

## RESUME



### 1-PERSONAL INFORMATION

First name: Masoud  
Last name: Ghodsian  
Date of birth: 21.03.1960  
Place of birth: Mahallat-Iran  
Married status: Married  
Address: Faculty of Civil and Environmental Engineering  
Tarbiat Modarres University  
P.O.Box.: 14115/143-Tehran, I. I. Iran  
Tel: +98 21 82883317  
Fax: +98 21 82884914  
Email: ghods@modares.ac.ir

### 2. EDUCATIONAL RECORDS

<u>Date</u>	<u>Degree</u>	<u>Institution</u>
1986	B.Tech	P.A.U., Ludhiana- India
1989	M.Tech	Roorkee Univ., India- Civil Engg. (Hydraulics)
1992	Ph.D	Roorkee Univ., India- Civil Engg. (Hydraulics)

### 3. ACADEMIC EXPERIENCES,

1. Assistant professor, Tarbiat Modares University, Tehran, Iran (1992-2000).

2. Associate professor, Tarbiat Modares University, Tehran, Iran (2001-2003).
3. Professor, Tarbiat Modares University, Tehran, Iran (since 2003).
4. Adviosore, Water research center, Tehran, Iran (1994-1996).
5. Adviosore, Building and housing reasch center, Tehran, Iran (1998-2000).
6. Head of Hydraulic engineering group, Civil engineering department, Tarbiat Modarres University, Tehran –Iran (1996-1999).
7. Head of Hydraulic engineering group, Civil engineering department, Tarbiat Modarres University, Tehran –Iran (2001-2004).
8. Head of Hydraulic Engineering Group, Water Engineering Research Institute, Tarbiat Modares University, Tehran, Iran (since 2004).
9. Assoc. Dean Academic, Faculty of Engineering, Tarbiat Modares University, Tehran. (2003-2005).
10. Member of academic counsul, Tarbiat Modares University, Tehran. (2003-2005).
11. Head of Civil Engineering Section, Tarbiat Modares University, Tehran, Iran (2007-2009).
12. Memer of University Council, Tarbiaty Modares Uiversity, Tehran, Iran (2007-2009).
13. Head of Faculty of Civil and Environmental Engineering, Tarbiat Modares University, Tehran, Iran (2009-2011).
14. Member of academic counsul, Tarbiat Modares University, Tehran. (2009-2011).
15. Head of Hydraulic engineering group, Civil and environmental engineering, Tarbiat Modarres University, Tehran –Iran (2014-2016).
16. Head of Tarbiat Modares University Campus (2016-).
17. Member of academic counsul, Tarbiat Modares University, Tehran. (2016-).
18. Memer of University Council, Tarbiat Modares Uiversity, Tehran, Iran (2016-).

#### 4. MEMBERSHIP OF SCIENTIFIC SOCIETIES:

- 1) Member of Iranian Hydraulic Association.
- 2) Member of International association for Hydroenvironmental Engineering and Research (IAHR).
- 3) Editor-In-Chief: Modares Civil Engineering Journal, Tarbiat Modares University-Tehran-Iran.
- 4) Member of Editorial Board; Modares Civil Engineering Journal, Tarbiat Modares University-Tehran-Iran.
- 5) Member of Editorial Board; International Journal of Sediment Research- Elsevior.
- 6) Member of Editorial Board; Jouranl of Iranian Hydraulic Association.

#### 5. REVIEWER

- 1) International journal of engineering science, Iran university of science and technology.
- 2) Agriculture research journal, Shahid Chamran university, Ahvaz-Iran.
- 3) Research journal of technical department– Tehran university- Tehran.
- 4) Esteghlal research journal, IUT, Esfahan-Iran.

- 5) Modares technical and engineering journal, Tarbiat Modares University- Tehran-Iran.
- 6) Journal of Irrigation and drainage engineering, ASCE.
- 7) Journal of Hydraulic engineering, ASCE.
- 8) Journal of hydroenvironmental Research, IAHR-Elsevier
- 9) Journal of Iranian Hydraulic Association
- 10) Journal of Iranian Water Resources Association
- 11) International journal of sediment research- Elsevier
- 12) International Journal of Civil Engineering, Iranian Society of Civil Engineer
- 13) Journal of water and watershed
- 14) Journal of research in agriculture engineering

## 6.COMMITTEE MEMBERS

- 1) Member of subcommittee on flood prevention , sea water oscillation and flooding of rivers, Tehran (1997-2000).
- 2) Member of national committee on flood protection- Tehran province (1997-2000).

## 7. RESEARCH INTERESTS

- 1) River Engineering
- 2) Physical models
- 3) Fluvial hydraulics
- 4) Hydraulic structures
- 5) Sediment transport

## 8. PUBLICATIONS

### a) JOURNAL PAPERS

- 1) Swamee, Pathak and **Ghodsian, M.** (S. Ali), "Analysis of rectangular side sluice gate", Journal of Irrigation and Drainage Engineering, ASCE, Vol. 119, No.6, 1993.
- 2) Swamee, Pathak, Mohan, Agrawal and **Ghodsian M.** (S. Ali), "Sub critical flow over rectangular side weir", Journal of Irrigation and Drainage Engineering, ASCE, Vol. 120, No. 1, 1994.
- 3) Swamee, Pathak and **Ghodsian, M.** (S. Ali), "Side weir analysis using elementary discharge coefficient", Journal of Irrigation and Drainage Engineering, ASCE, Vol. 120, No. 4, 1994, Republished in water resources journal, Vol. 182, Sep. 1994.
- 4) **Ghodsian, M.** "Viscosity and surface tension effects on rectangular weir flow", International Journal of Engineering Science, Vol. 9, No. 4, pp. 111-117- 1998.
- 5) **Ghodsian, M.**, Discussion of "Analysis of flow through lateral slot" by C.S.P. Ojha and D.Subbiah, Journal of Irrigation and Drainage Engg., Vol. 124, No. 6, pp. 327-329. 1998.

- 6) Borghei, S.M., Jalili and **Ghodsian, M.**, "Discharge Coefficient for sharp crested side weir in sub critical flow", Journal of hydraulic engineering, ASCE, Vol. 125, No. 10, Oct. 1999.
- 7) **Ghodsian, M.** and Bahrami, J "Measurement of discharge by triangular broad crested weirs" International Journal of Engineering Science, No.7, Vol.10 ,1999, ( in persian).
- 8) **Ghodsian, M.**, Discussion of "Scour below pipeline in river crossing" by Moncada and Aguirre-Pe, Journal of Hydraulic Engineering, ASCE, October, 2000.
- 9) **Ghodsian, M.** and Hosseini Tehrani, S.M. "Scour around groin", International Journal of Sediment Research, No.1 , Vol. 16, March, 2001.
- 10) **Ghodsian, M.**, Amanian, N. and Marashi, S.A., "Discharge coefficient of semicircular labyrinth weir" Amirkabir Journal of science and Technology, Vol. 13, No. 49, pp. 76 – 83, 2002. (in persian).
- 11) Abassi, A.A., **Ghodsian, M.**, Habibi, M. and Salehi A.A., "Experimental investigation on sediment control in lateral intake using Sill" Journal of Pajouhesh-va-Sazandegi, N0.55, Vol.2., 2002. (in persian).
- 12) **Ghodsian, M.** and Azar F. Ardeshtir, " Scour hole characteristics below free overfall spillway" International Journal of Sediment Research, Vol. 17, No. 4, pp 304-313. 2002.
- 13) **Ghodsian, M.** and Saryazdi, M. H. A., " Dimensions of scour hole downstream of flip bucket spillway" Modarres Technical and Engineering Journal, Special issue on civil engineering, T.M.U, No. 8, summer 2002. (in persian).
- 14) Borghei, S.M., Vatannia, Z, **Ghodsian, M.** and Jalili, M.R., "Oblique rectangular sharp crested weir" Proceedings of the Institution of Civil Engineers, Water and Maritime Engineering, 156, June 2003.
- 15) **Ghodsian, M.**, "Super criticalflow over rectangular side weir" Canadian journal of civil engineering, 30, 2003.
- 16) **Ghodsian, M.**, Discussion of flume tests for scour in clay at circular piers", Journal of hydraulic engineering, ASCE, Vol. 126, No. 7, July, 2003.
- 17) **Ghodsian, M.**, "Flow over side sluice gate" Journal of Irrigation and Drainage Engg., ASCE, Vol. 126, No. 6, 2003.
- 18) Ghaheri, A., Goodarzy, M. and **Ghodsian, M.**, "Analysing field data for determination of discharge coefficient of side weirs in trapezoidal channels", International Journal of Engineering Science, No.2, Vol.14 , 2003 ( in persian).
- 19) Montazer, G., **Ghodsian, M.**, Nasiri, F., Javan, M. and Eghbalzadeh, A., " Intelligent prediction of afflux due to bridge pier using ANN based on RBF" Modarres Technical and Engineering Journal, Special issue on civil engineering, T.M.U, No. 14, Winter 2004. (in persian).

- 20) Khosronejad, A., **Ghodsian, M.** and Montazer, G.A. , "Prediction of scour around piles using ANN" International Journal of Sediment Research, Vol. 18, No. 6. 2003.
- 21) **Ghodsian, M.**, "Flow over triangular side weir" Iranica scientia, Vol. 11, No. 1&2, 2004.
- 22) Najafi, J. and **Ghodsian, M.** "Experimental investigation on dimensions of scour hole downstream of pipe culverts" Journal of engineering, Faculty of engineering, University of Tehran, Vol. 38, No.2, July 2004. (in persian).
- 23) **Ghodsian, M.** "Stage discharge relationship for triangular weir" International journal of civil engineering, Vol. 2, No.1, March 2004.
- 24) Abooghasemi, M., **Ghodsian, M.**, Ayoubzadeh, S.A., Shafae Bajestan, M., "Scour hole location in sinus a channel", Journal of Hydraulic Engineering, Iranian Hydraulic Association, Summer 2005, (in persian).
- 25) Dehghani, A.A., Montazer, G.A., Nasiri Ssaleh, F., **Ghodsian, M.** "Optimisation of concrete gravity dams by using genetic algorithm and ANN", Modarres Technical and Engineering Journal, Special issue on civil engineering, No.25, Fall 2006, (in persian).
- 26) Hassanpour, F., Ayoubzadeh, S.A., **Ghodsian, M.**, Samani, J.M.V., "Effect of submerged vanes on itake discharge amnd water surface profile at 90 degree lateral intakes", Journal of research and construction, No.. Vol. 2. (in persian).
- 27) Dehghani, A.A., **Ghodsian, M.** Salehi Neyshaburi, S.A.A. and Shafeefar, M., "Variations of alluvial channel bed in a 180 degree channel, " Journal of Hydraulic Engineering, Iranian Hydraulic Association, Summer 2007, (in persian).
- 28) Salajegha, A., Salehi Neyshaburi, S.A.A., Ahmadi, H., Mahdavi, M. and **Ghodsian, M.**, "Experimental study on 3D flow pattern in river bend", Iranian journal of natural resource, Vol. 58, No. 1, 25-33 (in persian).
- 29) **Ghodsian, M.**, Melvile, B. and Tajkarimi, D. "Local scour due to free overfall jet", Water management, Institution of Civil engineers, London, Vol. 159, IssueWM4, 2006.
- 30) **Ghodsian, M.** and Mousavi, S. K., "Experimental study on bed scour in a 90o channel bend", International Journal of Sediment Research. Vol. 21, No. 4, 2006.
- 31) Khosronejad, A., **Ghodsian, M.**, Salehi Neyshabouri and Masouri, A.R.,m " Computation of scour depth and length around pile groupe using ANNs", Modares Technical and Engineering Journal, No. 29, Fall 2007, (in persian).
- 32) Zakermoshfegh, M.,**Ghodsian, M.**, Salehi Neyshabouri and Shakiba, M., "River flow forecasting using Newral Network and Auto-Calibrated NAM model with Shuffled complex evolution", Journal of Applied Science, 8(8), 1487-1494, 2008.
- 33) Montaseri, H., **Ghodsian, M.**, Safeefar, M., Salehi Neyshaburi, S.A.A., and Dehghani, A.A., "Experimental study on flow field and scouring at lateral intake in a

180 degree channel bend", Journal of Iranian agriculture science and natural resources, Vol. 15, No. 2, 225-240, 2008, (in persian).

