

**Curriculum Vitae**  
**Professor David A. Dornfeld**

Date of Birth August 3, 1949  
Place of Birth Horicon, Wisconsin, USA  
Postal Address Department of Mechanical Engineering  
University of California at Berkeley  
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**Education**

Ph.D. Mechanical Engineering  
University of Wisconsin - Madison, 1976  
M.S. Mechanical Engineering  
University of Wisconsin - Madison, 1973  
B.S. Mechanical Engineering, with honors  
University of Wisconsin - Madison, 1972

**Professional Experience**

July 2010 – Present Chair, Mechanical Engineering Department  
University of California at Berkeley  
January– June 2010 Acting Chair, Mechanical Engineering Department,  
University of California at Berkeley  
July 2005 – Present Special Division Deputy, Engineering Division, Ernst Orlando  
Lawrence Berkeley National Laboratory  
July 2001 – June 2008 Associate Dean of Interdisciplinary Studies, College of  
Engineering  
July, 1999 – Present Will C. Hall Family Professor of Engineering  
July, 1989 – Present Professor of Manufacturing Engineering  
Mechanical Engineering Department  
University of California at Berkeley  
September, 1992 – July, 1993 Invited Professor  
Ecole Nationale Supérieure d'Arts et Métiers - ENSAM  
Paris, France  
January 1989 – June, 1998 Director  
Engineering Systems Research Center, College of Engineering  
University of California at Berkeley  
January, 1987 – December, 1988 Vice-Chair of Instruction  
Department of Mechanical Engineering  
University of California at Berkeley  
1983 –1989 Associate Professor of Manufacturing Engineering  
Mechanical Engineering Department  
University of California at Berkeley

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|-------------------------------|---|
| September, 1983 – March, 1984 | Directeur de Recherche Associe<br>Ecole Nationale Superieure des Mines de Paris<br>Paris, France                              |
| 1977 –1983                    | Assistant Professor of Manufacturing Engineering<br>Mechanical Engineering Department<br>University of California at Berkeley |
| 1976 –1977                    | Assistant Professor<br>Systems - Design Department<br>University of Wisconsin - Milwaukee                                     |
| 1972 –1976                    | Teaching and Research Assistant<br>Mechanical Engineering Department<br>University of Wisconsin - Madison                     |

### Honors and Awards

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|------|---|
| 2010 | ASME William T. Ennor Manufacturing Technology Award  |
| 2009 | Fellow, School of Engineering at the University of Tokyo, Japan   |
| 2005 | Japan Society of Precision Engineering (JSPE) Takagi Award for Research on Planarization CMP and its Application Technologies |
| 2004 | Society of Manufacturing Engineers (SME) Frederick W. Taylor Research Medal   |
| 2000 | University of Wisconsin, Madison, College of Engineering Distinguished Service Citation                                       |
| 1999 | Will C. Hall Family Professor of Engineering (UC-Berkeley)  |
| 1989 | Pi Tau Sigma Excellence in Teaching Award<br>University of California at Berkeley   |
| 1986 | ASME Blackall Machine Tool and Gage Award   |
| 1982 | Outstanding Young Manufacturing Engineer Award<br>Society of Manufacturing Engineers  |
| 1976 | Second Award, Graduate Division<br>James F. Lincoln Foundation Engineering Student Design Competition                         |

### Professional Membership, Service and Honors

#### American Society of Mechanical Engineers (ASME)

- Fellow
- Past Editor, *Transactions of ASME, Journal of Industrial Engineering*
- Member, ASME Press Advisory Committee
- Past Chair, Production Engineering Division

#### Society of Manufacturing Engineers/Robotics International (SME/RI)

- Fellow
- Past International Director
- Past President, past Member of Scientific Committee, North American Manufacturing Research Institute (NAMRI/SME)

