

ENGİN AKTAŞ, Ph. D.

Professor

Department of Civil Engineering
Izmir Institute of Technology
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EDUCATION

- **Post-Doc.**

US Naval Research Laboratory (ASEE/NRL Fellow) January 2007-July 2008
Research Project: “Receiver Operating Characteristic (ROC) Curves for Quantifying Damage Detection in Sandwich Panel Delaminations”. Advisor: Dr. Mark Seaver

- **Ph. D. in Civil Engineering**

University of Pittsburgh. December, 2001
Dissertation: “Structural Design Code Calibration Using Reliability Based Cost Optimization”. Advisor: Prof. Fred Moses

- **M. Sc. in Civil Engineering**

University of Pittsburgh. December, 1996
Thesis: “Approximated Eigenvalue Solutions for Damaged Structures Using Reduced Basis Vectors”. Advisor: Prof. Fred Moses

- **B. Sc. in Civil Engineering**

Middle East Technical University, Ankara-Turkey. July, 1993

RESEARCH INTERESTS

- Safety and Reliability in Structural Engineering
- Reliability Based Structural Design Code Calibration
- Reliability Based Cost Optimization
- Structural Health Monitoring
- Damage Assessment and Safety Evaluation of Existing Structures
- Structural Analysis and Assessment of Historical Structures
- Composite Structures
- Earthquake Engineering
- Non-Destructive Evaluation Methods for Structures
- Modal Testing

CURRENT AND RECENT RESEARCH

- Collaborator in “Developing innovative methods of joining structural composite parts for aviation applications, characterization of their resistance to environmental effects and mechanical performance” (PI: Prof. Dr. Metin TANOĞLU) funded by TÜBİTAK. (Ongoing)
- Collaborator in “Optimization Driven Architectural Design of Structures – OptArch” (Project Coordinator: Dr. Nikolaos D. Lagaros, National Technical University of Athens) EU Funded (H2020-MSCA-RISE-2015 – 689983) [2016 - 2020 (48 months)] (Completed)
- Collaborator in “Design, Optimization and Production of Prototypes of Light-Weight and Pressure Resistant Composite Tank Materials and Systems” (PI: Assoc. Prof. Dr. Seçil H. Artem) funded by TÜBİTAK. (Completed)
- Collaborator in “Design and Development of Production Techniques of Composite-based Leaf Spring Systems for Automotive Sector” (PI: Prof. Dr. Metin Tanoğlu) funded by Ministry of Science, Industry and Technology. (Completed)
- “Receiver Operating Characteristic (ROC) Curves for Quantifying Damage Detection in Sandwich Panel Delaminations” (NRL/ASEE Fellowship). (Completed)
- Collaborator in “Investigation of the Interaction between Structural Frame and Hollow Clay Tile Partition Walls in RC structures by Modal Testing Methods” (PI: Dr. Cemalettin Dönmez) funded by TÜBİTAK. (Completed)
- Collaborator in “Structural Response Improvement by using MR Fluid Dampers”. (PI: Dr. Gürsoy Turan) funded by DPT. (Completed)
- PI in “Determination of the Essentials for the Analyses of Historical Masonry Structures; A Case Study: Urla Kamanlı Mosque” (TUBITAK - İÇTAG I591) (Completed)

