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Javad Akbari

Personal Information

- Date of birth: 28 Jan 1958
- Nationality: Iranian
- Married, 2 children

Education

- 1990.4-1993.9 **Chiba University** Chiba, Japan
Ph.D. in Production Science and Technology (Grade: Excellent)
- 1988.4-1990.3 **Utsunomiya University** Utsunomiya, Japan
M.Sc. in Manufacturing (Machining) (Grade: Excellent)
- 1987.10-1988.3 **Tsukuba University** Tsukuba, Japan
Japanese Language Intensive Course (6 months)
- 1976.9-1984.3 **Sharif University of Technology** Tehran, Iran
B.S. in Mechanical Engineering (Outstanding student)

(Note: The Iranian universities were closed for about 3 years because of Iran Islamic revolution, Cultural revolution and Iran-Iraq war)

Academic Experience

1995.12 to date

Sharif University of Technology Tehran, Iran
Associate Professor

2000.9 to 2003.7 (on leave from Sharif University)

Tokyo Institute of Technology Tokyo, Japan
Associate Professor

2012.9 to 2014.9 (on leave from Sharif University)

University of Malaya Kuala Lumpur, Malaysia
Visiting Professor

Research Interests

Abrasive Machining of New Materials, Precision Machining, Creep-feed Grinding, Ultrasonic-Assisted Machining, Monitoring of Machining Process, Surface Integrity and Machining Quality, Intelligent Machine Tools, On-Machine Sensing and Control, Micro-Mechanism fabrication, Rapid Tooling.

Teaching Experience

(U = Undergraduate, G = Graduate)

Machining & Tooling (G), Surface Finishing Processes (G), Intelligent Integrated Manufacturing (G), Design and Manufacturing Engineering (G), Machine Tool Design (U), Tool Design (U), Manufacturing Processes and Workshop (U), Static (U), Material Science (U), Engineering Design (U), Micro/Nano Fabrication Processes (G), Jig and Fixture Design (U), Research Methods (G)

Teaching languages: English, Japanese and Persian (Farsi)

Industrial Experience

2003.11-2008.07

Niroo Research Institute Tehran, Iran
Consultant

Supervising the design, manufacturing and production of gas turbine blade for Electric Power Industry affiliated to the Ministry of Energy of Iran.

1996.4-2000.7

Advanced Manufacturing Research Centre* Tehran, Iran

Project Manager

Through intensive research works, our team succeeded to develop the machining technology and produce 120 gas-turbine blades for electrical power plant, for the first time in Iran. We used creep-feed grinding on Inconel super alloy.

*The research centre is affiliated to Sharif University of Technology (SUT) where I was a faculty member at the same time.

1998.11-2000.6

MEGA MOTOR, Inc. Tehran, Iran

Consultant

Supervising internship students in a car-manufacturing factory. It was a new internship program organized by a group of SUT professors with cooperation of Mega Motor.

1993.10-1995.8

SII (Seiko Instruments Inc.) Chiba, Japan

Machine Tool Designer

Conducting design, research and development of CNC internal grinding machines in a Japanese company, team working with Japanese engineers under Japanese management system. During these years succeeded to develop a new swivelling table for a CNC internal grinder that is patented in Japan and USA.

1990.4-1993.7

Machinery and Metallurgy Research Institute Chiba, Japan

Researcher

Work on doctoral research theme using the institute instruments. A good opportunity to learn about the system of Japanese research centres, their cooperative work with small industries and managing a research job with Japanese researchers.

1984.3-1987.5

Kaveh Cutting Tools Mashhad, Iran

Production Manager

Design and manufacturing of cutting tools.

Administrative Experience

2014.11-date

School of Mechanical Engineering, SUT Tehran, Iran

Graduate School Group Chairman; Applied Mechanics Group (including 30 professors)

2005.7-2009.8

School of Mechanical Engineering, SUT Tehran, Iran

Deputy-Chairman; for Education Affairs

1996.3-1999.7

School of Mechanical Engineering, SUT Tehran, Iran

Deputy-Chairman; for Student Affairs

Awards

- AIEJ fellowship for post-doctorate research in Japan, 2000.8-2001.3
- Japanese government scholarship (Monbukagakusho), 1987.10-1993.3
- Iranian government scholarship for postgraduate study, 1987.10- 1993.9

