#### ASHRAF MOHAMED ELMOUSTAFA

Professor of Engineering Hydrology, Faculty of Engineering, Ain Shams University Villa No. 190, 5<sup>th</sup> Settlement, New Cairo City, Cairo, Egypt

<u>ashraf\_elmoustafa@eng.asu.edu.eg</u> <u>http://eng.asu.edu.eg/profile/view/429</u> <u>https://orcid.org/0000-0002-8035-7426</u>

http://www.researcherid.com/rid/I-6033-2017

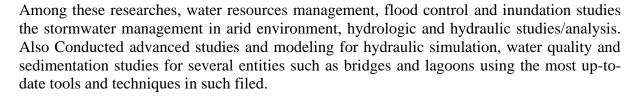
http://www.scopus.com/inward/authorDetails.url?authorID=36131294300&partnerID=MN8 TOARS

Dr. Ashraf M. Elmoustaf, works at the Irrigation and Hydraulics Department, Faculty of Engineering, Ain Shams University. His work focuses on the Hydrology, hydro-informatics, River Engineering, and GIS application in water engineering.

He teaches a few water related topics (i.e. Engineering Hydrology, Dam Engineering, Irrigation and Drainage Engineering, and others) for both graduate and post graduate classes.

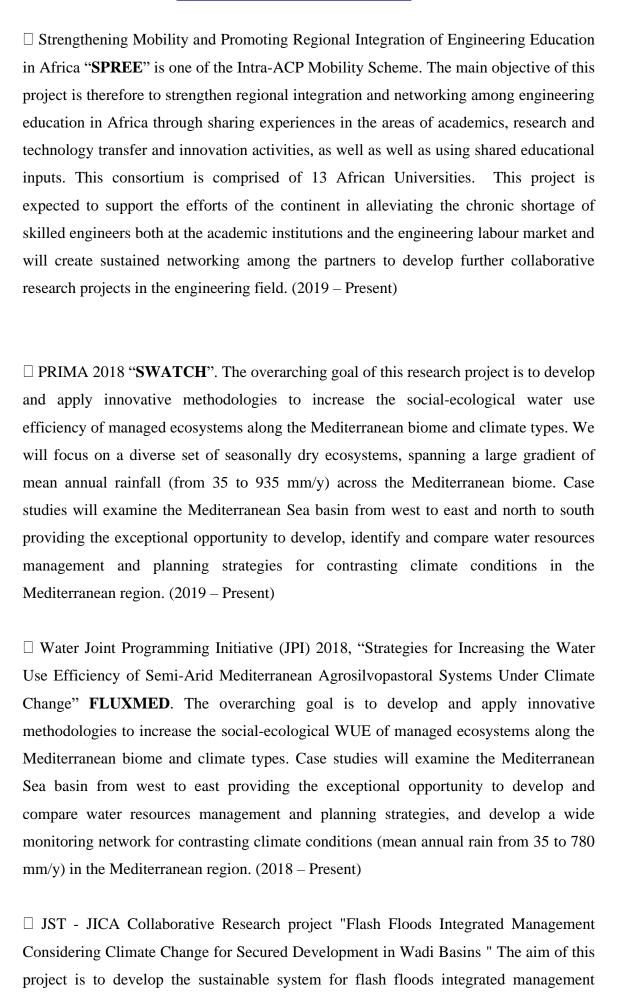
His research varies between water related branches; he had publish several manuscripts in related peer reviewed journals through his

work and post graduate studies under his supervision. He is also a reviewer for specialized journals in the field.

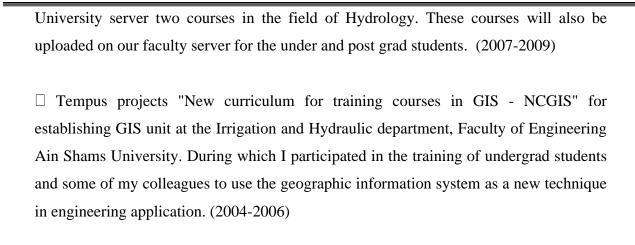


He launched a YouTube channel of educational material for engineering hydrology in Arabic language to help the student and young professionals in Egypt and the ME working in this field. Dr. Ashraf has participated and is now involved in multinational projects with academic infinities in Germany, Turkey, USA, Jordan, Netherlands and many African countries.