STUDENTS SUPERVISED

Current Graduate Students

- Ertuğrul Türker UZUN “Reliability Assessment Based on Structural Health Monitoring Data and Bayesian Updating of Structural Models” (co-advisor Assoc. Prof. Dr. Çağlayan HIZAL, Ege University)- *Ph. D. in Civil Engineering Program.*
- Kutay YÜCETÜRK “Integration of Structural Health Monitoring to Reliability-Based Inspection and Maintenance for Deteriorating Structures” (co-advisor Assist. Prof. Dr. Alper KANYILMAZ, Politecnico di Milano) - *Ph. D. in Civil Engineering Program.*
- Nisar Ahmad KARİMZADA “Probabilistic Performance-Based Optimum Seismic Design of Reinforced Concrete Structures” (co-advisor Assoc. Prof. Dr. Sadik Can GİRGIN Dokuz Eylül University) – *Ph. D. in Civil Engineering Program.*
- Fahri Baran KÖROĞLU “Comparison of Different Structural Reliability Methods” (co-advisor Assist. Prof. Dr. Marc MAGUIRE University of Nebraska) - *M.Sc. in Civil Engineering Program.*
- Sedef UÇARYILMAZ “Digital twin applications for real-time performance optimization of climate-sensitive residential buildings: A case study in hot-humid climate” (serves as co-advisor, advisor Assoc. Prof. Dr. Zeynep Durmuş ARSAN) - *M.Sc. in Architecture Program.*
- Yasemin ERCAN “The Structural Conservation Problems of Traditional Houses in Eryeri, Artuklu, Mardin” (serves as co-advisor, advisor Prof. Dr. Mine Turan - *M. Sc in Architectural Restoration.*)

Former Graduate Students

- Hatice Ayşegül DEMİR (07/2022) “Seismic Vulnerability Assessment of Bergama Bedesten” (served as co-advisor, advisor Prof. Dr. Mine Turan - *M. Sc in Architectural Restoration.*) (07/2022).
- Öncel ŞEKER (01/2022) “A Practical Finite Element Model of TSADWA Type Semi-Rigid Connections for Push-Over Analysis of Steel Frames in SAP200” - *M.Sc. in Civil Engineering Program.*
- Nurullah BEKTAŞ (07/2020), “Reliability Based Seismic Assessment of Unanchored Circular Steel Storage Tanks” – *M.Sc. in Civil Engineering Program.*
- İbrahim BARAN (12/2019) “Performance-Based Design of Steel Moment Resisting Frames” (co-advisor Dr. Alper KANYILMAZ, Politecnico di Milano) -- *M. Sc. in Civil Engineering Program.*
- Esra ŞAHİN (07/2019) “Structural Analyses and Assessment of Historical Çardak Caravanserai in Denizli” (co-advisor Assoc. Prof. Dr. Mine TURAN) – *M. Sc. in Civil Engineering Program.*
- Ruti Ruth POLITI (07/2018) “Project Planning and Management using Building Information Modelling (BIM)” (co-advisor Assoc. Prof. Dr. Emre İLAL) – *M. Sc. in Civil Engineering Program.*
- Feyza DURMUŞLAR (07/2018) “Structural Conservation of Cevher Paşa Bath in Kale, Denizli” (served as co-advisor, advisor Assoc. Prof. Dr. Mine TURAN) – *M. Sc in Architectural Restoration.*
- Bertan BEYLERGİL (12/2017) “Toughening of carbon fiber based composites with electro-spun fabric layers” (served as co-advisor, advisor Prof. Dr. Metin TANOĞLU) – *Ph. D. in Mechanical Engineering Program.*
- Fatma Sezgi MAMAKLI (07/2016) “Identification of Veziraga Aqueduct in İzmir as a Historical Monument” (served as co-advisor, advisor Assoc. Prof. Dr. Mine TURAN) – *M. Sc. in Architectural Restoration.*

- Nisar Ahmad KARIMZADA (06/2015) “Performance Based Design of Reinforced Concrete Frame Structures: Direct Displacement Based Design Approach” – *M.Sc. in Civil Engineering Program*.
- Nahit ÖZTOPRAK (06/2014) “Design of Composite-Based Leaf Spring Systems for Automotive Sector” (served as co-advisor, advisor Prof. Dr. Metin TANOĞLU) – *M. Sc. in Mechanical Engineering Program*.
- Ata TURGAY (06/2013) “An Optimization Model for Allocating Cargo in a Sea-Freight Container” – *M. Sc. in Engineering Management Program*.
- Mert BOYLU (07/2005) “A Benefit/Cost Analysis for the Seismic Rehabilitation of Existing Reinforced Concrete Buildings in Izmir” – *M.Sc. in Structural Mechanics Program*.
- Egemen TEOMETE (08/2004) “Finite Element Modeling of Historical Masonry Structures; Case Study: Urla Kamanlı Mosque” – *M.Sc. in Structural Mechanics Program*.

