Joseph J. Beaman, Jr.
May 2017
THE UNIVERSITY OF TEXAS AT AUSTIN
Cockrell School of Engineering
Resume

FULL NAME: Joseph J. Beaman, Jr. **TITLE:** Professor
ENDOWED POSITION: Earnest F. Gloyna Regents Chair in **DEPARTMENT:** Mechanical Engineering

EDUCATION:

Sc.D., Mechanical Engineering, Massachusetts Institute of Technology, Cambridge, Massachusetts, 1979
M.S., Mechanical Engineering, The University of Texas at Austin, Austin, TX, 1975
B.S., Mechanical Engineering, The University of Texas at Austin, Austin, TX, 1972

LAST 4 YEARS TESTIMONY:

Effingo Wireless v Motorola Mobility, US District Court, Western District of Texas, San Antonio Division, testified for defense. (2013)
Terumo v Lepu Medical Technology and Vascular Solutions, US District Court, District of New Jersey, Deposition only. (2013)
Retractable Technologies and Thomas Shaw v Becton Dickinson, US District Court, Eastern District of Texas, Tyler Division, testified for defense. (2013)
L.C. Eldridge Sales v Azen Manufacturing, US District Court, Eastern District of Texas, Tyler Division, testified for defense. (2013)
HNI Corp and Allsteel v Dirtt Environmental Solutions, Patent Trial and Appeal Board, IPR 2015-01690, Deposition only. (2016)
Intex Recreation v Bestway Inflatables & Material, Patent Trial and Appeal Board, IPR 2016-00180, Deposition only. (2016)
Whirlpool Corp v TST Water, LLC, US District Court, Eastern District of Texas, Marshall Division, testified for plaintiff, (2017)
Cutsforth v Lemm Liquidating, Fulmer, Westinghouse Air Brake, Motive Power, US District Court, District of Minnesota, Deposition only (2017)

PROFESSIONAL REGISTRATION:

TX, 50385

CURRENT AND PREVIOUS ACADEMIC POSITIONS:

2001 - present, The University of Texas at Austin, Earnest F. Gloyna Regents Chair in Engineering
2012 – present, Director Advanced Manufacturing & Design Center
2001 - 2012, The University of Texas at Austin, Chair, Department of Mechanical Engineering
2001 - 2002, The University of Texas at Austin, Ernest Cockrell, Jr., Memorial Chair in Engineering

1991 - 2001, The University of Texas at Austin, Andersen Consulting Endowed Professorship
1990 - 1991, The University of Texas at Austin, Temple Foundation Endowed Faculty Fellowship
1989 - present, The University of Texas at Austin, Professor
1985 - 1989, The University of Texas at Austin, Associate Professor
1979 - 1985, The University of Texas at Austin, Assistant Professor
1979 - 1979, MIT, Visiting Assistant Professor
1976 - 1978, MIT, Instructor
1972 - 1974, The University of Texas at Austin, Teaching Assistant

OTHER PROFESSIONAL EXPERIENCE:
7/1975 - 8/1975, IBM Austin, Senior Associate Engineer, Analysis & Design
5/1974 - 9/1975, IBM Austin, Associate Engineer, Analysis & Design
1990 - 1992, DTM Corporation, CTO, Product Development

HONORS AND AWARDS:
Tau Beta Pi (1970)
BS with High Honors, University of Texas at Austin (1972)
Phi Kappa Phi (1970)
MIT Fellowship, Cambridge, MA (1976)
Best Paper Award, Journal of Dynamic Systems Measurement and Control, University of Texas at Austin (1983)
DuPont Young Faculty Award, University of Texas at Austin (1983)
Engineering Foundation Award, University of Texas at Austin (1984)
NSF Presidential Young Investigator Award, University of Texas at Austin (1984)
Myron L. Begeman Faculty Fellow, University of Texas at Austin (1987)
Halliburton Foundation Award of Excellence, University of Texas at Austin (1989)
Engineering Foundation Endowed Faculty Fellowship in Engineering, Number 5, University of Texas at Austin (1990)
Andersen Consulting Endowed Professorship in Manufacturing Systems Engineering, University of Texas at Austin (1992)
Fellow, American Society of Mechanical Engineers (1996-present)
Listed in Who's Who in Science and Engineering (1996-2004)
Literati Club Outstanding Paper Award, Rapid Prototyping Journal, West Yorkshire, England (October 1996)
Listed in Who's Who in Finance and Industry (1997-2004)
Member, Advisory Board of the Rapid Prototyping Association, Society of Manufacturing Engineers (January 1998-December 1999)
Best Paper Award, American Vacuum Society, Santa Fe, NM (2001)
Listed in Who's Who Among America's Teachers (2001-2003)
Joe J. King Professional Engineering Achievement Award, College of Engineering (2002)
Women in Engineering Advocate Award, The University of Texas at Austin - Women in Engineering Program (2008)

Distinguished Mechanical Engineer, Department of Mechanical Engineering, The University of Texas at Austin (2011)
Elected Society of Manufacturing Board of Directors, SME (2012-2014)
Nominated and Appointed US Army Science Board, US Army (2012-2015)
Elected National Academy of Engineers (2013)
Freeform and Additive Manufacturing Excellence Award, SFF Conference, (2014)
Elected Fellow of the National Academy of Inventors, (2015)
SME Albert M. Sargent Progress Award for significant accomplishments in the field of manufacturing processes, methods, or systems, 2016.
Elected Fellow of Society of Manufacturing (SME) (2016)
NAE Mechanical Engineering Peer Committee (2018-2021)

OTHER PROFESSIONAL HIGHLIGHTS:
Invited participant on Japanese Technology Evaluation Center Panel Report on Rapid Prototyping in Japan and Europe (1996)
Founder of DTM Corporation, 1990, grew to $25 million in sales before being acquired by 3D Systems in 2001.
Listed in Naval Research Reviews, Profiles in Science, Office of Naval Research, Three/1998, Volume I, page 4 (January 1999)
Moderator for Session on Process Development and Research at the Rapid Prototyping and Manufacturing 1999 Conference and Exposition, Chicago, IL (April 21, 1999)
Selected for Final Site Visit for NSF Engineering Research Center Proposal submitted with Southern Methodist University and Rice University (February 2000)
Chair of World Technology Evaluation Center Panel on Additive/Subtractive Manufacturing, 2001.
NSF Council of Visitors for the Design and Manufacture Academic Programs of the Division of Design, Manufacture and Industrial Innovation of the Engineering Directorate of the National Science Foundation.
Served as invited External Reviewer for the Academic Assessment Process, Department of Mechanical Engineering, School of Engineering at the University of Connecticut. (Spring 2003)
Invited Chair of Expert Review Panel for the IMCRC at Loughborouh University. Purpose was an in-depth review of the IMCRC by the Innovative Manufacturing and Construction Research Centre. (2007)
Invited Member, Global Summit on the Future of Mechanical Engineering, Washington, DC (2008)
Chair Evaluation Committee, EPSRC Center in Additive Manufacturing, Nottingham, UK, (2014)
Guest Editor, Special Issue on Additive Manufacturing, Journal Manufacturing Science, ASME, 2014-2015

MEMBERSHIPS IN PROFESSIONAL AND HONORARY SOCIETIES:
ASME International, American Society of Mechanical Engineers
SME, Society of Manufacturing Engineers
SME/RPA, Rapid Prototyping Association

ASEE, American Society for Engineering Education
ASM International, The Materials Information Society
SCS, Society for Computer Simulation
AAAS, American Association for the Advancement of Science
MRS, Materials Research Society
TMS, The Minerals, Metals & Materials Society

PROFESSIONAL SOCIETY AND MAJOR GOVERNMENTAL COMMITTEES:

ASME International, Dynamic Systems and Control Division Executive Committee, (1979-present)
Rapid Prototyping Association of Society of Manufacturing Engineers, (1998-present)
Rapid Prototyping Association of Society of Manufacturing Engineers, Advisory Board, (1998-2001)
RPA/SME, Rapid Prototyping Association of Society of Manufacturing Engineers, Executive Committee, (2000-2001)
ASME International, Mechanical Engineering Department Heads Committee, (2001-2011)
ASEE, American Society for Engineering Education, Department Heads Committee, (2002-2011)
National Science Foundation, Committee of Visitors for the Design and Manufacture Academic Programs of the Division of Design, Manufacture and Industrial Innovation of the Engineering Directorate of NSF, (2003)
World Technology Evaluation Center, WTEC Panel on Additive/Subtractive Manufacturing, (2003-2011)
Specialty Metals Processing Consortium, SMPC Technical Committee, (2005-present)
St. Andrew's School, Austin TX, Board of Trustees, (2007-2014)
ASME International, Systems and Design Technical Group Leader, (2008-2011)
ASME International, TCOB Committee on Technology Policy, (2008-2011)
ASME International, Emerging Technology Committee, (2009-2012)
South Dakota School of Mines and Technology, Board of Regents External Review Committee, (October 2009)
ASME International, Leonardo da Vinci Award Committee, (2010-2012)
ASME International, Mechanical Engineering Department Heads Executive Committee, (2010-2012)
United States Army, Army Science Board, (January 2012-2015)
Technical Editor for ASME Journal of Dynamic Systems Measurement and Control (2013 – present)

CONFERENCES ORGANIZED/CHAIRED:

A. Symposia and Conference Organizer

Local Organizer and Conference Host, Liquid Metals Processing Conference, Austin (Fall 2013)

Co-organizer, Solid Freeform Fabrication Symposium, Austin, TX (1989-present)

NSF/ASME Workshop on Research Needs for Control in Mechanical Systems, Seattle (June 1986)

Program Chair, Dynamic Systems Control Division, ASME (1984)

B. Session Chairman

Session Chair, ASME Dynamic Systems and Control Conference, Ann Arbor, MI (October 2008)

Session Chair, NSF Workshop Redefining Mechanical Engineering with Adnan Akay, Carnegie Mellon University (January 25-27, 2002)

Session Chair, Issues in Structured Physical Modeling, ACC (1987)

UNIVERSITY COMMITTEES:

The University of Texas at Austin, Budget Council, (1989-present)
The University of Texas at Austin, Manufacturing Systems Program Executive Committee, (1989-2005)
The University of Texas at Austin, College of Engineering representative to the Faculty Council, (1998-2000)
The University of Texas at Austin, Research Policy Committee of Faculty Council, (1999-2000)
The University of Texas at Austin, Advisory Panel, Center for Electromechanics, (2007-2012)
The University of Texas at Austin, Review Committee for the Institute for Electrochemistry, (2010)
The University of Texas at Austin, Rio Grande Valley Manufacturing Initiative, (March 2010-present)

SCHOOL COMMITTEES:

Cockrell School of Engineering, Faculty Salary Review Committee, (1989-2011)
College of Engineering, Promotion & Tenure Review Committee, (1997-1999)
College of Engineering, Strategic Plan, (1999-2000)
Cockrell School of Engineering, Reactor Oversight Committee, (2005-present)
Cockrell School of Engineering, IT Committee, (2006-2011)
Cockrell School of Engineering, Strategic Planning, (2008-2011)
The University of Texas at Austin, SBES Computational Cardiovascular Engineering Subcommittee, (2009-2011)

DEPARTMENT COMMITTEES:

Mechanical Engineering, Qualifying Exams for Mechanical Systems and Design, (1996-1999)
Mechanical Engineering, Strategic Planning Committee, (1998-present)
Department of Mechanical Engineering, Faculty Recruiting, (2000-2001)
Department of Mechanical Engineering, Assisted organization of University-wide initiative with Ford Motor Company resulting in 6 initiatives for the ME Department and responsible for managing grant funds totaling $3,450,000, (Spring 2001)

PUBLICATIONS:

A. Refereed Archival Journals

1. Ojinnaka, M., J. Beaman"Full-Course Drilling Model for Well Monitoring and Stochastic Estimation of Kick", *J Petrol Science and Engineering*, accepted, 2018.
2. Michael R. Gardner, Adam Lewis, Jongwan Park, Austin B. McElroy, Arnold D. Estrada, Scott Fish, Joseph J. Beaman, Thomas E. Milner, "In-situ process monitoring in selective laser sintering using optical coherence tomography," *Opt. Eng.* **57**(4), 041407 (2018).
3. Zhang, L, T. Phillips, A. Mok, D. Moser, J. Beaman, "Automatic Laser Control System for Selective Laser Sintering", *Transactions on Industrial Informatics*, IEEE, submitted, 11, 2017.
4. Wroe, W., J. Gladstone, T. Phillips, S. Fish, J. Beaman, A. McElroy,),"In-situ thermal image correlation with mechanical properties of nylon-12 in SLS", Rapid Prototyping Journal, Vol. 22, No 5 pp 794 – 800, 2016.
5. Diller, T.T., M. Yaun, D.L. Bourell, J. Beaman, "Thermal model and measurements of polymer laser sintering", *Rapid Prototyping Journal*, 21#1, (2015), pp. 2-13.
6. J. Beaman, F. Lopez , "The emerging nexus of cyber, modeling, and estimation in advanced manufacturing: Vacuum arc remelting to 3D printing ," ASME Dynamic Systems and Control Magazine, December 2014.
7. Fish, S., J.C. Booth, S.T. Kubiak, W.W. Wroe, A.D. Bryant, D.R. Moser, J.J. Beaman, "Design and Subsystem Development, of a High Temperature Selective Laser Sintering Machine for Enhanced Process Monitoring and Control," *Additive Manufacturing,* Elsevier, December 2014.
8. Felipe Lopez, Lixun Zhang, Aloysius Mok, and Joseph Beaman. 2015. Particle filtering on GPU architectures for manufacturing applications. *Comput. Ind*. 71, C (August 2015), 116-127.
9. Devaraj, V., F. Lopez, J. Beaman and S. Prudhomme. "Model-based control of a continuous coating line for Proton Exchange Membrane Fuel Cell Electrode Assembly," International Journal of Chemical Engineering, Article ID 572983, January 2015, doi:10.1155/2015/572983.
10. Beaman, J., F. Lopez, R. Williamson. "Modeling of the Vacuum Arc Remelting Process for Estimation and Control of the Liquid Pool Profile", *ASME Journal of Dynamic Systems, Measurements and Control, May 2014, Vol. 136.*
11. Yaun, M., T.J. Diller, D. Bourell, J. Beaman, "Thermal Conductivity of Polyamide 12 Powder for Use in Laser Sintering", *Rapid Prototyping Journal,* V0l. 19, No. 6, 2013, pp. 437-445.
12. Williamson, R.L., Beaman, J.J., "Modern Control Theory Applied to Remelting of Superalloys," Materials Science Forum, Vol. 706-709, 2012, pp. 2484-2489, (2012)
13. Silverman, T.J. Meyers, J.P. and Beaman, J.J., "Dynamic Thermal, Transport and Mechanical Model of Fuel Cell Membrane Swelling," Fuel Cells, Vol. 11, 2011, No. 6, pp. 875-887
14. Ahn, S., Beaman, J.J., Williamson, R.L., Melgaard, D.L. , "Electroslag remelting process using unscented Kalman filter," Journal Of Dynamic

