

MD Ahmet Abdullah Dönmez

Personal Information

Email: donmezab@itu.edu.tr

Address: İTÜ Ayazağa kampüsü, İnşaat Fakültesi Binası, 34469, Maslak-İSTANBUL

International Researcher IDs

ScholarID: 3V9A9ekAAAAJ

ORCID: 0000-0002-2448-7090

ScopusID: 57211811269

Yoksis Researcher ID: 193862

Education Information

Doctorate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Yapı Mühendisliği, Turkey 2009 - 2015

Postgraduate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Yapı Mühendisliği, Turkey 2006 - 2009

Undergraduate, Istanbul Technical University, İnşaat Fakültesi, İnşaat Mühendisliği, Turkey 2001 - 2006

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Doctorate, Öngerilmeli inşaat elemanlarında gerilme analizi, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, İnşaat Mühendisliği Anabilim Dalı, 2015

Postgraduate, Yapısal kompozit malzemelerde gerilme analizi, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, İnşaat Mühendisliği Anabilim Dalı, 2009

Research Areas

Civil Engineering, Structural Mechanics, Structure, Structural Engineering, Concrete Structures, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Istanbul Technical University, İnşaat, İnşaat Mühendisliği, 2020 - Continues

Research Assistant, Istanbul Technical University, Afet Yönetimi Enstitüsü, Deprem Mühendisliği Bölümü, 2013 - 2015

Published journal articles indexed by SCI, SSCI, and AHCI

1. Critical Comparison of Phase-Field, Peridynamics, and Crack Band Model M7 in Light of Gap Test and Classical Fracture Tests

Bazant Z. P., Nguyen H. T., Donmez A. A.

JOURNAL OF APPLIED MECHANICS-TRANSACTIONS OF THE ASME, vol.89, no.6, 2022 (SCI-Expanded)

- II. **Precis of gap test results requiring reappraisal of line crack and phase-field models of fracture mechanics**
Bazant Z. P., Dönmez A. A., Nguyen H. T.
ENGINEERING STRUCTURES, vol.250, 2022 (SCI-Expanded)
- III. **Size effect on the shear capacity of headed studs**
Dönmez A. A.
ADVANCES IN STRUCTURAL ENGINEERING, vol.24, no.4, pp.815-826, 2021 (SCI-Expanded)
- IV. **Structural strength scaling law for fracture of plastic-hardening metals and testing of fracture properties**
Nguyen H. T., Donmez A. A., Bazant Z. P.
EXTREME MECHANICS LETTERS, vol.43, 2021 (SCI-Expanded)
- V. **Fracture and Size Effect Suppression by Mesh Reinforcement of Concrete and Justification of Empirical Shrinkage and Temperature Reinforcement in Design Codes**
Rasoolinejad M., Dönmez A. A., Bazant Z. P.
JOURNAL OF ENGINEERING MECHANICS, vol.146, no.10, 2020 (SCI-Expanded)
- VI. **Size Effect on FRP External Reinforcement and Retrofit of Concrete Structures**
Donmez A. A., Rasoolinejad M., Bazant Z. P.
JOURNAL OF COMPOSITES FOR CONSTRUCTION, vol.24, no.5, 2020 (SCI-Expanded)
- VII. **Size Effect on Shear Strength of Reinforced Concrete: Is CSCT or MCFT a Viable Alternative to Energy-Based Design Code?**
Abdullah Donmez A. A., Carloni C., Cusatis G., Bazant Z. P.
JOURNAL OF ENGINEERING MECHANICS, vol.146, no.10, 2020 (SCI-Expanded)
- VIII. **Stress State of Pretensioned Structures**
Abdulaliyev Z., Ataoglu Ş., Donmez A. A.
JOURNAL OF TESTING AND EVALUATION, vol.48, no.5, pp.3768-3778, 2020 (SCI-Expanded)
- IX. **Mechanical response of textile reinforced cementitious composite tubes under monotonic and cyclic loadings**
Dönmez D., Dönmez A. A., Gençoğlu M.
Construction and Building Materials, vol.251, 2020 (SCI-Expanded)
- X. **Size effect on branched sideways cracks in orthotropic fiber composites**
Donmez A. A., Bazant Z. P.
INTERNATIONAL JOURNAL OF FRACTURE, vol.222, pp.155-169, 2020 (SCI-Expanded)
- XI. **Critique of critical shear crack theory for fib Model Code articles on shear strength and size effect of reinforced concrete beams**
Donmez A. A., Bazant Z. P.
STRUCTURAL CONCRETE, vol.20, no.4, pp.1451-1463, 2019 (SCI-Expanded)
- XII. **Double cantilever indirect tension testing for fracture of quasibrittle materials**
Caner F. C., Dönmez A. A., ŞENER S., KOÇ V.
INTERNATIONAL JOURNAL OF SOLIDS AND STRUCTURES, vol.162, pp.76-86, 2019 (SCI-Expanded)
- XIII. **Viscoelastic response of high volume fraction carbon nanotube-polymer nanocomposites with tailored wettability and controlled morphology**
Pehlivan Z. S., URK D., Cebeci H., Öveçoğlu M. L., Dönmez A. A., Bulut O., Cebeci F. C.
COMPOSITE STRUCTURES, vol.208, pp.418-425, 2019 (SCI-Expanded)
- XIV. **Size Effect on Punching Strength of Reinforced Concrete Slabs with and without Shear Reinforcement**
Donmez A. A., Bazant Z. P.
ACI STRUCTURAL JOURNAL, vol.114, no.4, pp.875-886, 2017 (SCI-Expanded)
- XV. **Shape factors for concrete shrinkage and drying creep in model B4 refined by nonlinear diffusion analysis**