EMPLOYMENT

- **Izmir Institute of Technology, Izmir-Turkey**
Professor, November 2022
 - **Vice-Director** Integrated Research Centers, **IRC of Izmir Institute of Technology**
February 2019 -**Associate Professor**, March 2012 – November 2022
 - **Member Elect** of the **Senate of Izmir Institute of Technology**
October 2014 – October 2017
 - **Member Elect** of the **Academic Board** of the **Faculty of Engineering**
December 2013 –December 2016**Assistant Professor**, January 2002 –March 2012
 - **Director**, International Relations Office
March 2009 – April 2011
 - **Member Elect** of the **Executive Board** of the **Faculty of Engineering**
February 2002 – October 2006
 - **Chairman**, Department of Civil Engineering
September 2004 – October 2005
 - Member of the **Academic Board** of the **Faculty of Engineering**
September 2004 – October 2005
 - Member of the **Academic Board** of the **Graduate School of Eng. & Sci.**
September 2004 – October 2005

Courses Taught:

• CE101 Introduction to Civil Engineering (Und.)	• CE205 Statistical Methods for Engineers (Und.)
• CE221Engineering Mechanics I: Statics (Und.)	• CE224 Strength of Materials (Und.)
• AR231-232-331Structures in Architecture I, II & III (Statics, Strength, Structural Analysis) (Und.)	• IN326 Civil Engineering Systems Analysis (Und.)
• CE351 Introduction to Transportation Eng. (Und.)	• CE425 Structural Analysis (Und.)
• CE426 Introduction Structural Dynamics (Und.)	• CE428 Structural Design: Steel Structures (Und.)
• CE512 Finite Element Method (Grad.)	• CE513 Theory of Elasticity (Grad.)
• CE515 Theory of Matrix Structural Analysis (Grad.)	• CE518 Earthquake Engineering (Grad.)
• CE526 Reinforced Concrete Structures (Grad.)	• CE541 Structural Reliability (Grad.)
• CE551 Optimization and Design (Grad.)	• CE573 Structural Dynamics (Grad.)
• RES501 Design in Architectural Restoration I (Grad.)	• RES502 Design in Architectural Restoration II (Grad.)
• EM501 Research Methodologies (Grad.)	• EM506 Systems Engineering and Operations Research (Grad.)

- **Kazakh-British Technical University, KBTU, Almaty, Kazakhstan**
Visiting Professor, January 2011- February 2011
- **US Naval Research Laboratory, Washington, DC**
NRL/ASEE Post-Doctoral Fellow, January 2007 –July 2008
 Smart Structures Section Code 5673
- **SFA, Inc. Government Solutions Division, Crofton, MD**
Research Engineer, October 2006 – January 2007
 Contractor to US Naval Research Lab., Smart Structures Section Code 5673
- **Izmir Institute of Technology, Izmir, Turkey**
Research Assistant, November 1994 - December 2001
- **University of Pittsburgh, Pittsburgh, PA**
Teaching Assistant, September 1998- April 2001

Courses Assisted: Introduction to Engineering Analysis, Mechanics of Materials, Civil Engineering System Analysis, Dynamics, Transportation Engineering

- **University of Pittsburgh, Pittsburgh, PA**
Analyst, January 1998 –December 1998
Performed Reliability Analysis for Calibration of ISO Offshore Structures Code for Tubular Members under Dr. F. Moses.
- **University of Pittsburgh, Pittsburgh, PA**
Lab. Assistant, February 1997 – April 1998
Assisted series of fatigue tests for grid bridge deck systems under Dr. C. P. Mangelsdorf.
- **Atak Engineering and Construction, Ankara, Turkey**
Design Engineer. July 1993- November 1994
- **Evtam Engineering, Inc., Bursa, Turkey**
Internship, Summer, 1992
Site work; precast industrial systems.
- **Modul Construction Co., Bursa, Turkey**
Internship, Summer, 1991
Site work; sewer systems.

