

**Mohammad Bakhshi-Jooybari**  
**Faculty of Mechanical Engineering**  
**Babol Noshirvani University of Technology**  
**Babol, Mazandaran, Iran**

**Personal Details:****First Name:** Mohammad**Family Name:** Bakhshi-Jooybari**Profession:** Academic staff of Babol Noshirvani University of Technology**Academic position:** Professor**EDUCATION****Ph.D:** Birmingham University, School of Manuf. & Mech. Eng., UK, 1/93 to 9/95**Thesis:** “Development of an Intelligent Knowledge-Based System (IKBS) for Forging Die Design”**MSc:** Tarbiat Modarres University, Mech. Eng. Dept., Tehran, Iran, 9/88 to 9/91**Thesis:** “Computer-Aided Design of Axisymmetric Forging Dies”**Major:** Master of Mech. Eng.**B.Sc:** Amir Kabir Univ. of Technology, Mech. Eng. Dept., Tehran, Iran, 9/79 to 2/87**Major:** Mech. Eng.**EXPERIENCE****1-Industry**

1. CAD/CAM of forging dies, Arak Machine Design & Manufacture Company, Ministry of Industries, Iran. *(1/90 to 10/92)*
2. Collaboration with several companies in doing research project, such as HESA, SAASAD, SHAHID HEMMAT, etc. *(2005 to now)*

**2-University Activities**

- a-* Teaching some basic and advanced courses of mechanical engineering (see next paragraph) at Mazandaran University. *(1/95 to now)*
- b-* Principal for Research of Mazandaran University. *(11/96 to 8/98)*
- c-* Dean of Faculty of Engineering, Mazandaran University. *(8/98 to 9/2000)*
- d-* Vice-Chancellor for Research of Mazandaran University. *(9/2000 to 10/2001)*
- e-* Vice-Chancellor for Education of Mazandaran University. *(10/2001 to 6/2004)*

- f-* Member of Editorial Board of Journal of Engineering of Mazandaran University (9/98 to now)
- g-* Member of Babol Noshirvani University of Technology Council (2008 to 2009)

### 3- Supervisor of Postgraduate students:

#### 3-1 Msc Students (the title of some of the thesis are given)

- 1 Experimental study and numerical simulation of tube hydroforming of industrial parts.
- 2 Experimental study and numerical simulation of sheet hydroforming of industrial parts.
- 3 Experimental study and numerical simulation of the effect of the die profile in forward extrusion.
- 4 Experimental study and numerical simulation of the effect of the die profile in backward extrusion.
- 5 Experimental study and numerical simulation of the effect of the die geometry in deep drawing.

#### 3-2 PhD Students (the title of theses is given)

- 1 Mechanism of improvement of formability in pulsing tube hydroforming
- 2 Experimental study and numerical simulation of tube hydroforming of industrial parts.
- 3 A new die design for sheet hydroforming of industrial parts
- 4 A new die design for hydroforming of conical parts

## 4-COURSES TAUGHT

### a- Undergraduate Courses

1. *Manufacturing Processes*
2. *Applied Plasticity and Metal forming Processes*
3. *Computer Numerical Control (CNC)*
4. *Computer-Aided Design and Manufacture (CAD/CAM)*
5. *Forging Die Design*

### b- Graduate Courses

1. *Advanced Metal Forming Processes*
2. *Plasticity*
3. *Finite Element Method and the Metal Forming Processess*

## PUBLICATIONS

### a-Journals Papers

1. **Bakhshi-Jooybari, M.; Pillinger, I.; Dean, T. A. and Hartley, P. (1994),** Development of an IKBS for forging die design, *J. Matrials Processing Technology*, 45, pp. 689-694.

