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Kişisel Bilgiler

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Publons / Web Of Science ResearcherID: D-1345-2010

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Yoksis Araştırmacı ID: 6985

Eğitim Bilgileri

Doktora, Tohoku University, Faculty Of Engineering, Civil Engineering Department, Japonya 1984 - 1987

Yüksek Lisans, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, Türkiye 1980 - 1983

Lisans, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, Türkiye 1975 - 1980

Yaptığı Tezler

Doktora, Computation and analysis of unsteady turbulent flow on flat bottom and over rigid ripples, Tohoku University, Civil Engineering Department, 1987

Yüksek Lisans, On large scale flow structure detection of a turbulent jet, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, 1983

Araştırma Alanları

İnşaat Mühendisliği , Hidrolik, Hidromekanik, Mühendislik ve Teknoloji

Akademik Unvanlar / Görevler

Prof. Dr., Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, 2011 - Devam Ediyor

Verdiği Dersler

DESIGN OF HYDRAULIC STRUCTURES, Lisans, 2018 - 2019

Yönetilen Tezler

AYDIN İ., AUTOMATION OF SPILLWAY GATE OPERATIONS BASED ON RESERVOIR WATER LEVEL MONITORING, Yüksek Lisans, M.KHORAM(Öğrenci), 2022

AYDIN İ., Parametric analysis of two-layer shallow flow modelling for landslide and water waves in dam reservoirs, Yüksek Lisans, M.MERİÇ(Öğrenci), 2022

AYDIN İ., WATER SURFACE PROFILE COMPUTATION AROUND SQUARE BLOCKS BY IMAGINARY REPRESENTATION OF THE OBSTRUCTIONS IN THE SHALLOW WATER EQUATIONS, Yüksek Lisans, S.OMAR(Öğrenci), 2021

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Aydın İ., Feasibility of pumped-storage hydraulic systems based on hourly variation of electricity prices, Yüksek Lisans, E.BARBAROS(Öğrenci), 2019

AYDIN İ., Derinlik integralli çözümlerin kanal tabanında boyuna süreksizliklere duyarlılığının belirlenmesi., Yüksek Lisans, R.Mohammadi(Öğrenci), 2019

AYDIN İ., PERFORMANCE OF FLO-2D SOFTWARE ON FLOOD INUNDATION ANALYSIS, Yüksek Lisans, A.NAZIM(Öğrenci), 2016

AYDIN İ., Flow measurement in open channels by combined use of free surface PIV and CFD, Doktora, S.GHARAHJEH(Öğrenci), 2016

AYDIN İ., Computer code development for numerical solution of depth integrated shallow water equations to study flood waves, Yüksek Lisans, B.NİLAY(Öğrenci), 2015

AYDIN İ., Depth integrated equations applied to longitudinal discontinuities on the channel bed, Yüksek Lisans, M.RAZMAND(Öğrenci), 2015

AYDIN İ., Impact assessment of water jets from flip buckets, Yüksek Lisans, C.YAVUZ(Öğrenci), 2014

AYDIN İ., KÖKEN M., Numerical investigation of hydraulic characteristics of Laleli dam spillway and comparison with physical model study, Yüksek Lisans, E.USTA(Öğrenci), 2014

AYDIN İ., Validation of depth-averaged mixing length turbulence model for uniform channel flows, Yüksek Lisans, Ç.HASAN(Öğrenci), 2014

AYDIN İ., KÖKEN M., Prediction of downpull on high head gates using computational fluid dynamics, Yüksek Lisans, M.AKIŞ(Öğrenci), 2014

AYDIN İ., Computational modelling of free surface flow in intake structures using flow 3D software, Yüksek Lisans, A.AYBAR(Öğrenci), 2012

AYDIN İ., ALTAN SAKARYA A. B., Türkiye'de yeşil bina sektörünün motivasyon ve bariyerleri., Yüksek Lisans, H.Gündoğan(Öğrenci), 2012

AYDIN İ., Use of air chambers against waterhammer in penstocks, Yüksek Lisans, B.ADAL(Öğrenci), 2011

PARLAKTUNA M., AYDIN İ., Modeling of Newtonian fluids and cuttings transport analysis in high inclination wellbores with pipe rotation, Doktora, M.SORGUN(Öğrenci), 2010

AYDIN İ., Utilization of cfd tools in the design process of a Francis turbine, Yüksek Lisans, G.OKYAY(Öğrenci), 2010