34 Nasrollahi, A., **Ghodsian, M.**, Salehi Neyshabouri, S. A. A., "Local scour at permeable spur dikes", Journal of Applied Sciences, Vol. 8 Issue 19, p3398, Oct. 2008

35 **Ghodsian, M.**, Vaghefif M., and Panahpour, N. "Experimental study on 2D flow pattern around spur dike in 90 degree channel bend", Journal of Iranian agriculture science and natural resources, Vol. 15, No. 4, 269-280, 2008, (in persian).

36 Vaghefi, M., **Ghodsian, M.** and Salehi Neyshaburi, S.A.A., "Experimental study on flow pattern around T-shaped spur dike in a 90 degree bend with flat bed", Technical Journal, Tabriz University, Tabriz-Iran, Vol. 37, No. 3, 75-81, Fall 2008, (in persian).

37 Vaghefi, M., **Ghodsian, M.** and Salehi Neyshaburi, S.A.A., "Experimental study on 3D flow field and scouring in a 90 degree channel bend", Journal of Hydraulic Engineering, Iranian Hydraulic Association, Vol. 3, No. 3, 41-57, 2008, (in persian).

38 Vaghefi, M., **Ghodsian, M.** and Salehi Neyshaburi, S.A.A., " Experimental study of scour around spur dike in a 90 degree bend", Journal of Iranian water resources, Vol. 4, No. 3, 67-69, 2008, (in persian).

39 Fazli, M., **Ghodsian, M.** and Salehi Neyshaburi, S.A.A., "Variations of bed topography of a 90 degree channel under different flow conditions", Modarres Technical and Engineering Journal, No.35, 123-142, Spring 2009, (in persian).

40 **Ghodsian, M.** and Vaghefi, M. "Experimental study on scour and flow field in a scour hole around a T-shaped spur dike in a 90° bend", International Journal of Sediment Research. Vol. 24, No. 2, 145-157, 2009.

41 **Ghodsian, M.**, " Stage discharge relationship for a triangular labyrinth spillway", Journal of Water management 162, WM3, Institution of Civil Engineers, London, 173-178, June 2009.

42 Vaghefi, M., **Ghodsian, M.** and Salehi Neyshaboori A.A. "Experimental study on the effect of a T-shaped spur dike length on scour in a 90° channel bend", The Arabian Journal for Science and Engineering, Volume 34, Number 2B, 337-348, Oct. 2009.

43 Vaghefi, M., **Ghodsian, M.** and Salehi Neyshaboori A.A., "Temporal variations of scour around a T-shaped spur dike in a 90 degree bend", Journal of water and soil protection", Vol. 16, No., 1, 79-105, 2009, (in persian).

44 Vaghefi, M., **Ghodsian, M.** and Salehi Neyshaboori A.A., "Experimental study of 3D flow field around a T-shaped spur dike in a 90 degree bend", Journal of water and soil protection", Vol. 16, No. 2, 105-129, 2009, (in persian).

- 45 Ghohari, S., Ayubzade, S.A., **Ghodsian, M.** and Salehi Neyshaboori A.A., "Effect of submerged vanes and spur dike on sediment control to lateral intake", *Journal of water and soil protection*", Vol. 16, No. 2, 35-59, 2009, (in persian).
- 46 Vaghefi, M., Ahmadabadi, A., Fathnia, A. and **Ghodsian, M.** "Comparison of interpolation methods for bed topography of channel bends", *Journal of watershed science and engineering*, Iranian watershed association, Vol. 3, No. 6, Spring 2009. (in persian).
- 47 Fazli, M., **Ghodsian, M.** and Vaghefi, M., "Scouring and flow pattern around two impermeable spur dike in a 90 degree bend", *Journal of Civil and Environmental Engineering*, Vol. 39, No. 33, 33-45, fall 2009 (in persian).
- 48 Vaghefi, M., **Ghodsian, M.** and Salehi Neyshaboori A.A., "Experimental study on the effect of channel radius and location of T-shaped spur dike on scour in a 90 degree channel bend", *Journal of Hydraulic Engineering*, Iranian Hydraulic Association, Vol. 4, No. 1, 90-107, 2009, (in persian).
- 49 Vaghefi, M. and **Ghodsian, M.**, "Experimental study on the effect of T-shaped spur dike on bed topography in a 90 degree bend", *Journal of civil engineering*, Ferdousi University, Mashhad, Iran, Vol. 22, No. 113, 1-128. 2010 (in persian).
- 50 Vaghefi, M. and **Ghodsian, M.**, "Experimental study on secondary flow and vorticity around a T-shaped spur dike in a 90 degree bend", *Journal of civil engineering*, Ferdousi University, Mashhad, Iran, Vol. 21, No. 111, 2010 (in persian).
- 51 Vaghefi, M. and **Ghodsian, M.**, "Experimental study on flow field around a T-shaped spur dike in a 90 degree bend with movable bed", *Journal of Civil and photometry*, Faculty of Engineeringm University of Tehran, Vol. 44, No. 2, 265-276, 2010, (in persian).
- 52 Vaghefi, M. and **Ghodsian, M.**, "Experimental study on the effect of a T-shaped spur dike on bed topography in a 90 degree bend ", *Journal of civil engineering*, Ferdousi University, Mashhad, Iran, No. 1, 1-17, 2010 (in persian).
- 53 Vaghefi, M. and **Ghodsian, M.**, "Experimental study on the effect of bend radius on bed topography in a 90 degree bend ", *Journal of science and irrigation engineering*, Shahid Chamran University, Ahvaz, Iran, Vol. 33, No. 2, 93-113, 2010. (in persian).
- 54 Mousavi, S.K. and **Ghodsian M.**, "Experimental study on the effect of relative channel bend radius on bed scouring of a 90 degree channel bend", *Modarres Technical and Engineering Journal*, Vol. 10, No.2, 135-144, Spring 2010, (in persian).
- 55 Vaghefi, M. and **Ghodsian, M.**, Behnam Taghdosi, M., "A new instrument for measuring bed topography", *Modarres Technical and Engineering Journal*, Vol. 11, No. 1, 85-92, Summer 2010, (in persian).

- 56 Safarzadah, A., Salehi Neyshaboori A.A., Zarati, A.R and **Ghodsian, M.** "Study on distribution of shear stress in uniform channel", Journal of Hydraulic Engineering, Iranian Hydraulic Association, Vol. 5, No. 1, 51-70, 2010, (in persian).
- 57 Vaghefi, M. and **Ghodsian, M.**, "Experimental study on the effect of bend radius on secondary flow in 90 degree bend", Journal of Hydraulic Engineering, Iranian Hydraulic Association, Vol. 5, No. 1, 91-99, 2010, (in persian).
- 58 Ghohari, S, Ayubzadeh, S.A., **Ghodsian, M.** and Salehi Neyshaboori A.A., "Experimental study on flow field of lateral intake using submerged vanes and spur dike", Journal of agricultur engineering research, Vol. 11, No. 4, 1-18, 2010, (in persian).
- 59 Masoud **Ghodsian** and Mohammad Vaghefi, "Experimental study on scour and flow field in a scour hole around a T-shaped spur dike in a 90o bend", International Journal of sediment research, Vol. 24, No.2, 145-158, 2009.
- 60 Mohammad Vaghefi, Masoud **Ghodsian** and Seyd Ali Akbar Salehi Neyshaboury," Experimental study on the effect of a T-shaped spur dike length on scour in a 90o channel bend", Arabian journal of science and engineering, Vol. 34, No. 2B, 337-348, 2009.
- 61 Naji Abhari, M., **Ghodsian, M.** and Vaghefi, M. and, N. Panahpur, “ Experimental and numerical simulation of flow in a 90 bend”, Flow Measurement and Instrumentation, 21, 2010.
- 62 Mehraein, M., **Ghodsian, M.** and Salehi Neyshaboury, S.A.A., “Local scour due to an upwards inclined circular wall jet” Journal of water management, Institution of civil Engineers, London, 164, WM3, 111-122, March 2011.
- 63 Karami, H., Ardeshir, A., Behzadian, K. and **Ghodsian, M.**,“Protective spur dike for scour mitigation of existing spur dike”, Journal of Hydraulic Research, IAHR, Vol. 49, No. 6, 809-813, 2011.
- 64 Aboulghasemi, M., **Ghodsian, M.**, Sanginabadi, H., "Effect of flow diversion on sediment entrance to a 52 degree intake in sinus rivers", Journal of Hydraulic Engineering, Iranian Hydraulic Association, Vol. 6, No. 1, 41-52, Spring 2011, (in persian).
- 65 Faizilahi, F., **Ghodsian, M.**, and Dehghani, A.A., "Discharhe coefficient of laterl sluice gate in a 180 degree bend", Modarres Civil Engineering Journal, Vol. 11, No. 3, 111-117, Fall 2011, (in persian).
- 66 Mousavi, S.A., Vaghefi, M. and **Ghodsian, M.**, "Experimental study on the effect of bend radius on flow pattern around a T-shaped spur dike in a 90 degree bend with rigid bed", Journal of water and waste water, Vol. 23, No. 1, 15-23, 2012, (in persian).



