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Azadi St., Tehran, Iran 14588-89694

# 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

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

## Academic Experience

1995 to 2003

**Sharif University of Technology** Tehran, Iran  
**Assistant Professor**

2003 to date

**Sharif University of Technology** Tehran, Iran  
**Associate Professor**

2012.9 to 2014.9 (on sabbatical leave from Sharif University)

**University of Malaya** Kuala Lumpur, Malaysia  
**Visiting Professor**

2000.9 to 2003.7 (on leave from Sharif University)

**Tokyo Institute of Technology** Tokyo, Japan  
**Associate Professor**

## Research Interests

Abrasive Machining of New Materials, Precision Machining, Ultrasonic-Assisted Machining, Additive Manufacturing, Ultrasonic Motors, Cyber-Physical Machining, Microfabrication

## Teaching Experience

(U = Undergraduate, G = Graduate)

Machining & Cutting Tools (G), Surface Finishing Processes (G), Intelligent Integrated Manufacturing (G), Design and Manufacturing Engineering (G), Machine Tool Design (U), Manufacturing Processes and Workshop (U), Statics (U), Material Science (U), Engineering Design (U), Micro/Nano Fabrication Processes (G), Jig and Fixture Design (U)

**Teaching languages:** English, Japanese and Persian (Farsi)

## Industrial Experience

2016.11-2018.07

**Sharif Advanced Machinery Development Co. Ltd.** Tehran, Iran  
**Chairman of the Board**

Design and manufacturing of CNC machine tools

2003.11-2008.07

**Niroo Research Institute** Tehran, Iran

**Consultant**

Supervising the design, machining 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 center 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

**Chiba Prefectural Industrial Technology 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**

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
- Gold Prize for UML-V1 CNC Lathe Machine in the Seoul International Invention Fair 2012, Korea Invention Promotion Association, 2012
- Silver medal: International Conference Exposition on Invention of Institutions of Higher Learning, PECIPTA 2013 A Novel Design of CNC Gantry Machine with Double Motion Mechanism, 7-9 November 2013, Kuala Lumpur Convention Centre, 2013

