

The Fifth International Symposium on Flash Floods in Wadi Systems (ISFF2020)



Kyoto, Japan
Date: 25th - 28th February 2020



GADRI
Global Alliance of
Disaster Research Institutes



MEXT

MINISTRY OF EDUCATION,
CULTURE, SPORTS,
SCIENCE AND TECHNOLOGY-JAPAN

The Fifth International Symposium on Flash Floods in Wadi Systems (ISFF2020)

Disaster Risk Reduction and Assessment for the Flood Prone
Urbanized & Archaeological Wadis in Middle East and North Africa
MENA Region



Website: www.isff-ku.com

Venue: Obaku Plaza Kihada Hall

Kyoto University, Gokasho, Uji, Kyoto, Japan

Organized by

Water Resources Research Center (WRRC)

Disaster Prevention Research Institute (DPRI)

Kyoto University, Kyoto, Japan

Supported by:

Japanese ODA Grants for Projects relating to UNESCO
Global Alliance of Disaster Research Institutes (GADRI)



Symposium Agenda		
Day	Time	Activity
1	Tuesday 25 th of February	9:00 – 16:00 Field Excursion
2	Special seminar Day Wednesday 26 th of February	11:00 – 12:00 ➤ Registration
		12:00 – 13:00 ➤ Lunch
		13:00 – 13:25 ➤ Opening
		13:25 – 14:55 ➤ Special Seminar Program – Part 1
		14:55 – 15:10 ➤ Coffee Break
		15:10 – 16:30 ➤ Special Seminar Program – Part 2
		17:30 – 19:30 ➤ Welcome Dinner
3	1 st day of ISFF2020 Thursday 27 th of February	9:00 – 10:00 ➤ Registration
		10:00 – 10:55 ➤ Opening Session
		11:00 – 11:10 ➤ Group Photo
		11:10 – 11:25 ➤ Coffee Break
		11:25 – 12:45 ➤ Session 1: Flash Floods Challenges and Strategies
		12:45 – 13:30 ➤ Lunch
		13:30 – 14:15 ➤ Poster Session A
		14:15 – 15:15 ➤ Session 2: Advances in Understanding Flood Modelling and Forecasting
		15:15 – 15:30 ➤ Coffee Break
		15:30 – 16:30 ➤ Session 3: Flash Flood Mitigation Measures and Warning Systems

Day	Time	Activity
4 2nd day of ISFF2020 Friday 28 th of February	9:00 – 9:30	➤ Registration
	9:30 – 10:30	➤ Session 4: Hydrometeorology and Climate Change
	10:30 – 10:45	➤ Coffee Break
	10:45 – 11:45	➤ Session 5: Reservoir Sedimentation and Sediment Yield
	11:45 – 12:30	➤ Lunch
	12:30 – 13:15	➤ Poster Session B
	13:15 – 14:15	➤ Session 6: Surface Runoff and Groundwater Management
	14:15 – 14:30	➤ Coffee Break
	14:30 – 15:30	➤ Session 7: Data Challenges: Monitoring, Analysis and Sharing
	15:30 – 15:45	➤ Coffee Break
	15:45 – 17:20	➤ Closing Session, potential ISFF projects and roadmap
	18:00 – 20:00	➤ Dinner

Detailed Program

Field Excursion: 25th February 2020 (Tuesday)

Excursion Visit: Hiyoshi Dam and Arashiyama

Coordinated by Dr. Tetsuya Sumi (Kyoto University, Japan)

Time	Target Site
9:00	Meeting place: HOTEL ELICIENT KYOTO
9:20	Departure: One large bus Expected numbers of participants (30-40) + Staffs
10:30	Arrival at Hiyoshi Dam Upstream of Katsura River
12:00 – 13:00	Lunch Break (Lunch box provided)
13:00	Departure
14:00	Arrival at Arashiyama
15:00	Departure from Arashiyama
16:00	Arrival at Hotel ELICIENT Kyoto

26th February 2020 (Wednesday), at Seminar Room 4 & 5, Obaku Plaza

11:00 – 12:00 **Registration**

12:00 – 13:00 **Lunch Time (Lunch Box Provided)**

Special Seminar on Flash Floods Risk at UNESCO World Heritage Sites (WHS) – Opening

