## Assoc. Prof. MELİH ÇALAMAK

#### **Personal Information**

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#### International Researcher IDs

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Publons / Web Of Science ResearcherID: L-1701-2019

ScopusID: 55454486900 Yoksis Researcher ID: 134538

## **Biography**

Melih Calamak's research is on risk and reliability assessment in water resources engineering, the safety of embankments, structural flood mitigation, uncertainty-based seepage analysis, and fluid transients in pipes. He is a member of the Canadian Dam Association, International Association for Hydro-Environmental Engineering and Research (IAHR), and International Water Resources Association (IWRA).

#### **Education Information**

Doctorate, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, Turkey 2010 - 2014 Postgraduate, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, Turkey 2008 - 2010

Undergraduate, Gazi University, Mühendislik Fakültesi, İnşaat Mühendisliği, Turkey 2004 - 2008

#### **Dissertations**

Doctorate, Uncertainty based analysis of seepage through earth-fill dams, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, 2014

#### Research Areas

Hydraulic Structures, Pipeline Hydraulics, Open Channel Flow, Hydromechanics

## Academic and Administrative Experience

Fakülte Kurulu Üyesi, Ted University, Faculty Of Engineering, 2017 - 2018

Soruşturma Komisyonu Üyesi, Ted University, Faculty Of Engineering, 2016 - 2018

Erasmus Program Department Coordinator, Ted University, Faculty Of Engineering, 2016 - 2018

#### **Courses**

Open Channel Hydraulics, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021

Water Resources Engineering, Undergraduate, 2021 - 2022

Fluid Mechanics, Undergraduate, 2022 - 2023, 2021 - 2022

Water Resources Engineering, Undergraduate, 2016 - 2017, 2015 - 2016

Hydromechanics, Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016

Civil Engineering Design, Undergraduate, 2017 - 2018, 2016 - 2017

Fluid Mechanics, Undergraduate, 2016 - 2017, 2015 - 2016

Numerical Methods in Engineering, Undergraduate, 2016 - 2017, 2015 - 2016

Civil Engineering Design, Undergraduate, 2014 - 2015

Material Science, Undergraduate, 2015 - 2016

### **Advising Theses**

ÇALAMAK M., A study on reservoir filling practices for small earthfill dams, Postgraduate, E.CAN(Student), 2022 Çalamak M., Malekpour A., Probabilistic analysis of internal erosion in embankment dams using copula functions, Postgraduate, N.Sadeghian(Student), 2021

Çalamak M., Yanmaz A. M., A study on performance evaluation of relief wells downstream of embankment dams, Postgraduate, D.GÖĞÜŞ(Student), 2021

Çalamak M., Yanmaz A. M., Investigation of the effects of uncertainties of inflow hydrograph and dam breach geometry on outflow hydrograph, Postgraduate, N.PINAR(Student), 2021

Çalamak M., Yanmaz A. M., A study on optimum layout of drainage gallery for concrete dams, Postgraduate, T.DAGHESTANI(Student), 2018

Yanmaz A. M., Çalamak M., Effects of berm characteristics on earth-fill dam stability, Postgraduate, Y.KILIÇ(Student), 2017

Yanmaz A. M., Çalamak M., Assessment of performance of drainage systems in earth-fill dams, Postgraduate, A.NUR(Student), 2017

### Jury Memberships

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, June, 2022

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, February, 2022

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, November, 2021

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, August, 2021

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, July, 2021

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, June, 2021

Doctorate, Doctorate, Orta Doğu Teknik Üniversitesi, June, 2018

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Orta Doğu Teknik Üniversitesi, December, 2017

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, August, 2017

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, August, 2017

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, August, 2017

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, July, 2017

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, July, 2017

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Orta Doğu Teknik Üniversitesi, June, 2017

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Orta Doğu Teknik Üniversitesi, June, 2017 Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, June, 2017

Doctoral Examination, Doctoral Examination, Orta Doğu Teknik Üniversitesi, May, 2017

Doctoral Examination, Doctoral Examination, Orta Doğu Teknik Üniversitesi, May, 2017

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, March, 2017

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, January, 2017

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Orta Doğu Teknik Üniversitesi, December, 2016

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, September, 2016

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, September, 2016

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, September, 2016

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, September, 2016

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, August, 2016

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Orta Doğu Teknik Üniversitesi, June, 2016

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Orta Doğu Teknik Üniversitesi, June, 2016

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Orta Doğu Teknik Üniversitesi, June, 2016

Doctoral Examination, Doctoral Examination, Orta Doğu Teknik Üniversitesi, May, 2016

Doctoral Examination, Doctoral Examination, Orta Doğu Teknik Üniversitesi, May, 2016

Doctoral Examination, Doctoral Examination, Orta Doğu Teknik Üniversitesi, May, 2016

Doctoral Examination, Doctoral Examination, Orta Doğu Teknik Üniversitesi, May, 2016

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, April, 2016

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, January, 2016

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

I. Experimental Investigation of Flood Management by an Instantaneous Levee Breach

Al-Hafidh I. A. I., Calamak M., Larocque L. A., Chaudhry M. H., Imran J.