Systems, Measurement, And Control, Vol. 132, 2010, No. January 2010, pp. 011011-2 (9 pages)
15. Silverman, T.J., Meyers, J.P., Beaman, J.J., "Modeling Water Transport and Swelling in Polymer Electrolyte Membranes," Journal Of The Electrochemical Society, Vol. 157, 2010, No. 10, pp. B1376-B1381
16. Silverman, T.J., Meyers, J.P. and Beaman, J.J. , "Modeling Water Transport and Swelling in Polymer Electrolyte Membranes," Journal of The Electrochemical Society, Vol. 157, 2010, No. 10, pp. B1376-B1381
17. Stevinson, B., Bourell, D.L., Beaman, J.J., "Over-infiltration mechanisms in selective laser sintered Si/SiC preforms," Rapid Prototyping Journal, Vol. 14, 2008, No. 3, pp. 149-154
18. Stevinson, B., Bourell, D.L., Beaman, J.J., "Dimensional stability during post-processing of selective laser sintered ceramic preforms," Virtual And Physical Prototyping, Vol. 1, January 2007, No. 4, pp. 209-216
19. Evans, R.S., Bourell, D.L., Beaman, J.J., Campbell, M.I., "Rapid Manufacturing of Silicon Carbide Composites," Rapid Prototyping Journal, Vol. 11, 2005, No. 1, pp. 37-40
20. King, C.W., Campbell, M.I., Beaman, J.J., Sreenivasan, S.V., "Synthesis of Multistable Equilibrium Linkage Systems Using an Optimization Approach," Structural And Multidisciplinary Optimization, Vol. ISSN 1615-147X, 2005, pp.1615-1488
21. King, C.W., Campbell, M.I., Beaman, J.J., Sreenivasan, S.V., "Synthesis of Multistable Equilibrium Linkage System Using an Optimization Approach," Structural And Multidisciplinary Optimization, Vol. 158, 2004, pp. 1-26
22. King, C.W., Beaman, J.J., Sreenivasan, S.V., Campbell, M.I., "Multi-Stable Equilibrium System Design Methodology and Demonstration," Journal Of Mechanical Design, Vol. 126, 2004, No. 6, pp. 1036-1046
23. Williamson, R.L., Beaman, J.J., "A Demonstration of Melt Rate Control During VAR of "Cracked" Electrodes," Journal of Materials Science, Vol. 39, 2004, No. 24, pp. 7161-7168
24. Bourell, D.L., Beaman, J.J., Marcus, H.L., Barlow, J.W., Deckard, C.R. , "Chronology and Current Processes for Freeform Fabrication," Journal of The Japan Society Of Powder And Powder Metallurgy, Vol. 50, November 2003, No. 11, pp. 981-991
25. Wang, H.Y., Bourell, D.L., Beaman, J.J., "Laser Polishing of Silica Slotted Rods," Materials Science And Technology, Vol. 19, March 2003, pp. 382 - 387
26. Dutson, A.J., Wood, K.L., Beaman, J.J., Crawford, R.H., Bourell, D.L., "Application of Similitude Techniques to Functional testing of Rapid Prototypes," Rapid Prototyping Journal, Vol. 9, 2003, No. 1, pp. 6-13.
27. Ramos, J.A., Bourell, D.L., Beaman, J.J. , "Surface Over-Melt During Laser Polishing of Indirect-SLS Metal Parts," Mat. Res. Soc. Symp. Proc., Vol. 758, 2003, pp. 53 - 61
28. Dutson, A.J., Wood, K.L., Beaman, J.J., Crawford, R.H., Bourell, D.L., "Application of Similitude Techniques to Functional Testing of Rapid Prototypes," Rapid Prototyping Journal, Vol. 9, 2003, No. 1, pp. 6-13

29. Bourell, D.L., Wohlert, M., Harlan, N., Das, S., Beaman, J.J. , "Powder Densification Maps in Selective Laser Sintering," Journal Of Advanced Engineering Materials, 2002.
30. 21. Wang, H.Y., Bourell, D.L., Beaman, J.J. , "Laser Polishing of Silica Slotted Rods," Materials Science And Technology, 2002
31. 22. Harlan, N.R., Reyes, D., Bourell, D.L., Beaman, J.J., "Titanium Castings Using Laser-Scanned Data and Selective Laser-Sintered Zirconia Molds," Journal Of Materials Engineering and Performance, 2001
32. Bourell D.L., Beaman, J.J., Klosterman, D., Gibson, I., Bandyopadhyah, A., "Rapid Prototyping," ASM Materials Handbook On Composites, Vol. 21, 2001, pp. 383-387
33. Harlan, N.R., Reyes, R., Bourell, D.L., Beaman, J.J., "Titanium Castings Using Laser-Scanned Data and Selective Laser-Sintered Zirconia Molds," Journal of Materials Engineering And Performance, Vol. 10 (4), 2001, pp. 410-413.
34. Das, S., Fuesting, T.P., Danyo, G., Brown, L.E., Beaman, J.J., Bourell, D.L., "Direct Laser Fabrication of Superalloy Cermet Abrasive Turbine Blade Tips," Journal of Materials And Design, Vol. 21, 2000, No. 2, pp. 63-73
35. Das, S., Fuesting, T., Danyo, G., Bourell, D.L., Beaman, J.J., "Direct Laser Fabrication of a Gas Turbine Engine Component," Materials And Design, August 1999.
36. Das, S., Wohlert, M., Bourell, D.L. and Beaman, J.J., "Processing of Titanium Net Shapes by SLS/HIP," Materials And Design, Vol. 20, June 1999, pp. 115-121.
37. Das, S., Wohlert, M., Beaman, J.J., Bourell, D.L., "Producing Metal Parts by Selective Laser Sintering/Hot Isostatic Pressing," Journal of Metals, Vol. 50, December 1998, No. 12.
38. Das, S., Wohlert, M., Bourell, D.L. and Beaman, J.J., "Microstructure and Mechanical Properties of Metal Parts Produced by SLS/HIP," Journal of Metals, November 1998.
39. Melgaard, D., Williamson, R.L., Beaman, J.J., "Controlling Remelting Processes for Superalloys and Aerospace Ti Alloys," Journal of Metals, March 1998, pp. 13-17.
40. Das, S., Wohlert, M., Bourell, D.L., Beaman, J.J., "Direct Laser Freeform Fabrication of High Performance Metal Components," Rapid Prototyping Journal, Vol. 4, 1998, No. 3.
41. Das, S., Fuesting, T., Brown, L.E., Harlan, N., Lee, G., Beaman, J.J., Bourell, D.L., Barlow, J.W., Sargent, K., "Direct SLS Processing for Production of Cermet Composite Turbine Sealing Components," Journal of Materials And Manufacturing Processes, Vol. 13, 1998, No. 3.
42. Barlow, J.W., Beaman, J.J., Badrinarayan, A., "A Rapid-Mould making System: Material Properties and Design Considerations ," Rapid Prototyping Journal, Vol. 2 , 1996.
43. Beaman, J.J., "A Rapid Mould-Making System: Material Properties and design Considerations," Rapid Prototyping Journal, Vol. 2, 1996, No. 3.

44. Agarawala, M., Bourell, D.L., Beaman, J.J., Marcus, H.L., and Barlow, J.W., "Direct Selective Laser Sintering of Metals," Rapid Prototyping Journal, Vol. 1, 1995, No. 1.
45. Nelson, J.C., Vail, N.K., Barlow, J.W., Beaman, J.J., Bourell, D.L., Marcus, H.L., "Selective Laser Sintering of Polymer-Coated Silicon Carbide Powders," Industrial And Engineering Chemistry Research, Vol. 34, 1995, pp. 1641-1651.
46. Schreuders, P.D., Diller, K.R., Beaman, J.J., Paynter, H.M., "An Analysis of Coupled Multicomponent Diffusion in Interstitial Tissue," Journal Of Biomechanical Engineering, Vol. 116, May 1994, pp. 164-171.
47. Schreuders, P., Diller, K.R., Beaman, J.J., Paynter H.M., Clark, D., "Kinetic Analysis of Coupled Interstitial Multicomponent Diffusion," Network Thermodynamics, Heat And Mass Transfer In Biotechnology, Vol. 116, 1994, pp.164-171
48. Longoria, R.G., Miksad, R.W., Beaman, J.J., "Frequency Domain Analysis of In-Line Forces on Circular Cylinders in Random Oscillatory Flow," Journal of Offshore Mechanics And Arctic Engineering, Vol. 115, February 1993, pp. 23-30
49. Nelson, C., Xue, S., Barlow, J.W., Beaman, J.J., Marcus, H.L., Bourell, D.L. , "Model of the Selective Laser Sintering of Bisphenol-A Polycarbonate," Industrial Engineering Chemical Research, Vol. 32, 1993, pp. 2305-2317
50. Marcus, H.L., Zong, G., Wu, Y., Bourell, D.L., Beaman, J.J., "Direct Solid Freeform Fabrication of High Temperature Materials Using Selective Laser Sintering," The Minerals, Metals And Materials Society, March 14, 1992.
51. Beaman, J.J., Bourell, D.L., Marcus, H.L., Barlow, J.W. , "Selective Laser Sintering of Metals and Ceramics," The International Journal of Powder Metallurgy, Vol. 28, 1992, No. 4
52. Paynter, H.M., Beaman, J.J., "On the Fall and Rise of the Circuit Concept: Contrasting Views of Network Thermo and Chemical Networking," Journal of Franklin Institute, 1991.
53. da Silva, R., Wood, K.L., Beaman, J.J., "A Theory for Geometric Query Processing in Engineering Design and Manufacture," Journal Of Computer Aided Design, 1991.
54. da Silva, R., Wood, K.L., Beaman, J.J., "Engineering Design Calculations with Fuzzy Parameters," International Journal Of Fuzzy Sets And Systems, 1991.
55. Beaman, J.J., Lin, C.H., "Application of Nonlinear Quadratic Stochastic Control to a Position Servomechanism," Journal of Dynamic Systems, Measurement And Control, December, 1990.
56. da Silva, R., Wood, K.L., Beaman, J.J., "Interacting and Interfeature Relations in Engineering Design for Manufacture," Journal Of Systems Automation, Research And Applications- Special Issue, November 12, 1990.
57. Marcus, H.L., Beaman, J.J., Barlow, J.W., Bourell, D.L., "Solid Freeform Fabrication: Powder Processing," Ceramic Bulletin, Vol. 69, April 1990, No. 6.

58. Marcus, H.L., Beaman, J.J., Barlow, J.W.,Bourell, D.L., "Solid Freeform Fabrication: Design and Powder Processing," Journal Of The Minerals, Metals And Materials Society, April 1990, pp. 8-10.
59. Beaman, J.J., Lin, C.H., "Application of Nonlinear Quadratic Stochastic Control to a Position Servomechanism," Journal Of Dynamic Systems, Measurement And Control, September 1989.
60. Beaman, J.J, Breedveld, P., "Physical Modeling with Eulerian Frames and Bond Graphs," Journal Dynamic Systems, Measurement And Control, June 1988.
61. Beaman, J.J., Rosenberg, R.C. , "Constitutive and Modulation Structure in Bond Graph Modeling," Journal Of Dynamic
62. Systems, Measurement And Control, June 1988
63. Ingrim, M.E., Masada, G.Y., Beaman, J.J., "Bond Graph Reticulation of Galerkin Approximations in Thermoelasticity," Automated Modeling In Physical Systems, 1988.
64. Beaman, J.J., Wang, S.Y., Masada, G.Y. , "Cycle Time Control of a Pressure Swing Oxygen Generation System," Aviation Space And Environmental Medicine, Vol. 58, December 1987, pp. 1225-1229.
65. Diller, K.R., Beaman, J.J., McCaa, C., Montoya, J.P., Takahashi, T., "Analysis of the Osmotic Response of Human Monocytes to Freezing with a Cryoprotective Additive," Modeling And Simulation, Vol. 18, 1987.
66. Montoya, J.P., Diller, K.R., Beaman, J.J., Breedveld, P.C., "A Network Thermodynamic Model for Coupled Membrane Transport: Application to Cell Cryopreservation," Journal Of Heat Transfer, 1987
67. Khonsari, M., Beaman, J.J., "Thermohydrodynamics Analysis of Journal Bearings: A Study of Boundary Conditions," ASLE Journal, April 1986
68. Beaman, J.J., "A Dynamic Model of a Pressure Swing Oxygen Generation System," Journal Of Dynamic Systems, Measurement and Control, June 1985
69. Beaman, J.J., "Nonlinear Quadratic Gaussian Control," Int. Jour. Control, February 1984
70. Beaman, J.J., Healey, A.J., Werlin, J. , "A Dynamic Model of a Molecular Sieve Bed with Nonlinear and Coupled Isotherms," Journal Of Dynamic Systems, Measurement And Control, December 1983
71. Pottebaum, K.L., Beaman, J.J., "A Dynamic Model of a Concentric LADD Actuator," Journal Of Dynamic Systems Measurement And Control, September 1983, pp. 157-164
72. Beaman, J.J., Hedrick, J.K., "Improved Statistical Linearization for Analysis and Control of Nonlinear Stochastic Systems: Part I: An Extended Statistical Linearization Technique," Journal Of Dynamic Systems, Measurement And Control, March 1981, pp. 14-21

B. Refereed Conference Proceedings

1. Beaman, J.J., "Application of Statistical Linearization and LQG Design to Position Control," Proceedings Of The 1983 American Control Conference (ACC), San Francisco, CA, pp 127-131, June 1983