Chaired by: Dr. Sameh Kantoush (Kyoto University, Japan)

13:00 – 13:05	Opening Remarks and Guests Welcome	Dr. Manabu Hashimoto, Director of DPRI (Kyoto University, Japan)
13:05 – 13:15	Opening Speech by the Jordanian Ambassador in Japan.	H.E. Lina Annab (Ambassador of Jordan in Japan)
13:15 – 13:25	UNESCO Flash Flood Project in the MENA Region (General Introduction)	Dr. Tetsuya Sumi (Kyoto University, Japan)

Special Seminar on Flash Floods Risk at UNESCO World Heritage Sites (WHS) – Part 1

Chaired by: Dr. Sameh Kantoush (Kyoto University, Japan)

Note: Allocated time for Oral Presentations: 20 min. talk + 10 min. discussion

13:25 – 13:55	Flash-Flood Risk Prevention at the World Heritage Site of Petra from Preliminary Studies to Preventive Measures	Ms. Giorgia Cesaro (UNESCO Amman Office, Jordan)
13:55 – 14:25	Petra Authority Efforts to Reduce Flash Flood Risks	Dr. Hussein Alhassanat (PDTRA, Jordan)
14:25 – 14:55	Flash Floods Mitigation Measures at the UNESCO World Heritage of Petra, Jordan	Eng. Yoshihiro Motoki (Nippon Koei Co., Ltd., Japan)

14:55 – 15:10 **Coffee Break (Seminar Room 1 & 2)**

Special Seminar on Flash Floods Risk at UNESCO World Heritage Sites (WHS) – Part 2

Chaired by: Dr. Tetsuya Sumi (Kyoto University, Japan)

15:10 – 15:40	Flash Flood Modelling and Mitigation at the Valley of Kings	Dr. Sameh Kantoush (Kyoto University, Japan)
15:40 – 16:10	JICA Efforts for the Flood Disaster Risk Reduction in the world	Mr. Toshiro Suzuki (JICA Japan)
16:10 – 16:40	UNESCO-Japan Cooperation: Capacity Building for Managing Natural Disasters of Flash Floods: Way Forward Towards World Heritage Protection in the Arab Region	Dr. Abdelaziz Zaki (UNESCO Cairo Office, Egypt)

17:30 – 19:30 **Welcome Dinner (Kyoto University Cafeteria)**

Chaired by: Dr. Sameh Kantoush (Kyoto University, Japan)

First Day of ISFF2020: 27th February 2020 (Thursday), at KIHADA Hall

09:00 – 10:00 **Registration**

Opening Session: Moderated by: Dr. Shigenobu Tanaka (Kyoto University, Japan)

Time	Title of presentation	Presenter
10:00 – 10:05	DPRI Welcome Message	Dr. Manabu Hashimoto, Director of DPRI (Kyoto University, Japan)
10:05 – 10:15	Symposium Program, Statement and General Vision	Dr. Tetsuya Sumi (Kyoto University, Japan)
10:15 – 10:25	Flood Management in Japan	Dr. Murase Masahiko (International Affairs Office, Water and Disaster Management Bureau, MLIT, Japan)
10:25 – 10:35	JICA Efforts for the Flood Disaster Risk Reduction in the World	Mr. Toshiro Suzuki (JICA, Japan)
10:35 – 10:45	Egypt-Japan Education Partnership “EJEP”	Dr. Hany El-Shemy (Cultural Consular Japan and South Korea Office Manager, Embassy of Egypt)
10:45 – 10:55	Outcomes of the Special Seminar on Flash Floods Risk at UNESCO World Heritage Sites (WHS)	Dr. Sameh Kantoush (Kyoto University, Japan)
11:00 – 11:10	Group Photo at “KIHADA Hall”	
11:10 – 11:25	Coffee Break (Hybrid Space)	

Session 1: Flash Floods Challenges and Strategies

Chaired by: Dr. Marwan Alraggad (INWRDAM, Jordan)