ALTAN SAKARYA A. B., AYDIN İ., Experimental investigation on sharp crested rectangular weirs, Yüksek Lisans, H.ÇİĞDEM(Öğrenci), 2009

AYDIN İ., Determination of computational domain boundaries for viscous flow around two dimensional bodies, Yüksek Lisans, M.MAZHAR(Öğrenci), 2006

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AYDIN İ., Simulation of surface waves generated by a rapid rise of a block at the sea bottom, Yüksek Lisans, N.ŞENOL(Öğrenci), 2005

AYDIN İ., Generation of surface waves due to sudden movements at the sea bottom, Yüksek Lisans, Ö.ULAŞ(Öğrenci), 2004

AYDIN İ., Development and validation of two-dimensional depth-averaged free surface flow solver, Yüksek Lisans, B.YILMAZ(Öğrenci), 2003

AYDIN İ., Serbest yüzeyli akımlarda iki-boyutlu derinlik ortalamalı denklemlerin çözümü için yazılım geliştirilmesi ve doğrulanması, Yüksek Lisans, B.Yılmaz(Öğrenci), 2003

GÖĞÜŞ M., AYDIN İ., Water jet pumps with multiple nozzles, Yüksek Lisans, E.GÜRSOY(Öğrenci), 2002

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AYDIN İ., Overflow through spacings around leaf gates, Yüksek Lisans, F.GÜREŞÇİ(Öğrenci), 2001
AYDIN İ., Discharge coefficient for slit weirs, Yüksek Lisans, O.HINÇAL(Öğrenci), 2000
AYDIN İ., Investigation of pier length of an ogee-crested overflow spillway, Yüksek Lisans, V.Yüksel(Öğrenci), 1995
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AYDIN İ., Comparison of K-E and stress models of turbulence in unsteady flows, Yüksek Lisans, A.GÖKÇE(Öğrenci), 1994
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SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