#### American Society of Precision Engineering (ASPE)

#### Japan Society of Precision Engineering

- International Member, Planarization CMP Committee

#### The International Academy for Production Engineering (CIRP)

- Fellow

- Past-Chair, Scientific Technical Committee on Cutting
- Chair, Editorial Committee
- Co-Chair, Energy Efficiency and Resources Effectiveness Working Group

**Materials Research Society (MRS)**

*Journal Machining Science and Technology*

- Member, Editorial Board

*Journal of Mechanical Science and Technology* (Korean Society of Mechanical Engineers)

- Member, International advisory Board

*International Journal of Precision Engineering and Manufacturing*, KSPE

- Co-editor

**Patents**

Method and Apparatus for Measurement of Vertical Density Profiles in Wood Composites Using Acoustic Emission, U.S. Patent Number 4,831,880, May 23, 1989.

Method and Apparatus for Measurement of Density Profiles in Wood Composites Using Acoustic Emission, U.S. Patent Number 4,854,172, August 8, 1989.

Acoustic Emission Transducer and Mounting Adapter for Monitoring Metalcutting Tools, U.S. Patent Number 4,922,754, May 8, 1990.

Control of Cavitation in Superplastic Forming through Use of Acoustic Emissions, U.S. Patent Number 4,936,128, June 26, 1990.

Semiconductor Wafer Chemical-Mechanical Planarization Process Monitoring and End-Point Detection Method and Apparatus, U.S. Patent Number 6,910,942, June 28, 2005.

Semiconductor Wafer Chemical-Mechanical Planarization Process Monitoring and End-Point Detection Method and Apparatus, U.S. Patent Number 7,052,365, May 30, 2006.

CMP Pad with Designed Surface Features, U. S. Patent Number 7,226,345, June 5, 2007.

**Archival Journal Publications**

1. D. A. Dornfeld and S. M. Wu, "An Investigation of Ground Wood Surfaces as Related to Pulp and Stone Characteristics," *Wear*, Vol. 42, 1977, pp. 163-175.
2. W. R. DeVries, D. A. Dornfeld and S. M. Wu, "Bivariate Time Series Analysis of the Effective Force Variation and Friction Coefficient Distribution in Wood Grinding," *Journal of Engineering for Industry, Trans. ASME*, Vol. 100, No. 2, 1977, pp. 181-185.
3. D. A. Dornfeld and S. M. Wu, "Development of an Experimental Setup for the Investigation of Grinding of Wood and a Proposal for Pulsed Loading Technique," *Journal of Engineering for Industry, Trans. ASME*, Vol. 100, No. 2, 1977, pp. 147-152.
4. D. A. Dornfeld, W. R. DeVries and S. M. Wu, "An Orthomorphic Rheological Model for the Grinding of Wood," *Journal of Engineering for Industry, Trans. ASME*, Vol. 100, No. 2, 1977, pp. 153-158.
5. J. A. Svestka, D. A. Dornfeld and R. Gil, "On Improving the Productivity of Numerically Controlled Punch Presses," *Int. J. Prod. Res.*, Vol. 19, No. 5, 1981, pp. 471-480.
6. D. A. Dornfeld and E. Kannatey-Asibu, Jr., "Acoustic Emission During Orthogonal Metal Cutting," *International Journal of Mechanical Sciences*, Vol. 22, No. 5, 1980, pp. 285-296.
7. M. Tomizuka, D. Dornfeld and M. Purcell, "Application of Microcomputers to Automatic Weld Quality Control," *Trans. ASME, J. of Dynamic Systems, Measurement and Control*, Vol. 12, No. 2, 1980, pp. 62-68.
8. D. A. Dornfeld, "Single Grit Simulation of the Abrasive Machining of Wood," *Trans. ASME, J. of Engineering for Industry*, Vol. 103, No. 1, 1981, pp. 1-12.

