

CV / AKATA

Name, Surname	: Dr. Huseyin Erol AKATA
Title	: Professor in Mechanical Engineering
Birth Date	: April 10 th , 1958
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Education :

Degree	Field	University	Year
B.Sc.	Mechanical Engineering	Istanbul Technical University	1979
M.Sc.	Mechanical Engineering	Istanbul Technical University	1981
Ph.D.	Mechanical Engineering	Istanbul Technical University	1987

Academic Positions :

Title	Department	University	Years
Professor	Eng. & Arch. Faculty	Istanbul Aydin University	2013 – Cont.
Professor	Eng. & Arch. Faculty	Istanbul Arel University	2012 - 2013
Professor	Eng. & Arch. Faculty	Istanbul Aydin University	2009 - 2012
Professor	Mechanical Engineering	Trakya University	1997 - 2008
Associate Professor	Mechanical Engineering	Trakya University	1991 - 1997
Assistant Professor	Mechanical Engineering	Trakya University	1988 - 1991
Research Assistant	Mechanical Engineering	Istanbul Technical University	1979 - 1988

Research Fields: Plastic Deformation of Metals, Materials and Testing, Welding Technology, Experimental Stress Analysis, Design.

Courses Taught:

Undergraduate: : Technical Drawings, Materials and Testing, Manufacturing Methods, Design of Machine Elements, Computer Aided Manufacturing, Statics, Dynamics, Calculus,

Graduate: : Theory of Plasticity, Experimental Stress Analysis, Welding Technology, Mechanical Metallurgy

Administrative Duties:

2012 - 2013	Dean of the Faculty of Engineering and Architecture, Istanbul Arel University
2009 – 2012	Head of Department of Mechanical Eng. Faculty of Engineering and Architecture, Istanbul Aydin University
2000 - 2008	Dean of the Faculty of Engineering and Architecture, Trakya University
1992 - 2008	Head of Division of Design and Manufacturing Department of Mechanical Engineering
1993 - 2000	Membership of Faculty Administration Board
1994 - 1997	Vice Dean of the Faculty of Engineering and Architecture, Trakya University

PUBLICATIONS

Papers Published in Peer Reviewed International Journals

1. Aktas S, Ercan S, Candan L, Moralar U, Akata E, "Early mobilization after sliding and Z-lengthening of heel cord: a preliminary experimental study in rabbits", *Archives Of Orthopedic And Trauma Surgery*, 121 (1-2): 87-89 JAN 2001
2. Sahin, M., Akata, H.E.; "An Investigation on Strength Differences of Friction Welded Components Using Heat Flow Examination" *Journal of Technical University of Gabrovo-Bulgaria*, Vol.28' 2003, pp.10-15.