2. **Bakhshi-Jooybari, M.; Pillinger, I.; Dean, T. A. and Hartley, P. (1996)**, Development of product and process comparison criteria for an IKBS for forging die design, *IMechE J. Engineering Manufacture*, 210, pp. 565-578.
3. **Bakhshi-Jooybari, M.; Pillinger, I.; Dean, T. A. and Hartley, P. (1996)**, Finite-element simulation and experimental study of hot closed-die upsetting, *Int. J. Mach. Tools Manufact*, 36, p., 1021-1032.
4. **Nategh, M. J. and Bakhshi, M. (1998)**, AXIFOGE: A PC-based forging design program for computer-integrated engineering environments, *Int. J. Computer Applications in Technology (ISI)*, 11, pp.33-44.
5. **Bakhshi-Jooybari, M. (2002)**, A theoretical and experimental study of friction in metal forming by the use of the forward extrusion process, *J. Materials Processing Technology (ISI)*, 125, pp 369-374.
6. **Noorani-Azad, M.; Bakhshi-Jooybari, M.; Hosseinipour, S. J. and Gorji, A. (2005)**, Experimental and numerical study of optimum die profile in cold forward extrusion of aluminum, *J. Materials Processing Technology (ISI)*, 164-165, pp 1572-1577.
7. **Bakhshi-Jooybari, M.; Saboori, M.; Hosseinipour, S. J.; Shakeri, M. and Gorji, A. (2006)**, Experimental and numerical study of optimum die profile in backward rod extrusion, *J. Materials Processing Technology (ISI)*, 177, pp 596-599.
8. **Bakhshi-Jooybari, M.; Saboori, M.; Noorani-Azad, M. and (2006)**, Experimental and numerical study of energy consumption in forward and backward extrusion, *J. Materials Processing Technology (ISI)*, 177, pp 612-616.
9. **Bakhshi-Jooybari, M.; Saboori, M.; Noorani-Azad, M.; Hosseinipour, S. J. (2007)**, Combined upper bound and slab method, finite element and experimental study of optimum die profile in extrusion, *J. Materials & Design (ISI)*, Vol. 28, pp. 1812-1818.
10. **Bakhshi, M.; Damirchi, A. and Gorji, A. (2007)**, The study of the effect of die geometrical parameters in deep drawing process of annealed aluminum 1050, *J. Faculty of Engineering, University of Tabriz, Vol. 34, No. 2, pp. 11-22 (in Persian)*.
11. **Loh-Mousavi, M.; Mori, K.; Hyashi, K.; Maki, S. K. and Bakhshi, M. (2007)**, 3-D finite-element simulation of pulsating T-shape hydroforming of tubes, *Key Engineering Materials, Vol. 340-341, pp. 353-358*.
12. **Loh-Mousavi, M.; Mori, K.; Hyashi, K. and Bakhshi-Jooybari, M. (2007)**, Improvement of Filling of Die Corners in Box-Shaped Tube Hydroforming by Control of Wrinkling, *Key Engineering Materials, Vol. 344, pp. 461-46*.
13. **Loh-Mousavi, M.; Bakhshi, M.; Mori, K.; Maeno, T.; Farzin, M. and Hosseinipour, S.J. (2008)**, 3-D finite element simulation of pulsating free bulge hydroforming of tubes, *Iranian Journal of Science & Technology (ISI), Trans. B, Vol. 32, No. B6, pp. 611-618*.
14. **Loh-Mousavi, M.; Bakhshi-Jooybari, M.; Mori, K.; and Hyashi, K. (2008)**, Improvement of formability in T-shape hydroforming of tubes by pulsating pressure, *IMechE Journal of Engineering Manufacture (ISI)*, Vol. 222, pp. 1139-1146.
15. **Bakhshi-Jooybari, M.; Rahmani, B.; Daezadeh, V. and Gorji, A. (2008)**, The study of springback of CK67 steel sheet in V-die and U-die bending, *J. Materials & Design (ISI)*, in press.
16. **Rahmani, B.; Alinejad, G.; Bakhshi-Jooybari, M. and Gorji, A.,** An investigation on springback/negative springback phenomena using finite element simulation and