## 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

Scopus

EXPORT DATE:03 Aug 2020

- 1) Barati, E., Akbari, J. The effect of injection parameters on dimensional accuracy of wax patterns for investment casting (2020) *Journal of Computational and Applied Research in Mechanical Engineering*, 9 (2), pp. 313-322.
- 2) Lotfi, M., Amini, S., Akbari, J. Surface integrity and microstructure changes in 3D elliptical ultrasonic assisted turning of Ti-6Al-4V: FEM and experimental examination (2020) *Tribology International*, 151, art. no. 106492.
- 3) Nasiri, R., Shamloo, A., Akbari, J., Tebon, P., Dokmeci, M.R., Ahadian, S. Design and simulation of an integrated centrifugal microfluidic device for CTCs separation and cell lysis (2020) *Micromachines*, 11 (7), art. no. 699.
- 4) Nasiri, R., Shamloo, A., Ahadian, S., Amirifar, L., Akbari, J., Goudie, M.J., Lee, K., Ashammakhi, N., Dokmeci, M.R., Di Carlo, D., Khademhosseini, A. Microfluidic-Based Approaches in Targeted Cell/Particle Separation Based on Physical Properties: Fundamentals and Applications (2020) *Small*, 16 (29), art. no. 2000171
- 5) Khanaki, H.R., Rahmati, S., Nikkhoo, M., Haghpanahi, M., Akbari, J. Numerical and analytical simulation of multilayer cellular scaffolds (2020) *Journal of the Brazilian Society of Mechanical Sciences and Engineering*, 42 (5), art. no. 268,
- 6) Heidari, M., Akbari, J., Yan, J. Effects of tool rake angle and tool nose radius on surface quality of ultraprecision diamond-turned porous silicon (2019) *Journal of Manufacturing Processes*, 37, pp. 321-331
- 7) Dabbagh, V., Sarhan, A.A.D., Akbari, J., Mardi, N.A. Electromechanical modeling and high speed design of a tubular ultrasonic motor (2019) *International Journal of Acoustics and Vibrations*, 24 (2), pp. 253-261
- 8) Asqari, M.A., Akbari, J. Investigation of cohesive FE modeling to predict crack depth during deep-scratching on optical glasses (2018) *Ceramics International*, 44 (14), pp. 16781-16790.
- 9) Sanikhani, H., Akbari, J. Design and analysis of an elliptical-shaped linear ultrasonic motor (2018) *Sensors and Actuators, A: Physical*, 278, pp. 67-77.
- 10) Ahmadi Dastjerdi, A., Movahhedy, M.R., Akbari, J. Optimization of process parameters for reducing warpage in selected laser sintering of polymer parts (2017) *Additive Manufacturing*, 18, pp. 285-294.
- 11) Dabbagh, V., Sarhan, A.A.D., Akbari, J., Mardi, N.A. Design and manufacturing of ultrasonic motor with in-plane and out-of-plane bending vibration modes of rectangular plate with large contact area (2017) *Measurement: Journal of the International Measurement Confederation*, 109, pp. 425-431.
- 12) Zahedi, A., Azarhoushang, B., Akbari, J. Conditioning of vitrified and resin bond CBN grinding wheels using a picosecond laser (2017) *Scientia Iranica*, 24 (5), pp. 2369-2378.
- 13) Dabbagh, V., Sarhan, A.A.D., Akbari, J., Mardi, N.A. Design and experimental evaluation of a precise and compact tubular ultrasonic motor driven by a single-phase source (2017) *Precision Engineering*, 48, pp. 172-180.
- 14) Molaie, M.M., Akbari, J., Movahhedy, M.R. Ultrasonic assisted grinding process with minimum quantity lubrication using oil-based nanofluids (2016) *Journal of Cleaner Production*, 129, pp. 212-222.
- 15) Besharati, S.R., Dabbagh, V., Amini, H., Sarhan, A.A.D., Akbari, J., Hamdi, M., Ong, Z.C. Multi-objective selection and structural optimization of the gantry in a gantry machine tool for improving static, dynamic, and weight and cost performance (2016) *Concurrent Engineering Research and Applications*, 24 (1), pp. 83-93.
- 16) Baghlani, V., Mehbudi, P., Akbari, J., Nezhad, E.Z., Sarhan, A.A.D., Hamouda, A.M.S. 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 (2016) *International Journal of Advanced Manufacturing Technology*, 82 (5-8), pp. 877-888.