2. Beaman, J.J., "Application of NQG Control with Uncertain and Incomplete Measurements," Proceedings Of The 1984 American Control Conference (ACC), San Diego, CA, June 1984
3. Beaman, J.J., Montoya, J.P., Diller, K.R., Breedveld, P.C., "A Network Thermodynamic Model for Coupled Membrane Transport: Application to Cell Cryopreservation," Proceedings Of The 1987 ASME-JSME Thermal Engineering Joint Conference, edited by P. J. Marto and I. Tanasawa, published by ASME, New York, Vol. 3, pp 537-542, 1987
4. Beaman, J.J., Deckard, C.R. , "Solid Freeform Fabrication and Selective Powder Sintering," 15th North American Manufacturing Research Proceedings, May 1987
5. Beaman, J.J., Rosenberg, R.C., "Additional Structure in Bond Graph Modeling," Proceedings Of The 1987 American Control Conference (ACC), Minneapolis, June 1987
6. Beaman, J.J., Rosenberg, R.C., "Clarifying Energy Storage Field Structure in Dynamic Systems," Proceedings Of The 1987 American Control Conference (ACC), Minneapolis, June 1987
7. Beaman, J.J., Sun, M.M., Barlow, J., Nelson, C., "The Role of Solid Freeform Fabrication in Investment Casting," Proceedings At The 1989 Vacuum Metallurgy Conference On The Melting And Processing Of Specialty Materials, Pittsburgh, PA, May 1989
8. Beaman, J.J., Munkvold, G., "Removal of Toxic Catalytic Oxidation Products Via Adsorption," 1989 US Army Chemical Research, Development And Engineering Center Conference, Aberdeen Proving Ground, MD, November 1989
9. Beaman, J.J., Munkvold, G., "Onboard Oxygen Generation Systems Modeling: Three Component Feeds," SAFE Association Symposium, New Orleans, LA, December 1989
10. Beaman, J.J., Longoria, R.G., Miksad, R.K., "Nonlinear Hydrodynamic Forces in Random Oscillatory Flow," The First European Offshore Mechanics Symposium, Trondheim, Norway, August 21, 1990
11. Beaman, J.J., Wood, K., da Silva, R., "Representing and Manipulating Interacting and InterFeature Relationships in Engineering Design for Manufacture," 1990 ASME Design Automation Conference, Chicago, IL, September 16-19, 1990
12. Matthews, R.D., Dongre, S., Beaman, J.J., "Intake and ECM Submodel Improvements for Dynamic SI Engine Models: Examination of Tip-In/Tip-Out," Proceedings Of Society Of Automotive Engineers, January 1991
13. da Silva, R., Wood, K.L., Beaman, J.J., "An Algebraic Approach to Geometric Query Processing in CAD/CAM Applications," Proceedings Of The ACM 1991, Association Of Computing Machinery 1991 Symposium On Solid Modeling Foundations And CAD/CAM Applications, pp 73-86, 1991
14. Wood, K.L, Otto, K.N., Antonsson, E.K., Beaman, J.J., "Engineering Design Calculations Under Uncertainty," International Fuzzy Engineering Symposium, Yokohama, Japan, 1991
15. Munkvold, G.D, Teague, K.G., Edgar, T.F., Beaman, J.J., "Prediction of Bed Pressure Profiles in OBOGS," Proceedings Of The 1992 SAFE Conference, 1993
16. Marcus, H.L., Bourell, D.L., Beaman, J.J., Manthiram, A., Barlow, J.W., Crawford, R.H., "Challenges in Laser Processed Solid Freeform Fabrication," The

Minerals, Metals And Materials Society Symposium Proceedings, Processing And Fabrication Of Advanced Materials III, Pittsburgh, PA, October 17, 1993
17. Agarawala, M.K., Bourell, D.L., Beaman, J.J., Wu, B., Marcus, H.L., Crawford, R.H., Barlow, J.W., "Selective Laser Sintering of a Bronze Nickel Powder Mixture," Intelligent Manufacturing Systems International Conference On Rapid Product Development, Stuttgart, Germany, January 31, 1994
18. Agarawala, M.K., Bourell, D.L., Beaman, J.J., Wu, B., Marcus, H.L., "Structurally Sound Metal Parts by Selective Laser Sintering," The Mineral, Metals And Materials Society, Extraction & Processing Division Congress 1994 Proceedings, Materials Processing III, Warren, PA, March 2, 1994
19. Guduri, S., Crawford, R.H., Beaman, J.J., "Boundary Evaluation for Solid Freeform Fabrication," Proceedings Of The International Federation For Information Processing TC5 WG5.2/WG5.3 Conference, Litchfield Park, AZ, edited by M. J. Wozny and G. Olling, May 1994
20. Harlan, N., Das, S., Bourell, D.L., Beaman, J.J., "Selective Laser Sintering of High Performance High Temperature Metals," Seventh Solid Freeform Fabrication Symposium, published by The University of Texas Mechanical Engineering Department, August 12, 1996
21. Fuesting, T., Brown, L., Das, S., Harlan, N., Lee, G., Beaman, J.J., Bourell, D., Sargent, K. , "Development of Direct SLS Processing for Production of Cermet Composite Turbine Sealing Components - Part II," Seventh Solid Freeform Fabrication Symposium, published by The University of Texas Mechanical Engineering Department, August 13, 1996
22. Fuesting, T., Brown, L., Das, S., Harlan, N., Lee, G., Beaman, J.J., Bourell, D., Sargent, K. , "Development of Direct SLS Processing for Production of Cermet Composite Turbine Sealing Components - Part I," Seventh Solid Freeform Fabrication Symposium, published by The University of Texas Mechanical Engineering Department, August 13, 1996
23. Das, S., Beaman, J.J., Wohlert, M., Bourell, D.L., "Direct Selective Laser Sintering of High Performance Metals for Containerless HIP," Advances In Powder Metallurgy And Particulate Materials, Proceedings Of The International Conference On Powder Metallurgy And Particulate Materials, MPIF, Vol. 3 Part 21, pp 67-78, 1997
24. Bourell, D.L., Beaman, J.J., Barlow, J.W., Crawford, R.H., Marcus, H.L., Weiss, L.E., "Current and Future Trends in Solid Freeform Fabrication," Rapid Product Development Technologies, SPIE Proceedings, Vol. 2910, pp 104-113, 1. 1997
25. Das, S., Beaman, J.J., Wohlert, M., Bourell, D.L., "Direct Selective Laser Sintering of High Performance Metals for Containerless HIP," Symposium On Powder Metallurgy-Current Research And Industrial Practices, Indianapolis, IN, September 15-18, 1997
26. Das, S., Beaman, J.J., Wohlert, M., Bourell, D.L., "Microstructure and Mechanical Properties of Metal Parts Produced by SLS/HIP," Symposium On Microstructure And Mechanical Properties Of Direct Fabricated Materials, The Metals, Minerals And Materials Annual Meeting, San Antonio, TX, February 1998

27. Das, S., Fuesting, T.P., Danyo, G., Brown, L.E., Beaman, J.J., Bourell, D.L., "Microstructure and Properties of Cermet Composite Abrasive Blade Tips Produced by Direct Laser Processing," Symposium On Microstructure And Mechanical Properties Of Direct Fabricated Materials, The Metals, Minerals And Materials Annual Meeting, San Antonio, TX, February 1998
28. Das, S., Beaman, J.J., Wohlert, M., Bourell, D.L., "Direct Laser Freeform Fabrication of High Performance Metal Components," Proceedings Of The Seventh European Conference On Rapid Prototyping And Manufacturing, Aachen, Germany, July 7-9, 1998
29. Das, S., Beaman, J.J., Wohlert, M., Bourell, D.L., "SLS/HIP - A Direct Freeform Fabrication Process for High Performance Metal Components," Advanced Materials And Processing (PRICM3), Proceedings Of The Third Pacific Rim International Conference On Advanced Materials And Processing, Honolulu, HI, July 12-18, 1998
30. Das, S., Beaman, J.J., Wohlert, M., Bourell, D.L., "Processing of Titanium Net Shapes by SLS/HIP," 1998 Solid Freeform Fabrication Symposium Proceedings, Austin, TX, August 10-12, 1998
31. Das, S., Fuesting, T.P., Danyo, G., Beaman, J.J., Bourell, D.L., Brown, L.E., Sargent, K., "Direct Laser Fabrication of a Gas Turbine Engine Component-Microstructure and Properties," 1998 Solid Freeform Fabrication Symposium Proceedings, Austin, TX, August 10-12, 1998
32. Beaman, J.J., "Advances in Selective Laser Sintering," Rapid Prototyping And Manufacturing Conference, Dallas, TX, September 18, 1998
33. Hysinger, C.L., Beaman, J.J., Williamson, R.L., Melgaard, D.K. , "Multiple Input Electrode Gap control during Vacuum Arc Remelting," Proceedings Of The 1999 International Symposium On Liquid Metal Processing And Casting, International Symposium On Liquid Metal Processing And Casting, Santa Fe, NM , edited by Alec Mitchell, Lisa Ridgeway, Michael Baldwin, published by American Vacuum Society, Vol. 1999, pp 145-155, 1999
34. Beaman, J.J., Jepson, L., Perez, J., Bourell, D., and Wood, K., "Initial Development of a Multi-Material Selective Laser Sintering Process (M2 SLS)," Proceedings Of The 8th European Conference On Rapid Prototyping And Manufacturing, Nottingham, UK, July 6-8, 1999
35. Bourell, D.L., Wohlert, M., Harlan, N., "Powder Densification Maps and Applications in Selective Laser Sintering," Deformation Processing And Properties Of Structural Materials-A Symposium Honoring Oleg D. Sherby, edited by E.M. Taleff, C.K. Syn, and D.R. Leseur, pp 219-230, 2000
36. Wohlert, M., Bourell, D.L., Das, S., Beaman, J.J., "Applications of Powder Densification Maps to Direct Metal SLS/HIP Processing," Eleventh Solid Freeform Fabrication Symposium, The University Of Texas At Austin, TX, pp 2. 50-158, August 2000
37. Beaman, J.J., Williamson, R.L., "A Nonlinear Reduced Order Model for Dynamic VAR Melt Rate Control ," Proceedings Of The 2001 International Symposium On Liquid Metal Processing And Casting, LMPC 2001 , Santa Fe, NM , edited by Alec Mitchell, James Van Den Avyle, published by American Vacuum Society, Vol. 2001, pp 161-174, September 2001

38. Williamson, R.L., Beaman, J.J., Melgaard, D.K., Shelmidine, G.J., Tubesing, P.K., Aikin, R.M. , "Dynamic Melt Rate Control on a Laboratory Scale VAR Furnace Without Load Cell Feedback ," Proceedings Of The 2001 International Symposium On Liquid Metal Processing And Casting , LMPC 2001 , Santa Fe, NM , edited by Alec Mitchell, James Van Den Avyle, published by American Vacuum Society, Vol. 2001, pp 175-186, September 2001
39. Williamson, R.L., Evans, D., Beaman, J.J. , "Model-Based Control of Melt Transients in VAR," Proceedings Of The 2001 International Symposium On Liquid Metal Processing And Casting Proceedings, , LMPC 2001 , Santa Fe, NM, published by American Vacuum Society , Vol. 2001, September 2001 , ( )
40. Bourell, D.L., Beaman, J.J. , "Freeform Fabrication - History and Current Processes," Rapid Prototyping Of Materials, TMS Fall Meeting, Columbus, Ohio, edited by F. Marquis and David L. Bourell, published by TMS, pp 3-18, 2002
41. Lappo K., Murphy, J., Ramos, J.A., Wood, K.L., Bourell, D.L., Beaman, J.J. , "Surface Roughness Determination of As Received and Laser Polished Indirect SLS Parts by Means of Line Profilometry," Rapid Prototyping Of Materials, TMS Fall Meeting, Columbus, Ohio, edited by F. Marquis and David L. Bourell, published by TMS, pp 185-190, 2002
42. Ramos, J.A., Bourell, D.L., Beaman, J.J., "Surface Over-Melt During Laser Polishing of Indirect-SLS Metal Parts,"Proceedings Of The 2002 MRS Spring Meeting, Symposium LL, edited by A. Pique, A.S. Holmes, and D. Dimos, pp 53-61, 2003
43. Williamson, R.L., Beaman, J.J., Melgaard, D.K., Shelmidine, G.J., Patel, A.D., Adasczik, C.B. , "A Demonstration of Melt Rate Control during VAR of "Cracked" Electrodes," Proceedings Of The 2003 International Symposium On Liquid Metal Processing And Casting, LMPC 2003, Nancy, France, edited by Peter D. Lee, Alec Mitchell, Jean-Pierre Bellot, Alain Jardy, published by SF2M (Societe Francaise de Metallurgie et des Materiaux), Vol. 2003, pp 39-48, September
    3. 2003
44. Beaman, J.J., Williamson, R.L., Melgaard, D.K., Shelmidine, G.J. , "Model-Based Gap and Melt Rate Control for VAR of Ti-6A1-4V," Proceedings Of The 2003 International Symposium On Liquid Metal Processing And Casting, LMPC 2003, Nancy, France, edited by Peter D. Lee, Alec Mitchell, Jean-Pierre Bellot, Alain Jardy , published by SF2M
    4. Societe Francaise de Metallurgie et des Materiaux), Vol. 2003, pp 67-76, September 2003
45. Bourell, D.L., Beaman, J.J. , "Methodologies and Processes in Additive/Subtractive Manufacturing," WTEC Panel Report On Additive/Subtractive Manufacturing Research And Development In Europe, published by WTEC, Inc., pp 7- 24, 2004
46. King, C.W, Campbell, M.I., Beaman, J.J., "On the Design Synthesis of Multistable Equilibrium Systems," Proceedings Of The ASME Design Engineering Technical Conference And Computers And Information In Engineering Conference, Salt Lake City, UT, published by ASME, Vol. 1, pp 109-122, 2004

47. Rosen, D.W., Atwood, C., Beaman, J.J., Bourell, D.L., Bergman, T., Hollister, S. , "Results of WTEC Additive/Substractive Manufacturing Study of European Research," Proceedings Of The 2004 SME Rapid Prototyping & Manufacturing Conference, Dearborn, Michigan, May 2004
48. Evans, R.S., Bourell, D.L., Beaman, J.J., Campbell, M.I., "Indirect Rapid Manufacturing of Silicon Carbide Composites," Fifteenth Solid Freeform Fabrication Symposium, edited by Bourell, et al., published by The University of Texas Mechanical Engineering Department, August 2004
49. Evans, R.S., Bourell, D.L., Beaman, J.J., Campbell, M.I. , "SLS Materials Development Method for Rapid Manufacturing," 16th SFF Symposium Proceedings 2005, 16th Solid Freeform Fabrication Symposium, Austin, TX, published by University of Texas at Austin, pp 184-196, August 1-3, 2005
50. Patel, A., Morrison, R., Williamson, R.L., Evans, D., Beaman, J.J. , "Model-Based Control of Melt Transients in VAR," Proceedings Of The 2005 International Symposium On Liquid Metal Processing And Casting, LMPC 2005, Santa Fe, NM, published by American Vacuum Society, Vol. 2005, September 2005
51. Williamson, R.L., Beaman, J.J., Melgaard, D.K., Shelmidine, G.J., Tubesing, P.K., Aikin, R.M. , "Dynamic Melt Rate Control on a Laboratory Scale VAR Furnace Without Load Cell Feedback," Proceedings Of The 2005 International Symposium On Liquid Metal Processing And Casting, LMPC 2005, Santa Fe, NM, published by American Vacuum Society , Vol. 2005, September 2005
52. Beaman, J.J., "Direct Digital Manufacturing," Small Lot Intelligent Manufacturing Workshop, SLIM II, Santa Fe, NM, published by Los Alamos National Laboratory, September 13-14, 2005
53. Beaman, J.J., Williamson, R.L., Melgaard, D.K., Hamel, J., "A Nonlinear Reduced Order Model for Estimation and Control of Vacuum Arc Remelting of Metal Alloys," Proceedings Of The 2005 ASME International Mechanical Engineering Congress And Exposition, IMECE 2005, Orlando, FL, November 5-11, 2005, (electronic form only – 9 pages)
54. Beaman, J.J., Williamson, R.L., Melgaard, D.K., Aikin, R.M., Ermann, R.G. , "Vacuum arc remelting pool power control," Proceedings Of The 2007 International Symposium On Liquid Metal Processing And Casting, LMPC 2007, Nancy, France, edited by Peter D. Lee, Alec Mitchell, Jean-Pierre Bellot, Alain Jardy, published by American Vacuum Society, Vol. 2007, pp 37-42, September 2007
55. Williamson, R.L., Erdmann, R.G., Beaman, J.J., Melgaard, D.K. , "Monitoring the vacuum arc remelting process," Proceedings Of The 2007 International Symposium On Liquid Metal Processing And Casting, LMPC 2007, Nancy, France, edited by Peter D. Lee, Alec Mitchell, Jean-Pierre Bellot, Alain Jardy, published by American Vacuum Society, Vol. 2007, pp 1-6, September 2007
56. Bourell, D.L., Beaman, J.J, "Support-free Infiltration of Selective Laser Sintered (SLS) Non-Metallic Preforms," Proceedings Of 2008 NSF Engineering Research And Innovation Conference, ERIC2008, Knoxville, TN, January 2008
57. Bourell, D.L., Vallabhajosyula, P., Stevinson, B., Chen, S., Beaman, J.J., "Rapid Manufacturing using Infiltration Selective Laser Sintering," Proceedings Of The