- experimental approach, *IMechE Journal of Engineering Manufacture (ISI)*, Vol. 223, pp. 841-850.
17. Elyasi, M.; Bakhshi-Jooybari, M.; Gorji, A.; Nourouzi, S. and Alinejad, G. (2008), Numerical and experimental investigation on forming metallic bellows in closed and open die hydroforming, *Steel Research International (ISI)*, Vol. 79, pp. 148-154.
  18. Bakhshi-Jooybari, M.; Elyasi, M.; Gorji, A.; Alinejad, G.; Hosseinipour, S. J.; and Nourouzi, S., Investigation of die corner filling in hydroforming of cylindrical stepped tubes using finite element simulation and experiment, *Key Engineering Materials*, Vol. 410-411, pp. 335-343.
  19. Elyasi, M.; Bakhshi-Jooybari, M.; Gorji, A.; Hosseinipour, S. J.; and Nourouzi, S., New die design for improvement of die corner filling in hydroforming of cylindrical stepped tubes, *IMechE Journal of Engineering Manufacture (ISI)*, Vol. 223, pp. 821-827.
  20. Elyasi, M.; Bakhshi-Jooybari, M. and Gorji, A. , Mechanism of improvement of die corner filling in a new hydroforming die for stepped tubes, *J. Materials & Design (ISI)*, Vol. 30, pp. 3824-3830.

#### **b- Conference papers (some)**

1. Bakhshi-Jooybari, M.; Pillinger, I.; Dean, T. A. and Hartley, P. (1996), *Proc. of the 1996 Eng. Systems Design & Analysis Conf., Vol. 3, pp. 151-158, Montpellier, France, July 1-4.*
2. Bakhshi-Jooybari, et al., (1999), Design and manufacture of a typical machine center table, *Proceeding of the 4th Manufacturing Eng. Conferenc, Vol. 1 pp. 355-364, Amir Kabir University of Technology, Tehran, Iran*
3. Loh-Mousavi, M. ; Bakhshi-Jooybari, M. and Hojjati (in Persian)., M. S., (2002), Finite-element simulation and experimental study of cold aluminum extrusion, *Proceeding of the 10<sup>th</sup> int. conference of Mechanical Engineering of Iran, pp. 915-921, Khajeh Nasir Toosi University of Technology, Tehran, Iran (in Persian).*
4. Bakhshi-Jooybari, M. and Hojjati, M. S., (2002), Using forward extrusion process in determination of friction factor in metal forming, *Proceeding of the 10<sup>th</sup> int. conference of Mechanical Engineering of Iran, pp. 193-200, Khajeh Nasir Toosi University of Technology, Tehran, Iran.*
5. Bakhshi-Jooybari, M., The study of billet temperature on die cavity filling in hot closed-die upsetting, proceeding of the 6<sup>th</sup> ESAFORM conference on material forming, Salerno, Italy, April 28-30, 2003.
6. Loh-Mousavi, M. and Bakhshi-Jooybari, M., Experimental study and modelling of hot closed-die upsetting by the finite element and finite volume techniques, proceeding of the 6<sup>th</sup> ESAFORM conference on material forming, Salerno, Italy, April 28-30, 2003.
7. Loh-Mousavi, M. and Bakhshi-Jooybari, M. (2003), An integrated computer aided design and simulation system for forging of connecting rod, *Proceeding of the 6th Manufacturing Eng. Conferenc, Amir Kabir University of Technology, Tehran, Iran.*
8. Loh-Mousavi, M. and Bakhshi-Jooybari, M (2004), Experimental study and finite volume simulation of hot extrusion of steel, *Proceeding of the 12<sup>th</sup> int. conference of*

