'Agence de Bassin Hydraulique du Bouregreg et de la Chaouia
10:30	Departure from the dam site towards the storm water basin of Mediouna - Départ du site du Barrage vers le Bassin d'orage à Mediouna
12:00	Arrival to Mediouna storm water basin - Arrivée au site du Bassin Presentation of the infrastructure by engineers of LYDEC (Suez-Great Casablanca storm water and wastewater utility) Présentation de l'infrastructure par les ingénieurs de LYDEC (Suez- Gestionnaire de l'assainissement liquide au Grand Casablanca)
13:30	Return to hotel - Retour à l'Hotel.