3. Can, Y., Altınbalık, M. T., Akata, H. E.; "An Analysis of Tube Drawing by Using Generalized Velocity Field" *Journal of Technical University of Gabrovo-Bulgaria*, Vol. 28' 2003, pp. 16-20.
4. Şahin, M., Akata, H. E., "Joining with Friction Welding of Plastically Deformed Steel", *Journal of Materials Processing Technology*, Volume 142, Issue 1, 2003, pp: 239-246.
5. Akata, H. E., Şahin, M., "An Investigation on The Effect of Dimensional Differences in Friction Welding of AISI 1040 Specimens", *Industrial Lubrication & Tribology*, Volume 55, Number 5, 2003, pp: 223-232.
6. Akata H.E., Altınbalık T, Çan, Y., "Three point load application in single tooth bending fatigue test for evaluation of gear blank manufacturing methods", *International Journal of fatigue*, 2004, V: 26, 785-789
7. Şahin, M., Akata, H. E., "An Experimental Study on friction Welding of Medium Carbon and Austenitic Stainless Steel Components", *Industrial Lubrication & Tribology*, Volume 56, Number 2, 2004, pp: 122-129.
8. Çetinarslan, C.S.; Akata, H.E., "Investigation of Fatigue Strength of Heat Treated X210Cr12 Cold Work Tool Steel", *Machine Building & Electrical Engineering, Bulgaria* 3, 24-26 (2004)
9. Çetinarslan, C.S.; Akata, H.E., "A Study on Investigation of Barreling Contour at upsetting of Cylindrical Specimen", *Journal of Technical University of Gabrovo-Bulgaria*, 29, 3-7 (2004)
10. Çan, Y., Altınbalık M.T., Akata H.E.: A Study of Lateral Extrusion of Gear Like Elements and Splines, *Journal of Materials Processing Technology*, 166 (1): 128-134 Jul. 15 2005
11. Çan, Y., Altınbalık, M.T., Akata H.E.: An Investigation of Forging loads and Metal flow in Conventional Closed-die Forging of Preforms Obtained by Open-Die Indentation Elements and Splines, *Indian Journal of Engineering and Materials Science*, 11 (6): 487-492 Dec 2004
12. Akata HE, Cetinarslan CS.; "An investigation on the variation of surface areas in upsetting of cylindrical specimen", *Industrial Lubrication And Tribology* 57 (5): 202-207, 2005
13. Altınbalık T, Akata HE, Can Y.; "An Approach for Calculation of Press Loads in Closed - Die Upsetting of Gear Blanks of Gear Pumps" *Materials & Design* 28 (2): 730-734 2007
14. Sahin M, Cetinarslan CS, Akata HE; "Effect of Surface Roughness on Friction Coefficients During Upsetting Processes for Different Materials", *Materials & Design* 28 (2): 633-640 2007
15. Sahin M, Akata HE, Gulmez T; "Characterization of Mechanical Properties in AISI 1040 Parts Welded by Friction Welding", *Materials Characterization* 58 (10): 1033-1038 Oct. 2007
16. Akata HE, Sahin M, Ipekci MT; "An investigation into reutilizing of waste materials using friction welding and upset manufacturing methods", *Industrial Lubrication And Tribology* 59 (5): 230-235, 2007
17. Sahin M, Akata HE, Ozel K; "An Experimental Study on Joining of Severe Plastic Deformed Aluminium Materials with Friction Welding Method", *Materials & Design* 29 (1): 265-274 2008
18. Sayime Sabit Kabasakal, Toshko M. Kovachev, Emil S. Kostov, H. Erol Akata, "A Study on the Application of Severe Plastic Deformation to Aluminum Alloys", *Journal of the Technical University of Gabrovo*, Vol. 43'2012 (7-9), ISSN1310-6686.
19. Mumin Sahin, N. Balasubramanian, Cenk Misirli, H. Erol Akata, Yilmaz Can, Kaan Ozel, "On properties at interfaces of friction welded near-nanostructured Al 5083 alloys", *International Journal of Advanced Manufacturing Technology* Volume: 61 Issue: 9-12 Pages: 935-943 DOI: 10.1007/s00170-011-3775-7 Published: Aug 2012
20. Akata, H.E. "Application of Separated Die Design to Production of ECAP Dies" *Materials and Manufacturing Technologies XIV Book Series: Advanced Materials Research* Volume: 445 Pages: 120-124 DOI: 10.4028/www.scientific.net/AMR.445.120 Published: 2012

Papers Published in the Proceedings of International Conferences

1. Eryürek, B., Akata, H. E., "Effect of Tempering Treatment on Fracture Toughness of 0.4 C Steel", *Proceedings of the 8th European Conference on Fracture*, Volume 1, pp. 368-372, 1-5 October 1990, Torino, Italy.
2. Akata, H. E., Çan, Y., Altınbalık, M. T., "An Approach to Preform Design in the Closed - Die Forging.", *Second Biennial European Joint Conference on Engineering Systems Design and Analysis*, July 4-7, 1994 London, England. PD. Vol. 64 - 8.1., pp 209 - 214
3. Akata, H. E., "Computer Simulations of Closed - Die Forging Axially Symmetric Parts." *Proceeding of The First World Conference on Integrated Design & Process Technology*, December 6-9, 1995 Austin, USA.
4. Şahin, M. And Akata, H. E.: An Experimental Study On Application Of Friction Welding For Parts With Different Diameters And Width, *The Third International Congress Of Mechanical Engineering Technologies' 01*, pp. 499-501, June 24-26, 2001, Sofia, Bulgaria
5. Akata, E., Sahin, M., Becenen, I., "Application of Some Automatic Control Circuits to an Experimental Friction Welding Set up", *2nd Annual Conference with International Participation on Rapid Technologies One More Line Allowed End*, 14-15 November 2001, Stellenbosch, South Africa.
6. Sahin, M., Akata, H. E., "A Study on The Relationship Between The Indentation Pressure and Yield Stress in Open Die Indentation" *International Scientific Conference*, 21-22 November, 2002. Gabrovo, Bulgaria, pp 338-341,
7. Sahin, M., Akata, H. E., "An Investigation On Friction Welding Of AISI 1040 And AISI 304 Steels", *Proceedings of ESDA2002, 6th Biennial Conference on Engineering Systems Design and Analysis*, Istanbul, Turkey, July 8-11, 2002.

