

Tolga Akış, Ph.D.
Professor of Civil Engineering
Atılım University
Department of Civil Engineering
06830 İncek, Gölbaşı, Ankara/TURKEY
tolga.akis@atilim.edu.tr
Tel: +90 312 586 83 35

PERSONAL

Date of Birth	27.03.1971
Place of Birth	Ankara

EDUCATION

1999-2004	Middle East Technical University, Department of Engineering Sciences, Ph.D.
1993-1997	Middle East Technical University, Department of Engineering Sciences, M.S.
1989-1993	Middle East Technical University, Department of Civil Engineering, B.S.

ACADEMIC POSITIONS

2018 - ...	Professor, Department of Civil Engineering, Atılım University
2011 - 2018	Associate Professor, Department of Civil Engineering, Atılım University
2004 - 2011	Assistant Professor, Department of Civil Engineering, Atılım University
2001 - 2004	Instructor, Department of Civil Engineering, Atılım University

ADMINISTRATIVE DUTIES

2013 - 2017	Head, Department of Civil Engineering, Atılım University
2013 - 2017	Head, Civil Engineering Graduate Program, Atılım University
2014 - 2017	Head, Tunneling and Undergraduate Structures Graduate Program, Atılım University
2009 - 2017	Member, Faculty of Engineering Administrative Board, Atılım University

RESEARCH INTERESTS

1	Computational mechanics
2	Solid mechanics
3	Structural modelling

INDUSTRIAL WORK EXPERIENCE

2000 - 2001	Nakel Engineering Company, Civil Engineer
1998 - 1999	Yüksel Construction Company, Civil Engineer - Borçka and Muratlı Dam and HEPP Project
1994 - 1996	Yüksel Construction Company, Technical Office Engineer - Ankara Central Wastewater Treatment Plant Project

PUBLICATIONS

1	Azad S.K., Akış T., 2018. A study of shrink-fitting for optimal design of multi-layer composite tubes subjected to internal and external pressure. Iranian Journal of Science and Technology-Transactions of Mechanical Engineering, doi.org/10.1007/s40997-018-0170-0.
2	Akış T., Azad S.K., 2018. Structural design optimization of multi-layer spherical pressure vessels: A metaheuristic approach. Iranian Journal of Science and Technology-Transactions of Mechanical Engineering, doi.org/10.1007/s40997-017-0141-x.
3	Azad S.K., Akış T., 2018. Automated selection of optimal material for pressurized multi-layer composite tubes based on an evolutionary approach. Neural Computing and Applications 29, 405-416.
4	Akış T., 2017. On the yielding of two-layer composite spherical pressure vessels. Politeknik Dergisi 20, 9-16.
5	Baran E., Akis T., Sen G., Draisawi A., 2016. Experimental and numerical analysis of a bolted connection in steel transmission towers. Journal of Constructional Steel Research 121, 253-260.
6	Eraslan A.N., Akis T., Akis E., 2016. Deformation analysis of two-layer composite tubes under cyclic loading of external pressure. Journal of Basic and Applied Research International 13, 107-119.
7	Eraslan A.N., Akis T., 2015. Analytical solutions to elastic functionally graded cylindrical and spherical pressure vessels. Journal of Multidisciplinary Engineering Science and Technology 2, ISSN: 3159-0040.
8	Eraslan A.N., Akis T., 2015. Stress analysis in strain hardening two-layer composite tubes subject to cyclic loading of internal pressure. International Journal of Advances in Applied Mathematics and Mechanics 3, 65-76.
9	Akış T., Eren Ö., 2015. Radyal yönde basınç uygulanan fonksiyonel derecelendirilmiş malzemeden yapılmış uzun tüplerde von Mises kriterine göre akmanın başlaması. Politeknik Dergisi 18, 63-71.
10	Alkan N., Akis T., 2013. Psychological characteristics of free diving athletes: A comparative study. International Journal of Humanities and Social Science 3, 150-157.
11	Eraslan A.N., Akis T., 2012. Amendments on "Application of Mises yield criterion to rotating solid disk problem" by N. Aleksandrova [Int. J. Eng. Sci. 51 (2012) 333–337]. International Journal of Engineering Science 56, 127-128.
12	Baran E., Akis T., Yesilmen S., 2012. Pull-out behavior of prestressing strands in steel fiber reinforced concrete. Construction and Building Materials 28, 362-371.
13	Akis T., Tokdemir T., Yilmaz C., 2009. Modeling of asymmetric shear wall-frame building structures. Journal of Asian Architecture and Building Engineering, 531-538.
14	Akis T., 2009. Elastoplastic analysis of functionally graded spherical pressure vessels. Computational Materials Science 46, 545-554.
15	Eraslan A.N., Akis T., 2008. Discussion of the article "Approximate solution of limit angular speed for externally loaded rotating solid disk" by S. Bhowmick, D. Misra and N.K. Saha [Int J Mech Sci 2008; 50:163-74]. International Journal of Mechanical Sciences 50, 1432-1433.