# **MULTI NATIONAL PROJECTS**



multidisciplinary groups focusing on Wadi Flash Floods (WFF) and its related - topics. (2017 – 2018)
$\square$ "Curriculum Development of an Interdisciplinary Master on Resource Efficient Cities" <b>IMaREC</b> . The new academic Master program IMaREC aims at organizing interdisciplinary teams around research areas that apply science and technology to timely challenges of human needs, social advancement and economic development within the context of the CNRD partners' countries, and with a pilot implementation in Egypt. (2015 – 2017).
$\square$ "Mobility to Enhance Training of Engineering Graduates in Africa", <b>METEGA</b> is one of the Intra-ACP Mobility Scheme supported projects with 12 partner universities in Eastern, Central, Southern and Western Africa. Applications are invited for METEGA mobility scholarships. METEGA is designed to provide resources and opportunities for students mobility from four regions of Africa, offering support for Master and Doctoral studies as well as staff exchange among the consortium partners. (2013 – 2019)
☐ Excellence Center for Development Cooperation Sustainable Water Management in Developing Countries (EXCEED). (2009- 2019)
$\square$ Joint research project U.SEgypt Science & Technology Joint Fund Program "Flood Risk Map for Sinai Governorates" at Iowa Flood Center at IIHR-Hydro science and Engineering (2012).
□ Tempus projects "Technology Management and Integrated Modeling in Natural Resources" Developing of curricula and courses for Hydro-informatics Masters at the Irrigation and Hydraulic department, Faculty of Engineering Ain Shams University. During this project the project team is planning to add a hydro-informatics Joint Degree in our faculty post grad list. I am participating in preparing the courses for this degree and will participate in teaching few course of my field of experience. (2009-2011)
☐ Tempus projects "Water Resources Management and Environmental Engineering Program – WATEN" for Developing of curricula and courses for a new postgraduate program at the Irrigation and Hydraulic department, Faculty of Engineering Ain Shams University. During which I participated in preparing and upload on the Aachen



# **PUBLICATIONS**

"Impact of High Dam on Nile Flood Wave Routing", ASCE-EGS, III International
Symposium on Environmental Hydrology 2002.
"A 2D Model of Aswan High Dam Reservoir For The Purpose of Flood Management",
ASCE-EGS, IV International Symposium on Environmental Hydrology 2005.
"2D Hydrodynamic Model of Aswan High Dam Reservoir"; International Conference on
Environmental Hydrology, USA, July 2006.
"2D Hydrodynamic Model for Reservoirs: Case Study High Aswan Dam Reservoir",
ASCE-EGS, V International Symposium on Environmental Hydrology 2007.
"Hydrological Model for the High Aswan Dam Reservoir Management", ASCE-EGS, V
International Symposium on Environmental Hydrology 2007.
"Floods risk assessment using multi criteria analysis", ASCE-EGS, IV International
Conference on Environmental Hydrology and Port Engineering, 2009
"Hydraulic Performance of Inland Ponds Circulation Systems", ASCE-EGS, IV
International Conference on Environmental Hydrology and Port Engineering, 2009.
"Evaluating of Muskingum Hydrological Model Parameters Using 1-D Model", Journal of
Engineering and Applied Science – Cairo University, Vol. 57, No. 1, Feb. 2010.
"Morphological Changes Analysis for Nile Bed at Aswan Bridge Area Using GIS", Ain
Shams Journal of Civil Engineering, March 2010
"Developing Intensity-Duration-Frequency Curves in Scarce Data Region: An Approach
using Regional Analysis and Satellite Data", journal of Engineering, March 2011
"Adaptation of Surface Water Modeling System for Sediment Transport Investigations in
Lake Nasser", Nile Water Science & Engineering Journal, May 2011
"Assessment of Flash Floods Flowing To Nile Main Stream Between Aswan And Assiut",
Al Azhar Journal, Oct. 2011.
"Flash Flood Risk Assessment Using Morphological Parameters", ASCE-EGS, VI
International Conference on Environmental Hydrology and Port Engineering, 2012
"Reliability Assessment of Water Structures Subject To Data Scarcity Using The SCS-CN
Model", Canadian Society of Civil Engineering (CSCE) 2013 Annual Conference, May-
June, 2013
"Sustainable Water Management for seasonal rivers deltas, Case study: Coporolo River,
Angola", International Journal of Research and Reviews in Applied Sciences, Vol. 15,
Issue 3. June. 2013

