Ali Shariq

Research Scholar
Aligarh Muslim University

Areas of Research Interest:
Water Resources Engineering, Hydraulics Engineering, River Engineering., Flood, Open Channel Flow, Sediment Transport, and Scour

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EDUCATION

PROFESSIONAL QUALIFICATION

COURSE	UNIVERSITY	YEAR OF PASSING	CPI
Ph.D. (Hydraulic Structure)	A.M.U	Dec, 2016-till today	Submitted
M.Tech (Hydraulic Structure)	A.M.U.	2016	9.222
B.Tech (Civil Engineering)	A.M.U.	2014	8.491

ACADEMIC QUALIFICATION

EXAM	BOARD	SCHOOL	YEAR OF PASSING	RESULT
SSSCE (PCMB)	A.M.U.	Senior Secondary School (Boys)	2010	76.25 %
SSCE	A.M.U.	AMU City High School	2008	79.00 %

Ph.D. THESIS (Submitted):

Title: Flow Characteristics of Gabion weirs
Supervisors: Dr. Ajmal Hussain (AMU) and Dr. Zulfequar Ahmad (IIT Roorkee)
Summary: My Doctoral research includes experimental as well as analytical study related to the flow characteristics and scour analysis for gabion weir. All the experimental works were conducted at Hydraulic Engineering laboratory, IIT Roorkee, India. The primary objective of my study was to investigate the flow characteristics and determine the discharge for gabion weir under through, free and submerged flow conditions. Another objective is to determine the scour parameters and turbulent characteristics of flow at downstream of the gabion weir. Experiments were performed in an open channel with rectangular broad crested gabion and solid weir having different crest height, diameter of boulders/porosity and different flow conditions for various discharges. A mathematical model was developed for estimating discharge through the gabion weir under through flow condition. A relationship for the estimation of the maximum scour depth, scour length, dune height and scour profile was also developed using experimental data. Measurement of velocity profiles and turbulence intensities were done using ADV. CFD model was also developed to investigate flow characteristics of the gabion weir.

M.TECH DISSERTATION:

Title: Flow Characteristics of Side Weirs in Open Channel
Supervisors: Dr. Ajmal Hussain (AMU) and Dr. Mujib Ahmad Ansari (AMU)
Summary: In the dissertation, a comprehensive laboratory study for the discharge coefficient of side rectangular sharp-crested weir in a straight rectangular channel has been conducted in a large physical model under subcritical flow conditions. Analytical and experimental studies related to the discharge characteristics of side rectangular sharp-crested weir in open channels also presented.

B.TECH PROJECT:

- Design of Two Lane Highway T-BEAM R.C. BRIDGE

OTHER QUALIFICATIONS:

- **GATE 2014** (All India Rank 5497)
- **GATE 2015** (All India Rank 4246)
- **GATE 2016** (All India Rank 2894)
- **GATE 2017** (All India Rank 6039)

VOCATIONAL TRAINING:

- Building Department, A.M.U., Aligarh.
- Duration = one month.
- Studied about designing, plan and sectional view drawing of any building.

AWARDS, FELLOWSHIP AND GRANTS

- PROM 2019 - International Scholarship Exchange of Doctoral Students, Polish Academy of Science, Poland and IAHR.
- Young Researcher Award by Institute of Scholar, Bengaluru
- MHRD fellowship (2 years)
- Non-Net Fellowship (4 years)

COMPUTER PROFICIENCY

- ANSYS
- DTREG
- Auto-CAD
- Python
- Mat Lab
- Staad Pro
- Origin
- Corel Draw

KEY SKILLS

- Experimental modelling
- Numerical modelling
- Model Design and Calibration
- Data and Statistical analyses
- Soft Computing Techniques (ANN, GMDH, GEP)
- Linear and Non-linear Regression

STRENGTHS

- Adaptive nature and Positive attitude.
- Ability to work in a team.
- Good Communication and Writing skills.
- Quick Learner.

PUBLISHED PAPERS IN JOURNALS

1. Hussain, A., **Shariq, A.,** Danish, M, and Ansari, M. A. (2021). Discharge Coefficient Estimation for Rectangular Side Weir Using GEP and GMHD methods. Advances in computational Design, 6(2); 135-151. DOI: https://doi.org/10.12989/acd.2021.6.2.135
2. **Shariq, A.,** Hussain, A., & Ahmad, Z. (2020). Discharge equation for the gabion weir under through flow condition. Flow Measurement and Instrumentation, 74; 101769.

3. Ansari, M. A., Hussain, A. **Shariq, A.,** and Alam, F. (2019). Experimental and numerical study for the estimation of coefficient of discharge for side compound weir. Canadian Journal of Civil Engineering. 46(10): 887-895.
4. **Shariq, A.,** Hussain, A. and Ansari, M. A., (2018). Lateral Flow Through the Sharp Crested Side Rectangular Weirs in Open Channels. Flow Measurement and Instrumentation, Elsevier, Vol. 59; 8-17.
5. **Shariq, A.,** Hussain, A. and Ansari, M. A., (2017). Discharge Coefficient for side compound weirs in open channel. International Journal of Advance Research in Science and Engineering, Vol. 6, Special Issue 03, December 2017, pp. 177-186.
6. **Shariq, A.,** Hussain, A., & Ahmad, Z. Flow over the gabion weir under free and submerged flow condition. Flow Measurement and Instrumentation, Elsevier. (Under review)

INTERNATIONAL CONFERENCE (ABROAD)

1. **Shariq, A.,** Hashid, M., Hussain, A. and Ahmad, Z. Energy dissipation for flow over the gabion weir. 1st IAHR Young Professionals online congress, 17-18 November, 2020, organised by Spain Water and IWHR China.
2. **Shariq, A.,** Hussain, A. and Ahmad, Z. Flow through the gabion weir. 6th IAHR Europe Congress 2020, 15-18 February, 2021, organised by The Polish Academy of Sciences and Warsaw University of Life Sciences, Warsaw, Poland.