9. D. Dornfeld, P. Benenson and R. Barnes, "The Potential for Industrial Energy Conservation in California," *Trans. ASME, Journal of Engineering for Industry*, Vol. 103, No. 1, 1981, pp. 52-60.
10. E. Kannatey-Asibu, Jr. and D. A. Dornfeld, "Quantitative Relationships for Acoustic Emission from Orthogonal Metal Cutting," *Trans. ASME, J. Eng. for Industry*, Vol. 103, No. 3, 1981, pp. 330-340.
11. E. Kannatey-Asibu, Jr. and D. A. Dornfeld, "A Study of Tool Wear Using Statistical Analysis of Metal Cutting Acoustic Emission," *Wear*, Vol. 76, No. 2, 1982, pp. 247-261.
12. D. A. Dornfeld and E. N. Diei, "Acoustic Emission from Simple Upsetting of Solid Cylinders," *ASME Trans., J. Eng. Mat. Tech.*, Vol. 104, No. 2, 1982, pp. 145-152.
13. R. L. Lemaster, B. Klamecki and D. A. Dornfeld, "Analysis of Acoustic Emission in Slow Speed Wood Cutting," *Wood Science*, Vol. 15, No. 2, 1982, pp. 150-160.
14. M. Tomizuka, D. Dornfeld, X. Q. Bian and H. G. Cai, "Experimental Evaluation of the Preview Servo Scheme for Two-Axis Welding Table," *Trans. ASME, J. Dyn. Sys. Meas. & Control*, Vol. 106, No. 1, 1984, pp. 1-5; also in *Comp. in Eng., Proc. 2nd Int'l Computer Eng. Conf.*, ASME, 1982, pp. 255-261.
15. D. Dornfeld and H. G. Cai, "An Investigation of Grinding and Wheel Loading Using Acoustic Emission," *Trans. ASME, J. Eng. Ind.*, Vol. 106, No. 1, 1984, pp. 28-33.
16. M. S. Lan and D. A. Dornfeld, "In Process Tool Fracture Detection," *Trans. ASME, J. Engineering Materials and Technology*, Vol. 106, No. 2, 1984, pp. 111-118.
17. D. A. Dornfeld and C. S. Pan, "Study of Continuous/Discontinuous Chip Formation Using Acoustic Emission Signal Analysis," *J. Applied Metalworking*, Vol. 4, No. 1, 1985, pp. 18-29.
18. E. N. Diei and D. A. Dornfeld, "Acoustic Emission Sensing of Tool Wear in Peripheral Milling," *ASME Trans., J. Eng. Ind.*, Vol. 109, No. 3, 1987, pp. 234-240; also appears in *Acoustic Emission Monitoring and Analysis of Manufacturing*, D. Dornfeld, ed., ASME, New York, 1984, pp. 107-123.
19. R. L. Lemaster, L. B. Tee and D. A. Dornfeld, "Monitoring Tool Wear During Wood Machining with Acoustic Emission," *Wear*, Vol. 101, No. 3, 1985, pp. 273-282.
20. M. S. Lan and D. A. Dornfeld, "Acoustic Emission and Machining - Process Analysis and Control," *Int. J. Advanced Manufacturing Processes*, Vol. 1, No. 1, 1986, pp. 1-22.