9th Biennial Conference On Engineering Systems Design And Analysis, ESDA08, Haifa, Israel, July 2008

58. Beaman, J.J., Ahn, S. , "Estimation of Electroslag Remelting Process with an Unscented Kalman Filter," International Symposium On Liquid Metal Processing And Casting Conference Proceedings, LMPC 2009, Santa Fe, NM, edited by Williamson, R.L., Lee, P.D., September 2009
59. Ahn, S., Beaman, J.J., Williamson, R.L., Melgaard, D.L., "Model-based Control of Electroslag Remelting Process using Unscented Kalman Filter," Proceedings Of The ASME Dynamic Systems And Control Conference, Proceedings Of The DSCC 2008, ASME Dynamic Systems And Control Conference (DSCC 2008), Ann Arbor, MI, published by ASME, 2010 ed, Vol. 132, No. 1 , 2010
60. Diller, T., Sreenivasan, R., Bourell, D., Beaman, J.J., "Thermal Characterization of Powder-Based Selective Laser Sintering of Nylon-12," Proceedings Of The 2011 TMS Annual Meeting, 2011 TMS Annual Meeting, San Diego, CA, Fall 2010
61. David K. Leigh, David L. Bourell, Joseph J. Beaman, "Effect of In-Plane Voiding on the Fracture Behavior of Laser Sintered Polyamide," Proceedings Of The Solid Freeform Fabrication Symposium, Solid Freeform Fabrication Symposium, Austin, pp 453-463, 2011
62. Beaman, J.J., Williamson, R.L., Lopez, L.F., "A reduced-order thermal model for dynamic VAR pool depth control," Proceedings Of The LMPC 2011 Conference, LMPC 2011 Conference, Nancy, France, 2011 ed, September 2011
63. Lopez, L.F., Beaman, J.J., Williamson, R.L., "A reduced-order model for dynamic vacuum arc remelting pool depth estimation and control," Proceedings Of The 2011 ASME Dynamic Systems And Control Conference , ASME Dynamic Systems And Control Conference (DSCC) 2011, Arlington, VA, 2011 ed, October 2011
64. David K. Leigh, David L. Bourell, Joseph J. Beaman, Jr, "Effect of In-Plane Voiding on the Fracture Behavior of Laser Sintered Polyamide," ProProceedings Of The ASME/ISCIE 2012 International Symposium On Flexible Automation, ASME/ISCIE 2012 International Symposium On Flexible Automation, St. Louis, pp 1-7, 2012
65. David L. Bourell and Joseph J. Beaman, "Powder Material Principles Applied to Additive Manufacturing," Proceedings Of The 141st TMS Annual Meeting, 141st TMS Annual Meeting, pp 537-544, 2012.
66. Lopez, L.F., J. Beaman, R.L. Williamson, “Linear-Quadratic-Gaussian (LQG) Controller for Liquid Pool Profile in Vacuum Arc Remelting”, Proceedings of the 2012 ASME Dynamic Systems and Control Conference, 2012.
67. Lopez, F.L., J. Beaman, R.L. Williamson, E. Taleff, T. Watt “Controlling Liquid Pool Depth in VAR of a 21.6 cm Diameter Ingot of Alloy 718”, *Proceedings of the 2013 International Symposium on Liquid Metal Processing and Casting,* Sept., 2013.
68. Watt, T., E. Taleff, J. Beaman, F. Lopez, R. Williamson, “Solidification Mapping of a Nickel Alloy 718 Laboratory VAR Ingot”, *Proceedings of the 2013 International Symposium on Liquid Metal Processing and Casting*, Sept., 2013.

73. Lopez F., L. Zhang, J. Beaman, A. Mok. "Implementation of a particle filter on a GPU for nonlinear estimation in a manufacturing remelting process," 2014 IEEE/ASME Conference on Advanced Intelligent Mechatronics.
74. Fish, S., S. Kubiak, W. Wroe, J. Booth, A. Bryant, J. Beaman, "A High Temperature Polymer Selective Laser Sintering Testbed for Controls Research", Proceedings Of The Solid Freeform Fabrication Symposium, Solid Freeform Fabrication Symposium, Austin, pp 171-179, Aug. 2015.
75. F. Lopez, J. Beaman, R. Williamson, D. Evans, "Controlling pool depth during VAR of Alloy 718," Proceedings of the 2015 International Symposium on Liquid Metal Processing and Casting Sept., 2015.
76. F. Lopez, J. Beaman, R. Williamson, "Auxiliary particle filter-model predictive control of the vacuum arc remelting process," Proceedings of the 2015 International Symposium on Liquid Metal Processing and Casting, Sept., 2015.
77. Wroe, W., J. Gladstone, T. Phillips, A. McElroy, S. Fish, J. Beaman, "In-Situ Thermal Image Correlation with Mechanical Properties of Nylon-12 in SLS", Proceedings Of The Solid Freeform Fabrication Symposium, Solid Freeform Fabrication Symposium, pp. 832-846, Aug., 2015
78. Phillips, T., A. McElroy, S. Fish, J. Beaman, "In-Situ Laser Control Method for Polymer Selective Laser Sintering (SLS)", Solid Freeform Fabrication Symposium, Aug., 2016.
79. A. Lewis, M. Gardner, A. McElroy, T. Milner, S. Fish, J. Beaman, In-Situ Process Monitoring and Ex-Situ Part Quality Assessment of Selective Laser Sintering Using Optical Coherence Tomography", Solid Freeform Fabrication Symposium, Aug., 2016.
80. Ojinnaka, O. J. Beaman, "Early Kick Detection Using Real-Time Data Analysis With A Lumped Parameter Model", Proceeding of the Dynamic Systems and Control Conference, ASME, Oct, 2016.
81. Zhang, L., A. Mok, J. Beaman, "PFGPU: A Particle Filter Compiler for GPGPU", 8th ACM/IEEE International Conference on Cyber-Physical Systems, Oct., 2017.
82. Zhao, N., J. Beaman, S. Fish, "Study on the Selective Laser Reaction Sintering of Silicon Carbide from a Mixture of Silicon and Carbon in Slurry Form," May, 2017, SAMPE Conference Proceedings, pp. SE17-0640
83. Taylor, S., S. Fish, J. Beaman, Thermal History Correlation with Mechanical Properties for Polymer Selective Laser Sintering, Solid Freeform Fabrication Symposium, Aug., 2017.
84. Lewis, A., N. Katta, A. McElroy, T. Milner, S. Fish, J. Beaman, Investigation of Optical Coherence Tomography Imaging in Nylon 12 Powder, Solid Freeform Fabrication, Aug., 2017.
85. Lewis, A., A. McElroy, T. Milner, S. Fish, J. Beaman, Initial Investigation of Selective Laser Sintering Laser Power vs. Part Porosity Using In-Situ Optical Coherence Tomography, Solid Freeform Fabrication Symposium, Aug., 2017.
86. Phillips, T., L. Zhang, S. Fish, J. Beaman, Laser Power Control in SLS, Solid Freeform Fabrication Symposium, Aug., 2017.
87. Ji, Y., S. Taylor, S. Fish, J. Beaman, Thermal Simulation and Experiment Validation of Cooldown Phase of Selective Laser Sintering (SLS), Solid Freeform Fabrication Symposium, Aug., 2017.

88. Crowns, K., B, Roberts, J. Beaman, Fatal Launch: Fireworks Fatality and the Determination of Generated Recoil Force, Proceedings of the American Academy of Forensic Sciences, Feb., 2017.
89. Ojinnaka, M. and J. Beaman, “Cyber-Enabled Early Detection of Gas Kicks and Lost Circulation in Real Time”, Proceedings of the 2018 American Control Conference (ACC), Milwaukee, WI, pp XXX, June 2018.

C. Other Major Publications

1. Beaman, J.J., B.E. Platin, J.K. Hedrick, and D.N. Wormley, "Freight Car Operation: Computational Methods and Engineering Data for Response to Track Cross-Level Variation," May 1976, Center for Transportation Studies, MIT
2. Beaman, J.J., "Computer Modeling and Optimization of OBOGS with Contaminants," U.S. Army Medical Research And Development Command, September 1985-1986, (Annual Report)
3. Beaman, J.J, "Design and Testing of a Prototype Shock Distributing Panel," September 24, 1985, Final Report, prepared for Mr. D. Allen and Mr. R. Larry
4. Beaman, J.J., "Physical Modeling with Structured Bond Graphs," September 1986, IBM T. J. Watson Research Center, (Research Report)
5. Beaman, J.J., "State Equations for Structured Bond Graphs," October 1986, IBM T. J. Watson Research Center, (Research Report)
6. Beaman, J.J., "Computer Modeling and Optimization of OBOGS with Contaminants," U.S. Army Medical Research And Development Command, December 31, 1987
7. Beaman, J.J., "On Board Oxygen Generation System (OBOGS) Simulator Manual," April 1988, Brooks Air Force
8. Beaman, J.J., "Oxygen Storage on Zeolites," June 30, 1988, McDonnell Douglas Corporation, (Final Report Task 21)
9. Leroy-Paulay, P. and J.J. Beaman, "Rittage Laser Des Petites Series en Prototypage Rapide," L-usine Nouvelle, No. 2481, 1994, pp 62
10. Beaman, J.J., Barlow, J.W., Vail, N.K., Lee, G.H., Balasubramanian, B., Bourell, D.L., Marcus, H.L., "Selective Laser Sintering of Polymers and Polymer Composites," VII National Conference Of The Mexican Polymer Society, September 29, 1994
11. Beaman J.J., Weiss, L., "Japanese Technology Evaluation Center Panel Report on Rapid Prototyping in Japan and Europe," March 7, 1996, Loyola College, Baltimore, MD
12. Beaman, J.J., Knight, R., Wright, J. , "Prototype Functional Metal Parts by the LSL/HIP Process," 6th European Conference On Rapid Prototyping And Manufacturing, March 24, 1997, University Park, Nottingham, United Kingdom
13. Das, S., Beaman, J.J., Wohlert, M., Bourell, D.L., "Direct Laser Freeform Fabrication of High Performance Metal Components," Proceedings Of The Seventh European Conference On Rapid Prototyping And Manufacturing, July 7-9, 1998, Aachen, Germany
14. Das, S., Beaman, J.J., Wohlert, M., Bourell, D.L., "SLS/HIP - A Direct Freeform Fabrication Process for High Performance Metal Components," Advanced Materials And Processing (PRICM3), Proceedings Of The Third Pacific Rim

International Conference On Advanced Materials And Processing, July 12-18, 1998, Honolulu, HI

15. Das, S., Beaman, J.J., Wohlert, M., Bourell, D.L., "Processing of Titanium Net Shapes by SLS/HIP," 1998 Solid Freeform Fabrication Symposium Proceedings, August 10-12, 1998, Austin, TX
16. Das, S., Fuesting, T.P., Danyo, G., Beaman, J.J., Bourell, D.L., Brown, L.E., Sargent, K., "Direct Laser Fabrication of a Gas Turbine Engine Component-Microstructure and Properties," 1998 Solid Freeform Fabrication Symposium Proceedings, August 10-12, 1998, Austin, TX
17. Das, S., Beaman, J.J., Wohlert, M., Bourell, D.L., "Freeform Fabrication of High Performance Components via SLS/HIP," Proceedings Of The Symposium On Solid Freeform And Additive Fabrication, Vol. Fall 1998 , December 2- 7, 1998, Boston
18. Das, S., Beaman, J.J., Wohlert, M., Bourell, D.L. , "Direct Laser Fabrication of High Performance Components via SLS/HIP," Symposium On Surface Engineering: Science And Technology, March 3, 1999, TMS Annual Meeting, San Diego
19. Das, S., Fuesting, T.P., Beaman, J.J., Bourell, D.L. , "Direct Laser Fabrication of Nickel Superalloy Cermet Turbine Engine Components," Symposium On Surface Engineering: Science And Technology, March 3, 1999, TMS Annual Meeting, San Diego
20. Das, S., Beaman, J.J., Wohlert, M., and Bourell, D.L., "Low Cost Fabrication of High-Performance Metal Components by Selective Laser Sintering/Hot Isostatic Pressing," 10th Annual Advanced Aerospace Materials And Processes Conference, June 24, 1999, ASM International, Dayton, OH
21. Harlan, N.R., Bourell, D., Park, S.M., Beaman, J.J., "Selective Laser Sintering of Zirconia," Proceedings Of The 2000 MRS Spring Meeting, Symposium Y, 2000, edited by D. Dimos, S. Danforth, and F. Prinz
22. Bourell, D.L., Klosterman, D., Gibson, I., Bandyopadhyah, A., Beaman, J.J. , "Freeform Fabrication in Composites Manufacture," ASM Engineered Materials Handbook On Composites, 2nd ed. ed., Vol. 1, 2001
23. Beaman, J.J., "WTEC Hybrid Additive/Subtractive Manufacturing Study Dallas, Texas ," NSF Grantees And Research Conference, January 2004
24. Beaman, J.J., Wood, K.L, Bourell, D.L., Crawford, R.H, Ruizpalacios, R., Rafiully, M., Mignatti, M. , "Laser Direct Write of Novel Optical Components ," 2005 DMII NSF Grantees And Research Conference Scottsdale, AZ, DMI0200283, January 3-6, 2005, NSF
25. Beaman, J.J., Wood, K.L., Tadepalli, S. , "Using Analytical Transformations for Designing Engineering Systems ," 2005 DMII NSF Grantees And Research Conference, Scottsdale, AZ, DMI 0322755, January 3-6, 2005, NSF