Donmez A. A., Bazant Z. P.

MATERIALS AND STRUCTURES, vol.49, no.11, pp.4779-4784, 2016 (SCI-Expanded)

- XVI. **Extrapolation of short-time drying shrinkage tests based on measured diffusion size effect: concept and reality**

Bazant Z. P., Donmez A. A.

MATERIALS AND STRUCTURES, vol.49, pp.411-420, 2016 (SCI-Expanded)

- XVII. **Structural and mechanical properties of (Co/Mg) co-doped nano ZnO**

Asikuzun E., Dönmez A. A., Arda L., CAKIROGLU O., Ozturk O., Akcan D., TOSUN M., Ataoğlu Ş., Terzioğlu C.

CERAMICS INTERNATIONAL, vol.41, no.5, pp.6326-6334, 2015 (SCI-Expanded)

Articles Published in Other Journals

- I. **Size Effect on Inclined Cracking in Unidirectional Composites**

Dönmez A. A.

JOURNAL OF APPLIED AND COMPUTATIONAL MECHANICS, vol.7, no.4, pp.2149-2158, 2021 (ESCI)

- II. **Zımbalama Boyut Etkisinde İkincil Değişkenlerin İşlevi**

DÖNMEZ A. A.

Mühendislik Bilimleri ve Tasarım Dergisi, vol.6, no.4, pp.606-614, 2018 (Peer-Reviewed Journal)

- III. **Effect of Temperature on stress of Y2O3-ZrO2 Insulation Coating on Stainless Steel Tape**

Dönmez A. A., Bulut O., Baytak T., Tosun M., Ataoğlu Ş., İpek C., CAKIROGLU O.

Journal of Trends in the Development of Machinery and Associated Technology, vol.20, pp.65-68, 2016 (Peer-Reviewed Journal)

- IV. **Stress Analysis and Microstructure of the Al2O3/Cu/MgB2 wires**

Ataoğlu Ş., Tosun M., Baytak T., Dönmez A. A., Bulut O., İpek C.

Journal of Trends in the Development of Machinery and Associated Technology, vol.20, pp.57-60, 2016 (Peer-Reviewed Journal)

- V. **Residual Stress and Microstructure of YSZ Buffer Layers for YBCO Coated Conductor**

Bulut O., Dönmez A. A., Baytak T., İpek C., Tosun M., Ataoğlu Ş., cakiroğlu O.

Journal of Trends in the Development of Machinery and Associated Technology, vol.20, pp.61-64, 2016 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **Size Effect on Direct Shear Response of Concrete Structures**

Işık L., ATAÖĞLU Ş., TURAN Ö. T., DÖNMEZ A. A.