- Mechanical Engineering of Iran, pp. 321-333, Tarbiat Modares University, Tehran, Iran.*
9. **Noorani-Azad, M.; Bakhshi-Jooybari, M. (2005)**, Optimum die profile in cold forward rod extrusion, *Proceeding of the 13<sup>th</sup> int. conference of Mechanical Engineering of Iran, Isfahan University of Technology, Isfahan, Iran.*
  10. **Saboori, M.; Bakhshi-Jooybari, M. (2005)**, Optimum die profile in cold backward rod extrusion, *Proceeding of the 13<sup>th</sup> int. conference of Mechanical Engineering of Iran, Isfahan University of Technology, Isfahan, Iran.*
  11. **Sarlak, M.; Hosseinipour, S. J. and Bakhshi-Jooybari, M. (2005)**, Obtaining forging preform die by reverse metal flow by the use of FEM, *Proceeding of the 13<sup>th</sup> int. conference of Mechanical Engineering of Iran, Isfahan University of Technology, Isfahan, Iran.*
  12. **Saboori, M., Bakhshi-Jooybari, M., Hosseinipour, S. J., Shakeri, M. and Gorji, A. (2005)**, Experimental and numerical study of optimum die profile in backward rod extrusion of lead, *Proceeding of the 1st Tehran Int. Conf. on Manufacturing Eng., Tehran, Iran.*
  13. **Biglari, F. R., Bakhshi-Jooybari, M., Ghatrehnabi, M., Rohani, A. and Nikbin, N.,** Influence of height and location of V-ring indenter on void volume fraction variations during fine blanking process, *Proceeding of the 1st Tehran Int. Conf. on Manufacturing Eng., Tehran, Iran.*
  14. **Rahi, M., Shakeri, M., Bakhshi, M.,** Development of setup-free machining technology of plate like components (software and hardware), *Proceeding of the 1st Tehran Int. Conf. on Manufacturing Eng., Tehran, Iran.*
  15. **PourMohammad, A.A., Bakhshi-Jooybari, M. and Mohammadi-Daniali, H.R., (2006)** The study of the effect of die profile in extrusion process using FEM simulation, *Proceeding of the 14<sup>th</sup> int. conference of Mechanical Engineering of Iran, Isfahan University of Technology, Isfahan, Iran.*
  16. **Elyasi, M. and Bakhshi-Jooybari, M.,** Experimental study of the effect of billet geometry on metal flow in precision closed-die forging (2006), *Proceeding of the 14<sup>th</sup> int. conference of Mechanical Engineering of Iran, Isfahan University of Technology, Isfahan, Iran.*
  17. **Loh-Mousavi, M., Mori, Ken-ichiro, Hayashi, K. and Bakhshi-Jooybari, M.,** Mechanism of improvement and shape accuracy in pulsating hydroforming of tube with box die (2006), *The proceedings of the 2006 Japanese spring conference for the technology of plasticity, Osaka, Japan.*
  18. **Loh-Mousavi, M., Mori, Ken-ichiro, Hayashi, K., Maki, S. and Bakhshi-Jooybari, M.,** 3-D finite element simulation of pulsating T-shape hydroforming of tubes (2006), *The 8<sup>th</sup> Asia-Pasific Symposium on Engineering Plasticity and its applications, Nagoya University, Nagoya, Japan.*
  19. **Elyasi, M.; Gorji, A.; Bakhshi-Jooybari, M. and Alinejad, G.,** A new die design for the hydroforming of stepped tubes, *AMPT 2008 Conference, Maname, Bahrain.*
  20. **Bakhshi-Jooybari, M.; Gorji, A.; Hosseinzadeh, M.; Jamshidi, M. and Alinejad, G.,** A new sheet hydroforming die for complex industrial parts, *AMPT 2008 Conference, Maname, Bahrain.*

**c- Books**

1. **Bakhshi-Jooybari, M. and Hojjati, M. H., (2001)**, The principles of manufacturing processes for metals, *Mazandaran University, Iran (in persian)*.
2. **Bakhshi-Jooybari, M., (2002)**, Computer-aided design and numerical control programming, *Mazandaran University, Iran (in persian)*.
3. **Hojjati, M. H., Bakhshi-Jooybari, M. and Damirchi, A., (2006)**, Mechanics of sheet metal forming processes, *Mazandaran University, Iran (in persian)*.
4. **Hojjati, M. H., Bakhshi-Jooybari, M. and Hosseinipour, S.J., (2006)**, Cold and Hot Forging, *Mazandaran University, Iran (in persian)*.