D. Non-refereed Conference Proceedings

1. Ahn, S., Murphy, J., Ramos, J.A., Wood, K.L., Beaman, J.J., "Real-Time Measurement of Temperatur for Control of Laser Surface Modification Process," 13th Annual Solid Freeform Fabrication Symposium, University Of Texas At

Austin, Proceedings Of The Solid Freeform Fabrication Symposium, published by University of Texas at Austin, August 2002, 1st ed., Vol. 19, 1 volumes, pp 1-653

2. Dutson, A.J., Wood, K.L., Crawford, R.H., Beaman, J.J., Bourell, D.L., "Advances in Functional Testing with SFF Parts," 13th Solid Freeform Fabrication Symposium, University Of Texas At Austin, Proceedings Of The Solid Freeform Fabrication Symposium, published by University of Texas at Austin, August 2002, 1st ed., Vol. 19, 1 volumes, pp 1-653
3. Murphy, J. Lappo, K., Wood, K.L., Beaman, J.J., "A Statistical Model of Laer Surface Finishing Using Design of Experiments and ANOVA," 13th Annual Solid Freeform Fabrication Symposium, University Of Texas At Austin, Proceedings Of The Solid Freeform Fabrication Symposium, published by University of Texas at Austin, August 2002, 1st ed., Vol. 1, 1 volumes, pp 1-653
4. Ramos, J.A., Murphy, J., Lappo, K., Wood, K.L., Bourell, D.L., Beaman, J.J., "Single-Layer Deposits of Nickel Base Superalloy by Means of Selective Laser Melting," 13th Solid Freeform Fabrication Symposium, University Of Texas At Austin, Proceedings Of The Solid Freeform Fabrication Symposium, published by University of Texas at Austin, August 2002, 1st ed., Vol. 1, 1 volumes, pp 1-653
5. Bourell, D.L., Beaman, J.J, "Electrochemical Deposition of Metal Ions in Porous Laser Sintered Inter-metallic and Ceramic Preforms," NSF CMMI Grantees Conference, Atlanta, GA, Proceedings Of The 141st TMS Annual Meeting, September 2011

E. Books, Book Chapters Authored/Co-authored, Editor/Co-Editor of Books

i. Books

1. Beaman, J.J., Barlow, J.W., Bourell, D.L., Crawford, R.H., Marcus, H.L., MacAlea, K., Solid Freeform Fabrication: A New Direction In Manufacturing, September 1996, published by Kluwer Publishing, Norwell, MA

ii. Book Chapters

1. Beaman, J.J., "Accuracy of Statistical Linearization," New Approaches For Nonlinear Problems In Dynamics, pp. 195-208, 1980
2. Beaman, J.J., "Chapter 10: Periodic Analysis Of A Nonlinear Diffusion Equation: Freeze And Thaw Of The Earths Surface", Nonlinear System Analysis And Synthesis: Volume 2 - Techniques And Applications, pp. 161- 176, 1980, published by ASME Publication
3. Beaman, J.J., and J.K, Kedrick, "Chapter 16: An Extended Statistical Linearization Technique", Nonlinear System Analysis And Synthesis: Volume 2 - Techniques And Applications, pp. 269-290, 1980, published by ASME Publication
4. Beaman, J.J., and J.K. Hedrick, "Chapter 11: Freight Car Harmonic Response - A Simplified Nonlinear
2. Method", Nonlinear System Analysis And Synthesis: Volume 2 - Techniques And Applications, pp. 177-198, 1980, published by ASME Publication
5. Beaman, J.J., and J.K. Kedrick, "Chapter 18: Control Design By An Extended Statistical Linearization
3. Technique", Nonlinear System Analysis And Synthesis: Volume 2 - Techniques And Applications, pp. 327-344, 1980, published by ASME Publication

6. Bourell, D.L., Beaman, J.J., Klosterman, J., Gibson, D., Bandyopadkyay, I., "ASM Materials Handbook on Composites," "Rapid Prototyping", ASM Materials Handbook On Composites, pp. 383-387, ASM, 2nd edition, Vol. 21, 1 volumes, 5 pages, 2001, published by ASM, English

iii. Books Edited

1. Bourell, D.L., Klosterman, D., Gibson, I., Bandyopadhyah, A., Beaman, J.J. , "Freeform Fabrication in Composites Manufacture," ASM Engineered Materials Handbook On Composites, 2nd edition, Vol. 1, 2001

F. Reviews

1. Feature article in IEEE Spectrum
2. Journal of Dynamic Systems, Measurement and Control
3. NSF Proposals
4. Transactions of ASME, Journal of Manufacturing Science and Engineering

G. Technical Reports

1. Affordable Turbine Blade Tips, Dayton, OH, April 22, 1998, (Final Review for Air Force)
2. Selective Laser Sintering of HIP Metal Parts, Woods, Hole, MA, May 29, 1998
3. Direct Laser Fabrication of a Gas Turbine Engine Component-Microstructure and Properties, Austin, TX, August 1998, (Contract Report)
4. Low Cost Metal Processing Using SLS/HIP, Washington, DC, November 9, 1998, (Contract Report)
5. Low Cost Metal Processing Using SLS/HIP, Woods Hole, MA, May 26, 1999, (Contract Report)
6. Beaman, J.J., Vacuum Arc Remelting Technical Control Status, Albuquerque, NM, August 11, 1999, (Technical Report)
7. Beaman, J.J., Vacuum Arc Remelting Technical Report/ESR Controller Update, Albuquerque, NM, February 5-7, 2001
8. Beaman, J.J., ESR Controller Update, Albuquerque, NM, May 1-3, 2001
9. Beaman, J.J., Vacuum Arc Remelting Technical Report, Las Vegas, NV, May 20-23, 2001
10. Beaman, J.J., Vacuum Arc Remelting Technical Repor Technical Report, Albuquerque, NM, June 6-7, 2001
11. Beaman, J.J., Vacuum Arc Remelting Technical Report, Los Angeles, CA, June 12-14, 2001
12. Beaman, J.J., Vacuum Arc Remelting Technical Report, Albuquerque, NM, August 8-9, 2001
13. Beaman, J.J., Vacuum Arc Remelting Technical Report, Albuquerque, NM, October 24, 2001
14. Beaman, J.J., Vacuum Arc Remelting Technical Report, Los Alamos, New Mexico, December 17-18, 2001
15. Beaman, J.J., Vacuum Arc Remelting Technical Report, Albuquerque, New Mexico, January 7-8, 2002
16. Beaman, J.J., Vacuum Arc Remelting Technical Report, Los Angeles, CA, January 20-21, 2002
17. Beaman, J.J., Vacuum Arc Remelting Technical Report, Albuquerque, NM, February 4-6, 2002

18. Beaman, J.J., Vacuum Arc Remelting Technical Report, Albuquerque, NM, March 25-26, 2002
19. Beaman, J.J., Vacuum Arc Remelting Technical Report, Albuquerque, NM, April 29-30, 2002
20. Beaman, J.J., Vacuum Arc Remelting Technical Report, Albuquerque, NM, May 23, 2002
21. Beaman, J.J., Vacuum Arc Remelting Technical Report, Philadelphia, PA, July 1-3, 2002
22. Beaman, J.J., Vacuum Arc Remelting Technical Report, Albuquerque, NM, July 9-10, 2002
23. Beaman, J.J., Vacuum Arc Remelting Technical Report, Albuquerque, NM, August 6, 2002
24. Beaman, J.J., Vacuum Arc Remelting Technical Report, Albuquerque, NM, August 6-8, 2002
25. Beaman, J.J., Vacuum Arc Remelting Technical Report, Monroe, NC, August 19-22, 2002
26. Prinz, F.B., Beaman, J.J., Bourell, D.L., Kammerick, K., Hollister, S., Lewis, J. , Technical Barriers to Progress in Additive/Subtractive Manufacturing, Baltimore, MD, 1-55 pages, March 3, 2003
27. Beaman, J.J., Vacuum Arc Remelting Technical Report, Albuquerque, NM, 1-10 pages, February 2004
28. Beaman, J.J., Vacuum Arc Remelting Technical Report, Las Vegas, NV, 1-10 pages, June 2004
29. Beaman, J.J., Solid Freeform Fabrication: Advance to Manufacturing, Providence, RI, none pages, November, 2004
30. Beaman, J.J., Advances in Vacuum Arc Remelting Technical Report, Albuquerque, NM, none pages, February 16, 2005
31. Beaman, J.J., Advances in Vacuum Arc Remelting Technical Report, Las Vegas, NV, none pages, June 14-16, 2005
32. Beaman, J.J., Advances in Vacuum Arc Remelting Technical Report, Albuquerque, NM, none pages, February 15, 2006
33. Beaman, J.J., Advances in Vacuum Arc Remelting Technical Report, Albuquerque, NM, none pages, August 9, 2006
34. Beaman, J.J., Advances in Vacuum Arc Remelting Theory, Albuquerque, NM, February 2007
35. Beaman, J.J., Advances in Vacuum Arc Remelting Technology, Las Vegas, NV, February 2008
36. Beaman, J.J., Advances in Vacuum Arc Remelting Technology, Las Vegas, NV, August 2008
37. Beaman, J.J., Williamson, R.L., Solidification Controller Tests, Los Alamos NM, January 2009
38. Beaman, J.J., Advances in Vacuum Arc Remelting Technology, Las Vegas, NV, February 2009
39. Beaman, J.J., Advances in Vacuum Arc Remelting Technology, Austin, TX, August 2009

40. Beaman, J.J., Williamson, R.L., Solidification Controller Tests, Los Alamos NM, February 2010
41. Beaman, J.J., Advances in Vacuum Arc Remelting Technology, Austin, TX, March 2010
42. Beaman, J.J., Advances in Vacuum Arc Remelting Technology, Las Vegas, NV, August 2010
43. Beaman, J.J., Advances in Vacuum Arc Remelting Technology, Austin, TX, October 2010
44. Beaman, J.J., Williamson, R.L., Solidification Controller Tests, Los Alamos NM, February 2011
45. Beaman, J.J., Advances in Vacuum Arc Remelting Technology, Austin, TX, February 2011
46. Beaman, J.J., Williamson, R.L., Solidification Controller Tests, Los Alamos NM, July 2011
47. Beaman, J.J., Advances in Vacuum Arc Remelting Technology, Austin, TX, August 2011

ORAL PRESENTATIONS:

A. Invited or Keynote Speeches

1. Beaman, J.J., "Part Generation by Layerwise Selective Sintering," National Science Foundation for Expedited Award for Novel Research Grant, Washington, D.C., September 20, 1989
2. Beaman, J.J., "Solid Freeform Fabrication: An Emerging Manufacturing Technology," Guest Lecture Series, Carnegie Mellon University, Pittsburgh, PA, March 15, 1990
3. Beaman, J.J., "Academic Selective Laser Sintering Research," Central Texas Chapter of ASME, Balcones Research Center, Austin, TX, December 13, 1993
4. Beaman, J.J., "Recent Advances on Next Generation Manufacturing Technologies," 1997 International Mechanical Engineering Congress and Exposition, ASME International, Dallas, TX, November 20, 1997, (panel discussion)
5. Beaman, J.J., "Direct Fabrication by Selective Laser Sintering," Third Pacific Rim International Conference on Advanced Materials and Processes, Honolulu, HI, July 12-16, 1998
6. Beaman, J.J., "Solid Freeform Fabrication Overview," 1998 Selective Laser Sintering Users Group Conference, Austin, TX, September 1, 1998
7. Beaman, J.J., "Advances in Selective Laser Sintering," Manufacturing Series Rapid Prototyping and Manufacturing Career-Enhancement Courses, Southern Methodist University, Dallas, TX, September 18, 1998
8. Beaman, J.J., "Modern Manufacturing Methods: It's Impact on Industrial Design," Symposium on Industrial Design, presented by the Pontifical Catholic University of Chile, School of Design, Santiago, Chile, November 6, 1998
9. Beaman, J.J., "Solid Freeform Fabrication-Macroscopic Objects to Fine Featured Components," Rapid

1. Manufacturing/The Factory-After-Next Workshop sponsored by Vanderbilt University and the US Army Research Office, Nashville, TN, December 13-15, 1998
10. Beaman, J.J., "Solid Freeform Fabrication," Engineering Foundation Advisory Council, College of Engineering, University of Texas at Austin, TX, February 20, 1999
11. Beaman, J.J., Hysinger, C.L., Williamson, R.L. and Melgaard, D.K., "Multiple Input Electrode Gap Control During Vacuum Arc Remelting," 1999 International Symposium on Liquid Metal Processing and Casting, sponsored by the Vacuum Metallurgy Division, American Vacuum Society, Santa Fe, NM, February 23, 1999
12. Das, S., Wohlert, M., Beaman, J.J., Bourell, D.L., "Direct Laser Fabrication of High Performance Metal Components via SLS/ HIP," 129th TMS Annual Meeting, Nashville, TN, March 2000
13. Harlan, N., Park, S-M., Beaman, J.J., Bourell, D.L., "Selective Laser Sintering with Meso-Scale Features," 129th TMS Annual Meeting, Nashville, TN, March 2000
14. Harlan, N., Park, S-M., Bourell, D.L., Beaman, J.J., "Zirconia Molds for Titanium Casting," 129th TMS Annual Meeting, Nashville, TN, March 2000
15. Harlan, N.R., Bourell, D., Park, S-M., Beaman, J.J., "Selective Laser Sintering of Zirconia," 2000 MRS Spring Meeting and Symposium, San Francisco, CA, April 2000
16. Wohlert, M., Bourell, D.L., Das, S., Beaman, J.J., "Applications of Powder Densification Maps to Direct Metal SLS/HIP Processing," Eleventh Solid Freeform Fabrication Symposium, University of Texas, Austin, TX, August 2000
17. Beaman, J.J., "Solid Freeform Fabrication at the University of Texas, Present, Past, Future," Purdue University, Lafayette, IN, September 27-29, 2000
18. Beaman, J.J., "Developing an NSF Initiative for Nanotechnology," International Mechanical Engineering Congress & Exposition, Orlando, FL, November 5-6, 2000, (panel discussion)
19. Beaman, J.J., "Solid Freeform Fabrication at the University of Texas," Schlumberger, Houston, TX, December 6-7, 2000
20. Beaman, J.J., "Solid Freeform Fabrication Research at the University of Texas," IAT, Pickle Research Center, University of Texas at Austin, December 13, 2000
21. Beaman, J.J., "Optimal Filtering Applied to the Vacuum Arc Remelting Process," New Orleans, Louisiana, 2001, (2001 TMS Annual Meeting and Exhibition: Sampling, Sensors & Control for High Temperature Metallurgical Processes)
22. Beaman, J.J., "Nanoscale Facility Working Group," NSF Meeting, Tampa, FL, January 10, 2001
23. Beaman, J.J., "Optimal Filtering Applied to the Vacuum Arc Remelting Process," 2001 TMS Annual Meeting and Exhibition: Sampling, Sensors & Control for High Temperature Metallurgical Processes, New Orleans, LA, February 10-14, 2001
24. Dutson, A.J., K.L. Wood, J.J. Beaman, R.H. Crawford, "A Study of Functional Testing with SFF Parts," The University of Texas at Austin, August 7 - 9, 2002, (Annual Solid Freeform Fabrication Symposium, Thompson Conference Center)