Memberships

- Japan Society for Precision Engineering
- Japan Society of Mechanical Engineers
- Society of Manufacturing Engineering of Iran (**Chairman 2007-2009**)
- Iranian Society of Mechanical Engineers

Journal Publications

- 1 Study on Mirror Finish Grinding of Fine Ceramics (1st Report)-Fundamental Consideration on Mechanism of Surface Generation (Ichida, Y., Kishi, K., Hasuda, Y., and **Akbari, J.**) J. Japan Soc. Precision Eng., Vol. 57, No.8, pp. 1406-1412 (in Japanese) 1991
2. Detection of Cutting Mode During Scratching of Ceramics Using Acoustic Emission (**Akbari, J.**, Saito, Y., Hanaoka, T., and Enomoto, S.) Int. J. Japan Soc. Precision Eng., Vol. 27, No. 1, pp. 35-40 1993
3. Characteristics of Grinding Force and Specific Grinding Energy in Engineering Ceramics (**Akbari, J.**, Ichida, Y., Kishi, K.) J. Japan Soc. Grinding Eng., Vol. 37, No. 3, pp. 144-150 (in Japanese) 1993
4. Acoustic Emission and Deformation Mode in Ceramics During Indentation (**Akbari, J.**, Saito, Y., Hanaoka, T., and Enomoto, S.) JSME Int. J., Series A, Vol. 37, No. 4, pp. 488-496 1994
5. Using Acoustic Emission for Monitoring of Grinding Process of Fine Ceramics –Sensitivity of AE to Grain Depth of Cut- (**Akbari, J.**, Saito, Y., Hanaoka, T., and Enomoto, S.) JSME Int. J., Series C, Vol. 38, No. 1., pp. 175-180 1995
6. Analysis of Acoustic Emission Signals During Pendular Scratching of Fine Ceramics (**Akbari, J.**, Saito, Y., Higuchi, S., and Hanaoka, T.) Tech. Papers NAMRI of SME, USA, pp. 73-78 1995
7. Effect of Grinding Parameters on Acoustic Emission Signals While Grinding Process of Engineering Ceramics (**Akbari, J.**, Saito, Y., Hanaoka, T., Higuchi, S., and Enomoto, S.) J. of Materials Processing Tech., Vol. 62, Issue 4, pp. 403-407 1996
8. Orthogonal Cutting Analysis using Finite Element Method (Naghdabadi, R., **Akbari, J.**, and Basti, A.) J. of Iranian Mechanical Engineering, Vol. 1., No. 2, pp. 39-46 (in Farsi) 1998
9. Using Ultrasound for Measuring Grasping Force of Robot Soft Finger (**Akbari, J.**, Imamura, M., Tanaka, T., Saito, Y.) JSME International Journal, Series C, Vol. 47, No. 1, pp. 175-179. 2004
10. Effects of Rotary Inertia and Shear Deformation on Nonlinear Free Vibration of Microbeams (Ramezani A., Alasty A., **Akbari J.**) ASME Journal of Vibration and Acoustics, Vol. 128, Issue 5, pp. 611-615. 2006
11. Influence of Vander Waals Force on the Pull-in Parameters of Cantilever Type Nanoscale Electrostatic Actuators (Ramezani A., Alasty A., **Akbari J.**) Journal of Microsystem Technologies, Vol 12, No. 12, pp 1153-1161 2006
12. Microstructure and cutting performance investigation of Ti(C, N)-based cermets containing various types of secondary car (V. Rahimi Dizaji, M. Rahmani, M. Faghihi Sani, Z. Nemati and J. **Akbari**) International Journal of Machine Tools and Manufacture, Vol. 47, Issue 5, pp 768-772 2007
13. Ultrasonic-assisted drilling of Inconel 738 (Bahman Azarhoushang, Javad **Akbari**) International Journal of Machine Tools and Manufacture, Vol. 47, Issues 7-8, pp 1027-1033 2007
14. Pull-in parameters of cantilever type nanomechanical switches in presence of casimir force (Asghar Ramezani, Aria Alasty, Javad **Akbari**) Journal of Nonlinear Analysis: Hybrid Systems and Applications, Vol. 1, Issue 3, pp 364-382 2007
15. Penetration-Eliminating Method for Five-axis CNC Machining of Sculptured Surfaces (Y. Hosseinkhani, J. **Akbari**, A. Vafaeseefat) International Journal of Machine Tools and Manufacture, Vol. 47, Issue 10, pp 1625-1635 2007
16. Dimensional Accuracy Analysis of Wax Patterns Created by RTV Silicone Rubber Molding (S. Rahmati, J. **Akbari**, E. Barati) Rapid Prototyping Journal, Vol. 13, No. 2, pp 115-122 2007
17. Closed-Form Solutions of the Pull-in Instability in Nano-Cantilevers Under Electrostatic and Intermolecular Surface Force (Ramezani A., Alasty A., **Akbari J.**) International Journal of Solids and Structures, Vol 44, Issues 14-15, pp 4925-4941 2007
18. Analytical Investigation and Numerical Verification of Casmir Effect on Electrostatic Nano-Cantilevers (Ramezani A., Alasty A., **Akbari J.**) Journal of Microsystem Technologies, Vol 14, No. 2, pp 145-157 2008
19. Closed-form approximation and numerical validation of the influence of van der Waals force on electrostatic cantilevers (Ramezani A., Alasty A., **Akbari J.**) Nanotechnology, Vol 19, No 1, art. No. 015501 2008