- 67 Khosravi, M., Vaghefi, M. and **Ghodsian, M.**, "Experimental study on 3D flow field around a submerged T-shaped spur dike in a 90 degree bend", Journal of Hydraulic Engineering, Iranian Hydraulic Association, Vol. 7, No. 1, 49-65, Spring 2012, (in persian).
- 68 Vaghefi, M., **Ghodsian, M.** and Salehi Neyshabouri, S.A.A., "Experimental Study on Scour around a T-Shaped Spur Dike in a Channel Bend" Journal of Hydraulic Engineering, ASCE, Vol. 138, No. 5, May 1, 2012.
- 69 Mehraein, M., **Ghodsian, M.** and Schleiess, A. J. "Scour formation due to simultaneous circular impinging jet and wall jet", Journal of Hydraulic Research, IAHR, Vol. 50, No. 4, 395-399, 2012.
- 70 **Ghodsian, M.**, Ranjbar, M. and M. Mehraein, "Local scour due to free fall jets in non-uniform sediment", Scientia Iranica, 2012.
- 71 Vaghefi, M., **Ghodsian, M.** and Adib, A., "Experimental study on the effect of Froude number on temporal variation of scour around a T shaped spur dike in a 90 degree bend", Applied mechanics and materials, Vol. 147, 75-79, 2012.
- 72 Moradpour, R. Ahmadi, S.B. Parhizkar, T., **Ghodsian, M.**, Taheri-Nassaj, E., "Study of the Effects of Ceramic Nano-Pigments in Cement Mortar Corrosion Caused by Chlorine Ion", World International Journal of Civil, Architectural Science and Engineering, Academy of Science, Engineering and Technology Vol:7 No:3.pp 24-29. 2013.
- 73 Moradpour, R., Taheri Nasdaj, E. , Tavassoli, SH., Parhizkar, T. and **Ghodsian, M.**, 2013, "Tunable wettability and rewritable wettability-gradient in self-cleaning composites containing nanoscale photocatalysts" Journal of Nanoscience and nanotechnology, Vol. 13, No. 3, pp 2247-2254.
- 74 Moradpour, R., Taheri-Nassaj, E., Parhizkar, T., **Ghodsian, M.**, "The effects of nano scale expansive agents on the mechanical properties of non-shrink cement-based composites: The influence of nano-MgO addition" Journal of Composites-part B-55, pp 193-202, 2013.
- 75 Norbakhsh, S.M., Vaghefi, M., **Ghodsian, M.**, "Experimental study on flow field around a submerged T-shaped spur dike", Journal of water researches research, Vol. 9, No. 2, 52-60, Fall, 2013, (in persian).
- 76 Vaghefi, M., **Ghodsian, M.** and Azimi, A., "Numerical simulation of scour pattern in channel bend using Flow-3D", Journal of erosion research, No. 9, 78-90, 2013, (in persian).
- 77 Mehraein, M. and **Ghodsian, M.**, Discussion of "Experimental study on flow over labyrinth weirs" Journal of Irrigation and Drainage engineering, ASCE, DEC-2013,139(6), 1056.

- 78 Mojtaba M. and **Ghodsian** M, Comments on “Discharge coefficient of rectangular sharp crested side weirs part I: Traditional weir equation” by Bagheri, Kabiri-Samani, AR, and Heidarpour, M., *Flow Measurement and Instrumentation* 45, 2015, 408-410, <http://dx.doi.org/10.1016/j.flowmeasinst.2015.06.013>.
- 79 Vaghefi, M., **Ghodsian**, M. and Salimi, S. "Scour Formation Due to Laterally Inclined Circular Pier", *Arab J Sci Eng.*, 2015, DOI 10.1007/s13369-015-1920-6
- 80 Sangsefidi, Y. Mehraein, M. and **Ghodsian**, M. "Numerical simulation of flow over labyrinth spillways" *Scientia Iranica A* (2015), 22(5), 1779-1787.
- 81 Pishgar, R., Ayubzadeh, S.A., Sanee, M. and **Ghodsian**, M., “Experimental study on effect of alignment of sediment suction pipe on sediment removal efficiency”, *Journal of Hydraulic Engineering*, Iranian Hydraulic Association, Vol. 10, No. 1, 1-12, Spring 2015, (in persian).
- 82 Sangsefidi, Y., Mehraeen, M. and **Ghodsian**, M. “Experimental Investigation on hydraulic efficiency of arced weire”, *Modares civil engineering journal*, Vol. 15, No. 2, Sept. 2015, (in persian).
- 83 Vaghefi, M., **Ghodsian**, M. and Ssalimi, S. "The effect of circular bridge piers with different inclination angles toward downstream on scour", *Sadhana*, Indian Academy of Sciences, 2015.
- 84 Vaghefi, M., **Ghodsian**, M. and Azimi, A., "Numerical simulation of flow pattern in a channel bend using Flow-3D", *Journal of science and irrigation*, Vol. 39, No. 1, 2016, (in persian).
- 85 Vaghefi, M., **Ghodsian**, M. and Akbari, M., “Effect of secondary flow on shear stress around T-shaped spur dike in a 90° channel bend”, *Journal of water and soil science*, No. 75, Vol. 20, Spring 2016, (in persian).
- 86 Iranshahi, M., **Ghodsian**, M. and Vaghefi, M., “Flow field and scouring around series of Triplex spur dikes in sharp bend”, *Modares civil engineering journal*, Vol. 16, No. 3, Sept. 2016.
- 87 Pishgar, R., Ayubzadeh, S.A., Sanee, M. and **Ghodsian**, M., “Experimental study on effect of geometric and mechanical characteristics of sediment suction pipe on sediment removal efficiency of Hydrosuction”, *Modares civil engineering journal*, Vol. 16, No. 2, Sept. 2016, (in persian).
- 88 Gholizadeh, A., **Ghodsian**, M., and Panahi, R., “Numerical study on the effect crest shape on discharge coefficient of trapezoidal labyrinth weirs”, *Modares civil engineering journal*, Vol. 16, No. 4, Sept. 2016, (in persian).
- 89 Mehraeen, M., **Ghodsian**, M., “Study on turbulent burst around submerged spur dike in a channel bend”, *Journal of Hydraulic Engineering*, Iranian Hydraulic Association, Vol. 11, No. 2, 17-31, 2016, (in persian).

- 90 Minaee, Afshar, **Ghodsian**, M., and Mehraeen, M., “Experimental study on hydraulic jump in stilling basing with stepped end sill”, *Modares civil engineering journal*, Vol. 16, No. 1, Sept. 2016, (in persian).
- 91 Mehraeen, M., **Ghodsian**, M. and Khosravi Mashizi, M., “Study on effect of submergence of T-shaped spur dike on turbulence parameters in a 90° bend”, *Modares civil engineering journal*, Vol. 16, No. 2, Sept. 2016, (in persian).
- 92 Vaghefi, M., Khoshabi, A., Akbari, M. and **Ghodsian**, M., “Effect of inclination angle of T-shaped spur dike on flow pattern using Flow 3D model”, *Iranian Journal of Irrigation and drainage*, Vol. 11, No. 1, 2017.
- 93 Goodarzi, M., Ghodsian, M. and Mehraeein, M., “The effect of downstream wall slope of curved Labyrinth spillway on discharge coefficient”, *Journal of Ferdowsi civil engineering*, Ferdowsi university of Mashhad, Mashhad, Iran, Vol. 30, No. 1, 1-12, DOI:10.22067/civil.vli30.50689 (in persian).
- 94 Mehraein, M., **Ghodsian**, M., Khosravi Mashizi, Mojtaba and Vaghefi, Mohamad, “Experimental Study on Flow Pattern and Scour Hole Dimensions Around a T-Shaped Spur Dike in a Channel Bend Under Emerged and Submerged Conditions”, *Int. Journal of Civil Engineering*, DOI: 10.1007/s40999-017-0175-x, 2017.
- 95 Vaghefi, M., **Ghodsian**, M. and Akbari, M. “Experimental Investigation on 3D Flow around a Single T-Shaped Spur Dike in a Bend”, *Periodica Polytechnica Civil Engineering*, DOI: 10.3311/PPci.7999,1-9, 2017.
- 96 Baghalian, S. and **Ghodsian**, M., “Experimental analysis and prediction of velocity profiles of turbidity current in a channel with abrupt slope using artificial neural network”, *J Braz. Soc. Mech. Sci. Eng.*, 26 July 2017. DOI 10.1007/s40430-017-0867-9
- 97 Sangsefidi, Y. Mehraein, M., **Ghodsian**, M and Motalebizadeh M.R., Evaluation and Analysis of Flow over Arced Weirs Using Traditional and Response Surface Methodologies”, *J. Hydraulic Eng.*, ASCE, (2017), 143(11).
- 98 Sangsefidi, Y. Mehraein, M. and **Ghodsian**, M. "Experimental study on flow over in-reservoir arced labyrinth weirs" *Flow Measurement and Instrumentation* 59 (2018) 215–224.
- 99 Mehraein, M., **Ghodsian**, M “Experimental Study on relation between scour and complex 3D flow field” , *Scientia Iranica A* 24(6), (2017) 2696-2711, doi: 10.24200/sci.2017.4165.
- 100 Sangsefidi, Y. Mehraein, M., **Ghodsian**, M and Motalebizadeh M. R., Evaluation and Analysis of Flow over Arced Weirs Using Traditional and Response Surface Methodologies”, *J. Hydraulic Eng.*, ASCE, (2017), 143(11)
- 101 Sangsefidi, Y. Mehraein, M. and **Ghodsian**, M. "Experimental study on flow over in-reservoir arced labyrinth weirs" *Flow Measurement and Instrumentation* 59 (2018) 215–224.

102 Gomar, K., **Ghodsian**, M. and Ayubzadeh, S.A., "Experimental study on flow pattern and characteristics of delta under steady and under conditions", Journal of Hydraulic Engineering, Iranian Hydraulic Association, Vol. 13, No. 1, 17-31, 2018, (in persian).

#### b) PAPERS PRESENTED IN CONGRESSES AND SEMINARS

- 1) **Ghodsian**, M. (S. Ali), Lavania and Asawa, "Protection of graded core material by filter", Third International Congress of Civil Engineering, Shiraz-Iran, 1990 (in persian).
- 2) **Ghodsian**, M., "Meandering parameters of Gheshlagh river", Third national seminar on river engineering, Ahvaz-Iran, 1994 (in persian).
- 3) **Ghodsian**, M., "Elementary discharge coefficient of rectangular side weir", Proceeding of 4th International Conference on Civil Engineering, Tehran-Iran, 1994. (in persian).
- 4) **Ghodsian**, M., "Experimental Investigation of Broadly graded filters in Earth Dams", Proceeding of the MWA International Conference on Dam Engineering, Kuala Lumpur, Malaysia, 1995.
- 5) Jalili, Borgei S.M. and **Ghodsian**, M., "Experimental Investigation of sub critical flow over side weirs", Proceeding of 4th International Conference on Civil Engineering, Tehran, Iran, 1997. (in persian).
- 6) **Ghodsian**, M., "Design of filter for graded core material", First Seminar on Earth Dams, Tehran-Iran, 1997. (in persian).
- 7) **Ghodsian**, M., Azar, A. & Abassi, A.A., "Maximum depth of scour downstream of free over fall spillway", Fifth national Seminar on river engineering. Ahvaz, Iran, 1998. (in persian).
- 8) **Ghodsian**, M., Azar, A. & Abassi, A.A., "Scour downstream of free over fall spillway" ,XXVIII congress of IAHR, Austria, 1999.
- 9) **Ghodsian**, M. and Abassi, A.A., "Experimental investigation on bed topography changes downstream of free overfall spillway", second conference of Iranian hydraulic association, Iran Univ. of science and Technology, Tehran, 1999. (in persian).
- 10) Hosseni Tehrani, S. M. and **Ghodsian**, M., "Experimental Investigation of scour around combined groine", Second conference of Iranian hydraulic association, Iran Univ. of science and Technology, Tehran, 1999. (in persian).
- 11) Habibi, M., Ghalani, A.R. and **Ghodsian**, M., "Experimental Investigation on the effect of angle of submerged van on their performance in river intake", Second