25. Beaman, J.J., "Rapid Prototyping & Manufacturing Conference sponsored by the Rapid Prototyping Association of the Society of Manufacturing Engineers," Chicago, IL, May 12-15, 2003
26. Beaman, J.J. , International Symposium on Liquid Metal Processing & Casting, LMPC 2003, Nancy, France, September 3, 2003
27. Evans, R.S., Bourell, D.L., Beaman, J.J., Campbell, M.I., "Reaction Bonded Silicon Carbide: SFF, Process Refinement and Applications," Ibaraki University Lecture Series, Hitachi, Japan, October 10, 2003 28. Lappo, K., Jackson, B., Wood, K.L., Beaman, J.J., Bourell, D.L. , "Discrete Multiple Material Selective Laser Sintering (M2SLS): Experimental Study of Part Processing," Ibaraki University Lecture Series, Hitachi, Japan, October 10, 2003
28. Beaman, J.J. , Specialty Metals Symposium Workshop, Sandia Laboratories, Cleveland, OH, December 8-11,2003
29. King, C.W., Campbell, M.I., Beaman, J.J., "On the Design Synthesis of Multistable Equilibrium Systems ," ASME
30. Beaman, J.J. , "Future Directions: WTEC Hybrid Additive/Subtractive Manufacturing Study," Dallas, TX, January 8, 2004, (For Julie Chen, NSF Program Director Nanomanufacturing)
31. Rosen, D.W., Atwood, C., Beaman, J.J., Bourell, D.L., Bergman, T., Hollister, S., "Results of WTEC Additive/Subtractive Manufacturing Study of European Research," SME Rapid Prototyping & Manufacturing Conference, Dearborn, MI, May 10-13, 2004
32. Beaman, J.J., "Solid Freeform Fabrication," Materials Research Society Fall Meeting 2004, Boston, MA, November 2004
33. Beaman, J.J., "Solid Freeform Fabrication: Advance to Manufacturing," CNO Strategic Studies Group, Department of the Navy, Office of the Chief Naval Operations, Providence, RI, November 2004
34. Beaman, J.J., Bourell, D.L., Evans, R.S., "Materials Issues Rapid Manufacturing," 2004 Materials Research Society Fall Meeting, Boston, MA, November 29-30, 2004
35. Beaman, J.J., Ruiziplacios, R., Wood, K.L., "Direct Write of Optical Components," 2004 Materials Research Society Fall Meeting, Boston, MA, November 29-30, 2004
36. Beaman, J.J., "Overview of the WTEC Additive/Subtractive Manufacturing Student of European Research for Recent Advances in Bio Manufacturing; Design and Fabrication of Prostheses/Ortheses using Selective Laser Sintering," NSF International Workshop for Biomanufacturing, Tsinghua University, Beijing, China, June, 2005
37. Beaman, J.J., "Direct Digital Manufacturing/Rapid Response Manufacturing," Small Lot Intelligent Manufacturing Conference, Santa Fe, NM, September 2005
38. Stevinson, B., Chen, S., Bourell, D.L., Beaman, J.J., Wood, K.L., "Rapid Manufacturing by Pressureless Infiltration of Non-Metallic Selective Laser Sintered Preforms First International Conference on Rapid Manufacturing," Loughborough, England, July 5-6, 2006
39. Beaman, J.J. , "Models of Uncertainty and Reduced Order Physical Models," Pan-American Advanced Studies Institute (PASI) Porto Alegre, Brazil, June 7, 2007

40. Beaman, J.J. , "Infiltration to Produce Non-Polymeric Selective Laser Sintered (SLS) Parts," International Conference on Rapid Manufacturing Loughborough University, UK, July 12, 2007
41. Beaman, J.J. , "Building a Star Trek Replicator," Honors Colloquium, The University of Texas at Austin, Austin TX, July 26, 2007
42. Beaman, J.J., Williamson, R.L., Melgaard, D.K., Aikin, R.M., Ermann,R.G., "Vacuum arc remelting pool power control," LMPC Annual Meeting, Nancy, France, September 2007
43. Beaman, J.J. , "Metal and ceramic powders densification in selective laser sintering," Leiria, Portugal, September 2007
44. Beaman, J.J., "Solid Freeform Fabrication Research at The University of Texas at Austin," Louisiana State University,
2. Department of Mechanical Engineering, November 2007
45. Beaman, J.J. , "Innovations in Mechanical Engineering," NASA/Johnson Space Center Summit - The University of Texas at Austin, April 2008
46. Beaman, J.J. , "Technology and Issues for Small Lot Manufacturing," DARPA HITMan Study Panel Meeting, Arlington,VA, November 6, 2008
47. Beaman, J.J., "Advances in the University of Texas at Austin Department of Mechanical Engineering," University of Texas at Austin Mechanical Engineering Alumni Luncheon, Houston TX, November 10, 2008
48. Beaman, J.J., "Creating Startups and Commercialization: Faculty Who Make It Work," University of Texas at Austin Office of Technology Commercialization's 5th 'Ready to Commercialize' Conference, Austin, TX, November 18, 2008
49. Beaman, J.J., Ahn, S. , "Estimation of Electroslag Remelting Process with an Unscented Kalman Filter," LMPC Annual Meeting, Santa Fe, NM, September 2009
50. Beaman, J.J., "Solid Freeform Fabrication research at The University of Texas at Austin," Auburn University, Auburn, AL, October 2009
51. Beaman, J.J., "Successful University Collaboration for Technology Development," 12th Aerospace Automation Consortium, Seattle, WA, November 2009
52. Beaman, J.J., "Advances in the Mechanical Engineering Department at The University of Texas at Austin," Lockheed Martin Day/UT ME Alumni Luncheon, February 2010
53. Beaman, J.J., "Advances in the Mechanical Engineering Department at The University of Texas at Austin," NASA/UTME Alumni Luncheon, Houston TX, March 2010
54. Beaman, J.J., "Recruitment of Women in Engineering at The University of Texas at Austin," ASEE Engineering Research Council Annual Conference, Arlington, VA, March 2010
55. Beaman, J.J., "A Next Generation VAR Controller and it's use for 3D defect investigation in Superalloys," LMPC Annual Meeting, Nancy, France, September 2010
56. Beaman, J.J., "Next Generation VAR Controller," Ecole des Mines, Nancy, France, September 2010

57. Beaman, J.J. and A. Mok, "Concurrent Garage Shop Design and Production Using the Internet," Boston, MA, July 2012, (NSF Manufacturing Workshop)
58. Beaman, J.J., "3D Printing, Additive Manufacturing, and Solid Freeform Fabrication," Washington, DC, July 2012, (High Confidence Software and Systems (HCSS) Coordinating Group (CG) of the Federal Networking and Information Technology R&D (NITRD) Subcommittee)
59. Beaman, J.J., "3D Printing, Additive Manufacturing, and Solid Freeform Fabrication," Portland, OR, August 2012, (Presentation to Science Board of ESI Corporation)
60. Beaman, J.J., "3D Printing, Additive Manufacturing, and Solid Freeform Fabrication: The Technologies of the Past, Present and Future", Invited Talk, NSF Workshop in Additive Manufacturing, July 2103.
61. Beaman, J.J., "3D Printing, Additive Manufacturing, and Solid Freeform Fabrication", Invited talk at 3M, Minneapolis, June 2013.
62. Beaman, J.J., "Emerging Nexus of Cyber, Modeling, and Estimation in Advanced Manufacturing", Invited Keynote and Kickoff lecture, Dynamic Systems and Control Conference, October 2013.
63. Beaman, J. J., Fish, S., Bourell, D. L., and Leigh, D. K., "History and Development of Process Control for Additive Manufacturing," American Society of Precision Engineers, Berkeley, CA, 2014.
64. Beaman. J.J., "History & Development of Process Control for Additive Manufacturing (Selective Laser Sintering)", Sandia National Lab, Oct. 2014.
65. Beaman, J.J., "3D Printing, Additive Manufacturing, and Solid Freeform Fabrication", NOVA lecture, University of Texas, Oct., 2014.
66. Beaman, J.J., "Interviewing for a Faculty Position", GEC talk, Nov. 2014.
67. Beaman, J.J., "3D Printing, Additive Manufacturing, and Solid Freeform Fabrication
    The Technologies of the Past, Present and Future", University of Texas Chevron Lecture, Jan. 2015.
68. Beaman, J.J., "3D Printing, Additive Manufacturing, and Solid Freeform Fabrication
    The Technologies of the Past, Present and Future", Keynote, American Physical Society, Mar. 2015.
69. Beaman, J.J., C. Seepersad, S. Fish, D. Leigh, "SXSW AM Panel Discussion", Mar. 2015.
70. Beaman, J.J., D. Rosen, B. Stucker, C. Williams, "ASME Design Conference Panel on AM", Jul. 2015.
71. Beaman, J.J., B. Hebner, C. Seepersad, "Introduction to Additive Manufacturing at the University of Texas at Austin", Air Force Material Command, May, 2015.

B. Presentation at Technical Meetings

1. Beaman, J.J., "Periodic Analysis of a Nonlinear Diffusion Equation: Applicable to the Freeze and Thaw of the Earth's Surface," ASME, Winter Annual Meeting, December 1976

2. Beaman, J. J. and D. Garg, "Nonlinear Controller Synthesis," 979 Joint Automatic Control Conference (JACC), Denver, CO, June 17-20, 1979
3. Beaman, J.J., "Extended Statistical Linearization," 1979 Joint Automatic Control Conference (JACC), Denver, CO, June 17-10, 1979
4. Beaman, J.J., "Improved Statistical Linearization for Analysis and Control of Nonlinear Stochastic Systems," ASME Winter Annual Meeting, New York, NY, December 1979
5. Beaman, J.J., "Accuracy of Statistical Linearization," ASME Winter Annual Meeting, Chicago, IL, November 1980
6. Beaman, J.J., "A Dynamic Model of a Molecular Sieve Bed with Nonlinear and Coupled Isotherms," ASME Winter Annual Meeting, Washington, D. C., November 1981
7. Beaman, J.J., "Nonlinear Quadratic Gaussian Control," ASME Winter Annual Meeting, Washington, D. C., November 1981
8. Beaman, J.J., "Nonlinear Quadratic Gaussian Control," 1982 Joint Automatic Control Conference, (JACC), Arlington, VA, June 1982
9. Beaman, J.J., "Modeling of OBOGS," Institute of Aviation Medicine, R.A.F., Farnsborough, U.K., July 1982
10. Beaman, J.J., "Statistical Linearization and Optimal Quadratic Control Design," Colloquium on Decision and Control, University of Texas at Austin, October 20, 1982
11. Beaman, J.J., "Application of Statistical Linearization and LQG Designs to Position Control," 1983 American Control Conference (ACC), San Francisco, CA, June 1983
12. Beaman, J.J., "Application of NQG Control with Uncertain and Incomplete Measurements," 1984 ACC, San Diego, CA, June 1984
13. Beaman, J.J., "Physical Modeling with Eulerian Frames and Bond Graphs," 1985 ASME Winter Annual Meeting, Miami, FL, 1985
14. Beaman, J.J., "Microprocessor Implementation of NQG Control," 1985 ACC, Boston, MA, June 1985
15. Beaman, J.J., "Physical System Modeling with Bond Graphs," IBM Watson Research Laboratory, December 1985
16. Beaman, J.J., "Quadratic Gaussian Control of Nonlinear Actuators," Ford Motor Research and General Motors Research
1. enter, January 1986
17. Beaman, J.J., "Design Assessment for Reliability Tool," Manufacturing Research, IBM T.J. Watson Research Center, September 1986
18. Beaman, J.J., "Dart Design Assessment for Reliability Tool," General Motors Research, November 1986
19. Beaman, J.J., "Structured Modeling of Physical Systems Using Bond Graphs," Texas A & M University, College Station, TX, April 1987
20. Beaman, J.J. and C.R. Deckard, "Solid Freeform Fabrication and Selective Powder Sintering," North American Manufacturing Research Conference, Ann Arbor, MI, May 1987
21. Beaman, J.J. and R.C. Rosenberg, "Clarifying Implicit Storage Field Structure," American Control Conference, Minneapolis, MN, June 1987

22. Beaman, J.J. and R.C. Rosenberg, "Physical Modeling with Structured Bond Graphs," American Control Conference, Minneapolis, MN, June 1987
23. Beaman, J.J. and C.R. Deckard, "Part Generation by Selective Laser Sintering," Texas Instruments Industrial Automation Intra-Company Objective Group, Dallas, TX, September 1987
24. Beaman, J.J. and C.R. Deckard, "Part Generation by Selective Laser Sintering," NSF Manufacturing Systems Research Conference, Ann Arbor, MI, October 1987
25. Beaman, J.J. and H.M. Paynter, "On the Fall and Rise of the Circuit Concept: Contrasting Views of Network Thermo and Chemical Networking," 1987 ASME Winter Annual Meeting, Boston, MA, December 1987
26. Beaman, J.J., "Application of Nonlinear Quadratic Stochastic Control to a Position Servomechanism," 1987 ASME Winter Annual Meeting, Boston, MA, December 1987
27. Beaman, J.J. and C.R. Deckard, "Process and Control Issues in Selective Laser Sintering," ASME Winter Annual Meeting, Chicago, IL, December 1988
28. Beaman, J.J., M.E. Ingrim and G.Y. Masada, "Bond Graph Reticulation of Galerkin Approximations in
2. Thermoelasticity," 1988 ASME Winter Annual Meeting, Chicago, IL, December 1988
29. Beaman, J.J., with R. Da Silva and K. Wood, "Representing and Manipulating Interacting and Interfeature Relationships in Engineering Design for Manufacture," 1990 ASME Design Automation Conference, Chicago, IL, September 16-19, 1990
30. Beaman, J.J., "Selective Laser Sintering of Metals," ASME Annual Meeting, November 1, 1994
31. Beaman, J.J., "Solid Freeform Fabrication," Manufacturing 2002 Lecture Series, University of Texas at Austin, TX, February 24, 1995
32. Beaman, J.J., D.L. Bourell, J.W. Barlow, G. Lee, N. Harlan, S. Das, "Solid Freeforming of Affordable Turbine Blade Tips," Allison Engine Co./Air Force, University of Texas at Austin, Austin, TX, January 19, 1996
33. Beaman, J.J., L. Weiss, "Japanese Technology Evaluation Center Panel Report on Rapid Prototyping in Japan and Europe," Workshop on Rapid Prototyping in Japan and Europe, National Science Foundation, Department of Energy, Advanced Research Projects Agency, Office of Naval Research, Department of Commerce, Washington D.C., March 7, 1996
34. Beaman, J.J., D.L. Bourell, J.W. Barlow, R.H. Crawford, H.L. Marcus, L.E. Weiss, "Current and Future Trends in Solid Freeform Fabrication," The International Society for Optical Engineering, Volume 2910, Boston, MA, November 18-19, 1996
35. Beaman, J.J., C.L. Hysinger, R.L. Williamson and M.E. Schlienger, "Modern Control Strategies for Vacuum Arc Remelting of Segregation Sensitive Alloys," Fourth International Special Emphasis Symposium on Superalloys 718, 625, 706 and Derivatives, The Minerals, Metals and Materials Society, Pittsburgh, PA, June 15-18, 1997
36. Beaman, J.J. and Jepson, L.R., "Selective Laser Sintering Processing of Functionally Gradient Materials Poster Paper," National Science Foundation