20. Ultrasonic Assisted Drilling of Bone (Khademi, V., **Akbari**, J., Farahmand, F.) Majlesi Journal of Mechanical Engineering, Vol. 1, No. 4, pp 69-74 (In Farsi) 2009
21. Design and Manufacture of a Wax Injection Tool for Investment Casting Using Rapid Tooling (Sadegh Rahmati, Mohamad Reza Rezaei and Javad **Akbari**) Tsinghua Science & Technology, Vol 14, No. 7, pp 108-115 2009
22. Torsion of strain gradient bars (M. H. Kahrobaiyan, S.A. Tajalli, M. R. Movahhedy, J. **Akbari**, M. T. Ahmadian) International Journal of Engineering Science, Vol.49, No. 9, pp. 856-866 2011
23. Modeling and Optimization of an Ultrasonic Setup Based on Combination of Finite Element Method and Mathematical Full Factorial Design (Mohsen Ghahramani Nick, Javad **Akbari**, Mohamad.R. Movahhedy, S.Mehdi Hoseini) Advanced Materials Research, Vol 320, pp. 553-558 2011
24. FEM Analysis of Single Grit Chip Formation in Creep-Feed Grinding of Inconel 718 Superalloy (Ali Zahedi, Javad **Akbari**) Advanced Materials Research, Vol 325, pp. 128-133 2011
25. Drilling of Engineering Ceramics using Combination of Ultrasonic Vibrations and Diamond Slurry (S. M.Hoseini, J. **Akbari**, M. Ghahramani_Nick) Int. Journal of Advanced Design and Manufacturing Technology 2012
26. Time Domain and Frequency Spectrum Analysis of Sound Signal for Drill Wear Detection (H. Rafezi, M. Behzad, J. **Akbari**) International Journal of Computer and Electrical Engineering 2012
27. Investigation of Ultrasonic-Assisted Drilling of Al/SiC Metal Matrix Composite with Taguchi Method (M.A. Kadivar, J. **Akbari**, R. Yousefi) Key Engineering Materials 2012
28. Burr size reduction in drilling of Al/SiC metal matrix composite by ultrasonic assistance (M.A. Kadivar, R. Yousefi, J. **Akbari**, et al.) Advanced Materials Research 2012
29. Mechanical behavior analysis of size-dependent micro-scaled functionally graded 3 Timoshenko beams by strain gradient elasticity theory (S.A. Tajalli, M.Rahaeifard, M.H.Kahrobaiyan, M.R.Movahhedy, J.**Akbari**, M.T.Ahmadian) Composite Structures 2013
30. Size dependent vibrations of micro-end mill incorporating strain gradient elasticity theory (S.A. Tajalli, M.R.Movahhedy, J.**Akbari**) Journal Of Sound and Vibration 2013
31. Enamel Surface Roughness after Debonding of Orthodontic (F. Ahrari, M. Akbari, J. **Akbari**, et al) Journal of Dentistry, Tehran University of Medical Sciences 2013
32. Investigating the effect of vibration method on Ultrasonic-Assisted Drilling of Al/SiCp Metal Matrix Composites (M.A. Kadivar, J. **Akbari**, et al) Robotics and Computer-Integrated Manufacturing 2014
33. Chatter instability analysis of spinning micro-end mill with process damping effect via semi-discretization approach (S.A. Tajalli, M.R.Movahhedy, J.**Akbari**) Acta Mechanica 2014
34. Simulation of orthogonal micro-cutting of FCC materials based on rate-dependent crystal plasticity finite element model (S.A. Tajalli, M.R.Movahhedy, J.**Akbari**) Computational Materials Science 2014
35. Conditioning of Vitriified Bond CBN grinding wheels using a picosecond laser (A. Zahedi, T. Tavakoli, J. **Akbari**, B. Azarhoushang) Advanced Materials Research 2014
36. Sintering Characterizations of Ag-Nano Film on Silicon Substrate (Mehdi Keikhaei, J. **Akbari**, M. Movahhedy, Hamid AleMohammad) Advanced Materials Research 2014
37. Picosecond laser treatment of metal-bonded CBN and diamond superabrasive surfaces (A. Zahedi, T. Tavakoli, J. **Akbari**, B. Azarhoushang) International Journal of Advanced Manufacturing Technology 2014
38. Investigating the effect of ultrasonic vibration on hole accuracy in drilling of metal matrix composites (M.A. Kadivar, J. **Akbari**, B. Vakili) Advanced Materials Research 2014
39. Nonlinear Dynamic Analysis of a New Antbacklash Gear ASME Journal of Mechanical 2015

