

## Prof. MUSTAFA GÖĞÜŞ

### Personal Information

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### Education Information

Doctorate, The University of Iowa, Hidrolik, United States Of America 1976 - 1980

Postgraduate, Istanbul Technical University, İnşaat Fakültesi, İnşaat Mühendisliği Bölümü, Turkey 1973 - 1975

Undergraduate, Istanbul Technical University, İnşaat Fakültesi, İnşaat Mühendisliği Bölümü, Turkey 1969 - 1973

### Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, 1992 - Continues  
Associate Professor, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, 1986 - 1992

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, 1984 - 1986

Lecturer PhD, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, 1982 - 1984

### Advising Theses

GÖĞÜŞ M., Interaction between bridge abutment and piers concerning local scour, Doctorate, Ö.Faruk(Student), 2020

GÖĞÜŞ M., Experimental and numerical investigation of vortex formation at multiple horizontal intakes, Doctorate, T.Yıldırım(Student), 2020

GÖĞÜŞ M., Hydraulic characteristics of modified tyrolean type intakes, Doctorate, K.Yılmaz(Student), 2019

GÖĞÜŞ M., Effect of approach channel shape on theformation of vortices at single-horizontal intakes, Postgraduate, C.Metin(Student), 2019

GÖĞÜŞ M., Numerical investigation of vortex formation at asymmetric horizontal intakes, Postgraduate, A.SUNGUR(Student), 2018

GÖĞÜŞ M., Determination of optimum rack angle of tyrolean type water-intake structures, Postgraduate, A.BERHAN(Student), 2017

GÖĞÜŞ M., Investigation of critical submergence at single and multiple- horizontal intake structures having air- entraining vortices, Postgraduate, S.GÖKMENER(Student), 2016

GÖĞÜŞ M., Tirol tipi savaklarda akımın deneysel ve sayısal modellenmesi, Postgraduate, A.YILDIZ(Student), 2016

KÖKEN M., GÖĞÜŞ M., Determination of critical submergence depth at horizontal intakes, Postgraduate, E.HASPOLAT(Student), 2015

KÖKEN M., GÖĞÜŞ M., Application of collars as a scour countermeasure for spill-through abutments / , Postgraduate, K.YILMAZ(Student), 2014

GÖĞÜŞ M., Hydraulic design of tyrolean weirs in hydropower plant projects, Postgraduate, C.MARAŞ(Student), 2014

GÖĞÜŞ M., FORMATION OF AIR-ENTRAINING VORTICES AT HORIZONTAL WATER INTAKES, Postgraduate, C.ZALOĞLU(Student), 2014

KÖKEN M., GÖĞÜŞ M., Time evolution of the flow characteristics around bridge abutments during scouring process,

Doctorate, B.YILDIZ(Student), 2014

KÖKEN M., GÖĞÜŞ M., Numerical investigation of vortex formation at intake structures using flow-3d software /, Postgraduate, R.Müge(Student), 2014

GÖĞÜŞ M., Formation of air-entraining vortices at horizontal water intakes /, Postgraduate, C.Zaloğlu(Student), 2014

KÖKEN M., GÖĞÜŞ M., Numerical investigation of vortex formation at intake structures using flow-3D software, Postgraduate, R.MÜGE(Student), 2014

GÖĞÜŞ M., Hydraulics of circular bottom intake orifices, Postgraduate, M.BULUT(Student), 2013

GÖĞÜŞ M., Effect of hydraulic parameters on the formation of vortices at intake structures, Postgraduate, A.BAYKARA(Student), 2013

GÖĞÜŞ M., Design of settling basins and related problems encountered in practice, Postgraduate, F.DENİZ(Student), 2013

GÖĞÜŞ M., Hydraulic characteristics of tyrolean weirs having steel racks and circular-perforated entry, Postgraduate, H.ŞAHİNER(Student), 2012

GÖĞÜŞ M., Effects of collars on local scour around semi-circular end bridge abutments, Postgraduate, S.DAŞKIN(Student), 2011

GÖĞÜŞ M., Hydraulic characteristics of tyrolean weirs, Postgraduate, N.ASLICAN(Student), 2010