8. Kılıçaslan, Y., Sucsuz, N., Akata, H.E.;. "Retrieving Weather Information from the Internet with Pre-Determined Personal Schedule", Proceedings of the International Conference on Environmental Problems of the Mediterranean Region, April 2002.
9. Ucar, E., Kılıçaslan, Y., Akata, H.E.;. "Use of Computers for Environmental Planning", Proceedings of the International Conference on Environmental Problems of the Mediterranean Region, April 2002.
10. Kılıçaslan, Y., Uçar, Ö., Akata, H.E.;. "Translation Technology as a Means to Diminish Destructive Effects of Globalization on National Languages", International Twelfth Turkish Symposium on Artificial Intelligence and Neural Networks (TAINN' 2003).
11. Hüyük, D., Uçar, E., Akata, H.E.;. "The Effect of Different Input Resolutions on Character or Object Recognition Using Neural Networks", International Twelfth Turkish Symposium on Artificial Intelligence and Neural Networks (TAINN' 2003).
12. Cetinarslan, S.C., Akata, H.E.;. "Examining the Strain Distribution on Free Surfaces on Cylindrical Upset Specimen Using Grid Lines" Proceedings of International Scientific Congress UNITECH 03, 20-21 November 2003, Gabrovo, Bulgaria, pp 1.473-476
13. Cetinarslan, S.C., Akata, H.E.;. "Application of Ring Compression Test for Determining the Friction Coefficients" Proceedings of International Scientific Congress UNITECH 03, 20-21 November 2003, Gabrovo, Bulgaria, pp 1.469-472
14. Şahin, M., Akata, H.E.;. "Friction Welding Method" Proceedings of International Scientific Congress UNITECH 03, 20-21 November 2003, Gabrovo, Bulgaria, pp 1.465-468
15. Çetinarslan, C., Şahin, M., Akata, H. E.;. "An Experimental Investigation of Effects of Surface Roughness on Friction Coefficients in Upsetting", *International Scientific Conference*, Gabrovo, Bulgaria, 18-19 November 2004, pp. 11-153-155.
16. Şahin, M., Akata, H. E., Özel, K.;. "An Investigation on Determining of Optimum Parameters in Joining of HSS and AISI 1040 Steels with Friction Welding", 4th International Advanced Technologies Symposium, Selçuk University, Konya-Turkey, September 28-30, 2005, pp. 924-929.
17. Kuscu H., Misirli C., Akata E., Can Y.;. "Automatic Control Hardware For Hydraulic Pres" International Scientific Conference UNITECH'06 Gabrovo, Proceedings Volume-I, pp.135-139, 24-25 November, 2006 Bulgaria
18. Sahin, A., Yerlikaya, T., Akata, E., Bulus, E.;. "Effect of Cryptography on Cover Object in Steganography", pp 314-318, UNITECH'06, Gabrovo-Bulgaria, November-2006.
19. Yerlikaya, T., Bulus, E., Bulus, H.N., Akata, E.;. "Performance of RSA and Its Cryptanalysis with Continued Fractions", Sayfa 302-306, UNITECH'06, Gabrovo- Bulgaria, November-2006.
20. Bulus, H.N., E., Bulus, Yerlikaya, T., Akata, E.;. "Studying The Appropriateness of Turkish Language To The Cryptanalysis of Classical Cryptographic Methods", Sayfa 307-313, UNITECH'06, Gabrovo- Bulgaria, November-2006.
21. Sezer, S., Ozdek, Y., Akata, E.;. "Explanation of International Type Approval Certification and Homologation Processes of Agricultural Tractors", Vol-II, pp 216-219, UNITECH'06, Gabrovo- Bulgaria, November-2006.
22. Karayol, T., Sezer, S., Kayahan, B., Ozdek, Y., Akata, E.;. "Explanations About Design and Production of Uzel Cotton Harvester", Vol-I, pp 361-364, AMTECH'07, Gabrovo- Bulgaria, November-2007.
23. Şahin, M., Özel, K., Akata, H.E.;. " Evaluation of Properties in Friction Welded Near-Nanostructured AL 5083 Alloys", ICCE-15- The Fifteenth International Conference on Composites/Nano Engineering, Haikou, Hainan Island, China, Hawaii of the Orient, July 15-21, 2007, pp.821-822.
24. Özel, K., Şahin, M., Akata, H.E.;. " Cold Pressure Welding of Steels and Non-Ferrous Materials", Smolyan 2007-9th International Scientific Conference, Smolyan, Bulgaria, June 23-24, 2007,.
25. Kuşçu, H., Akata E.;. "Software for Automatic Control of Hydraulic Pres", Smolyan 2007-9th International Scientific Conference, Smolyan, Bulgaria, June 23-24, 2007
26. F. Akgün, E. Buluş, E. Akata; "Security Algorithms in GSM Communication System" International Scientific Conference 23-24 November 2007, GABROVO
27. Yerlikaya T, E. Buluş, E. Akata; "Performance Analysis of RC 4" International Scientific Conference 23-24 November 2007, GABROVO
28. Aynur Akata; Erol Akata; "An Approach to Determination of a Planned Change Matrix", 6. Uluslararası "Standardization, Prototypes and Quality: A Means of Balkan Countries' Collaboration" konferansı, 9-10 Ekim 2009, Thessaloniki-GREECE.
29. Akata. H.E.;. "Application of Separated Die Design to Production of ECAP Dies" , "14th International Conference on Advances in Material&Processing Technologies AMPT2011", 13-16 Temmuz 2011, İstanbul Hilton Hotel & Convention Center / TURKEY.
30. Akata. H.E.;. "Paradoxical Difficulties in Teaching the Material Science to Mechanical Engineering Students of "Can an Engineering Student do as an Engineer?", "8th International Conference Standardization, Prototypes & Quality: A Means of Balkan Countries' Collaboration", 7- 8 Ekim 2011, Thessaloniki-Greece.