- I. **Finite volume analysis of dam breaking subjected to earthquake accelerations**
Mosaddeghi F., Köken M., Aydın I.
Journal of Hydraulic Research, cilt.61, sa.6, ss.854-865, 2023 (SCI-Expanded)
- II. **An iterative hydraulic design methodology based on numerical modeling for piano key weirs**
Köken M., Aydın İ., Ademoglu S.
JOURNAL OF HYDRO-ENVIRONMENT RESEARCH, cilt.40, ss.131-141, 2022 (SCI-Expanded)
- III. **Feasibility of pumped storage hydropower with existing pricing policy in Turkey**
Barbaros E., AYDIN İ., Celebioglu K.
RENEWABLE & SUSTAINABLE ENERGY REVIEWS, cilt.136, 2021 (SCI-Expanded)
- IV. **New Theoretical solution of stage-discharge relationship for slit weirs**
FERRO V., AYDIN İ.
Journal of Irrigation and Drainage Engineering, cilt.144, sa.3, 2018 (SCI-Expanded)
- V. **Testing the outflow theory of Malcherek by slit weir data**
FERRO V., AYDIN İ.
FLOW MEASUREMENT AND INSTRUMENTATION, cilt.59, ss.114-117, 2018 (SCI-Expanded)
- VI. **Sığ Akım Denklemlerinin Hidrolikte Kullanılması Üzerine Değerlendirmeler**
İşcen B. N., Öktem N., Yılmaz B., Aydın İ.
Teknik Dergi, cilt.28, ss.7747-7764, 2017 (SCI-Expanded)
- VII. **Application of computational fluid dynamics to predict hydrodynamic downpull on high head gates**
Köken M., Aydın İ., Şahin A.
ENGINEERING COMPUTATIONS, cilt.34, ss.1191-1203, 2017 (SCI-Expanded)
- VIII. **On the Use of Shallow Water Equations in Hydraulics**
İscen B. N., ÖKTEM N., Yılmaz B., AYDIN İ.
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- IX. **Application of video imagery techniques for low cost measurement of water surface velocity in open channels**
GHARAJEH S., AYDIN İ.
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- X. **Numerical Simulation and Formulation of Wave Run-Up on Dam Face due to Ground Oscillations Using Major Earthquake Acceleration Records**
DEMİREL E., AYDIN İ.
Journal Of Engineering Mechanics-Asce, cilt.142, ss.6016001, 2016 (SCI-Expanded)
- XI. **Weir velocity formulation for sharp-crested rectangular weirs**
GHARAJEH S., AYDIN İ., Altan-Sakarya A. B.
FLOW MEASUREMENT AND INSTRUMENTATION, cilt.41, ss.50-56, 2015 (SCI-Expanded)
- XII. **Mathematical Modeling of Turbulent Flows of Newtonian Fluids in a Concentric Annulus with Pipe Rotation**
SORGUN M., AYDIN İ., ÖZBAYOĞLU E., SCHUBERT J. J.
ENERGY SOURCES PART A-RECOVERY UTILIZATION AND ENVIRONMENTAL EFFECTS, cilt.34, ss.540-548, 2012 (SCI-Expanded)
- XIII. **Hydrodynamic Modeling of Dam-Reservoir Response during Earthquakes**
AYDIN İ., Demirel E.
Journal of Engineering Mechanics, cilt.138, sa.2, ss.164-174, 2011 (SCI-Expanded)
- XIV. **Friction factors for hydraulic calculations considering presence of cuttings and pipe rotation in horizontal/highly-inclined wellbores**
Sorgun M., AYDIN İ., Ozbayoglu M. E.
JOURNAL OF PETROLEUM SCIENCE AND ENGINEERING, cilt.78, sa.2, ss.407-414, 2011 (SCI-Expanded)
- XV. **Discharge formula for rectangular sharp-crested weirs**
AYDIN İ., Altan-Sakarya A. B., ŞİŞMAN Ç.
FLOW MEASUREMENT AND INSTRUMENTATION, cilt.22, sa.2, ss.144-151, 2011 (SCI-Expanded)
- XVI. **Global volume conservation in unsteady free surface flows with energy absorbing far-end boundaries**
Demirel E., AYDIN İ.
INTERNATIONAL JOURNAL FOR NUMERICAL METHODS IN FLUIDS, cilt.64, sa.6, ss.689-708, 2010 (SCI-Expanded)
- XVII. **Modeling and Experimental Study of Newtonian Fluid Flow in Annulus**
SORGUN M., Ozbayoglu M. E., AYDIN İ.
JOURNAL OF ENERGY RESOURCES TECHNOLOGY-TRANSACTIONS OF THE ASME, cilt.132, sa.3, 2010 (SCI-Expanded)
- XVIII. **Nonlinear mixing length model for prediction of secondary currents in uniform channel flows**
AYDIN İ.
Journal of Hydraulic Engineering, cilt.135, sa.2, ss.146-153, 2009 (SCI-Expanded)
- XIX. **Performance of slit weir**
AYDIN İ., Altan-Sakaya A. B., Ger A. M.
Journal of Hydraulic Engineering, cilt.132, sa.9, ss.987-989, 2006 (SCI-Expanded)
- XX. **Prediction of downpull on closing high head gates**
Aydin I., Telci I. T., DÜNDAR O.
JOURNAL OF HYDRAULIC RESEARCH, cilt.44, sa.6, ss.822-831, 2006 (SCI-Expanded)
- XXI. **Combined-free flow over weirs and below gates**
Negm A., Al-Brahim A., Alhamid A., Sakarya B., Aydin I., Ger A.
JOURNAL OF HYDRAULIC RESEARCH, cilt.42, sa.5, ss.557-559, 2004 (SCI-Expanded)
- XXII. **Measurement of small discharges in open channels by Slit Weir**
AYDIN İ., Ger A. M., HINCAL O.
Journal of Hydraulic Engineering, cilt.128, sa.2, ss.234-237, 2002 (SCI-Expanded)
- XXIII. **Air demand behind high head gates during emergency closure**
Aydin I.
JOURNAL OF HYDRAULIC RESEARCH, cilt.40, sa.1, ss.83-93, 2002 (SCI-Expanded)
- XXIV. **Evaluation of fluctuating pressures measured with connection tubes**
AYDIN İ.
Journal of Hydraulic Engineering, cilt.124, sa.4, ss.413-418, 1998 (SCI-Expanded)

XXV. An application of k-e model to oscillatory boundary Layers

AYDIN İ., SHUTO N.