GÖĞÜŞ M., Incipient motion of coarse solitary particles, Postgraduate, B.GÜLCÜ(Student), 2009

GÖĞÜŞ M., Initiation of motion of coarse solitary particles on rough channel beds, Postgraduate, Ö.İLKER(Student), 2009

GÖĞÜŞ M., Scale effects on the formation of vortices at intake structures, Postgraduate, F.ARAL(Student), 2009

GÖĞÜŞ M., EFFECTS OF COLLARS ON SCOUR REDUCTION AT BRIDGE ABUTMENTS, Postgraduate, A.ERCÜMENT(Student), 2008

GÖĞÜŞ M., Scour and scour protection at bridge abutments, Doctorate, Y.ŞERİFE(Student), 2005

GÖĞÜŞ M., Effect of riprap on the scour depth downstream of a spillway., Postgraduate, Ş.YAVUZ(Student), 2002

GÖĞÜŞ M., Effect of particle shape and size on incipient motion of solid particles., Postgraduate, Z.DEFNE(Student), 2002

GÖĞÜŞ M., Sediment yields of the basins in the Western Black Sea Region., Postgraduate, M.Kemal(Student), 2002

GÖĞÜŞ M., AYDIN İ., Water jet pumps with multiple nozzles., Postgraduate, E.GÜRİSOY(Student), 2002

GÖĞÜŞ M., Water jet pump and its application to dredging problems., Postgraduate, B.YEŞİLMEN(Student), 2002

GÖĞÜŞ M., Sediment yields of the basins in the western Black Sea region, Postgraduate, M.KEMAL(Student), 2002

GÖĞÜŞ M., Effect of discharge channel bottom elevation on scour downstream of a spillway, Postgraduate, Ş.YILMAZ(Student), 1998

GÖĞÜŞ M., Hydraulic characteristics of sharp-crested weirs with application to labyrinth spillways, Postgraduate, Ş.KUMCU(Student), 1997

GÖĞÜŞ M., Hydraulic characteristics of broad-crested weirs of rectangular compound cross-section, Postgraduate, V.ÖZKANDEMİR(Student), 1997

GÖĞÜŞ M., Effect of stilling basin endsill elevation on local scour downstream of a spillway, Postgraduate, M.ZEKİ(Student), 1997

GÖĞÜŞ M., Regional distribution of sediment yield rates in Turkey, Postgraduate, M.KARLUK(Student), 1997

GÖĞÜŞ M., Effect of stilling basin end sili elevation on local scour downstream of a spillway, Postgraduate, M.Zeki(Student), 1997

GÖĞÜŞ M., Air-entrainment in high speed free surface flows, Doctorate, M.ALİ(Student), 1996

GÖĞÜŞ M., Air-entrainment in high speed free surface flows., Doctorate, M.Ali(Student), 1996

GÖĞÜŞ M., Effect of sediment size and spillway height on local scour downstream of a dam, Postgraduate, F.ÖZDEMİR(Student), 1995

GÖĞÜŞ M., Estimation of sediment yield rates of reservoirs in Turkey, Postgraduate, A.GÜLAY(Student), 1994

GÖĞÜŞ M., Effect of stilling basin lowering on the river bottom erosion, Postgraduate, A.Aydın(Student), 1994

GÖĞÜŞ M., Estimation of sediment yield rates of reservoirs in Turkey, Postgraduate, A.Gülay(Student), 1994

GÖĞÜŞ M., Effect of stilling basin end sills on the river bottom erosion., Postgraduate, M.YAZICIOĞLU(Student), 1993

GÖĞÜŞ M., Hydraulic characteristics and optimum design of symmetrical compound channels for flow measurements., Doctorate, İ.AHMAD(Student), 1993

GÖĞÜŞ M., Effect of downstream expansion of a long-throated flume of rectangular cross-section on flow properties, Postgraduate, A.HATİPOĞLU(Student), 1991

GÖĞÜŞ M., Reservoir sedimentation in Turkey, Postgraduate, F.YALÇINKAYA(Student), 1991