- Mechanism Design for Reducing Dynamic Transmission Error (S.R. Besharati, V. Dabbagh, H. Amini, J. Akbari, et al)
- Design
40. Energy aspects and workpiece surface characteristics in ultrasonic-assisted cylindrical grinding of alumina–zirconia ceramics (A. Zahedi, T. Tavakoli, J. Akbari) International Journal of Machine Tools & Manufacture 2015
41. An optimization technique on ultrasonic and cutting parameters for drilling and deep drilling of nickel-based high-strength Inconel 738LC superalloy with deeper and higher hole quality (V. Baghlani, P. Mehbudi, J. Akbari, et al) International Journal of Advanced Manufacturing Technology 2015
42. Multi-objective selection and structural optimization of the gantry in a gantry machine tool for improving static, dynamic, and weight and cost performance ((S.R. Besharati, V. Dabbagh, H. Amini, J. Akbari, et al) Concurrent Engineering-Research and Applications 2015
43. Transparency Improvement by External Force Estimation in a Time-Delayed Nonlinear Bilateral Teleoperation System (Hamid Amini †Mehdi Rezaei †Ahmed Sarhan †Javad Akbari †N. A. Mardi) Journal of Dynamic Systems Measurement and Control-Transactions of the ASME 2015

International Conference Proceedings

1. Mirror Finish Grinding of Silicon Nitride Ceramics (Ichida, Y., Kishi, K., Machida, T. and Akbari, J.) Proc. 1st Int. Conf. on New Manufacturing Tech. Japan, pp. 317-320 1990
2. Grinding Energy of Fine Ceramics (Akbari, J. Ichida, Y., Kishi, K., and Machida, T.) Proc. 1st Int. Conf. on New Manufacturing Tech. Japan, pp. 323-328 1990
3. Grinding Energy of Fine Ceramics (Akbari, J., Ichida, Y., Kishi, K., Machida, T.) ABTEC' 90, Tokyo, May, pp. 102(G)1-6 (in Japanese) 1990
4. Characteristics of Fine Ceramics During Scratching Process (Kishi, K., Ichida, Y., Hasuda, Y., Ueno, H., Shinmura, H., and Akbari, J.) Proc. Fall Conf. JSPE, Sapporo, p. 1001-1002 (in Japanese) 1990
5. Acoustic Emission Signal Analysis For In-Process Detection of Scratching Damages in Ceramics (Akbari, J., Saito, Y., Hanaoka, T. and Enomoto, S.) Proc. MIGHT '91, Chiba, Japan, pp. 321-326 1991
6. Acoustic Emission During Scratching of Fine Ceramics (Akbari, J., Saito, Y., Hanaoka, T., and Enomoto, S.) Proc. Spring Conf. of JSPE Tokyo, pp. 961-962 (in Japanese) 1991
7. Acoustic Emission During Multipoint Scratching of Fine Ceramics (Akbari, J., Saito, Y., Hanaoka, T., and Enomoto, S.) Proc. Fall Conf. JSPE, Hamamatsu, pp. 883-884 (in Japanese) 1991
8. Monitoring of Ceramics Machining by Using AE Signal (Saito, Y., Akbari, J., Hanaoka, T., and Enomoto, S.) Proc. Annual Meeting JSME, Yokohama, pp. 468-470 (in Japanese) 1992
9. Detection of Cutting Mode During Scratching of Ceramics Using Acoustic Emission (Akbari, J., Saito, Y., Hanaoka, T. and Enomoto, S.) 1st Int. Conf. NDT, Tehran, Iran, (in Farsi) 1993
10. Monitoring of Ceramics Grinding by Use of Acoustic Emission (Akbari, J., Saito, Y., and Hanaoka, T.) Proc. ABTEC '93, Makuhari, Chiba, Japan, pp. 171-176 1993
11. Acoustic Emission Characteristics in Multipoint Scratching of Fine Ceramics (Akbari, J., Saito, Y., Hanaoka, T., Higuchi, S., and Enomoto, S.) Proc. 7th Int. Conf. Production/Precision Eng., 4th Int. Conf. High Tech. Chiba, Japan, pp. 362-367 1994