21. E. N. Diei and D. A. Dornfeld, "A Model of Tool Fracture Generated Acoustic Emission During Machining," *ASME Trans., J. Eng. Ind.*, Vol. 109, No. 3, 1987, pp. 227-234; also appears in *Sensors and Controls for Manufacturing*, Kannatey-Asibu, E. and Ulsoy, A.G., eds., ASME, New York, 1985.
22. E. N. Diei and D. A. Dornfeld, "Acoustic Emission from the Face Milling Process - the Effects of Process Variables," *ASME Trans., J. Eng. Ind.*, Vol. 109, No. 2, 1987, pp. 92-99.
23. S. Y. Liang and D. A. Dornfeld, "Punch Stretching Process Monitoring Using Acoustic Emission Signal Analysis - Part 1: Basic Characteristics," *J. Acoustic Emission*, Vol. 6, No. 1, 1987, pp. 29-36.
24. S. Y. Liang, D. A. Dornfeld and J. A. Nickerson, "Punch Stretching Process Monitoring Using Acoustic Emission Signal Analysis - Part 2: Application of Frequency Domain Deconvolution," *J. Acoustic Emission*, Vol. 6, No. 1, 1987, pp. 37-42.
25. R. L. Lemaster and D. A. Dornfeld, "Preliminary Investigation of the Feasibility of Using Acousto-Ultrasonics To Measure Defects in Lumber," *J. Acoustic Emission*, Vol. 6, No. 3, 1987, pp. 157-165.
26. S. Rangwala, F. Farouhar and D. A. Dornfeld, "Application of Acoustic Emission Sensing to Slip Detection in Robotic Grippers," *Int. J. Machine Tools and Manufacture*, Vol. 28, No. 3, 1988, pp. 207-215.
27. S. Rangwala, S. Liang and D. Dornfeld, "Pattern Recognition of Acoustic Emission Signals during Punch Stretching," *Mechanical Systems and Signal Processing*, Vol. 1, No. 4, 1987, pp. 321-332.
28. S. Rangwala and D. Dornfeld, "Integration of Sensors via Neural Networks for Detection of Tool Wear States," *Proc. Symposium on Integrated and Intelligent Manufacturing Analysis and Synthesis*, C. R. Liu, A. M. Requicha and S. Chandrasekar, ed., ASME, New York, 1987, pp. 109-120.
29. M. Jouaneh and D. A. Dornfeld, "A Kinematic Approach for Coordinated Motion of a Robot and a Positioning Table," *Manufacturing Systems*, Vol. 7, No. 4, 1988, pp. 307-314.
30. S. Rangwala and D. A. Dornfeld, "Learning and Optimization of Machining Operations using Computing Abilities of Neural Networks," *IEEE Trans. on Systems, Man and Cybernetics*, Vol. 19, No. 2, 1989, pp. 299-314.
31. C. L. Jiaa and D. A. Dornfeld, "Experimental Studies of Sliding Friction and Wear Via Acoustic Emission Signal Analysis," *Wear*, Vol. 139, 1990, pp. 403-424.