JOURNAL OF HYDRAULIC ENGINEERING, vol.148, no.2, 2022 (SCI-Expanded)

II. Multiobjective optimization of a tubular pump to improve the applicable operating head and hydraulic performance

Zhao W., Zhang J., Yu X., Zhou D., Calamak M.

Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, vol.235, no.9, pp.1555-1566, 2021 (SCI-Expanded)

III. Numerical modelling of seepage through earthen dams with animal burrows: a case study Calamak M., Larocque L. A., Chaudhry M. H.

Journal of Hydraulic Research, vol.59, no.3, pp.488-499, 2021 (SCI-Expanded)

IV. Reliability-based evaluation of scouring around dual bridge piers

Yilmaz M., Calamak M., YANMAZ A. M.

Gradjevinar, vol.71, no.9, pp.739-747, 2019 (SCI-Expanded)

V. On the optimum layout of a drainage gallery in concrete gravity dams on isotropic foundation Daghestani T., Çalamak M., YANMAZ A. M.

Environmental and Engineering Geoscience, vol.25, no.4, pp.345-358, 2019 (SCI-Expanded)

VI. Performance Evaluation of Internal Drains of Earthen Dams

Calamak M., Yilmaz A. N., Yanmaz A. M.

Journal of Performance of Constructed Facilities, vol.32, no.6, 2018 (SCI-Expanded)

VII. Assessment of core-filter configuration performance of rock-fill dams under uncertainties

Calamak M., Yanmaz A. M.

International Journal of Geomechanics, vol.18, no.4, 2018 (SCI-Expanded)

VIII. Probabilistic evaluation of the effects of uncertainty in transient seepage parameters Calamak M., Melih Yanmaz A. M., Kentel E.

Journal of Geotechnical and Geoenvironmental Engineering, vol.143, no.9, 2017 (SCI-Expanded)

IX. Uncertainty quantification of transient unsaturated seepage through embankment dams Calamak M., Yanmaz A. M.

International Journal of Geomechanics, vol.17, no.6, pp.1-11, 2017 (SCI-Expanded)

X. Performance of a pumped discharge line with combined application of protection devices against water hammer

REZAEİ V., Calamak M., BOZKUŞ Z.

KSCE Journal of Civil Engineering, vol.21, no.4, pp.1493-1500, 2017 (SCI-Expanded)

XI. Estimation of flood induced overtopping reliability of dams on Tanyeri Dam case study Tanyeri Baraji örneginde barajlarin taskin nedeniyle üstten asilma güvenilirliginin belirlenmesi Calamak M.

Journal of the Faculty of Engineering and Architecture of Gazi University, vol.32, no.3, pp.965-975, 2017 (SCI-Expanded)

XII. Evaluation of scour risk at foundations of river bridges

YANMAZ A. M., ÇALAMAK M.

Teknik Dergi/Technical Journal of Turkish Chamber of Civil Engineers, vol.27, pp.1997-2012, 2016 (SCI-Expanded)

XIII. Evaluation of scour risk at foundations of river bridges Akarsu Köprü Temellerindeki Oyulma Riskinin Değerlendirilmesi

Yanmaz A. M., Çalamak M.

Teknik Dergi/Technical Journal of Turkish Chamber of Civil Engineers, vol.27, no.3, pp.7533-7549, 2016 (SCI-Expanded)

XIV. Comparison of performance of two run-of-river plants during transient conditions ÇALAMAK M., BOZKUŞ Z.

Journal of Performance of Constructed Facilities, vol.27, no.5, pp.624-632, 2013 (SCI-Expanded)

XV. Protective measures against waterhammer in run-of-river hydropower plants  $\mbox{\it CALAMAK}$  M., BOZKUŞ Z.

Teknik Dergi/Technical Journal of Turkish Chamber of Civil Engineers, vol.23, pp.1623-1636, 2012 (SCI-Expanded)

XVI. Protective measures against waterhammer in run of river hydropower plants Nehir tipi hidroelektrik santrallerde su darbesine karşi alinabilecek önlemler ÇALAMAK M., BOZKUŞ Z.