- 17) Keikhaie, M., Movahhedy, M.R., Akbari, J., Alemohammad, H. Numerical study of material properties, residual stress and crack development in sintered silver nano-layers on silicon substrate (2016) *Scientia Iranica*, 23 (3), pp. 1037-1047.
- 18) Amini, H., Rezaei, S.M., Sarhan, A.A.D., Akbari, J., Mardi, N.A. Transparency Improvement by External Force Estimation in a Time-Delayed Nonlinear Bilateral Teleoperation System (2015) *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, 137 (5), art. no. 051013
- 20) Besharati, S.R., Dabbagh, V., Amini, H., Sarhan, A.A.D., Akbari, J., Hamdi, M. Nonlinear Dynamic Analysis of a New Antibacklash Gear Mechanism Design for Reducing Dynamic Transmission Error (2015) *Journal of Mechanical Design, Transactions of the ASME*, 137 (5), art. no. 054502
- 21) Zahedi, A., Tawakoli, T., Akbari, J. Energy aspects and workpiece surface characteristics in ultrasonic-assisted cylindrical grinding of alumina-zirconia ceramics (2015) *International Journal of Machine Tools and Manufacture*, 90, pp. 16-28.
- 22) Kadivar, M.A., Akbari, J., Yousefi, R., Rahi, A., Nick, M.G. Investigating the effects of vibration method on ultrasonic-assisted drilling of Al/SiCp metal matrix composites (2014) *Robotics and Computer-Integrated Manufacturing*, 30 (3), pp. 344-350.
- 23) Tajalli, S.A., Movahhedy, M.R., Akbari, J. Simulation of orthogonal micro-cutting of FCC materials based on rate-dependent crystal plasticity finite element model (2014) *Computational Materials Science*, 86, pp. 79-87.
- 24) Keikhaie, M., Akbari, J., Movahhedi, M.R., Alemohammad, H. Sintering characterizations of Ag-nano film on silicon substrate (2014) *Advanced Materials Research*, 829, pp. 342-346.
- 25) Kadivar, M., Akbari, J., Vakili Azghandi, B. Investigating the effect of ultrasonic vibration on hole accuracy in drilling of metal matrix composites (2014) *Advanced Materials Research*, 966-967, pp. 137-141.
- 26) Tajalli, S.A., Movahhedy, M.R., Akbari, J. Chatter instability analysis of spinning micro-end mill with process damping effect via semi-discretization approach (2014) *Acta Mechanica*, 225 (3), pp. 715-734.
- 27) Zahedi, A., Tawakoli, T., Azarhoushang, B., Akbari, J. Picosecond laser treatment of metal-bonded CBN and diamond superabrasive surfaces (2014) *International Journal of Advanced Manufacturing Technology*, 76 (5-8), pp. 1479-1491.
- 28) Zahedi, A., Tawakoli, T., Akbari, J., Azarhoushang, B. Conditioning of Vitrified Bond CBN grinding wheels using a picosecond laser (2014) *Advanced Materials Research*, 1017, pp. 573-579.
- 29) Tajalli, S.A., Rahaeifard, M., Kahrobaiyan, M.H., Movahhedy, M.R., Akbari, J., Ahmadian, M.T. Mechanical behavior analysis of size-dependent micro-scaled functionally graded Timoshenko beams by strain gradient elasticity theory (2013) *Composite Structures*, 102, pp. 72-80
- 30) Tajalli, S.A., Movahhedy, M.R., Akbari, J. Size dependent vibrations of micro-end mill incorporating strain gradient elasticity theory (2013) *Journal of Sound and Vibration*, 332 (15), pp. 3922-3944.
- 31) Tawakoli, T., Akbari, J., Zahedi, A.M. Ultrasonic-assisted cylindrical grinding of Alumina-zirconia ceramics (2013) *ASME International Mechanical Engineering Congress and Exposition, Proceedings (IMECE)*, 2 A, .
- 32) Baghlani, V., Mehbudi, P., Akbari, J., Sohrabi, M. Ultrasonic assisted deep drilling of Inconel 738LC superalloy (2013) *Procedia CIRP*, 6, pp. 571-576.
- 33) Mehbudi, P., Baghlani, V., Akbari, J., Bushroa, A.R., Mardi, N.A. Applying ultrasonic vibration to decrease drilling-induced delamination in GFRP laminates (2013) *Procedia CIRP*, 6, pp. 577-582.
- 34) Tajalli, S.A., Kahrobaiyan, M.H., Rahaeifard, M., Ahmadian, M.T., Movahhedy, M.R., Akbari, J. Mechanical behavior analysis of micro-scaled functionally graded timoshenko beams by the strain gradient theory (2012) *Proceedings of the ASME Design Engineering Technical Conference*, 5, pp. 67-73.
- 35) Rafezi, H., Akbari, J., Behzad, M. Tool condition monitoring based on sound and vibration analysis and wavelet packet decomposition (2012) *2012 8th International Symposium on Mechatronics and its Applications, ISMA 2012*, art. no. 6215170
- 36) Tajalli, S.A., Movahhedy, M.R., Akbari, J. Investigation of the effects of process damping on chatter instability in micro end milling (2012) *Procedia CIRP*, 1 (1), pp. 156-161.
- 37) Nik, M.G., Movahhedy, M.R., Akbari, J. Ultrasonic-assisted grinding of Ti6Al4V alloy (2012) *Procedia CIRP*, 1 (1), pp. 353-358.