Note: Allocated time for Oral Presentations: 13 min. talk + 7 min. discussion

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| 11:25 – 11:45 | Flash Floods in Arid Zones: Lessons Learned from MENA Region | Dr. Dalila Loudyi (IAHR Council Member, Hassan II University of Casablanca, Morocco) |
| 11:45 – 12:05 | Flash Floods in the United Arab Emirates (UAE) | Dr. Ahmed Murad (United Arab Emirates University, United Arab Emirates) |
| 12:05 – 12:25 | Water Harvesting Small Scale Projects to Manage Flash Flood Hazard Due to Climate Change in Jordan | Eng. Abeer Sabha (Water harvesting directorate, Jordan Valley Authority, Ministry of Water and Irrigation, Jordan) |
| 12:25 – 12:45 | Flash Floods Challenges and Mitigation in Algeria | Dr. Boutaghane Hamouda (Badji Mokhtar - Annaba University, Algeria) |

12:45 – 13:30 **Lunch Time (Lunch Box Provided)**

Poster Session A

Chaired by: Dr. Shigenobu Tanaka (Kyoto University, Japan)

13:30 – 14:15 **Poster Session A (3 min. for each poster)**

Best Poster Award for Students & Young Researchers (Scientific Committee)

Session 2: Advances in Understanding Flood Modelling and Forecasting

Chaired by: **Dr. Dalila Loudyi** (IAHR Council Member, Hassan II Univ. of Casablanca, Morocco)

Note: Allocated time for Oral Presentations: 13 min. talk + 7 min. discussion

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| 14:15 – 14:35 | Evaluation of the Flood Risk at the Medjerda River Using the HECRAS 2D Model | Dr. Jalel Aouissi (Carthage University, Tunisia) |
| 14:35 – 14:55 | On Watershed Delineation for Flood Modelling in Lowlands | Dr. Ekkehard Holzbecher (GUtech, Oman) |
| 14:55 – 15:15 | Rainfall-Runoff Modelling with a Deep Learning Neural Network Model | Dr. Tayeb Boulmaiz (Ghardaia University, Algeria) |

15:15 – 15:30 **Coffee Break (Hybrid Space)**

Session 3: Flash Flood Mitigation Measures and Warning Systems

Chaired by: **Dr. Mohammed Abdelfattah** (Military Technological College, Oman)

Note: Allocated time for Oral Presentations: 13 min. talk + 7 min. discussion

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| 15:30 – 15:50 | Flash Flood Mapping in Jordan | Dr. Marwan Alraggad (INWRDAM, Jordan) |
| 15:50 – 16:10 | Flash Floods Road Mapping: The Egyptian Experience | Dr. Dia El Din El Quosy (The National Water Research Center, Egypt) |
| 16:10 – 16:30 | Causes and Consequences of Flash Flood in (Saqr Park Area, United Arab Emirates (UAE)) | Dr. Saber Hussein (United Arab Emirates University, United Arab Emirates). |

2nd Day of ISFF2020: 28th February 2020 (Friday) at KIHADA Hall

09:00 – 09:30 **Registration**

Session 4: Hydrometeorology and Climate Change

Chaired by: **Dr. Kenji Tanaka** (Kyoto University, Japan)

Note: Allocated time for Oral Presentations: 13 min. talk + 7 min. discussion

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| 9:30 – 9:50 | Assessing The Impacts of Tropical Cyclone Hazards at Local-Scales by Dynamical Downscaling Experiments | Dr. Tetsuya Takemi (Kyoto University, Japan) |
| 9:50 – 10:10 | Implementation of Hydrological and Hydraulic Models to Forecast River Flood Risks and Proposition Of Management Measures. Case Study of Nyabugogo River Basin In Rwanda | Dr. Chérifa Abdelbaki (PAUWES, Algeria) |
| 10:10 – 10:30 | Long-Term Trend Analysis and Variability of Annual and Seasonal Precipitation over the MENA Region | Dr. Mohamed Saber (Kyoto University, Japan) |

10:30 – 10:45 **Coffee Break (Hybrid Space)**

Session 5: Reservoir Sedimentation and Sediment Yield

Chaired by: **Dr. Mitsuteru Irie** (University of Miyazaki, Japan)