- conference of Iranian hydraulic association, Iran Univ. of science and Technology, Tehran, 1999. (in persian).
- 12) **Ghodsian**, M., "Discharge coefficient of triangular side weir" Seventh national seminar on irrigation and evaporation losses, Kerman, Iran, March-1999. (in persian).
  - 13) **Ghodsian**, M., Moharami, H. and Bahramian. S., "Effect of baffle blocks of stilling basin type II on energy loss and tail water depth", Fifth International conference on civil engineering, Mashhad Ferdowsi university, Mashhad, Iran, April-2000. (in persian).
  - 14) **Ghodsian**, M., Salehi, A.A., Molanejad, M. and Ahmadi Nejad, "Flood estimation in Halil Rood basin of Iran", 8th International symposium on stochastic hydraulics, Beijinh, China- 25-28 July 2000.
  - 15) Saraf, R., Hasani, A., **Ghodsian**, M. and Ahmadi, S. B., "Protection and repair of port and ocean structures with ceramic pigments", 4<sup>th</sup> Int. conference on port and coastal structures, Bandarabbas, Iran, 2000. (in persian).
  - 16) **Ghodsian**, M., Shafieefar, M. and Hashemi, S. J., "Backwater effects upstream of bridge piers", Research achievements in water industry, University of Tehran, 2000. (in persian).
  - 17) **Ghodsian**, M., Shafieefar, M. and Hashemi S.J., "Afflux due to rectangular bridge pier", 2000 joint conference on water resources engineering and water resources planning and management, ASCE, Minnesota, USA. July 30-August 2000.
  - 18) Moharami, H., **Ghodsian**, M. and Bahramian, S. "Optimal design of stilling basins", 4th International conference on hydraulics and engineering, Seoul, South Korea, Sep. 26-29, 2000.
  - 19) **Ghodsian**, M. and Rasekh, A., "Measurement of discharge by triangular weir, 12th biannual conference of APD-IAHR, Bangkok, Thailand, Nov.-2000.
  - 20) **Ghodsian**, M. and Shenavai, H., "Effect of crest length on discharge coefficient of triangular Labyrinth spillway", 4th conference on dam, IRCOLD, Tehran, Nov. 2000. (in persian).
  - 21) Nasrolahi, A., **Ghodsian**, M. and Hoseni Tehrani, "Maximum depth of scour around permeable spure dyke", International conference on hydraulic structures, Kerman, May 2001. (in persian).
  - 22) Shenavai, H and **Ghodsian**, M. "Effect of crest shape on discharge coefficient of triangular labyrinth spillway" International conference on hydraulic structures, Kerman, May 2001. (in persian).

- 23) Pourhadi M. H. and **Ghodsian**, M., "Protection of vertical wall abutment and spur dikes against local scouring", International conference on hydraulic structures, Kerman, May 2001. (in persian).
- 24) **Ghodsian**, M. and Shafieefar, M. "Afflux upstream of circular bridge pier", XXIX Congress of IAHR, Beijing, China, Sep 16-21, 2001.
- 25) Nasrollahi, A. and **Ghodsian**, M. "Bed topography changes around Groynes", First national seminar on water resources, Orumieh, Iran, Oct.- 2001, (in persian).
- 26) **Ghodsian**, M. and Nasrollahi, A., "Temporal variations of scour around groynes", 3<sup>rd</sup> Conference of Iranian hydraulic association, University of Tehran, Nov. 6-8, 2001. (in persian).
- 27) **Ghodsian**, M. and Azar, A., "Effect of sediment gradation on scour below free overfall spillway" 3<sup>rd</sup> International symposium on environmental hydraulics" Arizona state university, USA, Dec. 5-8, 2001.
- 28) **Ghodsian**, M., "Flow over labyrinth spillway", International symposium on hydraulic and hydrological aspects of reliability and safety assessment of hydraulic structures, St. Petersburg, Russia, May. 28 – June 1, 2002.
- 29) **Ghodsian**, M., "Scour hole geometry downstream of culvert", Proceedings of 13th IAHR-APD, Singapore, Aug. 6 – 8, 2002.
- 30) **Ghodsian**, M. and Shafieefar.M., "Effect of bridge pier on afflux", Proceedings of 13th IAHR-APD, Singapore, Aug. 6 – 8, 2002.
- 31) Abbasi, A.A., **Ghodsian**, M., Habibi, M. and Salehi Neyshaburi, A.A., "Experimental investigation of sediment control in lateral intaks using sill" Proceedings of 13th IAHR-APD, Singapore, Aug. 6 – 8, 2002.
- 32) **Ghodsian**, M., "Maximum depth of scour downstream of flip bucket" International conference on fluvial hydraulics- River Flow 2002- Louvain-La-Neuve- Belgium, Sep. 4-6, 2002.
- 33) **Ghodsian**, M., Montazer, G., Dehghani, A.A. and Azardakhsh, M., "Intelligent estimation of maximum depth of scour around groins using artificial neural networks", Proceedings of 6<sup>th</sup> international river engineering conference, Ahvaz- Iran, Jan. 28-30, 2003 (in persian).
- 34) Montazer, G., Zakermoftegh, M. and **Ghodsian**, M., "Intelligent prediction of suspended load for Bazoft river using artificial neural networks", Proceedings of 6<sup>th</sup> international river engineering conference, Ahvaz- Iran, Jan. 28-30, 2003 (in persian).
- 35) **Ghodsian**, M. and Dehghani, A.A., "Discharge coefficient of vertical side sluice gate in canals", 6<sup>th</sup> international conference on civil engineering, Isfahan Univ. of Technology, Isfahan, Iran, May 5-7, 2003 (in persian).

- 36) **Ghodsian**, M. and Daneshmand, P., "Experimental study of Afflux upstream of rectangular bridge pier", 6<sup>th</sup> international conference on civil engineering, Isfahan Univ. of technology, Isfahan, Iran, May 5-7 2003 (in persian).
- 37) **Ghodsian**, M. and Zakermoshfegh, M., "Prediction of side sluice gate discharge under free flow using ANN", XXXth IAHR congress, Thessaloniki, Greece, August 24-29, 2003
- 38) **Ghodsian**, M. and Najafi, J., "Maximum depth of scour by impinging circular turbulent jet", XXXth IAHR congress, Thessaloniki, Greece, August 24-29, 2003.
- 39) Abasi. A.A, **Ghodsian**, M, Habibi, M. and Neishabouri, A.A.S., "Experimental investigation on separation zone at lateral intakes", XXXth IAHR congress, Thessaloniki, Greece, August 24-29, 2003.
- 40) Motazer, G., Moshfegh, M.Z., **Ghodsian**, M. and Nasiri Saleh, F., "Intelligent determination of trinagular labyrinth spillway discharge using ANN." 4<sup>th</sup> Conference of Iranian hydraulic association, University of Shiraz, Shiraz. Oct. 21-23, 2003, (in persian).
- 41) Najafi, J. and **Ghodsian**, M., "Experimental Investigation on bed topography downstream of pipe culvert", 4<sup>th</sup> Conference of Iranian hydraulic association, University of Shiraz, Shiraz. Oct. 21-23, 2003, (in persian).
- 42) Nasrolahi, A. and **Ghodsian**, M., "Effect of  $U/U_c$  on maximum depth of scour at impermeable spur dike", 4<sup>th</sup> Conference of Iranian hydraulic association, University of Shiraz, Shiraz. Oct. 21-23, 2003, (in persian).
- 43) Montazer, G, Dehghani, A.A. and **Ghodsian**, M., "Intelligent optimization of sections of gravity dam using genetic argorithm", 4<sup>th</sup> Conference of Iranian hydraulic association, University of Shiraz, Shiraz. Oct. 21-23, 2003, (in persian).
- 44) Nazari, H., **Ghodsian**, M. and Khodadadi, A., "Qualitatives water surface models", First annual Iranian water reseources management, Tehran, Iran, 2004. (in persian).
- 45) Nazari, H., **Ghodsian**, M. and Khodadadi, A., "Effects of polutents on water quality of Shafa rood in Gilan province", Fifth bianual conference of Iranian environmental association, Tehran, Iran, 2004. (in persian).
- 46) Dehghani, A.A., **Ghodsian**., M., Salehi, S.A.A., and Pirestani, M. R., "Experimental study on channel bed variations in 180° bend", 5<sup>th</sup> Iranian Hydraulic Conference, Shahid Bahonar University, 2005, Kerman, Iran. (in persian).
- 47) Dehghani, A.A., Fathi, P. and Ghodsian, M., "Intelligent estimation of length of recirculationg flow in a sudden expansion by ANN", Proceedings of the ninth

International symposium on river sedimentation, 18-21 October-2004, Yichang, China.

- 48) Zakermoshfegh, M., **Ghodsian**, M. and Montazer, G. A., "River flow forecasting using ANN", International conference on Hydraulics of dam and river structures (HDRS), April, 26-28, 2004, Tehran, Iran.
- 49) **Ghodsian**, M. and Mousavi, S.K., "Scour around a spur dike at a 90° bend", International conference on hydraulic engineering: Research and practice, ICON-HERP, 26-28 October- 2004, Indian Institute of Technology, Roorkee, India.
- 50) **Ghodsian**, M. and Mousavi, S.K., "Scour around a spur dike at a 90° bend", 2<sup>nd</sup> International conference on scour and erosion, 14-17 November-2004, Singapore.
- 51) Khosronejad, A., **Ghodsian**, M. and Hemati, A., "Prediction of scour depth around pile group using ANN", 2<sup>nd</sup> International conference on scour and erosion, 14-17, November 2004, Singapore.
- 52) Dehghani, A.A., **Ghodsian**, M., Salehi, S.A.A., and Safieefar, M., "Sediment control in lateral intake in a channel bend using submerged vanes", 7<sup>th</sup> International congress in Civil engineering, Tarbiat Modares University, Tehran, Iran, 2006. (in persian).
- 53) Azardakhsh, M., **Ghodsian**, M., Nourozi, H. R., "Estimation of maximum scour around spur dikes using ANN", 7<sup>th</sup> International congress in Civil engineering, Tarbiat Modares University, 2006, Tehran, Iran. (in persian).
- 54) Fazollahi, F., **Ghodsian**, M., "Experimental study on discharge coefficient of over and under flow side sluice gate in a 180° channel bend", 7<sup>th</sup> International conference on river engineering", Shahid Chjamran University, Ahwaz, 2006. (in persian).
- 55) Tajkarimi, D., Montazer, G.A., **Ghodsian**, M., "Estimation of scour due to rectangular and circular unsubmerged jets using ANN", 7<sup>th</sup> International conference on river engineering", Shahid Chjamran University, Ahwaz, 2006. (in persian).
- 56) Ranjbar, H.R., Salamatian, S.A., and **Ghodsian**, M., "Temporal variations of scour hole downstream of free falling jets", 7<sup>th</sup> International conference on river engineering", Shahid Chjamran University, Ahwaz, 2006. (in persian).
- 57) Emani, Y., Mirbagheri, S.M., Dehghani, A.A., and **Ghodsian**, M., "Scour around circular pier in a 180° channel bend", 7<sup>th</sup> International conference on river engineering", Shahid Chjamran University, Ahwaz, 2006. (in persian).
- 58) Fazli, M., **Ghodsian**, Salehi, S.A.A., "Effect of location and length of spur dike on scour in a channel bend", 7<sup>th</sup> International conference on river engineering", Shahid Chjamran University, Ahwaz, 2006. (in persian).