PUBLICATIONS

JOURNAL PAPERS

Accepted/published

- Esenoğlu, G., Barisik, M., Tanoğlu, M., Yeke, M., Türkdoğan, C., İplikçi, H., Seçkin, M., Nuhoğlu, K., **Aktaş, E.**, Dehneliler, S., İriş, M. E. (2022). Improving adhesive behavior of fiber reinforced composites by incorporating electrospun polyamide-6,6 nanofibers in joining region. *Journal of Composite Materials*, 56(29), 4449-4459. [doi:10.1177/00219983221133478](https://doi.org/10.1177/00219983221133478)
- Bektaş, N., **Aktaş, E.** (2023) “Seismic vulnerability assessment of unanchored circular storage tanks against elephant’s foot buckling” *Journal of Vibration Engineering & Technology*, 11, pages1661–1678 <https://link.springer.com/article/10.1007/s42417-022-00663-0>.
- Durmuşlar, F., Hamamcıoğlu-Turan, M., Yüçetürk, K., **Aktaş, E.** (2022). “Consolidation of a Bath Ruin in an Archaeological Site” *International Journal of Architectural Heritage*, 16(2), 302-335. <https://doi.org/10.1080/15583058.2020.1777594>.
- Kartav O., Kangal S., Yüçetürk K., Tanoğlu M., **Aktaş E.**, Artem H.S. (2021) “Development and analysis of composite overwrapped pressure vessels for hydrogen storage” *Journal of Composite Materials*. <https://doi.org/10.1177/00219983211033568>.
- Uzun, E.T., **Aktaş, E.** (2021) “Reliability of Corroded Steel Members Subjected to Elastic Lateral Torsional Buckling” *International Journal Steel Structures*, 21(4), 1478-1501. <https://doi.org/10.1007/s13296-021-00516-8>.
- Hizal, Ç., **Aktaş, E.** (2021) “Probabilistic investigation of error propagation in frequency domain decomposition-based operational modal analysis” *Structural Control and Health Monitoring*, 28(8) e2759, (2021). DOI: 10.1002/stc.2759.
- Kangal, S., Sayı, H., Ayakdaş, O., Kartav, O., Aydın, L., Artem, S.H., **Aktaş, E.**, Yüçetürk, K., Tanoğlu, M., Kandemir, S., Beylergil, B. (2021) “A Comprehensive Study on Burst Pressure Performance of Aluminum Liner for Hydrogen Storage Vessels” *Journal of Pressure Vessel Technology, Transaction of the ASME Volume 143, Issue 4, 1 August 2021, Article number 041503*. <https://doi.org/10.1115/1.4049644>.
- Gençer, F., Hamamcıoğlu-Turan, M., Duran H. E., **Aktaş, E.** (2020) “Vulnerability of ancient dry-joint masonry towers” *Periodica Polytechnica Architecture*, 51(2), 165-177, (2020). <https://doi.org/10.3311/PPar.15830>
- Durmuşlar, F., İpekçi, E., Hamamcıoğlu-Turan, M., **Aktaş, E.** (2020) “Proposals for Monitoring Current Conservation Condition of Historical Masonry Buildings: Matrone Church and Cardak Han Cases” *Art-Sanat*, 14, pp. 111-133, (2020). <https://doi.org/10.26650/artsanat.2020.14.0005>
- Gençer, F., Hamamcıoğlu-Turan, M., **Aktaş, E.** (2020) “Structural vulnerability of ancient dry masonry towers under lateral loading” *Journal of Archaeological Science: Reports*, 34, 102663.
- Beylergil, B., Tanoğlu, M., **Aktaş, E.** (2020) “Experimental and statistical analysis of carbon fiber/epoxy composites interleaved with nylon 6,6 nonwoven fabric

interlayers” *Journal of Composite Materials*, 54(27), pp. 4173-4184.
<https://doi.org/10.1177/0021998320927740>