PUBLISHED PAPERS IN INTERNATIONAL CONFERENCES

1. **Shariq, A.,** Hussain, A., and Ansari, M. A. (2018), " Prediction of Discharge Coefficient for Side Rectangular Weir using Group Method of Data Handling (GMDH) ", "Hydro 2018", 23st International Conference on Hydraulics, Water Resources and Coastal Engineering, 19-21 Dec 2018, organized by NIT Patna, Patna, India.
2. Hussain, A., Ansari, M. A. and **Shariq, A**. (2017), "Application of Artificial Neural Network for Estimation of Coefficient of Discharge Side Compound Weir ", "Hydro 2017", 22nd International Conference on Hydraulics, Water Resources and Coastal Engineering, 21-23 Dec 2017, organized by L. D. College of Engineering, Ahmedabad, India.
3. **Shariq, A.,** Hussain, A., and Ansari, M. A. (2016), " Discharge Coefficient of Side Rectangular Weirs in Open Channel ", "Hydro 2016", 21st International Conference on Hydraulics, Water Resources and Coastal Engineering, 08-10 Dec 2016, organized by CWPRS, Pune, India.

PUBLISHED PAPERS IN NATIONAL CONFERENCES

1. **Shariq, A.,** Hussain, A. and Ahmad, Z. (2019). "Flow over a Gabion Weir: A Complete Review". National conference on "Water Resources Management (WRM-2019), 15-16 March, 2019, organised by Department of Civil Engineering, AMU, Aligarh.
2. **Shariq, A.,** Hussain, A. and Ansari, M. A., (2017). "Discharge Coefficient for side compound weirs in open channel". National Conference on "Recent Innovation in Science, Technology and Engineering" 16th December 2017, organized by National Institute of Technology (NIT), Srinagar, Jammu and Kashmir, India. pp. 179-188. (ISBN: 978-93-86-171-87-0)
3. **Shariq, A**, Hussain A., Ansari, M. A. (2016). Discharge coefficient of side rectangular sharp crested weir. AGE-2016, National Conference. Organised by Department of Civil Engineering, AM U, Aligarh, India. pp. 244-248.

SEMINAR / WORKSHOP / REFRESHER COURSES / SHORT TERM COURSES ATTENDED

1. International Workshop **On Publishing In High Impact Journals** organised by Z. H. College of Engineering and Technology, Aligarh Muslim University, Aligarh held on 25th April 2017.
2. Attended one-week Workshop on "**Life skill development through counselling**" from 11th – 17th September 2017 organized by Student's Counselling Centre Aligarh Muslim University, Aligarh.

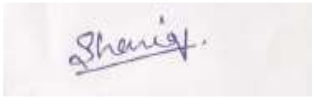
3. National workshop on **Seismic Safety of Structures** organised by Department of Civil Engineering, Z. H. College of Engineering and Technology, Aligarh Muslim University, Aligarh held on 29th March 2017.
4. One-day workshop on **Technical Manuscript Preparation with Latex** on April 21st, 2018 organized by Department of Electronics Engineering, AMU, Aligarh.
5. One-week workshop on "**Statistics & Optimization Techniques using Software Packages**" from 26th -31th March, 2018 organized by Department of Statistics & Operations Research, Aligarh Muslim University, Aligarh.
6. National workshop on "**Design of Experiments: Engineering Applications**" on 4th – 5th May 2018, organised by Department of Civil Engineering, Z. H. College of Engineering and Technology, Aligarh Muslim University, Aligarh.
7. International Seminar on **"Managing Research with Effective Outcome**" on 6th August 2018, organised by Department of Computer Engineering, Z. H. College of Engineering & Technology, Aligarh Muslim University, Aligarh.
8. Two-day workshop on **"Modelling and Designing of Dam using Midas GTS NX"** on 31th August and 1st September 2018, organised by MIDAS Research and Development Centre India Pvt. Ltd. Mumbai.
9. One-week short term course on "**Computational Fluid Dynamics for Incompressible flows**" held during 17th – 21st June 2019, organised by Department of Mechanical Engineering, Indian Institute of Technology Guwahati, Guwahati, India.
10. Two-day workshop on "**Introduction to river and channel modelling**" held during 6th – 7th May 2019, organised by DHI India in the Collaboration with Department of Civil Engineering, Indian Institute of Technology Roorkee, Roorkee, Uttrakhand, India.

PERSONAL PROFILE

Father's Name	: Mr. Sharafat Ali
Mother's Name	: Mrs. Mumtaz Begum
Date of Birth	: 29th August 1992
Gender	: Male
Nationality	: Indian
Marital Status	: Unmarried
Languages Known	: English, Hindi, Urdu
Permanent Address	: H.No.1129, Rashan Wali Gali, Jamalpur, Aligarh (U.P.).
Passport	: Z3151727 (valid upto Feb 2025)

DECLARATION:

I hereby solemnly affirm that all the information furnished above is true to the best of my knowledge and belief.



Date: 16-10-2021
Place: Aligarh (India)

ALI SHARIQ