16	Akis T., Eraslan A.N., 2007. Exact solution of rotating FGM shaft problem in elastoplastic state of stress. <i>Archive of Applied Mechanics</i> 77, 745-765.
17	Eraslan A.N., Akış T., 2007. Numerical solutions of a simplified reactive flow model. <i>Arı the Bulletin of the Technical University of Istanbul</i> 54, 69-75.
18	Eraslan A.N., Akis T., 2006. Plane strain analytical solutions for a functionally graded elastic-plastic pressurized tube. <i>International Journal of Pressure Vessels and Piping</i> 83, 635-644.
19	Eraslan A.N., Akis T., 2006. The stress response of partially plastic rotating FGM hollow shafts: Analytical treatment for axially constrained ends. <i>Mechanics Based Design of Structures and Machines</i> 34, 241-260.
20	Akis T., Eraslan A.N., 2006. The stress response and onset of yield of rotating FGM hollow shafts. <i>Acta Mechanica</i> 187, 169-187.
21	Eraslan A.N., Akis T., 2006. On the plane strain and plane stress solutions of functionally graded rotating solid shaft and solid disk problems. <i>Acta Mechanica</i> 181, 43-63.
22	Akış T., 2006. Isı etkisi altındaki fonksiyonel derecelendirilmiş malzemeden yapılmış uzun tüplerde plastik akmanın başlaması. <i>Gazi Üniversitesi Müh. Mim. Fak. Dergisi</i> 21, 737-743.
23	Eraslan A.N., Akis T., 2005. Yielding of two-layer shrink-fitted composite tubes subject to radial pressure. <i>Forschung im Ingenieurwesen</i> 69, 187-196.
24	Eraslan A.N., Akış T., 2005. Elastoplastic response of a long functionally graded tube subjected to internal pressure. <i>Turkish Journal of Engineering and Environmental Sciences</i> 29, 361-368.
25	Akış T., Eraslan A.N., 2005. Radyal yönde basınç uygulanan konsentrik uzun tüplerde von Mises akma kriterine göre akmanın başlaması. <i>Gazi Üniversitesi Müh. Mim. Fak. Dergisi</i> 20, 365-372.
26	Akis T., Orcan Y., 2004. Experimental and analytical investigation of the mechanics of crawl stroke swimming. <i>Mechanics Research Communications</i> 31, 243-261.
27	Eraslan A.N., Akış T., 2004. Deformation analysis of elastic-plastic two layer tubes subject to pressure: An analytical approach. <i>Turkish Journal of Engineering and Environmental Sciences</i> 28, 261-268.
28	Eraslan A.N., Akis T., 2003. On the elastic-plastic deformation of a rotating disk subjected to a radial temperature gradient. <i>Mechanics Based Design of Structures and Machines</i> 31, 529-561.
29	Akış T., Coşkun S.B., 2003. Boşluklu perde duvar sistemlerin serbest titreşim periyotlarının farklı yöntemlerle hesaplanması. <i>Gazi Üniversitesi Fen Bilimleri Dergisi</i> 16, 709-716.

PROJECTS

1	Supervisor, Eksenel basma altında çeşitli poligonal kesitlere ayrılmış karton silindirik kompozit yapıların mekanik davranışının incelenmesi. Atılım University LAP (Lisans Araştırma Projesi), ATÜ-LAP-C-1718-02, 2017-2018.
2	Supervisor, Profil bükme makinası tasarımı ve imalatı. Atılım University LAP (Lisans Araştırma Projesi), ATÜ-LAP-A-1718-01, 2017-2018.
3	Supervisor, Filaman ve kağıt sarım makinası tasarımı. Atılım University LAP (Lisans Araştırma Projesi), ATÜ-LAP-A, 2016-2017.
4	Supervisor, Doğal ve geri dönüşümlü malzemeler ile kuvvetlendirilmiş karton bisiklet. Atılım University LAP (Lisans Araştırma Projesi), ATÜ-LAP-C-1516-06, 2015-2016.
5	Supervisor, Statik, dinamik ve mukavemet dersleri için aktif öğrenme yöntemlerinin ve araçlarının geliştirilmesi. Atılım University LAP (Lisans Araştırma Projesi), ATÜ-LAP-C-1213-04, 2013-2014.
6	Project Manager, Investigation of the performance free diving athletes and psychological factors. Atılım University BAP (Bilimsel Araştırma Projesi), ATÜ BAP 2006-01, 2006-2007.