- 38) Kadivar, M.A., Akbari, J., Yousefi, R. Investigation of ultrasonic-assisted drilling of Al/SiC metal matrix composite with Taguchi method (2012) *Key Engineering Materials*, 523-524, pp. 215-219
- 39) Kadivar, M.A., Yousefi, R., Akbari, J., Rahi, A., Nikouei, S.M. Burr size reduction in drilling of Al/SiC metal matrix composite by ultrasonic assistance (2012) *Advanced Materials Research*, 410, pp. 279-282
- 40) Hoseini, S.M., Akbari, J. Taguchi's optimization in ultrasonic drilling of alumina ceramic (2011) *Proceedings of the 6th International Conference on Leading Edge Manufacturing in 21st Century, LEM 2011*, 4 p.
- 41) Ghahramani-Nick, M., Movahhedy, M.R., Akbari, J. Study the influence of ultrasonic vibration on grinding of Ti6Al4V (2011) *Proceedings of the 6th International Conference on Leading Edge Manufacturing in 21st Century, LEM 2011*, 6 p.
- 42) Ghahramani-Nick, M., Akbari, J., Movahhedy, M.R., Hoseini, S.M. Modeling and optimization of an ultrasonic setup based on combination of finite element method and mathematical full factorial design (2011) *Advanced Materials Research*, 320, pp. 553-558.
- 43) Zahedi, A., Akbari, J. FEM analysis of single grit chip formation in creep-feed grinding of Inconel 718 superalloy (2011) *Advanced Materials Research*, 325, pp. 128-133.
- 44) Kahrobaiyan, M.H., Tajalli, S.A., Movahhedy, M.R., Akbari, J., Ahmadian, M.T. Torsion of strain gradient bars (2011) *International Journal of Engineering Science*, 49 (9), pp. 856-866.
- 45) Sanikhani, H., Akbari, J., Shahidi, A.R., Darki, A.A. Modeling and optimization of an elliptical shape ultrasonic motor using combination of finite element method and design of experiments (2010) *ASME International Mechanical Engineering Congress and Exposition, Proceedings (IMECE)*, 8 (PARTS A AND B), pp. 491-496.
- 46) Vazirian, M., Movahhedy, M.-R., Akbari, J. Study of the effects of miniaturization on static and dynamic form errors in desktop milling machines (2010) *ASME International Mechanical Engineering Congress and Exposition, Proceedings*, 4, pp. 587-595.
- 47) Rahmati, S., Rezaei, M.R., Akbari, J. Design and Manufacture of a Wax Injection Tool for Investment Casting Using Rapid Tooling (2009) *Tsinghua Science and Technology*, 14 (SUPPL. 1), pp. 108-115.
- 48) Ramezani, A., Alasty, A., Akbari, J. Analytical investigation and numerical verification of Casimir effect on electrostatic nano-cantilevers (2008) *Microsystem Technologies*, 14 (2), pp. 145-157
- 49) Ramezani, A., Alasty, A., Akbari, J. Closed-form approximation and numerical validation of the influence of van der Waals force on electrostatic cantilevers at nano-scale separations (2008) *Nanotechnology*, 19 (1), art. no. 015501.
- 50) Ramezani, A., Alasty, A., Akbari, J. Pull-in parameters of cantilever type nanomechanical switches in presence of Casimir force (2007) *Nonlinear Analysis: Hybrid Systems*, 1 (3), pp. 364-382
- 51) Hosseinkhani, Y., Akbari, J., Vafaeseefat, A. Penetration-elimination method for five-axis CNC machining of sculptured surfaces (2007) *International Journal of Machine Tools and Manufacture*, 47 (10), pp. 1625-1635.
- 52) Ramezani, A., Alasty, A., Akbari, J. Closed-form solutions of the pull-in instability in nano-cantilevers under electrostatic and intermolecular surface forces (2007) *International Journal of Solids and Structures*, 44 (14-15), pp. 4925-4941.
- 53) Azarhoushang, B., Akbari, J. Ultrasonic-assisted drilling of Inconel 738-LC (2007) *International Journal of Machine Tools and Manufacture*, 47 (7-8), pp. 1027-1033.
- 54) Rahmati, S., Akbari, J., Barati, E. Dimensional accuracy analysis of wax patterns created by RTV silicone rubber molding using the Taguchi approach (2007) *Rapid Prototyping Journal*, 13 (2), pp. 115-122
- 55) Rahimi Dizaji, V., Rahmani, M., Faghihi Sani, M., Nemati, Z., Akbari, J. Microstructure and cutting performance investigation of Ti(C, N)-based cermets containing various types of secondary carbides (2007) *International Journal of Machine Tools and Manufacture*, 47 (5 SPEC. ISS.), pp. 768-772
- 56) Ramezani, A., Akbari, J., Alasty, A. Influence of van der Waals force on the pull-in parameters of cantilever type nanoscale electrostatic actuators (2006) *Proceedings of 8th Biennial ASME Conference on Engineering Systems Design and Analysis, ESDA2006*, 2006, 7 p.
- 57) Ramezani, A., Alasty, A., Akbari, J. Effects of rotary inertia and shear deformation on nonlinear free vibration of microbeams (2006) *Journal of Vibration and Acoustics, Transactions of the ASME*, 128 (5), pp. 611-615.