32. S. M. Yoo, D. A. Dornfeld and R. L. Lemaster, "Analysis and Modeling of Laser Measurement System Performance for Wood Surfaces," *Mechanics of Deburring and Surface Finish Processes*, R. J. Stango and P. R. Fitzpatrick, eds., ASME, New York, 1989, pp. 189-200; also in *Trans. ASME, J. Eng. Ind.*, Vol. 112, No. 1, 1990, pp. 69-77.
33. R. Teti and D. A. Dornfeld, "Modeling and Experimental Analysis of Acoustic Emission from Metal Cutting," *Trans. ASME, J. Eng. Ind.*, Vol. 111, No. 3, 1989, pp. 229-237.
34. S. Y. Liang and D. A. Dornfeld, "Characterization of Sheet Metal Forming Using Acoustic Emission," *Trans. ASME, J. Eng. Mats. Tech.*, Vol. 112, No. 1, 1990, pp. 44-51.
35. S. Y. Liang and D. A. Dornfeld, "Tool Wear Detection Using Time Series Analysis of Acoustic Emission," *Trans. ASME, J. Eng. Ind.*, Vol. 111, No. 2, 1989, pp. 199-205.
36. S. L. Ko and D. A. Dornfeld, "A Study on Burr Formation Mechanism," *Trans. ASME, J. Eng. Mats. Tech.*, Vol. 113, No. 1, 1991, pp. 75-87.
37. D. A. Dornfeld, "Neural Network Sensor Fusion for Tool Condition Monitoring," *CIRP Annals*, Vol. 39, No. 1, 1990, pp. 101-105.
38. C. L. Jiaa and D. A. Dornfeld, "Detection of Tool Wear using Gradient Adaptive Lattice and Pattern Recognition Analysis," *J. Mechanical Systems and Signal Processing*, Vol. 6, No. 2, 1992, pp. 92-102.
39. S. S. Rangwala and D. A. Dornfeld, "A Study of Acoustic Emission Generated During Orthogonal Metal Cutting-Part 1: Energy Analysis," *Int. J. Mechanical Sciences*, Vol. 33, No. 6, 1991, pp. 471-487.
40. S. S. Rangwala and D. A. Dornfeld, "A Study of Acoustic Emission Generated During Orthogonal Metal Cutting-Part 2: Spectral Analysis," *Int. J. Mechanical Sciences*, Vol. 33, No. 6, 1991, pp. 489-499.
41. S. S. Rangwala and D. A. Dornfeld, "Sensor Integration using Neural Networks for Intelligent Tool Condition Monitoring," *ASME Transactions, J. Eng. Ind.*, Vol. 112, No. 3, 1990, pp. 219-228.
42. M. Jouaneh, Z. X. Wang and D. A. Dornfeld, "Trajectory Planning for Coordinated Motion of a Robot and a Positioning Table, Part I: Path Specification," *IEEE Trans. on Robotics and Automation*, Vol. 6, No. 6, 1990, pp. 735-745.
43. M. Jouaneh, D. Dornfeld and M. Tomizuka, "Trajectory Planning for Coordinated Motion of a Robot and a Positioning Table, Part II: Optimal Trajectory Specification," *IEEE Trans. on Robotics and Automation*, Vol. 6, No. 6, 1990, pp. 746-759.
44. A. E. Diniz, J.J.Liu, and D. A. Dornfeld, "Correlating Tool Life, Tool Wear, and Surface Roughness by Monitoring Acoustic Emission in Finish Turning," *Wear*, Vol. 153, No. 1, 1992, pp. 396-407.
45. D. A. Dornfeld and V. Lisiewicz, "Acoustic Emission Feedback for Precision Deburring," *CIRP Annals*, Vol. 41, No. 1, 1992, pp. 93-96.
46. J. J. Liu and D. A. Dornfeld, "Monitoring of Micromachining Process using Acoustic Emission," *Trans. North American Manufacturing Research Institute, SME*, Vol. 20, 1992, pp. 189-195.
47. D. Dornfeld and J. J. Liu, "Abrasive Texturing and Burnishing Process Monitoring using Acoustic Emission," *CIRP Annals*, Vol. 42, No. 1, 1993, pp. 397-400.
48. S. L. Ko and D. A. Dornfeld, "Analysis of Fracture in Burr Formation at the Exit Stage of Metal Cutting," *J. Material Processing Technology*, Vol. 58, 1996, pp. 189-200.
49. C. S. Leem, D. A. Dornfeld and S. E. Dreyfus, "A Customized Neural Network for Sensor Fusion in On-Line Monitoring of Cutting Tool Wear," *Trans. ASME, J. Eng. Industry*, 117, May 1995, pp. 152-159.
50. J. J. Liu and D. A. Dornfeld, "Modeling and Analysis of Acoustic Emission in Diamond Turning," *Trans. ASME, J. Engineering for Industry*, Vol. 118, 1996, pp. 199-207.
51. D. Dornfeld, "Application of Acoustic Emission Techniques in Manufacturing," *NDT International*, Vol. 25, No. 6, 1992, pp. 259-269.
52. R. Narayanaswami and D. A. Dornfeld, "Design and Process Planning Strategies for Burr Minimization and Deburring," *Trans. North American Manufacturing Research Institute, SME*, Vol. 22, 1994, pp. 313-322.
53. A. Sokolowski, P. Vincent and D. A. Dornfeld, "Drill State Monitoring during Multispindle Machining," *Trans. North American Manufacturing Research Institute, SME*, Vol. 22, 1994, pp. 233-240.
54. J. F. Gomes de Oliveira, D. A. Dornfeld and B. Winter, "Dimensional Characterization of Grinding Wheel Surface through Acoustic Emission," *CIRP Annals*, Vol. 43, No. 1, 1994, pp. 291-294.