Arabia", International Journal of Research and Reviews in Applied Sciences, Vol. 16,
Issue 1, July, 2013
•
☐ "Flash Flood Risk Assessment Using Morphological Parameters In Sinai Peninsula ", Open
Journal of Modern Hydrology (OJMH), Vol.3, No.3, July, 2013.
☐ "Development of a GIS Tool For Rainfall-Runoff Estimation", International Journal Of
Innovative Research In Advanced Engineering (IJIRAE), Vol. 1, Issue 10, Nov. 2014.
☐ "Evaluation of Integrated 1D&2D Storm Drainage Model", Al Azhar Journal, August
2014.
☐ "Evaluation of water intake location suitability using hydrodynamic modeling", River flow
the 7th International Conference on Fluvial Hydraulics, September 2014, Switzerland.
☐ "Sensitivity Analysis For GSSha Model Parameters", Al Azhar Journal, October 2014.
☐ "Effect of Elevation Data Accuracy on Storm Drainage Schemes, Lagos, Nigeria", Natural
Resources (NR), Vol.6, No.7, July, 2015
☐ "Evaluation of water intake location suitability using a hydrodynamic approach", Journal
of Applied Water Engineering and Research, Jan 2016.
☐ "Reliability assessment of water structures subject to data scarcity using the SCS-CN
model", Hydrological Sciences Journal, 61:4, 696-710, Feb 2016
☐ "Assessment of Surface Runoff Change Due to Urbanization Growth in Heliopolis Basin",
IOSR Journal of Environmental Science, Toxicology and Food Technology, Volume 11,
Issue 4, PP 90-95, April. 2017.
□ "Developing Flash Floods Inundation Maps Using Remote Sensing Data, a Case Study:
Wadi AL-Arish, Sinai, Egypt", American Journal of Engineering Research, Volume-6,
Issue-5, pp-172-181, May 2017.
☐ "Evaluating evaporation rate from high Aswan Dam Reservoir using RS and GIS
techniques", International Network for Scientific Information, Vol. : 21, pp 285-293,
2018.
☐ "Urbanization Growth Effect on Hydrological Parameters in Mega Cities", 1st Conference
of the Arabian Journal of GeoScience (CAIG), 11-15 Nov., 2018.
☐ "Investigating the encroachments impact on Nile River Hydrodynamic and Morphology,
Journal of Environmental science, Article 3, Volume 38, Issue 1, Spring 2017, Page 39-64
☐ "Simulating Flood Urban Drainage Networks Through 1D/2D Model Analysis", Journal of
Water Management Modeling, Vol. 26, Oct. 2018.
☐ "Impact of Reducing Rain Gauges Numbers on accuracy of Estimated Mean Areal
Precipitation: a case study of the Meleha sub-Catchment, Sinai Peninsula, Egypt", Current
Science International Journal, Volume 07, Issue 01, Jan Mar., 2018

#### Prof. Ashraf M. Elmoustafa

☐ "Optimal Rainfall Network based on GSMaP Satellite Product", Al Azhar Journal, Feb	
2018.	
"Evaluation of Depression Storage Using Grid-Based GIS Model", International Journal of	
Science and Research (IJSR), ISSN: 2319-7064, Volume 7 Issue 9, 258-289, September	
2018.	
☐ "Assessment of Depression Impact on Runoff Characteristics Using GIS Technique",	
International Journal of Engineering and Applied Sciences (IJEAS) ISSN: 2394-3661,	
Volume-5, Issue-8, 89-92, August 2018	
☐ "Modeling the Effect of Depression Areas on Outflow Hydrograph", International Journal	
of Scientific & Engineering Research ISSN 2229-5518 Volume 10, Issue 2, 465-469	
February-2019.	