Note: Allocated time for Oral Presentations: 13 min. talk + 7 min. discussion

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| 10:45 – 11:05 | Beach Erosion and Wadi Sediment Supply along Al Batinah Coast, Oman | Dr. Hitoshi Tanaka (Tohoku University). |
| 11:05 – 11:25 | Estimation of Sediment Yield in Arid Wadis Using Remote Sensing and GIS | Dr. Ashraf M. Elmoustafa (Ain Shams University, Egypt) |
| 11:25 – 11:45 | Reservoir Sediment Management Practice in Sudan: Case Study of Keg Dam | Dr. Elhadi Adam (Ministry of Irrigation and Water resources, Sudan) |

11:45 – 12:30 **Lunch Time (Lunch Box Provided)**

Poster Session B

Chaired by: **Dr. Shigenobu Tanaka** (Kyoto University, Japan)

12:30 – 13:15 **Poster Session B (3 min. for each poster)**

Best Poster Award for Students & Young Researchers (Scientific Committee)

Session 6: Surface Runoff and Groundwater Management

Chaired by: **Dr. Hitoshi Tanaka** (Tohoku University)

Note: Allocated time for Oral Presentations: 13 min. talk + 7 min. discussion

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| 13:15 – 13:35 | Interplay Between Seasonal Surface Runoff and Groundwater in Jaww Plain UAE | Dr. Ahmed Murad (United Arab Emirates University, United Arab Emirates) |
| 13:35 – 13:55 | A Nominal Model Upper Bounding Flash Flood Events in a Wadi of the Jordan Rift Valley | Dr. Koichi Unami (Kyoto University, Japan) |
| 13:55 – 14:15 | Analytic Hierarchical Process in Selecting Artificial Neural Networks for Suspended Sediment Load Modelling | Dr. Abdelouahab Lefkir (École Nationale Polytechnique (ENP), Algeria) |

14:15 – 14:30 **Coffee Break (Hybrid Space)**

Session 7: Data Challenges: Monitoring, Analysis, and Sharing

Chaired by: **Dr. Tomoharu Hori** (Kyoto University, Japan)

Note: Allocated time for Oral Presentations: 13 min. talk + 7 min. discussion

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| 14:30 – 14:50 | Application of Image Identification by Artificial Intelligence to Aerial Pictures Taken from UAV for Channel Management | Dr. Mitsuteru Irie (University of Miyazaki, Japan) |
| 14:50 – 15:10 | Analysis and Consequences of the Flash Floods in Nabeul Area | Dr. Jamila Tarhouni (Institut National Agronomique de Tunisie (INAT), Tunisia) |
| 15:10 – 15:30 | Flood Hazard Mapping for Arid Basins in the Eastern Desert, Egypt | Dr. Mohamed Abdelfattah (Military Technological College, Oman) |

15:30 – 15:45 **Coffee Break (Hybrid Space)**

Closing Session: Potential ISFF Projects and Roadmap

Moderated by: Dr. Tetsuya Sumi (Kyoto University, Japan)

15:45 – 15:55	Roadmap of ISFF	Dr. Sameh Kantoush (Kyoto University, Japan)
15:55 – 16:05	ISFF Transboundary Project: Integrated Wadi Medjerda Watershed Management Project	Dr. Boutaghane Hamouda (Badji Mokhtar - Annaba University, Algeria)
16:05 – 16:15	ISFF Networking for Better Flood Monitoring: JSPS Core-to-Core Project	Dr. Dalila Loudyi (IAHR Council Member, Hassan II University of Casablanca, Morocco)
16:15 – 16:25	ISFF UNESCO Project: Flash Flood Risk of UNESCO-WHS	Dr. Abdelaziz Zaki (UNESCO, Cairo Office)
16:25 – 16:35	Educational Project for Flash Floods Resilience	Dr. Mohamed Saber (Kyoto University, Japan)
16:35 – 17:00	Plenary Discussion for Future Research Collaboration	All Participants
17:00 – 17:10	Announcement of Best Posters Winners	Dr. Shigenobu Tanaka (Kyoto University, Japan)
17:10 – 17:20	The 6 th ISFF Talk	Dr. Marwan Alraggad (INWRDAM, Jordan)

18:00 – 20:00 Dinner (Kyoto University Restaurant)

Chaired by Dr. Daisuke Nohara (Kyoto University, Japan)