- Kangal, S., Kartav, O, Tanoğlu, M., **Aktaş, E.**, Artem, H.S. (2020) “Investigation of interlayer hybridization effect on burst pressure performance of composite overwrapped pressure vessels with load-sharing metallic liner” *Journal of Composite Materials*, 54(7), pp. 961-980. <https://doi.org/10.1177/0021998319870588>
- Gençer, F., Hamamcıoğlu-Turan, M., **Aktaş, E.** (2020) “Investigation of in-plane and out-of-plane wall behavior related to lateral loading depending on wall profiles and opening types in Hellenistic Towers” *Journal of the Faculty of Engineering and Architecture of Gazi University*, 35(1), pp. 241-253.
<https://doi.org/10.17341/gazimmfd.458555>
- Yüçetürk, K., **Aktaş, E.**, Maden, F., Gür, Ş., Mitropoulou, C.C. (2020) “A Case Study on the Selection of Optimum Loop Units for the Deployable Arch Structures Exposed to Lateral and Non-uniform Gravity Loads” *Procedia Manufacturing*, 44, pp. 481-488.
- Hızal, Ç., Turan, G., **Aktaş, E.**, Ceylan, H. (2019) “A mode shape assembly algorithm by using two stage Bayesian Fast Fourier Transform Approach” *Mechanical Systems and Signal Processing*, 134, 106328.
<https://doi.org/10.1016/j.ymssp.2019.106328>
- Mamaklı, F. S., Hamamcıoğlu-Turan, M., **Aktaş, E.**, Vardaroğlu, M. (2019) “Conservation aimed evaluation of a historical aqueduct in İzmir” *ASCE’s Journal of Architectural Engineering*, 25(2), 04019014. [https://doi.org/10.1061/\(ASCE\)AE.1943-5568.0000353](https://doi.org/10.1061/(ASCE)AE.1943-5568.0000353)
- Hamamcıoğlu-Turan, M., **Aktaş, E.**, Mamaklı, F.S., Kaplan Z. (2019) “Construction techniques of Hayat Houses: Two case studies in the vicinity of İzmir” *ASCE’s Journal of Architectural Engineering*, 25(2), 05019002.
[https://doi.org/10.1061/\(ASCE\)AE.1943-5568.0000345](https://doi.org/10.1061/(ASCE)AE.1943-5568.0000345)
- Beylergil, B., Tanoğlu, M., **Aktaş, E.** (2019) “Mode-I fracture toughness of carbon fiber/epoxy composites interleaved by aramid nonwoven veils” *Steel and Composite Structures*, 31(2), pp. 113-123. <https://doi.org/10.12989/scs.2019.31.2.113>
- Öztoprak, N., Güneş, M.D., Tanoğlu, M., **Aktaş, E.**, Eğilmez, O.Ö., Şenocak, Ç., Kulaç, G. (2018) “Developing polymer composite-based leaf spring systems for automotive industry” *Science and Engineering of Composite Materials*, 25(6): 1167–1176. DOI:10.1515/secm-2016-0335
- Beylergil B, Tanoğlu, M., **Aktaş, E.** (2018) “Effect of polyamide-6,6 (PA 66) nonwoven veils on the mechanical performance of carbon fiber/epoxy composites”, *Composite Structures*, 194: 21-35. DOI:10.1016/j.compstruct.2018.03.097
- Beylergil, C., Tanoglu, M., **Aktaş, E.** (2017) “Enhancement of Interlaminar Fracture Toughness of Carbon Fiber/Epoxy Composites Using Polyamide 6/6 Electrospun Nanofibers” *Journal of Applied Polymer Science* Vol. 134, Issue 35, 45244.
- Yar, M., Korkmaz, K., Kiper, G., Maden, F, Akgün, Y., **Aktaş, E.** (2017) “A Novel Planar Scissor Structure Transforming Between Concave and Convex Configurations” *International Journal of Computational Methods and Experimental Measurements*, 5 (4): 442-450.