## **ATTENDED COURSES AND WORKSHOPS**

- 1. Regional Workshop on "Water Energy Food NEXUS in MENA Region", Aswan, Egypt. November 11-17, 2018
- Regional Workshop on "Water Scarcity: Risks and Solutions" Sousse, Tunisia, April 23-28, 2018
- 3. The Third International Symposium on Flash Floods in Wadi Systems "Disaster Risk Reduction and Water Harvesting in the Arab Region", German University of Technology in Oman, Muscat, Sultanate of Oman December 5–7, 2017
- 4. Regional Expert Workshop on "Water Efficient Cities" Marrakech, Morocco, November 03-08, 2017
- 5. Regional Workshop On "Solutions to water challenges in MENA-Region" Cairo, Egypt April 25-30, 2017
- 6. Expert work shop on "Water Challenges in MENA Region 2016-2050" Aqaba, Jordan (2016).
- 7. Expert Workshop on "Sustainable Urban Water Management and Water Sensitive Cities", Sharm El-Sheikh, Egypt (2015).
- 8. Regional Workshop on "Urban water management & water demand management", Antalya, Turkey (2014).
- 9. Sustainable Management of Hydrological Systems in Arid and Semi-Arid Regions, Karak, Jordan (2013).
- 10. Sustainable Water Management In African Countries, UNESCO, Kisumu, Kenya. (2012)
- 11. ENPM First National Workshop, Alexandria, Egypt (2012)
- 12. Water Resources Planning, UNESCO-IHE, Delft, Netherlands. (2008)
- 13. Application of GIS in water resources, Department of Engineering Hydrology, RWTH University, Aachen, Germany. (2007)
- 14. Arc GIS Intensive course, Braunchwiegh University, Institute of water resources, Braunchwiegh, Germany.(2006)
- 15. Soft Skills short courses: (Creative Thinking, Self-Management, Problem Solving, Communication Skills and Mind Mapping). Cairo, Egypt. (2004-2006)
- 16. Enhancing Data Analysis and Presentation Skills for Engineers, Ain Shams University, Cairo, Egypt.(2005)
- 17. Arc GIS Introduction, Basic and Advanced Courses, Ain Shams University, Cairo, Egypt.(2004/2005)

## TRAINING AND TEACHING EXPERIENCE

Teaching undergraduate and postgraduate students since 1998:

- Design of Water Structures. (Culverts, Bridges, Siphons, Aqueducts, Regulators, Navigation locks and retaining walls of different types)
- Engineering Hydrology and Storm Drainage.
- Geographic Information System "GIS".
- Irrigation and Drainage Engineering.
- Fluid Mechanics and Hydraulics.
- Dam Engineering.

#### $\Box$ (2008, 2011, 2013, 2017)

"Infrastructures, Waterfronts, and Coastal Protection" course instructor for Abu Dhabi National Oil Company (ADNOC) - ADMA-OPCO, National Consulting Bureau (NCB), Abu Dhabi.

#### □(MARCH 2009)

"GIS Mapping and Remote Sensing" for Saudi National Authority members, ECO Man, Consultancy, Training and Solutions, Cairo.

#### **□(JUNE 2010)**

"Design And Management Of Surface Irrigation Systems" for Saudi National Authority members, ECO Man, Consultancy, Training and Solutions, Cairo.

#### $\Box$ (JULY 2010)

"Designing and analyzing Water Networks using Computer Applications" for Saudi National Authority members, ECO Man, Consultancy, Training and Solutions, Cairo.

#### $\Box$ (2004 UP TILL NOW)

Arc GIS instructor at Ain-Shams University

Faculty of Engineering for both undergraduate and postgraduate students.

# **AWARDS AND MEMBERSHIPS**

$\square$ Member of the "International Scientific Association for Sustainable Management of
Water Resources", EXCEED-SWINDON (2018)
$\square$ MSP fellowship to attend short course in UNESCO-IHE, Delft, Netherlands (April
2015).
$\square$ NFP fellowship to attend short course in UNESCO-IHE, Delft, Netherlands (March
2008).
$\square$ 4 <sup>th</sup> best conference paper, ASCE-EGS, VI International Conference on Environmental
Hydrology and Port Engineering, 2012.
$\square$ 2 <sup>nd</sup> best conference paper, ASCE-EGS, IV International Conference on Environmental
Hydrology and Port Engineering, 2009.
$\square$ The University Award as one of the best demonstrators (2001).
☐ Egyptian Engineers Syndicate Awards for Graduated students (1998).
$\hfill\square$ Graduated Students Certificate (non official) as the best Teacher Assistant in the Civil
Department, Faculty of Engineering, Ain Shams University (2003/2004 and
2004/2005).