Teknik Dergi/Technical Journal of Turkish Chamber of Civil Engineers, vol.23, no.4, pp.6187-6202, 2012 (SCI-Expanded)

#### Articles Published in Other Journals

I. On the Stability of Moderate Height Berm-Type Earthen Dams: The Hancagiz Dam Example Calamak M., Kilic Y., YANMAZ A. M.

GEOTECHNICAL AND GEOLOGICAL ENGINEERING, vol.38, no.4, pp.4169-4179, 2020 (ESCI)

II. Demiryolu dolgularının taşkın anındaki güvenliğinin değerlendirilmesi CALAMAK M.

Pamukkale Üniversitesi Mühendislik Bilimleri Dergisi, vol.24, no.3, pp.453-460, 2018 (Peer-Reviewed Journal)

III. Nehir Tipi Hidroelektrik Santraller ve Su Darbesi

ÇALAMAK M.

Yapı Dünyası, vol.180, pp.11-17, 2011 (Non Peer-Reviewed Journal)

I. Experimental investigations of flood management by an engineered levee breach

Ibrahim I. A., Calamak M., LaRocque L., Imran J.

2019 ASDSO Annual Dam Safety Conference, Florida, United States Of America, 8 - 12 September 2019, pp.751-759

II. A Review of the Anita Dam Incident: Internal Erosion Caused by a Buried Conduit and Lessons Learned

CALAMAK M., Yılmaz M.

5th International Symposium on Dam Safety, İstanbul, Turkey, 27 - 31 October 2018, vol.2, pp.700-709

III. İnşaat Mühendisliği Lisans Eğitiminin Bir Parçası Olarak Araştırma ve Sosyal Sorumluluk CALAMAK M., AKGÜNER C.

4. İnşaat Mühendisliği Eğitimi Sempozyumu, İzmir, Turkey, 17 - 18 November 2017, pp.74-82

IV. Effects of Burrowing Animals on Seepage Behavior of Earthen Dams

ÇALAMAK M., Bilgin G., Demirkapu H., Kobal A.

16th World Water Congress, International Water Resources Association (IWRA), Cancun, Mexico, 29 May - 03 June 2017, pp.1-11

V. Effect of Drainage Properties on Seepage Behavior of Earth-Fill Dams

ÇALAMAK M., Yilmaz A. N., YANMAZ A. M.

12th International Congress on Advances in Civil Engineering (ACE 2016), İstanbul, Turkey, 21 - 23 September 2016, pp.1-8

VI. Seepage characteristics in embankments subject to variable water storages on both sides ÇALAMAK M., YANMAZ A. M.

4th European Congress of the International Association of Hydroenvironment engineering and Research, IAHR 2016, Liege, Belgium, 27 - 29 July 2016, pp.551-556

VII. Akarsu Köprülerinde Yıkılma Riskinin Azaltılması Üzerine Bir Çalışma

Selamoğlu M., ÇALAMAK M., YANMAZ A. M.

4. Su Yapıları Sempozyumu, Antalya, Turkey, 19 - 21 November 2015, pp.185-194

VIII. Dolgu Barajlarda Filtre Tane Dağılımı Belirsizliğinin Sızmaya Olan Etkisi Üzerine Bir Çalışma ÇALAMAK M., YANMAZ A. M.

4. Ulusal Baraj Güvenliği Sempozyumu, Elazığ, Turkey, 9 - 11 October 2014, pp.127-137

IX. Probabilistic assessment of slope stability for earth-fill dams having random soil parameters Calamak M., YANMAZ A. M.

5th IAHR International Symposium on Hydraulic Structures: Hydraulic Structures and Society - Engineering Challenges and Extremes, ISHS 2014, Brisbane, Australia, 25 - 27 June 2014

X. Türkiye de Baraj Mühendisliği Gelişimi Üzerine Bir Değerlendirme

ÇALAMAK M., ARICI Y., YANMAZ A. M.

3. Su Yapıları Sempozyumu, Ankara, Turkey, 7 - 08 December 2013, pp.73-83

XI. Numerical investigation of operation levels in a surge tank of a small hydropower plant ÇALAMAK M., BOZKUŞ Z.

10th International Congress on Advances in Civil Engineering (ACE 2010), Ankara, Turkey, 17 - 19 October 2012, pp.1-8

XII. Spatial Variability In Seepage Flow Through Earth-Fill Dams

Çalamak M., Yanmaz A. M., Kentel Erdoğan E.