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| 12. | AE Characteristics in Pendular Scratching of Ceramics (Akbari, J., Saito, Y., Higuchi, S., and Hanaoka, T.) | Proc. ABTEC '94, Ibaraki Univ., Hitachi, Japan, p. 353-356 (in Japanese) | 1994 |
| 13. | Effect of Grinding Parameters on Acoustic Emission Signals While Grinding Process of Engineering Ceramics (Akbari, J., Saito, Y., Higuchi, S., Hanaoka, T. and Enomoto, S.) | Int. Conf. Precision Eng. '95 (2 nd ICMT), Singapore, pp. 40-43 | 1995 |
| 14. | Analysis of Orthogonal Cutting Using FEM (Naghdabadi, R., Akbari, J., and Basti, A.) | Proc. 6 th Annual and 3 rd Int. Conf. Mechanical Engineering, Tehran, pp. 1461-1469 (in Farsi) | 1998 |
| 15. | Study Effects of Cutting Conditions on Mechanical Properties of Machined Layer Using FEM (Akbari, J. and Naghdabadi, R.) | Proc. JSME Annual Conf., Tokyo, pp. 21-22 | 1999 |
| 16. | Design and Manufacturing of a Dynamometer for Measuring the Machining Forces (Akbari, J., and Dalil, N.) | Proc. 4 th Conf. Of Manufacturing Engg, Tehran, pp. 134-142 (in Farsi) | 1999 |
| 17. | Investigation the Effects of Grinding Parameters on Strength Degradation of Engineering Ceramics (Akbari, J., and Abadi, T.) | Proc. 4 th Conf. Of Manufacturing Engg, Tehran, pp. 114-120 (in Farsi) | 1999 |
| 18. | Study on Machining Variable Effects in Orthogonal Cutting by FEM and Comparison with Experimental Results (Naghdabadi, R., Akbari, J., and Basti, A.) | Proc. 4 th Conf. Of Manufacturing Engg, Tehran, 106-113 (in Farsi) | 1999 |
| 19. | Grinding of Fine Ceramics (Akbari, J., and Abadi, T.) | Proc. 7 th Annual Conf. Mechanical Engg, Zahedan, pp. 1423-1430 (in Farsi) | 1999 |
| 20. | Elasto-Visco-plastic Finite Element Formulation and its usage in Machining Process (Naghdabadi, R., Akbari, J., and Basti, A.) | Proc. 7 th Annual Conf. Mechanical Engg, Zahedan, Iran, pp. 893-900 (in Farsi) | 1999 |
| 21. | LCA of Machine Tools with Regard to their Secondary Effects on Quality of Machined Parts (Akbari, J., Oyamada, K., and Saito, Y.) | Proc. EcoDesign 2001, 2 nd Int. Symp. On Environmentally Conscious Design & Inverse Manufacturing, 11-15 Dec., Tokyo, Japan, pp. 347-352 | 2001 |
| 22. | Sensor Integrated Locator for Intelligent Fixture (Akbari, J., Utada, E., Tanaka, T., and Saito, Y.) | Proc. 6 th Int. Conf. on Mechatronics Technology, Sep. 29-Oct. 3, Kitakyushu, Japan, pp. 283-287 | 2002 |
| 23. | Development of Mist Sensor for Environmental Consious Machine Tool (Saito, M., Tanaka, T., Akbari, J., Saito, Y.) | Poster Session, JIMTOF2002, The 21 st Japan Int. Machine Tool Fair, Oct. 28- Nov. 4, Tokyo. | 2002 |
| 24. | Development of Ultrasonic-Sensor-Integrated Locator (Saito, Y., Akbari, J., Tanaka, T., and Utada, E.) | Poster Session, JIMTOF2002, The 21 st Japan Int. Machine Tool Fair, Oct. 28- Nov. 4, Tokyo. | 2002 |
| 25. | Developing a Contact-Sensitive Locator Pin Using Ultrasoic Transducer (Utada, E., Akbari, J., Tanaka, T., Saito, Y.) | Proc. Spring Conf. of JSPE Tokyo, p. 337 (in Japanese) | 2002 |
| 26. | Study on Hot-Wire Cutting Mechanism of Polystyrene Foam (Muta, K., Tanaka, T., Akbari, J., Saito, Y.) | Proc. Spring Conf. of JSPE Tokyo, p. 662 (in Japanese) | 2002 |