International Congress on Advances in Civil Engineering, İstanbul, Turkey, 06 September 2021, pp.829-835

- II. **Direct Shear Tests and Size Effect on Reinforced Concrete Sections**

DÖNMEZ A. A., Işık L.

7. ULUSLARARASI MUHENDİSLİK MİMARLIK VE TASARIM KONGRESİ, İstanbul, Turkey, 21 - 22 May 2021, pp.448-554

- III. **Size Effect on the Failure of Shear Connectors**

DÖNMEZ A. A.

8. Uluslararası Bilimsel Araştırmalar Kongresi, Turkey, 22 - 23 August 2020

- IV. **Dependence of fracture size effect and projectile penetration on fiber content of FRC**

Bazant Z. P., Rasoolinejad M., Dönmez A. A., Luo W.

10th International Conference Fibre Concrete 2019, FRC 2019, Prague, Czech Republic, 17 - 20 September 2019, vol.596

- V. **Effect of Fibers, Distributed Net Reinforcement and Sharp Corners on Fracture and Size Effect in Concrete Structures**

Bazant Z. P., Rasoolinejad M., DÖNMEZ A. A., Luo W.

Proceedings of the 10th International Conference on Fracture Mechanics of Concrete and Concrete Structures, Bayonne, France, 23 - 26 June 2019

VI. DOUBLE CANTILEVER INDIRECT TENSION FRACTURE TESTING OF CONCRETE

Caner F., DÖNMEZ A. A., ŞENER S., KOÇ V.

FraMCoS-X 10th International Conference on Fracture Mechanics of Concrete and Concrete Structures, Bayonne, France, 23 - 26 June 2019

VII. Experimental assessment of TRC cylindrical tube-shaped units

Donmez D., Gençoğlu M., Dönmez A. A.

10th International Structural Engineering and Construction Conference, ISEC 2019, Illinois, United States Of America, 20 - 25 May 2019

VIII. An Investigation on the Structural Response to Vertical Earthquake Loads

DÖNMEZ A. A., dönmez d.

4. Uluslararası Deprem Mühendisliği ve Sismoloji Konferansı, Eskişehir, Turkey, 11 - 13 October 2017

IX. HCREEP behaviour of PP/CNT nanocomposites: An experimental study validated with creep model

ÜRK D., Dönmez A. A., OVALI D., Ataoğlu Ş., Öveçoğlu M. L., Cebeci H.

17th European Conference on Composite Materials, ECCM 2016, Munich, Germany, 26 - 30 June 2016

X. Size effect on punching shear strength of RC slabs with and without shear reinforcement

Bazant Z. P., Dönmez A. A.

ACI-fib International Symposium on Punching Shear of Structural Concrete Slabs 2016, Pennsylvania, United States Of America, 25 October 2016, pp.23-34

XI. Interaction of Concrete Creep, Shrinkage and Swelling with Water, Hydration and Damage: Nano-Macro-Chemo

Bazant Z. P., Donmez A. A., MASOERO E., Aghdam S. R.

10th International Conference on Mechanics and Physics of Creep, Shrinkage, and Durability of Concrete and Concrete Structures (CONCREEP), Vienna, Austria, 21 - 23 September 2015, pp.1-12

Supported Projects

Dönmez A. A., Ataoğlu Ş., Project Supported by Higher Education Institutions, Kompozit Kirişlerde Birleşik Boyut Etkisi, 2017 - 2019

Memberships / Tasks in Scientific Organizations

american concrete institute, Member, 2016 - Continues

Scientific Refereeing

aci structural journal, SCI Journal, January 2017

aci structural journal, SCI Journal, June 2016

aci structural journal, SCI Journal, January 2016

Metrics

Publication: 39

Citation (WoS): 95

Citation (Scopus): 104

H-Index (WoS): 5

H-Index (Scopus): 5

Non Academic Experience

MAHALLİ İDARELER

AVRUPA BİRLİĞİ BAKANLIĞI

ÇEVRE VE ŞEHİRCİLİK BAKANLIĞI

MAHALLİ İDARELER

ÇEVRE VE ŞEHİRCİLİK BAKANLIĞI

MAHALLİ İDARELER