- 59) Dehghani, A.A., **Ghodsian**, M., Salehi Neyshabouri, S.A.A, and Shafieefar, M. "Bed characteristics in 180 degree channel bend with lateral diversion", XXXI IAHR congress, Korea, 1386-1396, 2005.
- 60) Azarderakhsh, M., Norouzi, H. and **Ghodsian**, M., "Maximum scour depth around spur dikes", Proceedings of river flow 2006, Lisbon, Portugal, 2006.
- 61) Dehghani, A.A., **Ghodsian**, M., Suzuki, K., Salehi Neyshabouri, S.A.A. and Safiefar, M. "Transport of sediment in to a channel intake in river bends", XXII Latim American congress on hydraulic, Giudad, Guayana, Venezuela, 2006.
- 62) Dehghani, A.A., Salamatian, S.A. and **Ghodsian**, M. "Intelligent estimation of the maximum depth of scour hole around bridge piers in cohesive sediment using ANN", 3rd International conference on scour and erosion, 14-17, the Netherland, Oct.,2006.
- 63) Dehghani, A.A., **Ghodsian**, M., Salehi Neyshabouri, S.A.A, ans Shafieefar, M. "Effect of sill on local scour at lateral intake in 180 degree curved channel", 3rd International conference on scour and erosion, 14-17, Netherland, Oct.2006.
- 64) **Ghodsian**, M., Bruce Melville and Stephen Coleman, "Scour Caused by rectangular impinging jet in cohesive-less bed", 3rd International conference on scour and erosion, 14-17, the Netherland, Oct. 2006.
- 65) Salamatian, S. A., and **Ghodsian**, M., "Intelegant estimation of flow discharge using ANN", 1th regional conference on optimal operation of of water resources in Karoun and Zayandeh Rood watershed", Sharhekord University, Sharekord, Iran, 2006. (in persian).
- 66) Emami, Y., Dehghani, A.A., and **Ghodsian**, M., "Experimental investigation on scour around circular bridge pier", 3th Iranian national congress on civil engineering, Tabriz university, Tabriz, Iran, 2007. (in persian).
- 67) Fazli, M. and **Ghodsian**, M., " Scour around spur dike in a channel bend", 3th Iranian national congress on civil engineering, Tabriz university, Tabriz, Iran, 2007. (in persian).
- 68) Salamatian, S.A., Ranjbar, H,R. and **Ghodsian**, M, "Time evolution of local scour due to free overfall jet", 32nd IAHR congress, Venize, Itally ,Jully 2007.
- 69) Forghani,M. J., M. Fazli, and **Ghodsian**, M, "Experimental Study on Flow Field and Scouring Around a Spur Diike in Ninety Degree Bend", 32nd IAHR Congress, Venice, Italy, 2007.
- 70) Fazli, M., **Ghodsian**, M. and Salehi Neyshabouri, S.A.A. "Experimental Investigation on scour around spur dike located at different positions in a 90o bend", 32nd IAHR congress, Venize, Itally, Jully 2007.

- 71) Yaser Emami, **Ghodsian**, M. and Amir Ahmad Dehghani "2D-flow measurement around a cylindrical pier in a 189o channel bend", 32nd IAHR congress, Venize, Itally, July 2007.
- 72) Faizollah, F, Dehghani, A.A. and **Ghodsian**, M. "Flow through side sluice gate in a curved channel" 32nd IAHR congress, Venize, Itally, July 2007.
- 73) Nasrollahi, A., **Ghodsian**, M. And Salehi Neyshabouri, S.A.A, "Effect of sediment size on local scour at spur dikes" 32nd IAHR congress, Venize, Itally, July 2007.
- 74) **Ghodsian**, M., Vaghefi, M., Panahpour, N., "Experimental study on seperation zone around spur dike in a 90° bend", 4<sup>th</sup> National congress on civil engineering", University of Tehran, Tehran, 2008. (in persian).
- 75) **Ghodsian**, M., Vaghefi, M., Panahpour, N., "Experimental study on flow pattern around spur dike in a 90° bend", 4<sup>th</sup> National congress on civil engineering", University of Tehran, Tehran, 2008. (in persian).
- 76) Naji, M. and **Ghodsian**, M., "Numerical simulation of flow pattern in a 90i bend using SSSIIM", 4<sup>th</sup> National congress on civil engineering", University of Tehran, Tehran, 2008. (in persian).
- 77) Salimi, S. and **Ghodsian**, M., "Experimental study on scour at inclined circular bridge pier", 4<sup>th</sup> National congress on civil engineering", University of Tehran, Tehran, 2008. (in persian).
- 78) Goldi Dorsangi, M. and **Ghodsian**, M., "Effect of tailwater depth on maximum scour due to wall jet", 4<sup>th</sup> National congress on civil engineering", University of Tehran, Tehran, 2008. (in persian).
- 79) **Ghodsian**, M., Vaghefi, M., and Panahpour, N., "Effect of spur dike length on flow pattern in a 90° bend", 2<sup>nd</sup> national conference on dam and hydropower, Tehran, 2008. 4<sup>th</sup> National congress on civil engineering", University of Tehran, Tehran, 2008. (in persian).
- 80) Vaghfi, M., **Ghodsian**, M. and Salehi, S.A. A., "Effect of a T-shaped spur dike on scour in a 90o bend", 7<sup>th</sup> Iranian Hydraulic Conference, Water and power industry university, Tehran, Iran. 2008, (in persian).
- 81) Vaghfi, M., **Ghodsian**, M. and Salehi, S. A. A., "Experimental investigation on effect of geometry of wing of a T-shaped spur dike on scour", 7<sup>th</sup> Iranian Hydraulic Conference, Water and power industry university, Tehran, Iran. 2008, (in persian).
- 82) Vaghfi, M., **Ghodsian**, M. and Salehi, S. A. A., "Effect of T-shaped spur dike on bed topography", 3<sup>rd</sup> national conference on Iranian water resources management, Tabriz University, Tabriz, Iran, 2008, (in persian).

- 83) Vaghfi, M., **Ghodsian**, M. and Salehi, S. A. A., "Effect of channel radius of a 90° bend on bed topography", 3<sup>rd</sup> national conference on Iranian water resources management, Tabriz University, Tabriz, Iran, 2008, (in persian).
- 84) Vaghefi, M., Fathnia, A., Ahmadabadi, A. and **Ghodsian**, M., "Use of Keriging method in study of bed variations", 3<sup>rd</sup> national conference on Iranian water resources management, Tabriz University, Tabriz, Iran, 2008, (in persian).
- 85) Vaghfi, M., **Ghodsian**, M. and Salehi, S. A. A., "Effect of location of T-shaped spur dike in a 90° bend on scour", 7<sup>th</sup> Iranian Hydraulic Conference, Water and power industry university, Tehran, Iran. 2008, (in persian).
- 86) Mousavi, S. A., Vaghfi, M. and **Ghodsian**, M. "Experimental study on flow pattern around a T-shaped spur dike in a bend", 7<sup>th</sup> Iranian Hydraulic Conference, Water and power industry university, Tehran, Iran. 2008, (in persian).
- 87) Mousavi, S. A., Vaghfi, M. and **Ghodsian**, M. "Experimental study on shear stress and separation zone around a T-shaped spur dike in a 90° bend", 3<sup>rd</sup> national conference on Iranian water resources management, Tabriz University, Tabriz, Iran, 2008, (in persian).
- 88) Naji, M., Vaghefi, M. and **Ghodsian**, M. "Experimental and numerical study on bed scour of a 90° bend", 3<sup>rd</sup> national conference on Iranian water resources management, Tabriz University, Tabriz, Iran, 2008, (in persian).
- 89) Montaser, H. and **Ghodsian**, M. "Effect of submerged vanes on sediment control at lateral intake in a 180 degree bend", River flow 2008- Proceedings of the the international conference on fluvial hydraulics, Cesme, Izmir, Turkey, Sep. 3-5, 2008, 1845-1850.
- 90) Faizollah, F. **Ghodsian**, M., Dehghani, A.A. and Akbari, M., "Experimental investigation on discharge coefficient of side combining structure in 180 degree channel", River flow 2008- Proceedings of the the international conference on fluvial hydraulics, Cesme, Izmir, Turkey, Sep. 3-5, 2008, 2061-2066.
- 91) Abhari, M. N, Fazli, M. and **Ghodsian**, M., "Experimental and Numerical simulation of scouring around a spur dike in a 90 degree bend", River flow 2008- Proceedings of the the international conference on fluvial hydraulics, Cesme, Izmir, Turkey, Sep. 3-5, 2008, 2257-2262.
- 92) Emami, Y, Salamatian, S. A. and **Ghodsian**, M, "Scour at cylindrical bridge pier in a 180 degree channel", Fourth International Conference on Scour and Erosion, Tokyo, Japan, 2008.
- 93) Forghani, M.J., Salamatian, S. A., Karbalaee, N., **Ghodsian**, M., "Experiments Study on Flow Field Around Three Spur Dike in Ninety Degree Bend", 7<sup>th</sup> ISE and 8<sup>th</sup> HIC, Chile, 2009.

- 94) Salamatian, S. A., Farhadian, H., Ghodsian, M., “Neural Network Modeling for River Flow Prediction”, 2nd International conference on managing rivers in 21st century, Malaysia. 2009.
- 95) Mousavi, S. A., Vaghfi, M. and **Ghodsian**, M. “Experimental study on 3D flow pattern around T-shaped spur dike in a bend”, 8<sup>th</sup> International congress on civil engineering, Shiraz University, Shiraz, 2009. (in persian).
- 96) Vaghfi, M., **Ghodsian**, M. and Salehi, S. A. A., “Experimental study on the effect of Froude number on scour around a T-shaped spur dike in a 90° bend”, 8<sup>th</sup> International congress on civil engineering, Shiraz University, Shiraz, 2009. (in persian).
- 97) Fazli, M., Vaghfi, M. and **Ghodsian**, M. “Comparative study on methods of shear stress calculation in curved channels”, 8<sup>th</sup> International congress on civil engineering, Shiraz University, Shiraz, 2009. (in persian).
- 98) Naji, M., **Ghodsian**, M. and Vaghefi, M. and Panahpur, N. “Experimental and numerical study on flow pattern around spur dike in a 90° bend”, 8<sup>th</sup> International congress on civil engineering, Shiraz University, Shiraz, 2009. (in persian).
- 99) Vaghfi, M., **Ghodsian**, M., Naji, M. and Panahpur, N. “Effect of contraction due to spur dike on flow pattern in a channel bend” 4<sup>th</sup> conference on watershed water resources management”, Shahid Bahonar university, Kerman-Iran, 2009. (in persian).
- 100) Mousavi, S. A., Vaghfi, M. and **Ghodsian**, M. “Effect of relative channel radius of a 90° bend on variations of shear stress” 8<sup>th</sup> Iranian Hydraulic Conference, University of Tehran, Tehran, Iran. 2009, (in persian).
- 101) Vaghefi, M. and **Ghodsian**, M., “Time variations of scour around T-shaped spur dike with different wing length”, 8<sup>th</sup> Iranian Hydraulic Conference, University of Tehran, Tehran, Iran. 2009, (in persian).
- 102) Mousavi, S. A., Vaghfi, M. and Ghodsian, M. “Effect of location of spur dike on vorticity in a 90° bend” 8<sup>th</sup> Iranian Hydraulic Conference, University of Tehran, Tehran, Iran. 2009, (in persian).
- 103) Vaghfi, M., **Ghodsian**, M. and Salehi, S. A. A., “Experimental study on geometry of spur dike wing on scour at a 90° bend”, 8<sup>th</sup> Iranian Hydraulic Conference, University of Tehran, Tehran, Iran. 2009, (in persian).
- 104) Gohari, S., Ayoubzadeh, S.A., **Ghodsian**, M. Salehi, S. A.A., “Sediment control in water intakes by spur dike and submerged vanes”, 8<sup>th</sup> International seminar on river engineering, Shahid Chamran University, Ahwaz, Iran, 2009, (in persian).