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| 27. | Secondary Effect of Machine Tools on Environment (Oyamada, K., Tanaka, T., Akbari , J., Saito, Y.) | Proc. Spring Conf. of JSPE
Tokyo, p. 144 (in Japanese) | 2002 |
| 28. | Automatic Shape Recognition of Polyhedrons Based on Image Information (Huang, S., Tanaka, T., Akbari , J., Saito, Y.) | Proc. Spring Conf. of JSPE
Tokyo, p. 248 (in Japanese) | 2002 |
| 29. | Developing a Mist Sensor for Environmentally Conscious Machine Tool (Yamada, Y., Tanaka, T., Akbari , J., Saito, Y.) | Proc. Spring Conf. of JSPE
Tokyo, p. 62 (in Japanese) | 2002 |
| 30. | Optimum Gap Clearance Between Bearing and Housing in High-Speed Spindle of Machine Tools (Maeda, Y., Tanaka, T., Akbari , J., Saito, Y.) | Proc. Spring Conf. of JSPE
Tokyo, p. 14 (in Japanese) | 2002 |
| 31. | Learning Control for Robotic Grasping (Sakayachi, K., Tanaka, T., Akbari , J., Saito, Y.) | Proc. Spring Conf. of JSPE
Tokyo, p. 206 (in Japanese) | 2002 |
| 32. | A Study on Free Form Shape Measurement (Sugita, Y., Tanaka, T., Akbari , J., Saito, Y.) | Proc. Spring Conf. of JSPE
Tokyo, p. 257 (in Japanese) | 2002 |
| 33. | Experimental Study on Contact of Rough Surfaces Using Ultrasound (Utada, E., Tanaka, T., Akbari , J., Saito, Y.) | Proc. Fall Conf. of JSPE,
Kumamoto, p. 605 (in Japanese) | 2002 |
| 34. | Detection of Grasp Condition of Soft Finger Using Ultrasound (Imamura, M., Akbari , J., Tanaka, T., Saito, Y.) | Proc. Fall Conf. of JSPE,
Kumamoto, p. 606 (in Japanese) | 2002 |
| 35. | Algorithm for Free-Form Surface Generation by Multi-Axis Robot (Kiryu, I., Saito, Y., Akbari , J., Tanaka, T.) | Proc. Fall Conf. of JSPE,
Kumamoto, p. 51 (in Japanese) | 2002 |
| 36. | Study on Hot-Wire Cutting Mechanism of Polystyrene Foam, 2 nd Report: Analysis Considering Radiation (Muta, K., Tanaka, T., Akbari , J., Saito, Y.) | Proc. Fall Conf. of JSPE,
Kumamoto, p. 488 (in Japanese) | 2002 |
| 37. | Automatic Shape Recognition of Polyhedrons Based on Image Information 2 nd Report: Qualitative Description of Pattern using Interior Contour (Ashizuka, K., Tanaka, T., Akbari , J., Saito, Y.) | Proc. Fall Conf. of JSPE,
Kumamoto, p. 548 (in Japanese) | 2002 |
| 38. | Desktop Electro-Discharge Machine with PC Control (Saito, Y., Akbari , J., Tanaka, T., Enomoto, Kato, K., Satoh, Endo, C., Yamada, Y., and Yakabe, Y.) | JSME Machining & Machine
Tool Division 4 th Technical
Conference, Nagoya, Nov. 21-22,
(In Japanese) | 2002 |
| 39. | Development of A Honing Tool Using Elastic Expansion (Fukami, T., Tanaka, T., Akbari , J., Saito, Y.) | Proc. Fall Conf. of JSPE,
Toyama, Oct. 2-4, p. 543 (in
Japanese) | 2003 |
| 40. | Development of Mist Sensor for MQL Machining Process (Yoshihiro Iida, Tomohisa Tanaka, Yoshio Saito, Javad Akbari) | Proc. Fall Conf. of JSPE (in
Japanese) | 2004 |
| 41. | Optimizing Tool Positions by Interference Loop Area Minimization Method, (Hosseinkhani, Y., Akbari , J., and Vafaeesefat, A) | Proc. Tehran Int. Conf. On
Manufacturing Engineering
TICME2005, 12-15 Dec. ,
Tehran, Iran, Paper No. 1403 on
CD (in Farsi) | 2005 |
| 42. | Comparison of Dimensional Accuracy of Traditional Wax Molding and Silicon Rubber Wax Molding (Ehsan Barati, Javad Akbari and Sadegh Rahmati) | 15 th Annual Conf. of Iranian
Society of Mechanical Engineers,
Tehran, May (in Farsi) | 2007 |