Design and Manufacturing Grantees Conference, Monterrey, Mexico, January 5, 1998

37. Beaman, J.J., "Solid Freeform Fabrication," National Science Foundation Design and Manufacturing Grantees Conference, Monterrey, Mexico, January 5, 1998
38. Beaman, J.J. and Das, S., "Microstructure and Properties of Cermet Composite Abrasive Blade Tips Produced by Direct Laser Processing," Minerals, Metals, Materials Annual Meeting, San Antonio, TX, February 16, 1998
39. Beaman, J.J., Das, S., Wohlert, M., and Bourell, D.L., "Freeform Fabrication of High Performance Components via SLS/HIP," Proceedings of the Symposium on Solid Freeform and Additive Fabrication, Fall 1998 meeting of the Materials Research Society, Boston, MA, December 2, 1998
40. Beaman, J.J., and Jepson, L., "Multiple Materials Selective Laser Sintering," 1999 National Science Foundation Design and Manufacturing Grantees Conference, Queen Mary, Long Beach, CA, January 5-8, 1999, (poster session)
41. Beaman, J.J. and Tetzlaff, D., "ESR Controls and VAR Controls," Symposium on Liquid Metal Processing, Sandia National Laboratories, Santa Fe, NM, February 2-3, 1999
42. Beaman, J.J., "Solid Freeform Fabrication Current Research and Future Directions," Joint Defense Advanced Research Projects Agency/Office of Naval Research at the Institute for Defense Analyses, Arlington, VA, February 11, 1999
43. Beaman, J.J. and Das, S., Fuesting, T.P., and Bourell, D.L., "Direct Laser Fabrication of Nickel Superalloy Cermet Turbine Engine Components," Symposium on Surface Engineering: Science and Technology, 1999 Minerals, Metals Society Conference, San Diego, CA, March 3, 1999
44. Beaman, J.J. and Das, S., Wohlert, M., and Bourell, D.L., "Direct Laser Fabrication of High Performance Metal Components Via SLS/HIP," Symposium on Surface Engineering: Science and Technology, 1999 Minerals, Metals Society Conference, San Diego, CA, March 3, 1999
45. Beaman, J.J., Tetzlaff, D., "Modeling and Control of the Electroslag Remelting Process," Amarillo National Resource Center for Plutonium 1999 Researchers' Conference, Amarillo, TX, July 20, 1999
46. Beaman, J.J., Das, S., Wohlert, M., and Bourell, D.L., "Direct Laser Fabrication of High Performance Metal Components via SLS/HIP," Solid Freeform Fabrication Symposium Proceedings 1999, The University of Texas at Austin, Austin, TX, August 12, 1999
47. Beaman, J.J., "Project Planning for Sandia Research," SMPC Technical Workshop, Cleveland, OH, December 12, 2000
48. Beaman, J.J., 2001 ASME Leadership Workshop, Orlando, FL, January 15-17, 2001
49. Beaman, J.J., Ruizpalacios, R., "Direct Write of Novel Optical Components," 2005 NSF Design, Service and manufacture and Industrial Innovation Grantees and Research Conference: Manufacturing for the New Millennium: New Products, Services, Technologies and Economic Development, Scottsdale, AZ, January, 2005
50. Beaman, J.J., Ruizpalacios, R., Tadepalli, S., "Empirical Similitude," 2005 NSF Design, Service and manufacture and Industrial Innovation Grantees and

Research Conference: Manufacturing for the New Millennium: New Products Services, Technologies and Economic Development, Scottsdale, AZ, January 2005

51. Bourell, D.L., Beaman, J.J., "Rapid Manufacturing Materials Fundamentals MS&T '05 ," Pittsburgh PA, September 26, 2005
52. Herlehy, J., Murphy, J., Chen, S., Koraishy, B., Bourell, D.L., Wood, K.L., Beaman, J.J., Crawford, R.H., "Design of a Test Platform for Performance Evaluation of SLS Proton Exchange Membrane Fuel Cells ," Solid Freeform Fabrication Symposium, Austin TX , August 15, 2006
53. Bourell, D.L., Beaman, J.J. , "Processing and Properties of Power-Based Materials," TMS Annual Meeting, San Diego, CA, March 2011
54. Beaman, J.J., Williamson, R.L., Lopez, L.F., "A reduced-order thermal model for dynamic VAR pool depth control," LMPC 2011 Conference - Nancy, France, September 2011
55. T.T. Diller, M.M. Yuan, D.L. Bourell and J.J. Beaman, "Thermal Characterization of Laser Sintering of Nylon-12," Leira, Portugal, September 2011
56. David Leigh, David Bourell, Joseph J. Beaman, "Effect of In-Plane Voiding on the Fracture Behavior of Laser Sintered Polyamide," St Louis MO, June 2012
57. Keynote talk, Additive Manufacturing Symposium, Institute of Industrial Science, University of Tokyo, Jan, 2017.
58. Invited talk, Workshop on Electromagnetic Effects in Materials Synthesis, Carnegie Mellon University, Office of Naval Research, Jun, 2017.
59. Invited Talk, Additive Manufacturing, presented and broadcast to all interested Patent Examiners, United States Patent Office, Jul, 2017.
60. Invited Talk, Additive Manufacturing, National Science Foundation Workshop on Manufacturing for the Defense Industry, Arlington, Texas, Jul, 2017.

C. Other Oral Presentations

1. Beaman, J.J., "Application of NQG to Position Control," Colloquium on Decision and Control, University of Texas, Austin, September 27, 1983
2. Beaman, J.J., "Solid Freeform Fabrication: A Prototype Manufacturing Process," National Science Foundation Program Review, June 1988, (invited speaker)
3. Beaman, J.J., "Solid Freeform Fabrication," Sandia National Laboratories, Albuquerque, NM, September 1988, (invited seminar)
4. Beaman, J.J., "Progress in Selective Laser Sintering," Design Manufacturing and Computer Integrated Engineering Grantees Conference, National Science Foundation, University of California at Berkley, CA, January 1989
5. Beaman, J.J., "Solid Freeform Fabrication Manufacturing," Engineering Technology Dept., Texas A & M University, College Station, TX, March 1989
6. Beaman, J.J., "Solid Freeform Fabrication," Presentation for Focus Group on Future Technologies, LBJ School of Public Affairs, Austin, TX, April 1989
7. Beaman, J.J., "Removal of Toxic Catalytic Oxidation Products Via Adsorption," 1989 US Army Chemical Research, Development and Engineering Center Conference, Aberdeen Proving Ground, MD, November 17, 1989

8. Beaman, J.J., and G. Munkvold, "Onboard Oxygen Generation Systems Modeling: Three Component Feeds," SAFE Association Symposium, New Orleans, LA, December 7, 1989
9. Beaman, J.J., "The System Modeling Curriculum at The University of Texas," ASME Winter Annual Meeting, San Francisco, CA, December 12, 1989
10. Beaman, J.J., R.D. Matthews, S. Dongre and D. Schoppe, "Development and Analysis of a Model for Transient Operation of an SI Engine," The Engineering Society for Advancing Mobility Land, Sea, Air and Space International Congress and Exposition, Cobo Center, Detroit, MI, February 25, 1991
11. Beaman, J.J., "Physical Mechanisms in Selective Laser Sintering," Polymeric Materials in Rapid Prototyping Conference, Centre De Transfert De Technologie, Le Mans, France, October 24, 1994
12. Beaman, J.J., "Abrasive Turbine Blade Tip Manufacture Using Selective Laser Sintering," Allison Gas Turbine, Wright Patterson AFB, November 4, 1994
13. Beaman, J.J., "VAR Drip Short Controller Implementation," Sandia National Laboratories, Albuquerque, NM, December 15, 1994
14. Beaman, J.J., "Freeform Fabrication: Modeling and Control," University of Michigan, Ann Arbor, MI, February 16, 1995
15. Beaman, J.J., "Solid Freeform Fabrication," Senate Hearing on International Relations, Trade and Technology, Dallas, TX, April 26, 1996
16. Beaman, J.J., "Low-Cost Metal Processing Using SLS/HIP," DARPA Technology Interchange Meeting, Institute for Defense Analyses, Alexandria, VA, May 8-10, 1996
17. Beaman, J.J., "Industrial Process Control, An Overview," Sandia National Laboratories, Albuquerque, NM, July 31, 1996
18. Beaman, J.J., "Successful Case Studies," Intellectual Property Workshop, University of Texas, Austin, TX, January 16, 1998
19. Beaman, J.J., "Affordable Turbine Blade Tips," Wright Patterson Air Force Base, Dayton, OH, April 22, 1998, (final review)
20. Beaman, J.J., "Selective Laser Sintering of HIP Metal Parts," ONR University Materials Review, at National Academy of Sciences Study Center, Woods, Hole, MA, May 29, 1998

PATENTS AND COPYRIGHTED SOFTWARE:

1. Beaman, J.J., Deckard, C.R., "Selective Laser Sintering with Assisted Powder Handling," US 4,938,816 A, USA, 1990
2. Bourell, D.L., Marcus, H.L., Barlow, J.W., Beaman, J.J., Deckard, C.R., "Multiple Material Systems for Selective Beam Sintering," US 4,944,817 A (1990), US 5,076,869 A (1991), US 5,382,308 A (1995), USA, 1990, 1991, 1995
3. Beaman, J.J., Deckard, C.R. , "Selective Laser Sintering with Assisted Powder Handling," US 5,053,090 A, USA, 1991
4. Deckard, C.R., Beaman, J.J., Darrah, J.F., "Method for Selective Laser Sintering with Layerwise Cross-Scanning," US 5,155,324 A, USA, 1992
5. Grube, K.W., Beaman, J.J., "Radiant Heating Apparatus for Providing Uniform Surface Temperature Useful in Selective Laser Sintering," US 5,155,321, USA, 1992

6. Beaman, J.J., "Thermal Control of Selective Laser Sintering Via Control of the Laser Scan," US 5,352,405 A, USA, 1994
7. Barlow, J.W., Balasubramanian, B., Beaman, J.J., Bourell, D.L., Crawford, R.H., Marcus, H.L., Tobin, J.R., Vail, N.K., "Mold Useful for Injection Molding of Plastics and Methods of Production and Uses Thereof," US 5,678,162, USA, 1997
8. Freitag, D.W., Beaman, J.J., Bourell, D.L., "Laser Directed Fabrication of Full-Density Metal Articles Using Hot Isostatic Processing," US 5,640,667, USA, 1997
9. Beaman, J.J., Deckard, C.R., Bourell, D.L., Marcus, H.L., Barlow, J.W., "Multiple Material System and Assisted Powder Handling for Selective Beam Sintering," ES 2 111 408 T3, Espana, 1998
10. Beaman, J J., Hysinger, C.L., Melgaard, D.K., Williamson, R.L., "Multiple Input Electrode Gap Controller," US 5,930,284 A, USA, 1999
11. Bourell, D.L., Marcus, H.L., Barlow, J.W., Beaman, J.J., Deckard, C.R., "Multiple Material System and Assisted Powder Handling for Selective Beam Sintering," KR 100190799 B1, International, 1999
12. Bertram, L.A., Williamson, R.L., Melgaard, D.K., Beaman, J.J., Evans, D.G., "Dynamic Control of Remelting Processes," US 6,115,404 A, USA, 2000
13. Barlow, J.W., Lee, G., Crawford, R.H., Beaman, J.J., Marcus, H.L., Lagow, R.J., "Artificial Bone Implants," US 6,183,515 A1 (2001), US 0,005,797 A1 (2001), US 6,540,784 B2 (2003), USA, 2001, 2002, 2003
14. Brown, L.E., Fuesting, T.P., Beaman, J.J., Das, S., "Method and Apparatus for Making Components by Direct Laser Processing," US 6,355,086 B2 (2002), USA, 2002
15. Das, S., Beaman, J.J., "Direct Selective Laser Sintering of Metals," US 0,015,654 A1 (2002), US 6,676,892 (2004), USA, 2002, 2004
16. Barlow, J.W., Lee, G., Crawford, R.H., Beaman, J.J., Marcus, H.L., Lagow, R.J., "Method and System for Fabricating Artificial Bone Implants," US 0,069,638 A1, USA, 2003
17. Beaman, J.J., Bourell, D.L., Wang, H., Park, S., "Method for Fabricating Siliconized Silicon Carbide Parts," US 0,130,055 A1, USA, 2004
18. Melgaard, D.K., Beaman, J.J., Shelmidine, G.J., "Electrode Immersion Depth Determination and Control in Electroslag Remelting Furnace," US 7,180,931 B1, USA, 2007
19. Beaman, J.J. and R. L. Williamson, "Pool Power Control in Remelting Systems," USPTO, 8,077,854, US, 2011
20. Otero, J, Beaman, J.J., Zimbroff, A., Roy, K., “Methods, Compositions, and Devices for the Occlusion of Cavities and Passageways, Provisional Patent, 2013.
21. Horton, R., Beaman, J.J., Nga, T., Devaraj, V., “Design of Catheter-Adjustable Mitral Valve Annulplasty Device”, Provisional Patent, 2013.
22. Fish, S, Beaman, JJ., Bryant, A., Leigh, D., Kubiak, S., Booth, C., “Real-Time Process Control for Additive Manufacturing”, Provisional Patent, 2014.
23. Milner, T., McElroy, A., Beaman, J., Fish, S., “Optical-Choerence-Tomography Guided Additive Manufacturing and Laser Ablation of #D Printed Parts”, Provisional Patent, 2015.