- 105) Naji, M. A., **Ghodsian**, M., Panahpour, N. and Vaghefi, M., “Experimental and numerical study on the effects of spur dike length of flow pattern in a 90° bend”, ”, 8<sup>th</sup> International seminar on river engineering, Shahid Chamran University, Ahwaz, Iran, 2009, (in persian).
- 106) Mousavi, S. A., Vaghfi, M. and **Ghodsian**, M. “Experimental study on the effect of channel radius on vorticity around spur dike in a 90° bend”, 8<sup>th</sup> International seminar on river engineering, Shahid Chamran University, Ahwaz, Iran, 2009, (in persian).
- 107) Vaghfi, M. and **Ghodsian**, M., “Effect of T-shaped spur dike wing length on scour in a 90o bend”, 8<sup>th</sup> International seminar on river engineering, Shahid Chamran University, Ahwaz, Iran, 2009, (in persian).
- 108) Vaghefi, M., **Ghodsian**, M., Panahpour, N. and Naji, M. A., “Experimental study on the effect of Froude number on 2D flow pattern around a spur dike in a 90o bend”, 8<sup>th</sup> International seminar on river engineering, Shahid Chamran University, Ahwaz, Iran, 2009, (in persian).
- 109) Salimi, S., Vaghefi, M. and **Ghodsian**, M., “Experimental study on local scour due to inclined circular bridge pier”, 8<sup>th</sup> International seminar on river engineering, Shahid Chamran University, Ahwaz, Iran, 2009, (in persian).
- 110) Vaghefi, M., **Ghodsian**, M., Mousavi, S.A. and Panahpour, N., “Experimrntal investigation of variations of bed shear stress in 90° bend” 10<sup>th</sup> seminar on irrigation and reduction of evaporation”, Shahid Bahonal University, Kerman, Iran, 2009, (in persian).
- 111) Vaghefi, M. and **Ghodsian**, M., “Effect of channel contraction due to T-shaped spur dike on bed topography in a 90° bend”, 5<sup>th</sup> national congress on civil engineering, 2009, (in persian).
- 112) Vaghefi, M., **Ghodsian**, M., Salimi, S. and Panahpour, N., “Effect of channel contraction due to spur dike on flow pattern in a channel bend”, 4<sup>th</sup> national conference on irrigation and drainage, Shahid Bahonal University, Kerman, Iran, 2009, (in persian).
- 113) Fazli, M. and **Ghodsian**, M., “Effect of vortex strength on scour process around spur dike in a bend”, 9<sup>th</sup> Iranian hydraulic conference, Tarbiat Modares University, Tehran, Iran, 2010, (in persian).
- 114) Razmju, M. Gh., and **Ghodsian**, M., “Effect of distance of spur dikes on scouring and bed profile”, 9<sup>th</sup> Iranian hydraulic conference, Tarbiat Modares University, Tehran, Iran, 2010, (in persian).
- 115) Montaseri, H., Vaghefi, M. and **Ghodsian**, M., “Experimental study on the effect of diverted discharge of a lateral intake on secondary flow in a 180°

- bend”, 9<sup>th</sup> Iranian hydraulic conference, Tarbiat Modares University, Tehran, Iran, 2010, (in persian).
- 116) Gohari, S. Ayubzadeh, S. A., **Ghodsian**, M. and, Salehi, S.A.A., “Experimental study on flow pattern in a 90o latelat intake with submerged vanes and spur dikes”, 9<sup>th</sup> Iranian hydraulic conference, Tarbiat Modares University, Tehran, Iran, 2010, (in persian).
- 117) Masavi, S. A., Vaghefi, M., and **Ghodsian**, M., “Experimental Investigation on the effect of channel radius in separation zone due to a T-shaped a spur dike in a 90o channel bend”, 9<sup>th</sup> Iranian hydraulic conference, Tarbiat Modares University, Tehran, Iran, 2010, (in persian).
- 118) Abaspour, M., Vaghefi, M., and **Ghodsian**, M., “Effect of submergence effect of a T-shaped spur dikeon bed topography in a 90o bend”, 9<sup>th</sup> Iranian hydraulic conference, Tarbiat Modares University, Tehran, Iran, 2010, (in persian).
- 119) Norbakhsh, S.M., Vaghefi, M., and **Ghodsian**, M., “Effect of local contraction on bed toography due to a T-shaped spur dike located in a straight channel”, 9<sup>th</sup> Iranian hydraulic conference, Tarbiat Modares University, Tehran, Iran, 2010, (in persian).
- 120) Norbakhsh, S.M., Vaghefi, M., and **Ghodsian**, M., “Time to equilibrium state of scout at T-shaped spur dike in a straight channel”, 9<sup>th</sup> Iranian hydraulic conference, Tarbiat Modares University, Tehran, Iran, 2010, (in persian).
- 121) Mousavi Naeini S. A., Vaghefi, M. and **Ghodsian**, M. "Secondary Currents in a Bend Channel with T-Shape Spur Dike". 5th National Congress on Civil Engineering, Ferdowsi University of Mashhad, Mashhad, Iran. 2010, (in persian).
- 122) Vaghefi, M., **Ghodsian**, M. and Adib, A., “Study on errors in experimental measurmentsr”, 9<sup>th</sup> Iranian hydraulic conference, Tarbiat Modares University, Tehran, Iran, 2010, (in persian).
- 123) Mousavi, S.A., Vaghefi, M. and **Ghodsian**, M., “Secondary currents in a bend channel with T-shaped spur dike, 5th National congress onn Civil Engineering, 4-6 may, 2010, Ferdowsi University of Mashhad, Mashhad-Iran.
- 124) Salamatian, S. A., **Ghodsian**, M., Karimaee, M., Foyouz, E., “Temporal Variations of Scour Dimensions by Turbulent Impinging Jets”, 34th International congress of IAHR, Brisbane, Australia, 2011,.
- 125) Mousavi, S.A., Vaghefi, M. and **Ghodsian**, M., “Experimental study on the effect of variations of flow seperation zone around T-shaped spur dike in a 90o bend”, 6<sup>th</sup> national congress on civil engineering, Semnan university, Semnan, Iran, 2011, (in persian).

- 126) Akbari, R. and **Ghodsian**, M., “Discharge coefficient of triangular sharp crested side weir”, 10<sup>th</sup> Iranian hydraulic conference, Gilan university, Gilan, Iran, 2011, (in persian).
- 127) Shariatzadeh, Y., **Ghodsian**, M., and Vaghfi, M., “Effects of submergence and inclination angle of a T-shaped spur dike on bed scour”, 10<sup>th</sup> Iranian hydraulic conference, Gilan university, Gilan, Iran, 2011, (in persian).
- 128) Alizadeh, H., Vaghefi, M. and **Ghodsian**, M., “Experimental study on geometry of our hole around attracting and deflecting Triplex spur dike”, 10<sup>th</sup> Iranian hydraulic conference, Gilan university, Gilan, Iran, 2011, (in persian).
- 129) Nourbakhsh, S. M., **Ghodsian**, M. and Vaghefi, M., “Effect of ratio of spur dike length to spur dike wing on bed topography”, 10<sup>th</sup> Iranian hydraulic conference, Gilan university, Gilan, Iran, 2011, (in persian).
- 130) Khosravi, M. **Ghodsian**, M. and Vaghefi, M. “Experimental study on variations of bed topography around T-shaped spur dike in a 90° bend”, 10<sup>th</sup> Iranian hydraulic conference, Gilan university, Gilan, Iran, 2011, (in persian).
- 131) Khosravi, M. **Ghodsian**, M. and Vaghefi, M., “Effect of submergence of a T-shaped spur dike on in a 90° bend”, 2011, 10<sup>th</sup> Iranian hydraulic conference, Gilan university, Gilan, Iran, 2011, (in persian).
- 132) Nourbakhsh, S. M., **Ghodsian**, M. and Vaghefi, M., “Effect of contraction ratio due to T-shaped spur dike on bed topography in a straight channel”, 4<sup>th</sup> Iranian water resources management conference, Amirkabir university of technology, Tehran, Iran, 2011, (in persian).
- 133) Nourbakhsh, S. M., **Ghodsian**, M. and Vaghefi, M., “Equilibrium bed scour due to a T-shaped spur dike”, 4<sup>th</sup> Iranian water resources management conference, Amirkabir university of technology, Tehran, Iran, 2011, (in persian).
- 134) Shariatzadeh, Y., Khosravi, M., and **Ghodsian**, M., “Experimental study on the effect of T-shaped spur dike angle on bed topography”, 4<sup>th</sup> Iranian water resources management conference, Amirkabir university of technology, Tehran, Iran, 2011, (in persian).
- 135) Shojaeezadeh, A., **Ghodsian**, M. and Mehraeein, M., “Effect of bed roughness on flow pattern and turbulence parameters of a 3D wall jet”, 9<sup>th</sup> international congress on civil engineering, Esfahan university of technology, Esfahan, Iran, 2012, (in persian).
- 136) Alizadeh, H., Vaghefi, M. and **Ghodsian**, M., “Experimental study on the effect of Froude number on scour due to an attracting Triplex spur dike”, 9<sup>th</sup> international congress on civil engineering, Esfahan university of technology, Esfahan, Iran, 2012, (in persian).