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| 43. | Application of Ultrasonic Vibration in Injection Molding Process (Sadeghian, H., Akbari , J., Chegini, A.) | 8 nd National Conference on Manufacturing Engineering, Paper No. 11250 on CD (in Farsi) | 2007 |
| 44. | Effect of Ultrasonic Vibration on Surface Roughness of NiTi-based Shape Memory Alloy (A.G. Chegini , J. Akbari , H. Sadeghian1 and B. Azarhoushang) | 8 nd National Conference on Manufacturing Engineering, Paper No. 51276 on CD (in Farsi) | 2007 |
| 45. | Study on the Effects of Remanufacturing in Iran (M.H. Mamdoohi, J. Akbari) | 2 nd National Conference on Environmental Engineering, Tehran, Iran (Poster session) (in Farsi) | 2007 |
| 46. | New Rapid Molding for Making Hollow Plastic Parts using Low-Melting-Point Alloy (M.H. Gozin, J. Akbari) | 16 th Annual Conf. of Iranian Society of Mechanical Engineers, Kerman, Iran (in Farsi) | 2008 |
| 47. | Analytical 2-DOF Model of Chatter in Ultrasonic Elliptical Vibration Cutting (S. M. Yazdian, J. Akbari , M. R. Movahhedy) | 12 th CIRP Conference on Modelling of Machining Operations, May, Donostia-San Sebastian, Spain | 2009 |
| 48. | Study of the Effects of Miniaturization on Static and Dynamic Form Errors in Desktop Milling Machines (M. Vazirian, M.R. Movahhedi, J. Akbari) | ASME 2009 International Mechanical Engineering Congress & Exposition, IMECE2009, Nov., Florida, USA | 2009 |
| 49. | Machinability of Al/SiC DRA Composites (J. Akbari , M. Alaei, A.R. Rajabnejad) | Processing and Fabrication of Advanced Materials, PFAM18, Dec., Sendai, Japan, pp1489-1498 | 2009 |
| 50. | Innovative Method for Measuring Flow Rate in Micro Channels Using Ultrasonic (A. Soltani, J. Akbari) | 17 th Annual International Conference on Mechanical Engineering-ISME2009, Tehran, Iran | 2009 |
| 51. | Rapid Tooling for Molding Automotive Plastic Part Using Low Melting-Point Alloy, (M.H. Gozin, J. Akbari) | 9 th National Conference on Manufacturing Engineering, March, Birjand, Iran, p 227 (in Farsi) | 2009 |
| 52. | Automatic Lameness Detection in Dairy Cattle, Phenomenical View and Mechanistic View, (M.H. Honarvar, J. Akbari) | The 1 st Symposium on Ruminant Lameness in Iran and its Economic Effect on Production, April 29-May 1 st , Shiraz, Iran, p. 47 (in Farsi) | 2009 |
| 53. | A Model for Dynamic GRF Distribution in Dairy Cattle, (M.H. Honarvar, J. Akbari) | The 1 st Symposium on Ruminant Lameness in Iran and its Economic Effect on Production, April 29-May 1 st , Shiraz, Iran, p. 43 (in Farsi) | 2009 |
| 54. | Modeling and Optimization of an Elliptical Shape Ultrasonic Motor Using Combination of Finite Element Method and Design of Experiments (H. Sanikhani, J. Akbari , A. Shahidi, A. Darki) | ASME 2010 International Mechanical Engineering Congress & Exposition, Vancouver, Canada | 2010 |
| 55. | Optimization of Tool Life and Surface Quality when High Speed Milling of Stainless Steel 420 (M. Salehi, J. Akbari , H. Rezai) | 8 th Int Conf on High Speed Machining, Metz, France | 2010 |
| 56. | Study of the Effects of Miniaturization of Machine Tools on the Dimensional Surface Error in Peripheral Milling, (M. Vazirian, M.R. Movahhedi, J. Akbari) | 10 th Iranian Conf. on Manufacturing Engineering, 1-3 March, Babol, Iran, p. 50 | 2010 |
| 57. | Time Domain and Frequency Spectrum Analysis of Sound Signal for Drill Wear Detection (H. Rafezi, M. Behzad, J. Akbari) | 3 rd International Conference on Signal Acquisition and Processing (ICSAP 2011) Singapore | 2011 |