CDA 2013 Annual Conference, Montreal, Canada, 5 - 10 October 2013, pp.1-10

XIII. Seepage analysis of earth fill dams having random fields

ÇALAMAK M., KENTEL E., YANMAZ A. M.

10th International Congress on Advances in Civil Engineering (ACE 2010), Ankara, Turkey, 17 - 19 October 2012, pp.1-9

XIV. Numerical Investigation of Operation Levels in a Surge Tank of a Small Hydropower Plant ÇALAMAK M., BOZKUŞ Z.

the 10th International Congress on Advances in Civil Engineering, Ankara, Turkey, 17 - 19 October 2012

XV. Seepage Analysis Through Earth-Fill Dams Having Random Fields Çalamak M., Yanmaz A. M., Kentel Erdoğan E. Tenth International Congress on Advances in Civil Engineering, Ankara, Turkey, 17 - 19 October 2012, pp.21-30

XVI. Nehir Tipi Hidroelektrik Santrallerde SCADA Sistemi Otomasyon ve Uzaktan Erişim CALAMAK M.

2. Su Yapıları Sempozyumu, Diyarbakır, Turkey, 16 - 18 September 2011, pp.97-103

### **Supported Projects**

Çalamak M., Project Supported by Higher Education Institutions, Investigation of Burrowing Animal Impacts on Seepage thorugh Earth-fill Dams, 2017 - 2017

## Scientific Refereeing

JOURNAL OF HYDROLOGY, SCI Journal, July 2022

TEKNIK DERGI, SCI Journal, May 2022

14th International Conference on Hydroscience & Engineering, Conference Paper (Full Text), May 2022

TEKNIK DERGI, SCI Journal, February 2022

TEKNIK DERGI, SCI Journal, March 2021

JOURNAL OF GEOTECHNICAL ENGINEERING-ASCE, SCI Journal, February 2021

JOURNAL OF HYDRAULIC ENGINEERING-ASCE, SCI Journal, January 2021

BULLETIN OF ENGINEERING GEOLOGY AND THE ENVIRONMENT, SCI Journal, January 2021

geotechnical and geological Engineering, Journal Indexed in ESCI, October 2020

JOURNAL OF PIPELINE SYSTEMS ENGINEERING AND PRACTICE, SCI Journal, June 2020

JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, SCI Journal, June 2020

ENGINEERING APPLICATIONS OF COMPUTATIONAL FLUID MECHANICS, SCI Journal, May 2020

JOURNAL OF HYDRAULIC ENGINEERING-ASCE, SCI Journal, January 2020

WATER, SCI Journal, November 2019

JOURNAL OF PERFORMANCE OF CONSTRUCTED FACILITIES, SCI Journal, November 2019

COMPUTERS AND GEOTECHNICS, SCI Journal, November 2019

JOURNAL OF PERFORMANCE OF CONSTRUCTED FACILITIES, SCI Journal, August 2019

JOURNAL OF PERFORMANCE OF CONSTRUCTED FACILITIES, SCI Journal, August 2019

APPLIED SCIENCES-BASEL, SCI Journal, June 2019

GEOSCIENCES JOURNAL, SCI Journal, May 2019

TEKNIK DERGI, SCI Journal, May 2019

APPLIED SCIENCES-BASEL, SCI Journal, January 2019

INTERNATIONAL JOURNAL OF GEOMECHANICS, SCI Journal, December 2018

ACTA GEOTECHNICA, SCI Journal, September 2018

GEOSCIENCES JOURNAL, SCI Journal, August 2018

JOURNAL OF PERFORMANCE OF CONSTRUCTED FACILITIES, SCI Journal, August 2018

INTERNATIONAL JOURNAL OF GEOMECHANICS, SCI Journal, June 2018

Computers And Geotechnics, SCI Journal, May 2018

INTERNATIONAL JOURNAL OF GEOMECHANICS, SCI Journal, March 2018

ACTA GEOTECHNICA SLOVENICA, SCI Journal, December 2017

TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, SCI Journal, June 2015

### Tasks In Event Organizations

Çalamak M., Elçi Ş., Bombar G., Köken M., Kökpınar M. A., Kırca V. Ş. Ö., Eriş E., Özbahçeci B., Tayfur G., 14th International Conference on Hydroscience & Engineering,, Scientific Congress, İzmir, Turkey, Mayıs 2022

# Metrics

Publication: 35 Citation (WoS): 71 Citation (Scopus): 106 H-Index (WoS): 6

H-Index (Scopus): 6