- 137) Khosravi, M., Vaghefi, M., and **Ghodsian**, M., “Experimental study on sediment gradation on scour around a submerged T-shaped spur dike in a 90° bend”, 9<sup>th</sup> international congress on civil engineering, Esfahan university of technology, Esfahan, Iran, 2012, (in persian).
- 138) **Ghodsian**, M., Akbari, R., and Galchobian, E., “Discharge coefficient of sharp crested triangular side weir”, 9<sup>th</sup> international congress on civil engineering, Esfahan university of technology, Esfahan, Iran, 2012, (in persian).
- 139) Iranshahi, M., Vaghefi, M. and **Ghodsian**, M., “Experimental study on scour around series of T-shaped spur dike in a sharp 90° bend”, 11<sup>th</sup> Iranian hydraulic conference, Urumieh university, Urumieh, Iran, 2012, (in persian).
- 140) Hoseinzadeh Tabrizi, H., **Ghodsian**, M., and Vaghefi, M., “Effect of Froude number and inclination angle of T-shaped spur dike on bed topography in a straight channel”, 11<sup>th</sup> Iranian hydraulic conference, Urumieh university, Urumieh, Iran, 2012, (in persian).
- 141) Hoseini, M., **Ghodsian**, M., and Vaghefi, M., “Experimental study on the effect of inclination angle of T-shaped spur dike on bed topography in a straight channel” 11<sup>th</sup> Iranian hydraulic conference, Urumieh university, Urumieh, Iran, 2012, (in persian).
- 142) Iranshahi, M., **Ghodsian**, M., and Vaghefi, M., “Experimental study on the effect of inclination angle of series of Triplex spur dike on scour in a 90° sharp bend”, 9<sup>th</sup> International seminar on river engineering”, Shahid Chamran university, Ahvaz, Iran, 2012, (in persian).
- 143) Vaghefi, M., **Ghodsian**, M. Azimi, A., Numerical study of scour in a channel bend by varying  $U/U_c$ ”, 9<sup>th</sup> International seminar on river engineering”, Shahid Chamran university, Ahvaz, Iran, 2012, (in persian).
- 144) Moradpour R, Ahmadi S.B., **Ghodsian** M, Parhizkar T, Taheri Nassaj E, Ji T., " Utilization effect of ceramic nano-pigment on the corrosion performance of cement based composite in sulfate environments". 4<sup>th</sup> International symposium on nanotechnology in construction (NICOM4), Greece; 2012.
- 145) Sarabadani, S., **Ghodsian**, M., and Bagherpour, M. S., “Numerical study of vertical velocity profiles around T-shaped spur dike”, 7<sup>th</sup> national congress on civil engineering, Zahedan university, Zaheda, Iran, 2013, (in persian).
- 146) Hoseinzadeh Tabrizi, H., **Ghodsian**, M., and Vaghefi, M., “Effect of submergence of a Triplex spur dike on bed topography in straight channel”, 12<sup>th</sup> Iranian hydraulic conference, University of Tehran, Tehran, 2013, (in persian).
- 147) Vaghefi, M. **Ghodsian**, M., and Soleimani, B., “Numerical study on the effect wing length of a T-shaped spur dike on flow pattern in a sharp bend”, 12<sup>th</sup> Iranian hydraulic conference, University of Tehran, Tehran, 2013, (in persian).



- 148) Vaghefi, M., **Ghodsian**, M., and Takhti, M. A., "Numerical study on the effect of T-shaped spur dike length on flow pattern in a 90° bend", 12<sup>th</sup> Iranian hydraulic conference, University of Tehran, Tehran, 2013, (in persian).
- 149) Godarzi, M., Sangsefidi, U., **Ghodsian**, M. and Mehraeein, M., "Discharge of arced labyrinth spillway", 12<sup>th</sup> Iranian hydraulic conference, University of Tehran, Tehran, 2013, (in persian).
- 150) Vaghefi, M., **Ghodsian**, M. and Soleimani, B., "Numerical study on the effect of channel radius on flow separation zone around a T-shaped spur dike in a 90° bend with rigid bed", 5<sup>th</sup> Iranian water resources management conference, Shahid beheshti university, Tehran, Iran, 2013, (in persian).
- 151) Vaghfi, M., **Ghodsian**, M., and Koshabi, A., "Effect of  $U/U_c$  on 3D velocity components around a T-shaped spur dike in a bend", 5<sup>th</sup> Iranian water resources management conference, Shahid beheshti university, Tehran, Iran, 2013, (in persian).
- 152) Vaghefi, M., **Ghodsian**, M., and Koshabi, A., "Effect of Froude number on flow pattern around a T-shaped spur dike in a developed bend using numerical method", 1<sup>th</sup> national seminar on optimisation of water use", University of natural resources and agriculture science, Gorgan, Iran, 2013, (in persian).
- 153) Sangsefidi, U, Mehraeein, M., **Ghodsian**, M., and Gholizadeh, A., "Flow convergence downstream of arced labyrinth weirs", 15<sup>th</sup> conference of civil engineering students", Urumieh university, Urumieh, Iran, 2014, (in persian).
- 154) Sangsefidi, U, Mehraeein, M., Ghodsian, M., and Gholizadeh, A., "Flow regims in arced labyrinth weirs", 13<sup>th</sup> Iranian hydraulic conference, Tbriz university, Tabriz, Iran, 2014, (in persian).
- 155) Bagheri, O., **Ghodsian**, M., and Saadatseresht, M., "Introducing superspatial approach in river engineering", 10<sup>th</sup> International seminar on river engineering", Shahid Chamran university, Ahvaz, Iran, 2015, (inpersian).
- 156) Keshtkar, S., Ayoubzadeh, S. A., **Ghodsian**, M., "Experimental study on the effect of obstacle, slope break and inlet sediment concentration on velocity profiles of turbidity current", 10<sup>th</sup> International seminar on river engineering", Shahid Chamran university, Ahvaz, Iran, 2015, (inpersian).
- 157) Bagheri, M. **Ghodsian**, M. and Saadatseresht, M." Reach scale application of UAV+SFM method in shallow rivers hyperspatial bathymetry", International conference on sensors & models in remote sensing & photogrammetry, 23–25 Nov 2015, Kish Island, Iran.
- 158) **Ghodsian**, M. and Fazli, M. "Bed topography variations due to a spur dike in a curved channel" 5<sup>th</sup> International conference on water and flood management (ICWFM), Daka, Bangladesh, 2015.

- 159) Hagnazar, H., SalehiNeshaburi, A.A., and **Ghodsian**, M., “Experimental investigation on the threshold of destruction rock spur dike unde submerged conditions”, 8<sup>th</sup> Iranian national congress on civil engineering, 2015.
- 160) Pishgar, R., Aubzadeh, S.A., **Ghodsian**, M. “The effect of bottom holes spacing and diameter of suction pipe on the efficiency of burrowing type sediment removal method”, 36<sup>th</sup> IAHR congress,
- 161) Attarzadeh A., **Ghodsian**, M., Ayoubzadeh, S. A., and Salehineyshabouri, S.A.A., “Experimental investigation on the effect of sill, spur dike and submerged vanes on sediment control on 90° intakes” 10<sup>th</sup> international congress on civil engineering, Tabriz university, Tabriz, 2015.
- 162) Attarzadeh A., **Ghodsian**, M., Ayoubzadeh, S.A., and Salehineyshabouri, S.A.A., “Experimental study on the effect of sediment control structures on bed topography at laterla intakes”, 10<sup>th</sup> international congress on civil engineering, Tabriz university, Tabriz, 2015.
- 163) Keshtkar, S., Ayoubzadeh, S. A., **Ghodsian**, M., “Experimental study on the effect of slope break and inlet sediment concentration on velocity profiles of turbidity current”, 14<sup>th</sup> Iranian hydraulic conference”, Sistan and Baluchestan University, Zahedan, Iran, 2015, (inpersian).
- 164) Baghlian, S. and **Ghodsian**, M., “Experimental study on the effects of slope break and sediment concentration on turbidity current” 2<sup>ng</sup> international conference on new research in civil , archticture and urban management, IFIL, Tehran, Iran, 2016.
- 165) Asadi, M., **Ghodsian**, M., and Gomar, K., “Experimental study on delta in reservoirs under continus hydrographs”, 2<sup>ng</sup> international conference on new research in civil , archticture and urban management, IFIL, Tehran, Iran, 2016.
- 166) Neshastegar, M., Salehi Neshabouri, S.A.A, Nasiri Saleh, F, **Ghodsian**, M. and Bahrami, S., “Effect of pilot channel width on errosion of fuseplug” 16<sup>th</sup> Iranian hydraulic conference, Mohaghegh Ardabili University, Ardabil, September 2017.
- 167) Keshkar, S., Ayoubzadeh, S.A., and **Ghodsian**, M. “Experimental study on the effect of abstacel on velocity of turbidity current in reservoirs” 16<sup>th</sup> Iranian hydraulic conference, Mohaghegh Ardabili University, Ardabil, September 2017.
- 168) Tatar, E., Behnamtalab, E. and **Ghodsian**, M. “Experimental study on the effect of hydrograph on scour at inclined rectangular pier”, 16<sup>th</sup> Iranian hydraulic conference, Mohaghegh Ardabili University, Ardabil, September 2017.

- 169) Gomar, K., **Ghodsian**, M. and Ayoubzadeh, S.A., "Effect of flood on development of delta in reservoirs" 16<sup>th</sup> Iranian hydraulic conference, Mohaghegh Ardabili University, Ardabil, September 2017.
- 170) Asadi, M. and **Ghodsian**, M., "Experimental study on the effect of flood flow on delta" 16<sup>th</sup> Iranian hydraulic conference, Mohaghegh Ardabili University, Ardabil, September 2017.
- 171) Shahbazi, A.R. and **Ghodsian**, M., "Experimental study on the effect of upstream inclination of rectangular bridge pier on scour" 16<sup>th</sup> Iranian hydraulic conference, Mohaghegh Ardabili University, Ardabil, September 2017.
- 172) Gomar, K., **Ghodsian**, M., and Ayyoubzadeh, S. A. "Flow Pattern and Delta Characteristics in a Dam Reservoir" 4th International conference on long-term behaviour and environmental friendly rehabilitation technologies of dams (LTBD), Tehran-Iran, 17-19 October 2017.

## 9. RESEARCH PROJECT LEADER

- 1) Scour around spur dikes
- 2) Backwater effects upstream of bridge piers
- 3) Design criteria for bridge considering effects of runoff, scouring, hydrologic, hydraulic and geologic conditions
- 4) Experimental investigations of scouring, sedimentation and flow pattern around groines in curved channels
- 5) River engineering guide for protection of road and railway constructions
- 6) Experimental study on scouring due to free fall water jets
- 7) Experimental study on sediment control on lateral intake in 180 degree channel bend using submerged vanes
- 8) Experimental and numerical study of flow pattern and scouring around T-shaped spur dike
- 9) Experimental study on the effect of spur dike, submerged vanes and sill on sediment control and flow field at lateral intakes
- 10) Sediment control at reservoirs by obstacles (2012)
- 11) Experimental investigation on discharge coefficient of arced trapezoidal labyrinth spillway (2014).
- 12) Experimental investigation on scouring around spur dike under unsteady flow (2015).

## 10. BOOKS (In Persian)

- 1) Flood Control and Drainage Engineering (translated to Persian), Published by Tarbiat Modarres Univ., Tehran, 1999.
- 2) Dam Hydraulics (translated to Persian), Published by Tarbiat Modarres Univ., Tehran, 2003.