58.	Tool Condition Monitoring Based on Sound and Vibration Frequency Analysis and Wavelet Packet Decomposition (H. Rafezi, M.Behzad, J. Akbari)	24 th International Congress on Condition Monitoring and Diagnostics Engineering Management (COMADEM201), Norway	2011
59.	Correlation Between Cutting Performance and Variations of Mechanical Properties of Inconel 718 During End milling (H. Samavati, J. Akbari, A. Rahi)	First International Conference on Mechanical Engineering (ICME2011), Phuket, Thailand	2011
60.	Taguchi's Optimization in Ultrasonic Drilling of Alumina Ceramic (S. Mehdi Hoseini, Javad Akbari)	The 6 th International Conference on Leading Edge Manufacturing in 21 st Century, Saitama, Japan	2011
61.	Modeling and Optimization of an Ultrasonic Setup Based on Combination of FEM and Mathematical Full Factorial Design (Mohsen Ghahramani_Nick, Javad Akbari, Mohammad.R Movahhedy, S.Mehdi Hoseini)	The 6 th International Conference on Leading Edge Manufacturing in 21 st Century, Saitama, Japan	2011
62.	FEM Analysis of Single Grit Chip Formation in Creep-feed Grinding of Inconel 718 Superalloy (A. Zahedi, J. Akbari)	International Symposium on Advances in Abrasive Technology (ISAAT), Stuttgart, Germany	2011
63.	Burr size reduction in drilling of Al/SiC metal matrix composite by ultrasonic assistance (Kadivar, M. A., Yousefi, R., Akbari, J., Rahi, A., Nikouei, S. M.)	20 th International Symposium on Processing and Fabrication of Advanced Materials, Hong Kong; 15 December	2011
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69.	Optimization of Grinding Process of Ti6Al4V Alloy Based on Design-of-Experiment Taguchi Method (M. Ghahramani Nick, J. Akbari, M.R. Movahhedi)	3 rd International and 12 th National Conference on Manufacturing Engineering, Tehran, Iran (in Farsi)	2011
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73.	Design and Manufacturing a wheelchair for Children with Rehabilitation Amenities (M.H. Faghihi, J. Akbari , M. Hoviattalab)	ICBME2012, International conference of Biomedical Engineering	2012
74.	Mechanical Behavior Analysis of Micro-Scaled Functionally Graded Timoshenko Beams by the Strain Gradient Theory (S. A. Tajalli, M. H. Kahrobaiyan, M. Rahaeifard, M. T. Ahmadian, M. R. Movahhedy and J. Akbari)	IDETC2012, Chicago, IL, USA, August 12-15	2012
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76.	Ultrasonic-Assisted Grinding of Ti6Al4V Alloys (M. Ghahramani Nik, M. Movahhedi, J. Akbari)	The 5th CIRP Conference on High Performance Cutting	2012
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79.	Ultrasonic assisted deep drilling of Inconel 738LC superalloy (V. Baghlani, J. Akbari et.al.)	17 th Int. Symposium on Electromachining, CIRP conference, Belgium	2013
80.	Ultrasonic assisted drilling of GFRP laminates (P. Mehbudi, J. Akbari et.al.)	17 th Int. Symposium on Electromachining, CIRP conference, Belgium	2013
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To be updated.....

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4. **Automatic Lameness Detection in Ruminators**, Patent No. IR71201, Iran, (**Akbari**, J.), 2011/08/23.
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