GÖĞÜŞ M., Design criterions for water jet pumps and determination of critical flow velocity in sediment carrying pipeline systems, Postgraduate, M.ALİ(Student), 1990

GÖĞÜŞ M., Effect of roughness on hydraulic jump properties, Postgraduate, B.BİROL(Student), 1989

GÖĞÜŞ M., Effects of roughness on hydraulic jump properties, Postgraduate, B.Birol(Student), 1989

GÖĞÜŞ M., Hydraulic characteristics of flow measurement flumes of rectangular compound cross sections, Postgraduate, I.AHMAD(Student), 1989

GÖĞÜŞ M., Hydraulic characteristics of flow measurement flumes of rectangular compound cross section, Postgraduate, I.Ahmad(Student), 1989

GÖĞÜŞ M., Optimum design of water jet pumps with application to solid transportation through pipeline systems, Postgraduate, G.İNCİ(Student), 1987

GÖĞÜŞ M., The Effect of shape and density on the free settling velocity of particles, Postgraduate, O.NURİ(Student), 1987

### **Published journal articles indexed by SCI, SSCI, and AHCI**

- I. **Local scour evolution around semi-circular end bridge abutment in quasi-unsteady condition**  
Gökmener S., Gogus M.  
Proceedings of the Institution of Civil Engineers: Water Management, vol.175, pp.163-177, 2022 (SCI-Expanded)
- II. **Effects of Antivortex Structures Installed on Trapezoidal Labyrinth Side Weirs on Discharge Capacity and Scouring**  
EMİROĞLU M. E., GÖĞÜŞ M., Tunc M., Islamoglu K.  
JOURNAL OF IRRIGATION AND DRAINAGE ENGINEERING, vol.143, no.6, 2017 (SCI-Expanded)
- III. **Discharge prediction in flow measurement flumes with different downstream transition slopes**  
GÖĞÜŞ M., Al-Khatib I. A., Atalay A. E., Khatib J. I.  
FLOW MEASUREMENT AND INSTRUMENTATION, vol.47, pp.28-34, 2016 (SCI-Expanded)
- IV. **Formation of air-entraining vortices at horizontal intakes without approach flow induced circulation**  
Göğüş M., Köken M., Baykara A.  
Journal of Hydrodynamics, vol.28, pp.102-113, 2016 (SCI-Expanded)
- V. **Assessment of sediment yield estimations for large watershed areas: a case study for the Seyhan, Demirkopru and Hirfanli reservoirs in Turkey**  
Kokpınar M. A., Altan-Sakarya A. B., KUMCU Ş. Y., GÖĞÜŞ M.  
HYDROLOGICAL SCIENCES JOURNAL-JOURNAL DES SCIENCES HYDROLOGIQUES, vol.60, no.12, pp.2189-2203, 2015 (SCI-Expanded)
- VI. **Effect of spur dike length on the horseshoe vortex system and the bed shear stress distribution**  
KÖKEN M., GÖĞÜŞ M.  
JOURNAL OF HYDRAULIC RESEARCH, vol.53, no.2, pp.196-206, 2015 (SCI-Expanded)
- VII. **Scour protection around vertical-wall bridge abutments with collars**  
KUMCU Ş. Y., Kokpınar M. A., GÖĞÜŞ M.  
KSCE JOURNAL OF CIVIL ENGINEERING, vol.18, no.6, pp.1884-1895, 2014 (SCI-Expanded)
- VIII. **Phi-indices approach and multivariable regression analysis for prediction of discharge in asymmetric straight compound open channel flows**  
Al-Khatib I. A., GÖĞÜŞ M.  
FLOW MEASUREMENT AND INSTRUMENTATION, vol.38, pp.82-91, 2014 (SCI-Expanded)
- IX. **Prediction models for discharge estimation in rectangular compound broad-crested weirs**  
Al-Khatib I. A., GÖĞÜŞ M.  
FLOW MEASUREMENT AND INSTRUMENTATION, vol.36, pp.1-8, 2014 (SCI-Expanded)
- X. **Effect of the downstream transition region of a flow measurement flume of rectangular compound cross section on flow properties**  
GÖĞÜŞ M., Al-Khatib I. A., Atalay A. E.  
FLOW MEASUREMENT AND INSTRUMENTATION, vol.33, pp.88-95, 2013 (SCI-Expanded)