55. G. L. Chern and D. A. Dornfeld, "Burr/Breakout Development and Experimental Verification," *Trans. ASME, J. Eng. Mats. Tech.*, Vol. 118, No. 2, 1996, pp. 201-206.
57. D. A. Dornfeld, "In Process Recognition of Cutting States," *Japan Society of Mechanical Engineers International Journal*, Series C, Vol. 37, No. 4, 1994, pp. 638-6.
58. S. L. Ko and D. A. Dornfeld, "Burr Formation and Fracture in Oblique Cutting," *J. Materials Processing Technology*, Vol. 62, 1996, pp. 24-36.
59. D. A. Dornfeld and P. K. Wright, "Intelligent Machining: Global Models, Local Scripts and Validations," *Trans. North American Manufacturing Research Institute, SME*, Vol. 26, 1995, pp. 351-356.
60. R. Narayanaswami and D. A. Dornfeld, "Burr Minimization in Face Milling: A Geometrical Approach," *Trans. ASME, J. Engineering for Industry*, Vol. 119, No. 2, 1997, pp. 170-177.
61. M. Hashimura, K. Ueda, D. Dornfeld, and K. Manabe, "Analysis of Three Dimensional Burr Formation in Oblique Cutting," *CIRP Annals*, Vol. 44, No. 1, 1995, pp 27-30.
62. Y. P. Chang, M. Hashimura, and D. A. Dornfeld, "Analysis of Orthogonal Micro-cutting using Acoustic Emission," *Trans. ASME. J. Eng. Industry*, Vol. 122, No. 3, 2000, pp. 413-419.
63. M. Hashimura, Y. P. Chang and D. A. Dornfeld, "Analysis of Burr Formation Mechanism in Orthogonal Cutting," *Trans. ASME. J. Eng. Industry*, Vol. 121, No. 1, 1999, pp. 1-7.
64. J. Stein and D. A. Dornfeld, "An Analysis of the Burrs in Drilling Precision Miniature Holes using a Fractional Factorial Design," *Proc. ASME IMECE, MED-Vol. 2-1*, San Francisco, November 1995, pp. 127-148.
65. R. Narayanaswami and D. A. Dornfeld, "A Burr Agent for Precision Manufacturing," *Proc. ASME IMECE, San Francisco, MED-Vol. 2-1*, November 1995, pp. 979-990.
66. P. K. Wright and D. A. Dornfeld, "Agent-Based Manufacturing Systems," *Trans. North American Manufacturing Research Institute, SME*, Vol. 24, 1996, pp. 241-246.
67. J. Stein, I. Park and D. A. Dornfeld, "Influence of Workpiece Exit Angle on Burr Formation in Drilling Intersecting Holes," *Trans. North American Manufacturing Research Institute, SME*, Vol. 24, 1996, pp. 39-44.
68. P. S. Sheng, D.A. Dornfeld and P. Worhach, "Integration Issues in Green Design and Manufacturing," *Manufacturing Review*, Vol. 8, No. 2, 1995, 95-105.
69. Y. P. Chang, M. Hashimura, and D. A. Dornfeld, "An Investigation of the AE Signals in the Lapping Process," *CIRP Annals*, Vol. 45, No. 1, 1996, pp. 331-334.
70. C. S. Leem and D. A. Dornfeld, "Design and Implementation of Sensor-based Tool Wear Monitoring Systems," *Mechanical Systems and Signal Processing*, 1996, Vol. 10, No. 4, pp. 439-458.
71. M. Hashimura, J. Hassamontr and D. A. Dornfeld, "Effect of In-Plane Exit Angle on Burr Height and Thickness in Face Milling Operation," *Trans. ASME. J. Manufacturing Science and Engineering*, Vol. 121, No. 1, 1999, pp. 13-19.
72. M. Hashimura and D. A. Dornfeld, "A Proposal for a Classification Method for the Mechanism of Face Milling Burrs: Parts I and II," *Int. Journal of Machine Tools and Manufacture*, submitted for publication.
73. X. M. Chen and D. A. Dornfeld, "Monitoring and Analysis of Ultraprecision Metal Cutting with Acoustic Emission," *Proc. Int'l. Mech. Eng. Congress and Exposition, ASME, Atlanta, GA, 1996*, pp. 387-393.
74. M. Hashimura and D. A. Dornfeld, "Effect of Axial Rake Angle on Burr Formation in Face Milling," *Int. Journal of Machine Tools and Manufacture*, submitted for publication.
75. Stein, J. M. and D. A. Dornfeld, "An Architecture for Integrated Design and Manufacturing of Precision Mechanical Components," *Trans. North American Manufacturing Research Institute, SME*, 1997, Vol. 25. pp. 249-254.
76. Dornfeld, D. A. and P. K. Wright, "Process Planning for Agent-based Precision Manufacturing," *Trans. North American Manufacturing Research Institute, SME*, 1997, Vol. 25. pp. 359-364.
77. Stein, J. M. and D. A. Dornfeld, "Burr Formation in Drilling Miniature Holes," *CIRP Annals*, Vol. 46, No. 1, 1997, pp. 63-66.
78. Park, I. W. and D. A. Dornfeld, "A Study of Burr Formation Processes using the Finite Element Method- Part I," *Trans. ASME, J. Engineering Materials and Technology*, 122, 2000, pp. 221-228.