THESIS SUPERVIZED

MSc,

1. "Flash Dimension Optimisation in Classical Closed-Die Forging (in Turkish)"; Yılmaz CAN
2. "Closed-Die Forging Modelling (in Turkish)"; Tahir ALTINBALIK
3. " Investigation of the Effect of Specimen Orientation Grain Dimension on Fracture Toughness (in Turkish) "; Muharrem HOROZ
4. "Investigation of the Effect of Yield Strength on Material Flow in Open-Die Indentation (in Turkish) "; Mumin SAHIN
5. "Investigation of Strain Hardening Coefficient and Cold Forming Ratio on Machining Properties of Low Carbon Steels (in Turkish) "; Şukru ONURCU
6. "Determination of the Effect of Heat Treatment on Mechanical Properties of 1.3343 High Speed Tool Steel (in Turkish) "; Vedat OZKAN
7. "Computer Aided Design of Deep Drawing Dies (in Turkish) "; Bülent ETGIN
8. "Investigation of Axial Forging Strengths in Tool Steels (in Turkish) " ; Vedat TASKIN
9. " Experimentally Investigation of Forging Strengths of Hardened Tool Steels (in Turkish) "; Cem CETİNARSLAN
10. "Manufacturing Method Optimisation in Production of Gear Blanks (in Turkish) "; Metin AYDOĞDU
11. "Application of Friction Welding Method to Re-Cycling of Machined Waste Bars (in Turkish)", Melih Turan İPEKCI
12. "Application of the Separated Die Design to Precision Forging of Gear Like Pieces (in Turkish)", Öner ULUER
13. "Evaluation of CNC Lathes and developing a machining simulation program for a CNC Lathe(in Turkish)", Ercan KURAK
14. "An investigation on selection of embroidery machines(in Turkish)", İlhan ARSLAN
15. "An investigation of the effects of the residual stresses due to machining(in Turkish)", Yucel SEN
16. "A Quality control and process development study for steel ship construction(in Turkish)", Serkan EKIN