- XI. **Evaluation of separate channel methods for discharge computation in asymmetric compound channels**  
Al-Khatib I. A., Dweik A. A., GÖĞÜŞ M.  
FLOW MEASUREMENT AND INSTRUMENTATION, vol.24, pp.19-25, 2012 (SCI-Expanded)
- XII. **Application of a flow-measurement structure for sediment-laden streams**  
GÖĞÜŞ M., Gerek Cüneyt A., Burcu Altan-Sakarya A. B.  
Canadian Journal of Civil Engineering, vol.36, no.9, pp.1539-1543, 2009 (SCI-Expanded)
- XIII. **Effect of shape on incipient motion of large solitary particles**  
Gogus M., Defne Z.  
JOURNAL OF HYDRAULIC ENGINEERING-ASCE, vol.131, no.1, pp.38-45, 2005 (SCI-Expanded)
- XIV. **High-speed jet flows over spillway aerators**  
Kokpinar M., Gogus M.  
CANADIAN JOURNAL OF CIVIL ENGINEERING, vol.29, no.6, pp.885-898, 2002 (SCI-Expanded)
- XV. **Effect of particle shape on fall velocity of angular particles**  
Gogus M., Ipekci O., Kokpinar M.  
JOURNAL OF HYDRAULIC ENGINEERING-ASCE, vol.127, no.10, pp.860-869, 2001 (SCI-Expanded)
- XVI. **Critical flow velocity in slurry transporting horizontal pipelines**  
Kokpinar M., Gogus M.  
JOURNAL OF HYDRAULIC ENGINEERING-ASCE, vol.127, no.9, pp.763-771, 2001 (SCI-Expanded)
- XVII. **FLOW-MEASUREMENT STRUCTURES OF COMPOUND CROSS-SECTION FOR RIVERS**  
GOGUS M., ALTMBİLEK D.  
JOURNAL OF IRRIGATION AND DRAINAGE ENGINEERING, vol.120, no.1, pp.110-127, 1994 (SCI-Expanded)

### **Refereed Congress / Symposium Publications in Proceedings**

- I. **Determination of Critical Submergence at Horizontal Water Intakes under Symmetrical Flow Conditions**  
GÖĞÜŞ M., KÖKEN M., ZALOĞLU C., HASPOLAT E.  
12th International Congress on Advances in Civil Engineering, 21 - 23 September 2016
- II. **Experimental Investigation of the Anti Vortex Devices of Beyhan 1 Dam and Hydroelectric Power Plant Water Intake Structure**  
GÖĞÜŞ M., ALTAN SAKARYA A. B., KÖKEN M.  
World Multidisciplinary Civil Engineering-Architecture-Urban Planning Symposium 2016, WMCAUS 2016, PRAG, Czech Republic, 13 - 17 June 2016
- III. **Experimental Investigation of the Original Project of Yukari Kaleköy Dam and Hydroelectric Power Plant Spillway**  
GÖĞÜŞ M., ALTAN SAKARYA A. B., KÖKEN M.  
World Multidisciplinary Civil Engineering-Architecture-Urban Planning Symposium 2016, WMCAUS 2016, PRAG, Czech Republic, 13 - 17 June 2016
- IV. **Experimental investigation of the anti vortex devices of Beyhan I Dam Hydroelectric Power Plant intake structure**  
GÖĞÜŞ M., ALTAN SAKARYA A. B., KÖKEN M.  
World Multidisciplinary Civil Engineering-Architecture-Urban Planning Symposium, 12 - 16 June 2016
- V. **Experimental investigation of the original project of Yukarı Kalekoy Dam and Hydroelectric Power Plant Spillway**  
GÖĞÜŞ M., ALTAN SAKARYA A. B., KÖKEN M.  
World Multidisciplinary Civil Engineering-Architecture-Urban Planning Symposium, 12 - 16 June 2016
- VI. **Experimental Investigation of the Original Project of Yukari Kalekoy Dam and Hydroelectric Power Plant Spillway**  
GÖĞÜŞ M., Altan-Sakarya A. B., KÖKEN M.