7	Instructor, Strengthening of coping capacities of populations affected by the Marmara Earthquake. UNDP-ECHO-METU-Turkish Psychologists Society. ECHO-EU-UNDP, 2000-2001.
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CONFERENCE PROCEEDINGS

1	Şengönül C.M., Kalkan H., Akış T., Bağcı B., İnam K., Öğretmen Ö., Aydoğan A., 2018. Design and manufacture of a roller bender machine for bicycle rims. Conference Programme and Book of Abstracts of the 18th International Conference on Machine Design and Production, p.79, July 3-6, Eskişehir, Turkey.
2	Akış T., Şengönül C.M., Aydoğan A., Bağcı B., İnam K., Öğretmen Ö., 2018. Lab-scale ribbon winding machine design and fabrication. Conference Programme and Book of Abstracts of the 18th International Conference on Machine Design and Production, p.78, July 3-6, Eskişehir, Turkey.
3	Eraslan A.N, Akış T., 2017. Sıcak rijit bir kılıfa yerleştirilmiş iki katmanlı kompozit silindirin zaman bağlı elastik davranışı. 20. Ulusal Mekanik Kongresi Bildiriler Kitabı, 736-745, 5-9 Eylül, Bursa.
4	Akis T., 2017. Yielding of externally pressurized two-layer hollow spheres based on von Mises criterion. 2nd International Conference on Civil and Environmental Engineering, Conference E-Book, p.3399, May 8-10, Avanos-Turkey.
5	Akis T., 2017. The stress response and onset of yield of internally pressurized two-layer spherical pressure vessels. Book of Abstracts of 3rd International Conference on Engineering and Natural Sciences, p.493, May 3-7, Budapest, Hungary.
6	Şengönül C.M., Akış T., Dönmez S.S., Özdemir İ., 2016. Cardboard bicycle. Conference Programme and Book of Abstracts of the 17th International Conference on Machine Design and Production, p.55, July 12-15, Bursa, Turkey (Proceedings - Paper ID: 105).
7	Baran E., Mertol H.C., Akis T., 2016. Improvement of mechanical performance in different concrete applications through use of steel fibers. Proceedings of the 4th International Conference on Sustainable Construction Materials and Technologies, August 7-11, Las Vegas, USA.
8	Akış T., Alkan N., 2016. Elit serbest dalış sporcularının yarışma performanslarını belirleyen faktörler. 19. Sualtı Bilim ve Teknoloji Toplantısı Bildiriler Kitabı, s. 107, 21-23 Ekim, Sinop Üniversitesi.
9	Baran E., Akis T., Yesilmen S., 2010. Steel fiber reinforced concrete for bond strength enhancement of prestressing strands. Book of Abstracts of the 9th International Congress on Advances in Civil Engineering, p.224, September 27-30, Karadeniz Technical University, Trabzon, Turkey
10	Altıntop, M. A., Akış, T., Güneş, B., 2007. Yumuşak kata sahip binaların deprem güvenliği açısından değerlendirilmesi. 6. Ulusal Deprem Mühendisliği Konferansı Bildiriler Kitabı Cilt 2, 371-382, 16-20 Ekim, İstanbul.
11	Akış T., Eraslan A.N., 2007. İç içe geçmiş iki tabakalı basınç tüplerinin kısmen plastik ve çevrimsel yükleme analizi. 15. Ulusal Mekanik Kongresi Bildiriler Kitabı, 47-56, 3-7 Eylül, Isparta.
12	Akis T., Tokdemir T., Yılmaz C., 2006. On the modeling of nonplanar shear walls in shear wall-frame building structures. Book of Abstracts of the 3rd European Conference on Computational Mechanics, p.100, June 5-9, Lisbon, Portugal (Proceedings CD, ID-2480).
13	Akis T., Eraslan A.N., 2005. The functionally graded, heat generating elastic-plastic tube: An analytical treatment by Mathematica. Proceedings of the 6th International Congress on Thermal Stresses, Vol. 2, 713-716, May 26-29, Vienna, Austria.
14	Akış T., Eraslan A.N., 2005. Fonksiyonel derecelendirilmiş malzemeden yapılmış uzun tüplerde düzgün olmayan iç ısı üretimi etkisinde plastik