PhD

1. "Investigation of the Material Flow in Upsetting of Different materials(in Turkish)", Cem ÇETİNARSLAN
2. "Investigation of the Effects of Specimen Dimensions and Plastic Deformation Ratio on Friction Welding (in Turkish)", Mumin ŞAHİN
3. "Investigation of Forging Loads and Material Flow in Closed-Die Forging of Gear Blanks (in Turkish)" M.Tahir ALTINBALIK
4. " Investigation of Strain Hardening Coefficient and Cold Forming Ratio on Machining Properties of Low Carbon Steels (in Turkish) Investigation of Strain Hardening Coefficient and Cold Forming Ratio on Machining of Steels (in Turkish) " ; Şükrü ONURCU

Participated National Industrial Projects

1. "Investigation of the Applicability of Alternative Methods in Mass Production of Gear Blanks of Gear Pumps (in Turkish)", TUBITAK-TTGV, R&D Project Market, 4-7 December 1997, Proposals Book, PTS 088.
2. "Application of the Side Extrusion Method to the Production of Hydraulically Assisted Steering Gear Blanks (in Turkish)", TÜBİTAK-TTGV, R&D Project Market, 4-7 December 1997, Proposals Book, İGA 087.
3. TTGV-226, TİDEB 97-102 ;" Development of Hydraulic Lift Systems for Three-Point Hitches of Agricultural Tractors (in Turkish)" Hema Industry INC, *Project Consultancy*.
4. TİDEB-980242; "Development of Assembly Lines for Hydraulic Brake Systems (in Turkish)" Hema Industry INC, *Project Consultancy*
5. TTGV-126/D TİDEB-990101; "Development of Production Technologies for Hydraulic Gear Pumps (in Turkish)" Hema Industry INC, *Project Consultancy*
6. TİDEB-990096, "Development of Hydraulically Assisted Steering Gears for Commercial Vehicles (in Turkish)" (Hema Industry INC, *Project Consultancy*
7. TTGV-033/T4; "Development of Compact Hydraulic Lifts for Agricultural Tractor Three-Point Hitches in 70-100 HP Group (in Turkish)" Hema Industry INC, *Project Consultancy*
8. TTGV-070/T9; "Development of Transmission System for Agricultural Tractors in 45-75 HP Group (in Turkish)" Hema Industry INC, *Project Consultancy*
9. TTGV-034/T4, TİDEB 3000169; "Development of Roll Over Protection Safety Frames and Steering Systems in Three-Cylinder Agricultural Tractors(in Turkish)", Uzel Corporation. *Project Consultancy*
10. TİDEB-3020133; "Re-design and Manufacturing of 75-110 HP Agricultural Tractors Under the Light of Emission and Market Demands (in Turkish)" Uzel Corporation. *Project Consultancy*

11. TİDEB-3030070; “Design and Development of 45-65 HP Agricultural Tractors in Compliance with the Noise and Emission Regulations of North America and European Union and Market Demands (in Turkish) ” Uzel Corporation. *Project Consultancy*
12. TİDEB- 3040388; “Product Development Studies in New 3000 Serial Tractors (in Turkish)” Uzel Corporation. *Project Consultancy*
13. TİDEB- 3050427; “Development of New Generation Orchard and Utility Tractors (in Turkish)” Uzel Corporation. *Project Consultancy*
14. TEYDEB- 3060145; “Product Development Studies of Uzel Cotton Harvesting Machines(in Turkish)” Uzel Corporation. *Project Consultancy*

Memberships

2002 - Continuing	Balkan Coordinating Committee on Standardization / Thessaloniki-Greece
2002 - 2009	Program Committee-UNITECH / Gabrovo-Bulgaria
1979 - Continuing	Chamber of Turkish Mechanical Engineers