- Beylergil, B., Tanoğlu, M., **Aktaş, E.** (2016) “Modification of Carbon Fiber/Epoxy Composites by Polyvinyl Alcohol (PVA) Based Electrospun Nanofibers” *Advanced Composites Letters* 25(3):69-76. DOI: 10.1002/app.45244.
- Maden F., **Aktaş, E.**, Korkmaz, K. (2015) “A Novel Transformable Structural Mechanism for Doubly-Ruled Hypar Surfaces” *ASME Journal of Mechanical Design* Vol. 137, No. 3, 14 pages. DOI:10.1115/1.4029231.
- Teomete, E., Tayfur, G., **Aktaş, E.** (2012). “Estimation of Mechanical Properties of Limestone Using Regression Analyses and ANN.” *Cement Wapno Beton* Vol. 17 No.6, 373-389.
- Nichols, J.M., Seaver, M., Trickey, S.T., Scandell, K., Salvino, L.W., **Aktaş, E.** (2010) “Real-time Strain Monitoring of a Navy Vessel During Open Water Transit” *Journal of Ship Research*, Vol.54, No. 4, 225-230.
- Teomete, E., **Aktaş, E.** (2010) “Structural Analyses and Assessment of Historical Kamanlı Mosque in İzmir, Turkey” *Journal of Performance of Constructed Facilities*, Volume 24, No. 4, 353-364. DOI:10.1061/(ASCE)CF.1943-5509.0000111.
- Seaver, M., **Aktaş, E.**, Trickey, S.T. (2010) “Quantitative Detection of Low Energy Impact Damage in a Sandwich Composite Wing” *Journal of Intelligent Material Systems and Structures*. Volume 21 Issue 3, 297-308. DOI:10.1177/1045389X09347020.
- **Aktaş, E.**, Seaver, M., Nichols, J.M., Trickey, S.T., Davis, W.R. (2009) “The Influence of Low Energy Impacts on the Static and Dynamic Response of a Foam Core Composite Wing” *Journal of Intelligent Material Systems and Structures*, Volume 20 Issue 11, 1351-1361. DOI:10.1177/1045389X08095184.
- Korkmaz, A., **Aktaş, E.** (2006) “Probability Based Seismic Analysis of R/C Frame Structures” *Journal of the Faculty of Engineering and Architecture of Gazi University*. Vol. 21, No. 1, 55-64. (in Turkish)
- **Aktas, E.**, Moses, F., Ghosn, M., (2001) “Cost and Safety Optimization of Structural Design Specifications”, *Journal of Reliability Engineering and System Safety*, Vol: 73 pp. 205-212. DOI:10.1016/S0951-8320(01)00046-1.
- **Aktas, E.**, Moses, F., (1998) “Reduced Basis Eigenvalue Solutions for Damaged Structures”, *Mechanics of Structures and Machines*, pp. 63-79, Vol. 26, No.1. DOI:10.1080/08905459808945420