	akmanın başlaması. 14. Ulusal Mekanik Kongresi Bildiriler Kitabı, 65-73, 12-16 Eylül, Antakya.
15	Akış T., Orçan Y., Eraslan A.N., 2004. Experimental analysis of crawl stroke swimming. Abstract Book of the 10th ICPER-SD Europe Congress and the TSSA 8th International Sports Science Congress, p.63, November 17-20, Antalya, Turkey (Proceedings CD, 72_262).
16	Akış T., Orçan Y., Eraslan A.N., 2004. Mathematical modelling of crawl stroke swimming. Abstract Book of the 10th ICPER-SD Europe Congress and the TSSA 8th International Sports Science Congress, p.134, November 17-20, Antalya, Turkey (Proceedings CD, 223_0264).
17	Eraslan A.N., Akis T., 2004. Residual stresses in nonlinear strain hardening annular disks of variable thickness subject to external pressure. Abstracts and CD-ROM Proceedings of the 21th International Congress on Theoretical and Applied Mechanics, p.211, August 15-21, Warsaw, Poland.
18	Eraslan A.N., Argeso H., Akis T., 2003. Stress analysis in heat generating steel-copper tube assembly with rigid casing. Proceedings of the 5th International Congress on Thermal Stresses and Related Topics Vol. 2, VM-511-514, June 6-10, Blacksburg VA, USA.
19	Eraslan A.N., Akis T., 2003. Stress distribution in a nonlinearly hardening rotating fin. Proceedings of the 5th International Congress on Thermal Stresses and Related Topics Vol. 1, TM-221-224, June 6-10, Blacksburg VA, USA.
20	Eraslan A.N., Akış T., 2003. Basitleştirilmiş bir reaktif akış modelinin PARPHEN kodu ile sayısal çözümleri. 13. Ulusal Mekanik Kongresi Bildiriler Kitabı, 359-367, 8-12 Eylül, Gaziantep.

CITATIONS

Sum of times cited without self-citations (ISI Web of Science):	183
H-index (ISI Web of Science):	10

COURSES GIVEN

1	E 101 Engineering Fundamentals
2	CE 102 Introduction to Civil Engineering
3	CE 201 Basic Mechanics I - Statics
4	CE 202 Basic Mechanics II – Dynamics
5	CE 204 Mechanics of Materials
6	CE 210 Civil Engineering Materials
7	CE 319 Numerical Methods
8	CE 421 Applied Solid Mechanics
9	CE 424 Structural Systems
10	CE 431 Computer Applications in Structural Engineering
11	CE 490 Civil Engineering Design Project

12	CE 566 Advanced Mathematical Methods in Civil Engineering
13	MIM 207 Statics and Strength of Materials (Department of Architecture, Atılım University)
14	MIM 208 Statics (Department of Architecture, Atılım University)
15	ANR 246 Lifeguarding (Faculty of Sports Sciences, Hacettepe University)

THESES SUPERVISED

1	Draisawi, A., 2015. Numerical analysis of bolted connections in steel lattice transmission towers. Atılım University, Department of Civil Engineering, Ankara, Turkey (Co-Supervisor: Dr. Eray Baran)
2	Tafida, A.K., 2014. Overall cost optimization of a concrete bridge using simulated annealing algorithm. Atılım University, Department of Civil Engineering, Ankara, Turkey (Co-Supervisor: Dr. Orhan Dengiz).
3	Coran, A.N.N., 2014. Analytical and numerical investigation of uniformly loaded simply supported circular plates. Atılım University, Department of Civil Engineering, Ankara, Turkey.
4	Şen, G., 2014. Behavior of bolted tension splice connections in steel lattice overhead transmission line towers. Atılım University, Department of Civil Engineering, Ankara, Turkey (Co-Supervisor: Dr. Eray Baran).
5	Atlı, A., 2010. Analytical investigation of multi-layer composite tubes subject to pressure. Atılım University, Department of Civil Engineering, Ankara, Turkey.
6	Dalkılıç, M., 2009. Yielding of rotating two-layer composite tubes. Atılım University, Department of Civil Engineering, Ankara, Turkey.
7	Eren, Ö., 2009. Deformation analysis of functionally graded tubes under pressure. Atılım University, Department of Civil Engineering, Ankara, Turkey.
8	Altıntop, M.A., 2007. Analysis of building structures with soft stories. Atılım University, Department of Civil Engineering, Ankara, Turkey (Co-Supervisor: Dr. Burcu Güneş).