Coastal Engineering Journal, cilt.30, ss.11-24, 1988 (SCI-Expanded)

Diğer Dergilerde Yayınlanan Makaleler

- I. **Deducing the stage-discharge relationship for contracted weirs by the outflow theory of Malcherek**
Ferro V., AYDIN İ.
JOURNAL OF AGRICULTURAL ENGINEERING, cilt.50, sa.2, ss.80-87, 2019 (ESCI)
- II. **Head loss estimation for water jets from flip buckets**
YAVUZ C., DİNÇER A. E., AYDIN İ.
The International Journal of Engineering And Science, cilt.5, ss.48-57, 2016 (Hakemli Dergi)

Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar

- I. **EXPERIMENTAL INVESTIGATION OF LANDSLIDE GENERATED WAVES IN A LABORATORY TEST SET-UP**
KARAYAMA E. T., AYDIN İ., DEMİREL E., Kürümüş A. T., Barough R. M.
14th INTERNATIONAL CONFERENCE ON HYDROSCIENCE AND ENGINEERING, İzmir, Türkiye, 26 Mayıs 2022
- II. **NUMERICAL SIMULATION of LANDSLIDE GENERATED SURFACE WAVES USING OVERSET GRID METHOD**
AYDIN İ., DEMİREL E., Barough R. M., Kürümüş A. T., KARAYAMA E. T.
14th INTERNATIONAL CONFERENCE ON HYDROSCIENCE AND ENGINEERING, İzmir, Türkiye, 26 Mayıs 2022
- III. **Artvin bottom outlet aeration: an innovative arrangement**
Comelli M., AYDIN İ., Nurhat E., Chambas P.
HYDRO 2018, 15 - 17 Ekim 2018
- IV. **Flow resistance in conveyance channels**
AYDIN İ.
13th int. Congress on Advances in Civil Engineering, 12 - 14 Eylül 2018
- V. **Prospects of Large Scale Energy Storage in Turkey- Pumped Hydro and Electrochemical Energy Storage**
ÖZTÜRK T., AYDIN İ., AYDINOL M. K., PATAT Ş.
14TH INTERNATIONAL CONFERENCE ON ENERGY STORAGE, 25 - 28 Nisan 2018
- VI. **WALL FUNCTIONS FOR BOUNDARY ROUGHNESS PREDICTION IN UNIFORM CHANNEL FLOWS**
AYDIN İ.
IAHR 2017 World Congress, 13 - 18 Ağustos 2017
- VII. **Experimental and numerical investigation of piano key weirs.**
KÖKEN M., AYDIN İ., HASPOLAT E., ŞAHİN A. N.
37th IAHR Congress, Kuala-Lumpur, Malezya, 13 - 18 Ağustos 2017
- VIII. **NUMERICAL INVESTIGATION OF A COMBINED SYSTEM OF PIANO KEY WEIRS AND STEPPED SPILLWAY USING**
KÖKEN M., AYDIN İ.
17th Flow 3d European User's Conference, Barselona, İspanya, 5 - 07 Haziran 2017
- IX. **Roughness and discharge estimation in open channels by free surface velocity measurement**
GHARAJEH S., AYDIN İ.
12th International Congress on Advances in Civil Engineering, İstanbul, Türkiye, 21 - 23 Eylül 2016
- X. **Stream gauging by combined use of surface PTV and CFD techniques in channel flows**
GHARAJEH S., AYDIN İ.
36 th world congree of IAHR, 28 Haziran - 03 Temmuz 2015, cilt.1, ss.1-7

- XI. **IMPACT ASSESSMENT OF WATER JETS FROM FLIP BUCKETS**
Yavuz C., AYDIN İ.
36th IAHR World Congress, Delft, Hollanda, 28 Haziran - 03 Temmuz 2015, ss.3013-3022
- XII. **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, Çin, 8 - 13 Eylül 2013, ss.5748-5755
- XIII. **Experimental and Computational Investigation of Vortex Formation in a Vertical Intake Structure**
AYDIN İ., KÖKEN M., Aybar A.
35th World Congress of the International-Association-for-Hydro-Environment-Engineering-and-Research (IAHR),
Chengdu, Çin, 8 - 13 Eylül 2013, ss.1084-1092
- XIV. **MODELING OF NEWTONIAN FLUIDS IN ANNULAR GEOMETRIES WITH INNER PIPE ROTATION**
Sorgun M., Schubert J. J., Aydin I., Ozbayoglu M. E.
3rd Joint US-European Fluids Engineering Division Summer Meeting, Montreal, Kanada, 1 - 05 Ağustos 2010,
ss.1453-1461
- 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, Türkiye, 21 - 24 Eylül 2005, ss.281-291

Bilimsel Dergilerdeki Faaliyetler

Teknik Dergi, Editörler Kurulu Üyesi, 2014 - Devam Ediyor

Metrikler

Yayın: 42

Atıf (WoS): 286

Atıf (Scopus): 282

H-İndeks (WoS): 9

H-İndeks (Scopus): 8

Ödüller

Aydin İ., Outstanding Reviewer, American Society Of Civil Engineers, Mart 2019

Akademi Dışı Deneyim

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