World Multidisciplinary Civil Engineering-Architecture-Urban Planning Symposium (WMCAUS), Prague, Czech Republic, 13 - 17 June 2016, vol.161, pp.313-317

- VII. **Yukarı Kaleköy Barajı HES Dolusavak Hidrolik Model Deneyleri**  
GÖĞÜŞ M., ALTAN SAKARYA A. B., KÖKEN M., DİNÇER A. E., YAVUZ C., HASPOLAT E.  
IMO Su Yapıları Sempozyumu, Turkey, 19 - 21 November 2015
- VIII. **Determination of critical submergence depth at horizontal intakes under asymmetric flow conditions**  
GÖĞÜŞ M., KÖKEN M., CİHAN Z., HASPOLAT E.  
36. IAHR Word Congress, 28 June - 03 July 2015
- IX. **Application of collars as scour countermeasure at various contraction ratios caused by two spill through abutments**  
KÖKEN M., GÖĞÜŞ M., YILMAZ K.  
7th International Conference on Fluvial Hydraulics (River Flow), Lausanne, Switzerland, 3 - 05 September 2014, pp.2053-2058
- X. **Experimental Investigation of Flow Conditions over Cambasi Dam Spillway**  
ALTAN SAKARYA A. B., AYDIN İ., GÖĞÜŞ M., KÖKEN M.  
35th World Congress of the International-Association-for-Hydro-Environment-Engineering-and-Research (IAHR), Chengdu, China, 8 - 13 September 2013, pp.5748-5755
- XI. **Temporal Variation of Scour Hole around Spill Through Bridge Abutments at Various Contraction Ratios**  
Yildiz B., KÖKEN M., GÖĞÜŞ M.  
35th World Congress of the International-Association-for-Hydro-Environment-Engineering-and-Research (IAHR), Chengdu, China, 8 - 13 September 2013, pp.3966-3975
- XII. **Time evolution of the horseshoe vortex system forming around a bridge abutment**  
KÖKEN M., Gogus M.  
5th International Conference on Scour and Erosion, San Francisco, CA, United States Of America, 7 - 10 November 2010, pp.668-677
- XIII. **Effects of collars on scour reduction at bridge abutments**  
Gogus M., Dogan A. E.  
5th International Conference on Scour and Erosion, San Francisco, CA, United States Of America, 7 - 10 November 2010, pp.997-1007
- XIV. **Reservoir Sedimentation in the Demirköprü Dam, Turkey**  
Altan Sakarya A. B., Göğüş M., Kokpınar M. A., Kumcu Ş. Y.  
River Flow 2010, International Conference on Fluvial Hydraulics, September 8-10, 2010, Braunschweig, Germany, 8 - 10 September 2010
- XV. **Yamula Barajı ve HES Hidrolik Model Çalışmaları**  
YILMAZ B., ALTAN SAKARYA A. B., GÖĞÜŞ M., ÖNDER H., AYDIN İ., TOKYAY N.  
II. Ulusal Su Mühendisliği Sempozyumu, İzmir, Turkey, 21 - 24 September 2005, pp.281-291
- XVI. **An empirical expression for the determination of mean critical flow velocity in slurry transporting pipeline systems**  
Gogus M., Kokpınar M.  
14th International Conference on Slurry Handling and Pipeline Transport, Maastricht, Netherlands, 8 - 10 September 1999, pp.567-586

## Supported Projects

GÖĞÜŞ M., Project Supported by Higher Education Institutions, Tirol Tipi Su Alma Yapılarının Projelendirilmelerinde Kullanılabilecek Abakların Hazırlanması, 2011 - 2011

GÖĞÜŞ M., Project Supported by Higher Education Institutions, Tirol Tipi Su Alma Yapılarında Katı Madde Miktarının Azaltılması, 2009 - 2010

## Metrics

Publication: 36

Citation (WoS): 201

Citation (Scopus): 219

H-Index (WoS): 8

H-Index (Scopus): 9