CONFERENCE PAPERS

- Mamaklı, F. S., Turan, M., Aktaş, E. “Cultural Asset Values and Conservation Problems of Vezirağa Aqueduct in Izmir” 9th. International Conference on Mathematics, Engineering, Natural and Medical Sciences, Morocco 23-26 January 2020.
- Kartav, O., Kangal, S., Tanoğlu, M., Aktaş, E., Artem, H.S. “Development and Modeling of Type-III Composite Overwrapped Pressure Vessels for Hydrogen Storage” October 2019. International porous and powder materials symposium and exhibition, PPM 2019, Marmaris, İzmir.
- Yuceturk, K., Aktaş, E., Maden, F., Gür,Ş. “A Case Study on the Selection of Optimum Loop Units for the Deployable Arc Structures Exposed to Lateral and Non-uniform Gravity Loads”, November 2019, Conference: 1st International Conference on Optimization-Driven Architectural DesignAt: Amman, Jordan
- Kartav, O., Kangal, S., Artem, H.S., Aktaş, E., Tanoğlu, M. “Investigation of Hybrid Ply Effect on Burst Pressure Performance of Composite Overwrapped Pressure Vessels” September 2018, Conference: 4. International Ege Composite Materials Symposium 2018, İzmir, Türkiye
- Politi, R., **Aktaş, E.**, Ilal, M.E., “Project Planning and Management Using Building Information Modeling (BIM)” 13th International Congress on Advances in Civil Engineering, 12-14, September 2018, Çeşme, Turkey.
- Arslan-Özgen, G., Tanoğlu, M., **Aktaş, E.**, Yüçetürk, K. “Development of Composite Drive Shaft Tube for Automotive Industry” 18th European conference on composite materials (ECCM) 24-28 June, 2018, Athens, Greece.
- Uygun, F., Turan, M., Vardaroğlu, M., **Aktaş, E.**, “Karya, Alinda ve Latmos’daki İki Helenistik Kulenin Yapısal Dayanımının Değerlendirilmesi” 6th International Symposium on Conservation and Consolidation of Historical Structures, 2-4 November, 2017, Trabzon, Turkey.
- Karimzada, N.A., **Aktaş, E.** “Performance-Based Seismic Design of Reinforced Concrete Frame Buildings: A Direct Displacement Based Approach” 12th International Advances in Civil Engineering 21-23 September 2016, İstanbul, Turkey.
- Beylergil, B., **Aktaş, E.**, Tanoğlu, M., Artem, H. S. “Optimal design of compressed hydrogen storage vessels using multi-objective genetic algorithm” The 1st International Conference on Materials Design and Applications 2016 (MDA 2016), Porto, Portugal.
- Kutlukaya, O., **Aktaş, E.**, Castiglioni, C.A., Kanyılmaz, A. “Restoration of a Stone Masonry Residence in Çeşme, Izmir, Turkey” PROHITECH’14, 2nd International Conference on Protection of Historical Constructions, May, 7-9 2014, Antalya, Turkey.
- **Aktaş, E.**, Seaver, M., Nichols, J.M., Trickey, S.T. “Quantitative Detection of Low Energy Impact Damage in a Sandwich Composite Wing”, Proceedings of SMASIS08,

ASME Conference on Smart Materials, Adaptive Structures and Intelligent Systems, Ellicott City, MD, October 28-30, 2008, paper 327, 7 pages, 2008.

- Korkmaz, A., **Aktaş, E.** “Load Factor Optimisation of Turkish Seismic Design Code” CD Proceedings of the 4th ASRANet Colloquium on Integrating Structural Analysis, Reliability & Risk, Athens, Greece 25-27 June 2008.
- **Aktaş, E.**, Seaver, M., Nichols, J.M., Trickey, S.T. “Detecting Low Energy Impact Damage in a Sandwich Composite Wing”, IMAC – XXVI Conference and Exposition on Structural Dynamics, Orlando, FL, February 4-7, 2008. CD-ROM Proceedings, paper 156, 9 pages, 2008.
- **Aktaş, E.**, Korkmaz, A. “Plastic Hinge Analysis Using Reduced Basis Approximations” International Symposium on Advances in Earthquake & Structural Engineering, October 24-26, 2007, Süleyman Demirel University, Isparta-Antalya, Turkey.
- Korkmaz, A., **Aktaş, E.**, Kayhan, A. H. “Investigation of Nonstructural Components Behavior in Critical Facilities” International Symposium on Advances in Earthquake & Structural Engineering, October 24-26, 2007, Süleyman Demirel University, Isparta-Antalya, Turkey.
- **Aktaş, E.**, Seaver, M., Nichols, J.M., Trickey, S.T. “Detecting Delamination and Core Crushing in a Sandwich Composite Wing” Proceedings of the 6th International Workshop on Structural Health Monitoring IWSHM07, Stanford University, Stanford, CA, September 11-13, 2007 (Fu-Kuo Chang ed.), Vol. II, pp. 1799-1807.
- Sezgin, F.E., Tanoglu, M., Eğilmez, O.Ö., **Aktaş, E.** "Mechanical Behavior of Composite Sandwich Structures", Symposium Proceedings of Polymer Composites, İzmir, Turkey, November 2006, pp. 307 – 317 (In Turkish).
- Korkmaz, A., **Aktaş, E.**, Demir, F., Sarı, A. “Earthquake Risk Assessment Profile for Izmir Region, Turkey”, Proceedings of the 7th International Conference on Advances in Civil Engineering ACE 2006, Yildiz Technical University, Istanbul, Turkey, October 11-13, 2006, ACE06-567.
- Korkmaz, A., **Aktaş, E.** “Fragility Curves in Performance Based Design” Proceedings of the Earthquake Symposium Kocaeli 2005, Kocaeli, Turkey, 23-25 March 2005, pp. 422-429 (In Turkish).
- Teomete, E., **Aktaş, E.**, “Structural Assessment of a Historical Masonry Structure: Urla Kamanlı Mosque” Proceedings of the 6th International Conference on Advances in Civil Engineering ACE 2004, Boğaziçi University, Istanbul, TURKEY, 6-8 October 2004 (Özturan, T., Yalçın, C., Tokmak, Y., Güngör, C. eds.), Vol. II, pp. 793-802.
- **Aktaş, E.**, “Extending Ferry-Borges Method for Combination of Time Dependent Loads with Time Invariant Modeling Uncertainties Using FORM” CD Proceedings of the 2nd ASRANet Colloquium on Integrating Structural Reliability Analysis with Advanced Structural Analysis, Barcelona, Spain 5-7 July 2004.
- **Aktaş, E.**, Moses, F., Ghosn, M., “Structural Design Codes for Multiple Threats: A Reliability and Cost Optimization Approach” Structural Safety and Reliability -