79. Park, I. W. and D. A. Dornfeld, "A Study of Burr Formation Processes using the Finite Element Method- Part II- The Influence of Exit Angle, Rake Angle and Backup Material on Burr Formation," *Trans. ASME, J. Engineering Materials and Technology*, 122, 2000, pp. 229-237.
81. I. W. Park, S. E. Ahn and D. A. Dornfeld, "Probabilistic Prediction of Burr Patterns of 1045 Carbon Steel in Face Milling," *J. Machining Science and Technology*, vol. 6, no. 2, pp. 151-170, 2002.
82. Wright, P. K. and Dornfeld, D. A., "Cybercut; A Networked Machining Service," *Trans. North American Manufacturing Research Institute, SME*, 1998, Vol. 26, pp. 281-286.
83. Guo, Y. B. and Dornfeld, D. A., "Finite Element Analysis of Drilling Burr Minimization with a Backup Material," *Trans. North American Manufacturing Research Institute, SME*, 1998, Vol. 26, pp. 207-212.
84. Guo, Y. B. and Dornfeld, D. A., "Integration of CAD of Drill with Drilling Burr Formation," *Trans. North American Manufacturing Research Institute, SME*, 1998, Vol. 26, pp. 201-206.
85. Chang, Y.P, Hashimura, M. and D. A. Dornfeld, "An Investigation of Material Removal Mechanisms in Lapping with Grain Size Transition," *Trans. ASME. J. Manufacturing Science and Engineering*. 122, 3, 2000, pp. 413-419.
86. Lee, S. H. and D. A. Dornfeld, "Precision Laser Deburring," *Trans. ASME. J. Manufacturing Science and Engineering*., 123, 4, 2001, pp. 601-608.
87. Lee, S. H. and D. A. Dornfeld, "Precision Laser Deburring and Acoustic Emission Feedback," *Trans. ASME. J. Manufacturing Science and Engineering*, 123, 2, 2001, pp. 356-364.
88. Guo, Y. B. and Dornfeld, D. A., "Finite Element Modeling of Drilling Burr Formation Process," *Trans. ASME. J. Manufacturing Science and Engineering*., vol. 122, November 2000, pp. 612-619.
89. Dornfeld, D., Wright, P., Wang, F., Sheng, P. Stori, J., Sundarajan, V., Krishnan, N, and Chu, C., "Multi-agent Process Planning for a Networked Machining Service," *Trans. North American Manufacturing Research Institute*, 1999, pp. 191-196.
90. Tang, J. S., Dornfeld, D. A., Pangrele, S. and Dangca, A., "In-Process Detection of Micro-scratching during CMP using Acoustic Emission Sensing Technology," *Proc. TMS Annual Meeting*., San Antonio TX, TMS, February, 1998, and *J. Electronic Materials*, 27, 10, 1998, pp. 1099-1103.
91. Jia, C. L. and Dornfeld, D. A., "A self-organizing approach to the prediction and detection of tool wear," *ISA Transactions*, 37, 1998, pp. 239-255.