Poster Program – Session A

First Author	Title	Poster Code	Status
Dina Elleithy (Kyoto University)	Change in bed soil characteristics and flood potential in response to sediment transport and flood mitigation structures	SA-1	PhD Student
Hadir Abd-El Moneim (Alexandria University)	Statistical evaluation of high-resolution precipitation products in a hydrological modelling of eastern Nile basin	SA-2	Master Student
Leila Djellit (Badji Mokhtar University)	Study on the impact of climate change in the Medjerda watershed, Algeria	SA-3	Master Student
Omar Habiba (Kyoto University)	Flash flood modelling and mitigation at the archaeological site of Petra, Jordan	SA-4	Researcher
Richard Martin E. Rinen (Kyoto University)	Mapping flood control projects: an (historical) overview of flood control projects in the Philippines.	SA-5	PhD Student
Sabah Almahrouqi (Kyoto University)	Analysis of variability and trends of extreme rainfall events over Arab region for the period 1983-2019	SA-6	Master Student
Ibrahim Al-Odaini (Sana'a university)	Flash flood prevention and mitigation options for heritage city of Sana'a due to the impact of climate changes	SA-7	Master Student
Ramy Abdel Hafez (Toshka Trading & Contracting Company)	Implementation of the trapezoid-shaped CSG dam at wadi Abadi, Egypt	SA-8	Engineer
Ahmed Fekri (University Hassan II of Casablanca)	Floods in Morocco: overview and evaluation by the swot method	SA-9	Professor
Saroj Karki (Kyoto University)	Modelling the impact of river bed aggradation on the inundation scenario in an ungauged ephemeral stream using hydrological and 2d hydrodynamic model: a case of Bakra river basin, Nepal	SA-10	Researcher
Douglas Ferreira Nogueira (Uppsala University)	Mobile-Based Early Warning Systems in Mozambique. An exploratory study on the viability to integrate Cell Broadcast into disaster mitigation routines.	SA-11	Master Student
Sridhara Nayak (Kyoto University)	Future Changes In The Rainfall Characteristics Over India In MRI-AGCM Global Warming Experiments	SA-12	Researcher

Poster Program – Session B

First Author	Title	Poster Code	Status
Tahani Al-Harrasi (Kyoto University)	Assessment of sedimentation using field investigation and uav imaging at asserin upstream dam, wadi Mijlass, Oman	SB-1	Master Student
Aline Uwineza (Miyazaki University)	Rainwater harvesting, a solution to floods in Kigali	SB-2	Master Student
Mahmood Almamari (Kyoto University)	Photogrammetry analysis approach to quantifying the post-flood peak discharge in the arid region, case study in Sultanate of Oman	SB-3	Master Student
Mir Mohammad Mones Hossaini (Miyazaki University)	Strategic environmental assessment protocol for better flood management planning in Kabul basin	SB-4	Master Student
Karim Abd rabo (Kyoto University)	Impacts of urban growth, extreme climate and disasters mismanagement on flash flood vulnerability in Egypt	SB-5	Ph.D Student
Rocky Talchabhadel (Kyoto University)	Rainfall-runoff-inundation in a data-scarce flashy watershed: an application in Kandra river basin, Nepal	SB-6	Researcher
Boutaghane Hamouda (Badji Mokhtar - Annaba University)	Spatial and temporal variability of extreme rainfall indices in north-east of Algeria	SB-7	Professor
Hassan Ayad (Hassan II University of Casablanca)	Risk of coastal flood on the Atlantic sea, Morocco	SB-8	Professor
Khalid Alzeidi (Military Technological College)	Investigation of sluice gates in energy dissipation through hydraulic jumps	SB-9	Master Student
Mouhanned Jabberi (National agronomic institute of Tunisia)	Innovative strategies for integrated river basin management and reservoir sedimentation in Tunisia: case study of Sidi Salem Dam	SB-10	Engineer
Dahak Asma (Boutaghane Hamouda) (Badji Mokhtar - Annaba University)	Experimental study for infiltration model choice: case of Madjez Ressoul catchment.	SB-11	Master Student
Nada Joumar (Hassan II University of Casablanca)	Flood risk management in the N'fis watershed of the high Atlas-Morocco : hydrologic and statistical modelling for flood frequency analysis	SB-12	Ph.D Student



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