Proceedings of the 8th International conference, ICOSSAR'01, Newport Beach, CA, USA, 17-22 June 2001. (Corotis, R. B., Schüeller, G.I., and Shinozuka, M. eds.), 2001.

- **Aktas, E.**, Moses, F., Ghosn, M., “Calibration of Load Factors using Reliability Based Cost Optimization” Proceedings of the 8th Specialty Conference on Probabilistic Mechanics and Structural Reliability, University of Notre Dame, Notre Dame, Indiana, July 24-26, 2000. CD-ROM Proceedings (Kareem, Haldar, Spencer, and Johnson, eds.), paper PMC2000-042, 6 pages, 2000.
- Özhan, E., Uras, A., **Aktaş, E.**, “Turkish Legislation Pertinent to Coastal Zone Management Issues”, 1st International Conference on the Mediterranean Coastal Environmental, pp. 333-346, Antalya Turkey, November, 1993.

CHAPTERS IN A BOOK

- Hizal Ç., **Aktaş, E.** (2021) “Structural Health Monitoring Integrated Reliability Assessment of Engineering Structures” chapter in Reliability-Based Analysis and Design of Structures and Infrastructure, ed. Farsangi, E.N, Noori, M., Gardoni, P. Takewaki, I., Varum. H., Bogdanovic. CRC Press (2021). ISBN 9780367758080.
- Akgün, F., Maden, F., Gür, Ş., Kiper, G., Korkmaz, K., **Aktaş, E.**, Yar Uncu, M. (2019) “Scissor linkages in the design of adaptive morphologies” in book New MOVE (2019) DOI:10.1515/9783035613629-027.

REPORT

- Determination of the Essentials for the Analyses of Historical Masonry Structures; A Case Study: Urla Kamanlı Mosque (in Turkish), submitted to TÜBİTAK, No: 102I065, 2004.

AWARDS

- NRL/ASEE Post-Doctoral Fellowship
- Full scholarship from Higher Education Council of Turkey for graduate studies in the US

ACTIVITY

- Member of the Earthquake Engineering Association of Turkey
- Member of the International Association for Bridge Maintenance and Safety (IABMAS).
- Member of the Union of Chambers of Engineers and Architects of Turkey, Chamber of Civil Engineers
- Secretary, the Turkish-American Student Association (TASA) at University of Pittsburgh (1995-1996)