## 11. RESEARCH STUDENTS SUPERVISED

- 1) Discharge coefficient of side weir, Esmael Hoseini, (1995).
- 2) Hydraulic characteristics of bottom Racks, Reza Foughani Alahabadi, (1995).
- 3) Effects of viscosity and surface tension in triangular weirs, Afshin Rasekh, (1997).
- 4) Discharge coefficient of broad-crested triangular weirs, Jamil Bahrami, (1998).
- 5) Effect of radius of roller bucket in scour depth downstream of spillway, Mohammad Hasan Assadi, (1998).
- 6) Effect of sediment size distribution on scour downstream of free over fall spillway, Ardashir Azar Faradonbeh (1998).
- 7) Experimental investigation on the effect of angle of submerded vanes on efficiency of intakes”, Alireza Ghalani (1998).
- 8) Experimental investigation on scour around combined groin, Seyed Mehdi Hoseini Tehrani, (1998).
- 9) Optimal design of stilling basin, Saeed Bahramian, (1999).
- 10) One-dimensional model for water and sediment flow, Parasto Houshiosadat, (2000).
- 11) Backwater effect upstream of bridge piers, Seyed Javad Hashemi AvANJI, (2000).
- 12) Discharge coefficient of semicircle Labyrinth spillway, Seyed Ali Marashi Shoshtari, (2000).
- 13) Supercritical flow over rectangular side weir, Alireza Amirabadi Farahani, (2000).
- 14) Effect of crest shape on discharge coefficient of triangular Labyrinth spillway, Hosein Shenavai, (2001).
- 15) Effect of opening of groin on scour, Ali Nasrolahi (2001).
- 16) Effect of length of bridge piers on afflux, Pedram Danshmand (2002).
- 17) Effect of spacing of groin on scour, Mohammad Ghasem Razmjoo (2002).
- 18) Scour downstream of pipe culver, Javad Najafi (2003).
- 19) Riverflow forecasting, Zakermosgfegh (2003).
- 20) Analysis of scour around spur dike and application of Artificial Neural Network, M. Azardarakh (2003).
- 21) Study of River topography using GIS, Hajiabadi (2003).
- 22) Analysis of scour due to unsubmerged jet and application of Artificial Neural Network, Dorna Tajkarimi (2004).
- 23) Effect of channel bend radius on bed scour, S., Kamal Mousavi (2004).
- 24) Investigation on pollutant resources on water quality in Shafarood river, Hasan Nazari (2005).
- 25) Flow pattern around spur dike in curved channels, Nima Panahpour (2005).
- 26) Analysis of scour downstream of rectangular freefall jets, Mohammadreza Saeedinejad (2005).
- 27) Experimental study on flow pattern in lateral intake in a 189o bend, Seyed Mohammad Reza Miralae (2005).
- 28) Analysis of scour downstream of sediment carrying freefall jet, ehsan Ghasemi (2006).
- 29) Experimental study on discharge coefficient of combined lateral structure (weir and gate), Farshid Faizolahi (2006).

- 30) Intelligent optimisation of Tunnel type sediment excluders design, Masoud Rafiee (2007).
- 31) Study of flow pattern in scoured bed around T-shaped spur dike in a 90o bend, Javad Foughani (2007).
- 32) Scour downstream of free fall jets in nonuniform bed materials, Hamid Reza Ranjbar (2007).
- 33) Scour rate downstream of free fall jets in nonuniform bed materials, Seyed Amin Salamatian (2007).
- 34) Effect of inclination of circular bridge pier on scour, Saeed Salimi (2007).
- 35) Numerical simulation of flow around spur dike in a 90° bend, Mandana Naji Anhari (2007).
- 36) Study on scout a T-shaped spur dike , Hossein Farhadian (2008).
- 37) Experimental study flow pattern around a T-shaped spur dike in a 90o bend, Seyd Abbas Mousavi (2009).
- 38) Experimental study on the effect of sediment size on scour due to a T-shaped spur dike in a 90o bend, Alireza Mehrnahad (2010).
- 39) Scour around T-shaped spur dike in a 90° bend, Morteza Abbaspour (2010)
- 40) Experimental study of flow pattern around a T-shaped spur dike in a straight channel, Seyed Majed Nourbakhsh (2011).
- 41) Experimental study on flow pattern and scour around a T-shaped spur dike in a bend, Mojtaba Khosravi (2011).
- 42) Study on flow pattern around attractiong and replling triplex spur dike, Hosein Alizadeh Armaki (2011).
- 43) Experimental study on flw pattern and scour due to a Triplex spur dike in a 90° bend, Yase shariatzadeh (2011).
- 44) Estimation of discharge coefficient a triangular side weir using ANN, Roham Akbari (2011).
- 45) Simulation of flow around spur dike, Somayeh Sarabadani (2012).
- 46) Numerical simulation of flow around inclined bridge pier, Fatemah Kalali (2012).
- 47) Experimental study on flow pattern and scour around series of attracting and repelling triplex spur dike, Mehdi Hoseini (2012).
- 48) Experimental study on flow pattern and scour around series of imerged and submerded spur dike in a straight channel (2012).
- 49) Experimental study on flow pattern and scour around series triplex spur dike in 90° bend, Maezieh Iranshahi (2013).
- 50) Experimental study on the effect of slope of stepped spillway on flow regime and energy disipation, Mohsen Darvish Hendi (2013).
- 51) Experimental study of hydraulic jump in a stilling basin with steped endsil, Afshar Minaee (2013).
- 52) Effect of slope of upstream and downstream walls of arced labyrinth spillway on discharge coefficient, Milad Godarzi (2013).
- 53) Numerical simulation of flow in vortex drop structures, Razieh Anari (2013).
- 54) Experimental study on discharge coefficient of trapezoidal arced labyrinth weirs, Usef Sangsefidi (2014).
- 55) Study on the effect of location of spur dike on flow field around unsubmerged spur dike in a 89o bend, Seyed Mohammad Amin Najibi (2014).
- 56) Numerical simulation of spatially varied flow along a trpezoidal side weir, Abdolhosein Rami (2014).

- 57) Numerical study on the effect of crest shape of trapezoidal arced labyrinth weirs on discharge coefficient, Ali Gholizadeh (2014).
- 58) Experimental study on flow field and scour due to double offset jets, Marjan Falaki (2015).
- 59) Experimental study on the effect of bed slope on turbidity flow with obstacle, Hosein Barikani (2016).
- 60) Experimental study on afflux due to circular inclined bridge pier, Afsaneh Noubakat (2016).
- 61) Environmental rehabilitation of south Urmieh rivers based on Rozgen classification, Alireza Kargar (2016).
- 62) Experimental study on the effect of inclination of rectangular bridge pier on scour, Alireza Shahbazi (2016).
- 63) Analysis of scour due to T-shaped spur dike, Abas Zainosalehin (2017).
- 64) Calibration of methods of sediment load estimation based on reservoir hydrography data (2017).
- 65) Experimental investigation on scour due to inclined rectangular pier under unsteady flow, Ebrahim Tatar (2017).
- 66) Experimental investigation on reservoir sedimentation under unsteady flow, Maryam Asadi (2017).
- 67) Experimental investigation on the effects of inclination of circular pier on scour under unsteady flow, Hamed Bagherian (2018).
- 68) Experimental investigation of the effects of end sill shape on scour downstream of USBR VI stilling basin, Shokufeh Khairahdast (2018).
- 69) Experimental investigation on the effects of length and shape of Piano key spillway on its efficiency under submerged flow, Reza Zarei (2018).
- 70) Effects of alignment splitters on scour downstream of USBR VI stilling basin, Saeed Tabrizian (2018).
- 71) Control of sedimentation by magnetic field, Seyed Hamidreza Bahaedine (2018).
- 72) Experimental investigation on the effects of stepped end sill on scour downstream of USBR VI stilling, Milad Saber (2018).

#### Ph D thesis [topic, name of student (year)]

- 1) Experimental investigation on sediment control in lateral intakes, Ali Akbar Abassi (2003).
- 2) Experimental study on sediment control in lateral intake in a 180 degree bend. Amirahmad Dehghani (2006).
- 3) Experimental study on sediment control in lateral intake in meandering channels. Mansour Aboulghasemi (2006).
- 4) Experimental study on scouring at spur dike in a 90° bend. Majid Fazli (2008)
- 5) Sediment control in lateral water intake in a 90° bend using submerged vanes. Hossein Montazer (2008).
- 6) Experimental study on flow pattern and scouring at T-shaped spur dike in a 90° bend. (Mohammad Vaghefi (2009).
- 7) Experimental study of scour and flow field due to submerged wall and impinging jets. Mojtaba Mehraein (2011).
- 8) Sediment control in reservoirs by using obstacle, Mandana Naji Abhari (2012).

- 9) Experimental study on the effects of spur dike, submerged vanes and sill on sediment control and flow pattern in lateral intakes, Ali Attarzadeh (2013).
- 10) Experimental study on scour around spur dike under unsteady flow, Ali Babakhani (2015).
- 11) Experimental study on flow field and scour due to USBRVI stilling basins, Ehsan Behnamtalab (2016).
- 12) Experimental study of effect of bed roughness, solid obstacles and bed slope break on characteristics of turbidity current, Sara Baghlian (2018).

## 12. M.sc. thesis Co-Supervized

- 1) Scour around permeable groin, Sharifimanesh (1994).
- 2) Performance of permeable groins, Mahmud Miri (1994).
- 3) Experimental study on the effect of angle of submerged vans on their performance, Alireza Ghalani (1999).
- 4) Study on the effect of sand and gravel mining pit migration in a channel bed Ali Farhadzadeh (2001).
- 5) Discharge coefficient of side weir in trapezoidal channel, Mohamad Godarzi, (2002).
- 6) Study on the effects of sand and gravel mining pit migration in a curved channel, Afshin Eghbalzadeh (2001).
- 7) Effect of hydraulic and geometric parameters on discharge coefficient of combined structure, Karimi (2005).
- 8) Experimental study on bed forms in nonuniform flow, Hajar Zakiaghl (2005).
- 9) Experimental study on failure of submerged spur dike, Hamed Haghazar, (2013).
- 10) Effect of dimensions of rectangular pier on scour and bed topography in a 180 degree sharp bend, Danesh Dehghan (2018).
- 11) Effect of rectangular and circular piers with collar on scour and bed topography in a 180 degree sharp bend, Mohammad Moghanloo (2018).

## 13. Phd thesis Co-Supervized

- 1) Experimental study on flow pattern around spur dike in 180° bend, Ali Salajegha (2003).
- 2) Performance of lateral intakes by using combined submerged vanes and sill, Farzad Hasanpour, (2006).
- 3) Experimental study on flow pattern and sediment control in lateral intakes by using submerged vanes and spur dike, Saeed Ghohari (2006).
- 4) Numerical simulation of flow field at intakes in a bend, Mitra Javan
- 5) Experimental study on turbulent flow around spur dike with different shapes, Saafarzadeh, Akbar, (2010).
- 6) Experimental study flow field and sediment at lateral intakes from trapezoidal channel, Jafari (2013).
- 7) Experimental study on morphology of scour zone, Mohammad Reza Motalebzadeh (2016).

## 13. COURSES TAUGHT

### Undergraduate

- 1) River engineering
- 2) Hydraulics
- 3) Physical models
- 4) Water conveyance structures

### Postgraduate

- 1) River engineering
- 2) Hydraulic models
- 3) Hydraulic structures
- 4) Hydraulic Lab.
- 5) Advanced hydraulics
- 6) River training I
- 7) River training II.
- 8) Hydrology
- 9) Sediment transport