- 59) Ramezani, A., Alasty, A., Akbari, J. Influence of van der Waals force on the pull-in parameters of cantilever type nanoscale electrostatic actuators (2006) *Microsystem Technologies*, 12 (12), pp. 1153-1161
- 60) Ramezani, A., Alasty, A., Akbari, J. Pull-in parameters of cantilever type nanomechanical switches in presence of Casimir force (2006) *Proceedings of 8th Biennial ASME Conference on Engineering Systems Design and Analysis, ESDA2006*, 2006, 8 p.
- 61) Dalir, H., Hatsuzawa, T., Akbari, J., Farshidianfar, A. Effects of axial load on wave propagation in double-walled carbon nanotubes used as a flexible tip in AFM (2005) *Proceedings of the ASME International Design Engineering Technical Conferences and Computers and Information in Engineering Conference - DETC2005*, 1 A, pp. 433-439.
- 62) Akbari, J., Imamura, M., Tanaka, T., Saito, Y. Using ultrasound for measuring grasping force of robot soft finger (2004) *JSME International Journal, Series C: Mechanical Systems, Machine Elements and Manufacturing*, 47 (1), pp. 175-179.
- 63) Akbari, J., Oyamada, K., Saito, Y. LCA of machine tools with regard to their secondary effects on quality of machined parts (2001) *Proceedings - 2nd International Symposium on Environmentally Conscious Design and Inverse Manufacturing*, art. no. 992379, pp. 347-352.
- 64) Akbari, J., Saito, Y., Hanaoka, T., Higuchi, S., Enomoto, S. Effect of grinding parameters on acoustic emission signals while grinding ceramics (1996) *Journal of Materials Processing Technology*, 62 (4), pp. 403-407.
- 65) Akbari, J., Saito, Y., Hanaoka, T., Enomoto, S. Using Acoustic Emission for Monitoring of Grinding Process of Fine Ceramics (Sensitivity of AE to Grain Depth of Cut) (1995) *JSME International Journal, Series C: Dynamics, Control, Robotics, Design and Manufacturing*, 38 (1), pp. 175-180.
- 66) Akbari, Javad, Saito, Yoshio, Higuchi, Shizuichi, Hanaoka, Tadaaki Analysis of acoustic emission signals during pendular scratching of fine ceramics (1995) *Technical Paper - Society of Manufacturing Engineers*. MR, 6 p.
- 67) Akbari, Javad, Saito, Yoshio, Hanaoka, Tadaaki, Enomoto, Shinzo Acoustic emission and deformation mode in ceramics during indentation (1994) *JSME International Journal, Series A: Mechanics and Material Engineering*, 37 (4), pp. 488-494.
- 68) Ichida, Y., Kishi, K., Hasuda, Y., Akbari, J. Study on Mirror Finish Grinding of Fine Ceramics (1st Report) —Fundamental Consideration on Mechanism of Surface Generation—(1991) *Journal of the Japan Society for Precision Engineering*, 57 (8), pp. 1406-1412.