92. Dornfeld, D. A., Kim, J. S., Dechow, H., Jewson, J., and Chen, L. J., "Drilling burr formation in Ti alloy, Ti-6Al-4V," *CIRP Annals*, Vol. 48, No. 1, 1999, pp. 73-76.
93. Hashimura, M., and Dornfeld, D. A., "Effect of axial rake angle on burr formation in milling," *J. Japan Society of Precision Engineering*, 64, 11, 1998, pp. 1658-1663 (in Japanese).
94. Hashimura, M., and Dornfeld, D. A., "Proposal of a Burr Classification Method Based on the Formation Mechanisms in Face Milling (1<sup>st</sup> Report)," *J. Japan Society of Precision Engineering*, 65, 6, 1999, pp. 872-877 (in Japanese).
95. Hashimura, M., and Dornfeld, D. A., "Proposal of a Burr Classification Method Based on the Formation Mechanisms in Face Milling (2<sup>nd</sup> Report) – Application of the Proposed Method for Side, Top, Entrance and Entrance Side Burrs," *J. Japan Society of Precision Engineering*, 65, 7, 1999, pp. 1002-1007 (in Japanese).
96. Kim, J. and Dornfeld, D., "Development of a Drilling Burr Control Chart for Stainless Steel," *Trans. North American Manufacturing Research Institute*, 2000, vol. 28, pp. 317-322.
97. Chu, C. H. and Dornfeld, D., "Linking Tool Paths Generated with Different Offset Distances for Edge Quality Enhancement in Planar Milling," *Proc. Instn Mech. Engrs, Part B. J. Engineering Manufacturing*, Vol. 218, pp. 721-730, 2004.
98. M. Hashimura, K. Ueda, K. Manabe, and D. Dornfeld, "Effect of In-plane Exit and Radial Rake Angle on Burr Formation in Face Milling," *J. Japan Society of Precision Engineering*, Vol. 66, 1, 2000, 85-90 (in Japanese).
99. M. Hashimura, K. Ueda, K. Manabe, and D. Dornfeld, "Analysis of Burr Formation in Orthogonal Cutting," *J. Japan Society of Precision Engineering*, Vol. 66, 2, 2000, 218-223 (in Japanese).
100. Kim, J. and Dornfeld, D., "Cost Minimization of Drilling Operation by a Drilling Burr Control Chart and Bayesian Statistics," *SME J. Manufacturing Systems*, 2001, Vol. 20, No. 2, pp. 89-97.

101. Kim, J. Min, S. and Dornfeld, D., "Optimization and Control of Drilling Burr Formation of AISI 304L and AISI 4118 Based on Drilling Burr Control Charts," *Int. J. of Machine Tools and Manufacture*, 2001, 41, 7, pp. 923-936.
102. Kim, J. and Dornfeld, D., "Development of an Analytical Model for Drilling Burr Formation in Ductile Materials," *ASME Trans. J. Engineering Materials and Technology*, vol. 124, no. 2, pp. 192-198, 2002.
103. Wright, P. K., Dornfeld, D. A., Wang, F., and Chu, C. H., "Decisionmaking in Multi-criterion Agent-based Process Planning System," *Trans. NAMRI*, vol. 28, pp. 293-298, 2000.
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