## International Conference Proceedings

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|----|--|--|------|
| 1. | Mirror Finish Grinding of Silicon Nitride Ceramics (Ichida, Y., Kishi, K., Machida, T. and <b>Akbari, J.</b> )   | Proc. 1 <sup>st</sup> Int. Conf. on New Manufacturing Tech. Japan, pp. 317-320 | 1990 |
| 2. | Grinding Energy of Fine Ceramics ( <b>Akbari, J.</b> Ichida, Y., Kishi, K., and Machida, T.)   | Proc. 1 <sup>st</sup> Int. Conf. on New Manufacturing Tech. Japan, pp. 323-328 | 1990 |
| 3. | Grinding Energy of Fine Ceramics ( <b>Akbari, J.</b> , 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 <b>Akbari, J.</b> )             | 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 ( <b>Akbari, J.</b> , Saito, Y., Hanaoka, T. and Enomoto, S.) | Proc. MICHT '91, Chiba, Japan, pp. 321-326                                     | 1991 |
| 6. | Acoustic Emission During Scratching of Fine Ceramics ( <b>Akbari, J.</b> , Saito, Y., Hanaoka, T., and Enomoto, S.)  | Proc. Spring Conf. of JSPE Tokyo, pp. 961-962 (in Japanese)                    | 1991 |

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| 7.  | Acoustic Emission During Multipoint Scratching of Fine Ceramics ( <b>Akbari, J.</b> , 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., <b>Akbari, J.</b> , 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 ( <b>Akbari, J.</b> , Saito, Y., Hanaoka, T. and Enomoto, S.)  | 1 <sup>st</sup> Int. Conf. NDT, Tehran, Iran, (in Farsi)  | 1993 |
| 10. | Monitoring of Ceramics Grinding by Use of Acoustic Emission ( <b>Akbari, J.</b> , 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 ( <b>Akbari, J.</b> , Saito, Y., Hanaoka, T., Higuchi, S., and Enomoto, S.)                              | Proc. 7 <sup>th</sup> Int. Conf. Production/Precision Eng., 4 <sup>th</sup> Int. Conf. High Tech. Chiba, Japan, pp. 362-367                         | 1994 |
| 12. | AE Characteristics in Pendular Scratching of Ceramics ( <b>Akbari, J.</b> , 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 ( <b>Akbari, J.</b> , Saito, Y., Higuchi, S., Hanaoka, T. and Enomoto, S.) | Int. Conf. Precision Eng. '95 (2 <sup>nd</sup> ICMT), Singapore, pp. 40-43  | 1995 |
| 14. | Analysis of Orthogonal Cutting Using FEM (Naghdabadi, R., <b>Akbari, J.</b> , and Basti, A.)   | Proc. 6 <sup>th</sup> Annual and 3 <sup>rd</sup> 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 ( <b>Akbari, J.</b> and Naghdabadi, R.)   | Proc. JSME Annual Conf., Tokyo, pp. 21-22   | 1999 |
| 16. | Design and Manufacturing of a Dynamometer for Measuring the Machining Forces ( <b>Akbari, J.</b> , and Dalil, N.)  | Proc. 4 <sup>th</sup> Conf. Of Manufacturing Engg, Tehran, pp. 134-142 (in Farsi)   | 1999 |
| 17. | Investigation the Effects of Grinding Parameters on Strength Degradation of Engineering Ceramics ( <b>Akbari, J.</b> , and Abadi, T.)  | Proc. 4 <sup>th</sup> 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., <b>Akbari, J.</b> , and Basti, A.)                        | Proc. 4 <sup>th</sup> Conf. Of Manufacturing Engg, Tehran, 106-113 (in Farsi)   | 1999 |
| 19. | Grinding of Fine Ceramics ( <b>Akbari, J.</b> , and Abadi, T.)   | Proc. 7 <sup>th</sup> 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., <b>Akbari, J.</b> , and Basti, A.)   | Proc. 7 <sup>th</sup> 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 ( <b>Akbari, J.</b> , Oyamada, K., and Saito, Y.)   | Proc. EcoDesign 2001, 2 <sup>nd</sup> Int. Symp. On Environmentally Conscious Design & Inverse Manufacturing, 11-15 Dec., Tokyo, Japan, pp. 347-352 | 2001 |

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| 22. | Sensor Integrated Locator for Intelligent Fixture ( <b>Akbari, J.</b> , Utada., E., Tanaka, T., and Saito, Y.)  | Proc. 6 <sup>th</sup> 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., <b>Akbari, J.</b> , Saito, Y.)   | Poster Session, JIMTOF2002, The 21 <sup>st</sup> Japan Int. Machine Tool Fair, Oct. 28- Nov. 4, Tokyo.      | 2002 |
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