24. Williamson, R.L. and J. Beaman, “Ingot Solidification Controller for Vacuum Arc Remelting, US 9,220,131, 2015.

GRANTS AND CONTRACTS (Current Only):

1. Various Donors, Solid Freeform Fabrication, $597,500, with D. Bourell, (1/1/90-8/31/15)
2. National Science Foundation, "Concurrent Garage Shop Design and Production using GENI ," $100,000, (09/01/11-08/31/12)
3. Office of Naval Research, Multidisciplinary University Research Initiative (MURI), "Materials and Manufacturing Science and Engineering of Direct Methanol Fuel Cells," with PI:Arumugam Manthiram; with Alan Bard, Christopher Bielawski, David Bourell, Venkat Ganesan, Jeremy Meyers, Kristin Wood, Friedrich Prinz, $5,828,364, (05/01/2007-8/31/13)
4. Office of Naval Research, "Physics and Cyber-enabled Manufacturing Process Control," with Al Mok, $549,107, (2/9/09-8/31/12)
5. Office of Naval Research, Next Generation Manufacturing Processes and Systems, $1,130,000, 5/1/11-8/31/14)
6. Office of Naval Research, Physics and Cyber-enabled Manufacturing Process Control for Direct Digital Manufacture of Metal Parts, $170,975, (9/1/12-9/30/16).
7. National Science Foundation, Cps:Synergy: Cyber Enabled Manufacturing Systems (CeMs) for Small Lot Manufacture, $1,000,000, (10/1/12-9/30/16).
8. Biomedical and Clinical Design, LLC, Anatomically Accurate, Flexible, Electrically Conductive 3D Printed Heart Models, $50,000, (11/26/12-12/31/13)
9. General Dynamics, Laser Additive Manufacturing – Pilot Scale System, $292,385, (2/11/13-5/11/18).
10. BP America, Early Kick Detection Phase 1 – Feasibility Analysis, $396,439, (2/11/13-2/10/18).

CONTINUING EDUCATION:

1. "Modeling of Physical Systems", Arnold Air Force Station, Schneider Services International, Tennessee, March 1987
2. "Modeling of Physical Systems", Texas A & M University, College Station, Texas, August 1987
3. "Solid Freeform Fabrication at the University of Texas, Present, Past, Future", Invited Lecture At Purdue University, Lafayette,
1. IN, USA, September 27-29, 2000
4. "Invited panel member to develop an NSF Initiative for Nanotechnology", ASME 2000 International Mechanical Engineering
2. Congress & Exposition, ASME, Orlando, FL, November 5-6, 2000
5. Engineering Congress & Exposition, ASME, Orlando, FL, November 5-6, 2000
6. "Project Planning for Sandia Research, SMPC Technical Workshop," Sandia, Cleveland, OH, December 12, 2000

7. Big 10+ Mechanical Engineering Department Heads Conference, Chicago, IL, USA, 2001 - present
8. "Nanoscale Facility Working Group, invited participant," National Science Foundation, Tampa, FL, January 10, 2001
9. "ASME Leadership Workshop," ASME, Orlando, FL, January 15-17, 2001
10. "VAR/ESR Controller Update, SMPC Technical Workshop," Sandia, Albuquerque, NM, February 5-7, 2001
11. "Sampling, Sensors & Control for High Temperature Metallurgical Processes", 2001 TMS Annual Meeting And Exhibition,
3. Materials Society, New Orleans, LA, February 10-14, 2001
12. "ESR Technical Workshop," Sandia, Albuquerque, NM, May 1-3, 2001
13. "SMPC Technical Workshop," Sandia, Las Vegas, NV, May 20-23, 2001
14. "SMPC Technical Workshop," Sandia, Los Angeles, CA, June 12-14, 2001
15. SMPC Semiannual Technical Meeting, Sandia, Albuquerque, NM, August 8-9, 2001
16. RPA/SME Technical Forum, ASME, Milwaukee, WI, August 19-21, 2001
17. SBIR Phase I Rapid Prototyping/Solid Freeform Fabrication Panel, Washington D.C., August 30, 2001
18. International Symposium On Liquid Metal Processing And Casting, American Vacuum Society, Santa Fe, NM, USA, September 23 - 26, 2001
19. "VAR/ESR/Hearth Melting/Modeling Workshop," Sandia Liquid Metal Processing Lab, Cleveland, OH, USA, December 4 - 5, 2001
20. SMPC Semiannual Meeting, Sandia Liquid Metal Processing Lab, Albuquerque, NM, USA, 2002 - present
21. "SMPC Project Workshop," Sandia Liquid Metal Processing Lab, Philadelphia, PA, USA, July 2 - 3, 2002
22. ALVAC, American Vacuum Society, Monroe, NC, USA, August 19 - 22, 2002
23. "Frontiers in Product Design and Manufacturing", Schlumberger ME Eureka Seminars 2002, Schlumberger, Paris, France,
4. September 28 - October 6, 2002
24. "NSF Grantees Meeting and Workshop: Ultra-High Capacity Optical Communications and Networking: Challenges in Broadband Optical Access, Materials Processing, and Manufacturing," NSF CTS, DMII And ECS, Arlington, VA, USA, October 20-21, 2002
25. "NEI - Universities, Industry and Government: Partners for the Future of Nuclear Education and Technology", Universities, Industry And Government: Partners For The Future Of Nuclear Education And Technology, NEI, Albany, NY, USA, October 27-28, 2002
26. "World Technology Evaluation Center, Panel of Experts," NSF, WTEC, Washington, DC, US, December 1 - 2, 2002
27. "Semiannual Specialty Metals Processing Consortium Workshop," Sandia National Laboratories, Albuquerque, NM, US, December 10-11, 2002
28. "2003 NSF Design, Service and Manufacture and Industrial Innovation Grantees and Research Conference", NSF, Birmingham, AL, US, January 6 - 9, 2003

29. "Panel Review for Manufacturing Machines and Equipment in Solid Freeform Fabrication," National Science Foundation, Birmingham, AL, US, January 6 - 9, 2003
30. "Semiannual Specialty Metals Processing Consortium Workshop," Sandia National Laboratories, Albuquerque, NM, US, February 17 - 19, 2003
31. "World Technology Evaluation Center, Panel of Experts," NSF, WTEC, Washington, DC, US, February 23 - 25, 2003
32. "NSF Invited Panel Member for Committee of Visitors for on-site Review of Division of Design Manufacture and Industrial Innovation Programs," NSF, Washington, DC, US, March 24 - 27, 2003
33. "Rapid Prototyping & Manufacturing 2003 Conference, Invited Industry Panel Member", Society Of Manufacturing Engineers, Chicago, IL, US, May 12 -15, 2003
34. "Semiannual Specialty Metals Processing Consortium Workshop," Sandia National Laboratories, Cleveland, OH, US, June 23 - 26, 2003
35. "World Technology Evaluation Center, Panel of Experts," NSF, WTEC, Washington, DC, US, July 14 - 15, 2003
36. "Semiannual Specialty Metals Processing Consortium Workshop," Sandia National Laboratories, Albuquerque, NM, US, August 19 - 20, 2003
37. "Putting a Face on the Future: Engineering Emerges from the Lab", 2004 NSF Grantees And Research Conference, NSF, Dallas, TX, US, 01/05/2004-01/08/2004
38. "Engineering Ethics and Professional Responsibility," Center For Lifelong Engineering Education - University Of Texas At Austin, Austin, TX, USA, September 2006
39. "NSF/Cyber-Physical Systems Workshop," National Science Foundation/University Of Texas At Austin, Austin, TX, USA, October 2006
40. Technology Commercialization Conference, Office Of Technology Commercialization-Univerity Of Texas At Austin, Austin, TX, USA, October 2006
41. "IC2 Worshop- The Future of Tools for Innovation," IC2 Institute - University Of Texas At Austin, Austin, TX, USA, December 2006
42. "ASME Leadership Training Conference for Board Training," ASME, Houston, TX, USA, March 2007
43. Pan-American Science Institute, National Science Foundation/UT-Austin, Porto Alegre, Brazil, June 2007
44. IMCRC Review, Loughborough University, Loughborough, UK, July 2007
45. International Conference On Rapid Manufacturing, London, UK, July 2007
46. 18th Annual Solid Freeform Fabrication Symposium, University Of Texas At Austin, Austin, TX, USA, August 2007
47. Summer Technical Meeting Of The National Energy Technology Lab, National Energy Technology Lab, Albany, OR, USA, August 2007
48. International Conference On Advanced Research In Virtual And Rapid Prototyping (VRAP), CIRP , Leira, Portugal, September 2007

49. International Symposium On Liquid Metal Processing And Casting (LMPC 2007), Société Française De Métallurgie Et De Matériaux)., Nancy, France, September 2007
50. "ASME Technical Committees Operating Board," ASME, Atlanta, GA, USA, February 2008
51. ASME Leadership Training Conference For Board Training, ASME, Atlanta, GA, USA, February 2008
52. Global Summit On The Future Of Mechanical Engineering, ASME, Washington, D.C., USA, April 2008
53. "ASME Board of Research and Technology Development," ASME , Palm Desert, CA, USA, June 2008
54. "ASME Congress of Divisions - Technical Committees Operating Board ," ASME, Orlando, FL, USA, June 2008
55. "ASME Systems and Design Operating Board Meeting," ASME , Palm Desert, CA, USA, June 2008
56. ASME Annual Meeting 2008, ASME , Palm Desert, CA, USA, June 2008
57. American Control Conference (ACC) 2008, Seattle, WA, USA, June 2008
58. 19th Annual Solid Freeform Fabrication Symposium, The University Of Texas At Austin, Austin, TX, USA, August 2008
59. International Symposium On Liquid Metal Processing And Casting (LMPC 2008), Société Française De Métallurgie Et De Matériaux), Santa Fe, NM, USA, September 2008
60. ASME Dynamic Systems And Control Conference (DSCC) 2008, ASME , Ann Arbor, MI, USA, October 2008
61. "ASME Congress of Divisions - Technical Committees Operating Board ," ASME, Boston , MA, USA, November 2008
62. ASME International Mechanical Engineering Congress (IMECE) 2008, ASME, Boston , MA, USA, November 2008
63. "ASME Energy Grand Challenge Steering Committee Workshop," ASME , Washington, DC, USA, March 2009
64. "ASME Leadership Training Workshop," ASME , Los Angeles, CA, USA, March 2009
65. "ASME Technical Committees Operating Board," ASME, Los Angeles, CA, USA, March 2009
66. "Roadmap for Additive Manufacturing (RAM) Workshop NSF," NSF, Washington, DC, USA, March 2009
67. ASME Congress Of Divisions, ASME , Los Angeles, CA, USA, March 2009
68. ASME Leadership Training Conference For Board Training, ASME, Los Angeles, CA, USA, March 2009
69. "ASME Emerging Technologies Committee Meeting and Technology Policy Committee," ASME, Washington, DC, USA, May 2009
70. "ASME Systems and Design Operating Board Meeting," ASME , Orlando, FL, USA, June 2009
71. ASEE American Society Of Engineering Education Annual Meeting 2009, ASEE, Austin, TX, USA, June 2009
72. ASME Annual Meeting 2009, ASME , Orlando, FL, USA, June 2009

73. "ASME Systems and Design Operating Board Meeting," ASME , San Diego, CA, USA, August 2009
74. 20th Annual Solid Freeform Fabrication Symposium, The University Of Texas At Austin, Austin, TX, USA, August 2009
75. ASME IDETC 2009, ASME , San Diego, CA, USA, August 2009
76. "ASME Emerging Technologies Committee Workshop ," ASME, Orlando, FL, USA, November 2009
77. "ASME Systems and Design Operating Board," ASME, Orlando, FL, USA, November 2009
78. "ASME Technical Committees Operating Board - Congress of Divisions," ASME, Orlando, FL, USA, November 2009
79. ASME International Mechanical Engineering Congress (IMECE) 2009, ASME , Orlando, TX, USA, November 2009
80. SME The 12th Aerospace Automation Consortium, SME, Seattle, WA, USA, November 2009
81. "ASME Systems and Design Operating Board Meeting," ASME, Cambridge , MA, 2010
82. "Photovoltaic Consortium Workshop," UT Office Of Research, Washington, DC, USA, January 2010
83. "ASME Congress of Divisions and Leadership Training," ASME , Dallas, TX, USA, March 2010
84. "ASME Strategies for Improving Diversity Panel," ASME , Newport Beach, CA, USA, March 2010
85. "ASME Systems and Design Operating Board," ASME, Dallas, TX, USA, March 2010
86. "RGV Manufacturing Initiative Workshop," McAllen, TX, USA, March 2010
87. ASEE Engineering Research Council 2010, ASEE, Arlington, VA, USA, March 2010
88. ASME Education Conference 2010, ASME , Newport Beach, CA, USA, March 2010
89. "University of Texas Technology Summit," Cameron, Houston, TX, USA, April 2010
90. Engineering Public Policy Symposium 2010, ASME, Washington, DC, USA, April 2010
91. "ASEE Mechanical Engineering Department Heads Executive Committee," ASEE, Louisville , KY, USA, June 2010
92. "ASME Board of Research and Technology Development," ASME, Pittsburgh, PA, USA, June 2010
93. "ASME Emerging Technologies Committee Workshop," ASME, Pittsburgh, PA, USA, June 2010
94. ASEE Annual Conference 2010, ASEE, Louisville , KY, USA, June 2010
95. ASME Annual Meeting 2010, ASME , Pittsburgh, PA, USA, June 2010
96. "ASME Systems and Design Operating Board," ASME, Monreal, Canada, August 2010
97. 21st Annual Solid Freeform Fabrication Symposium, The University Of Texas At Austin, Austin, TX, USA, August 2010

98. ASME Dynamic Systems And Control (DSCC) Conference, ASME, Cambridge , MA, USA, September 2010
99. "Systems and Design Group Operating Board (SDGOB) Meeting," ASME, Cambridge, MA, USA, September 2010
100. ASME Dynamic Systems And Control (DSCC) Conference, ASME, Cambridge, MA, USA, September 2010
101. "SMPC Modeling Workshop," SMPC, Austin, TX, USA, October 2010
102. "Technical Communities Operating Board (TCOB) Meeting," ASME, Dallas, TX, USA, March 2011
103. "US Ignite! Gigabit Application Workshop," NSF, Arlington, VA, USA, April 2011
104. Big 10+ Mechanical Engineering Department Heads Conference, ASME, Chicago, IL, USA, April 2011
105. "ASME Board of Research and Technology Development (BRTD) Meeting," ASME, Dallas, TX, USA, June 2011
106. ASME Annual Meeting 2011, ASME, Dallas, TX, USA, June 2011
107. 22nd Annual Solid Freeform Fabrication Symposium, The University Of Texas At Austin, Austin, TX, USA, August 2011
108. "Technical DSCD Meetings", ASME Dynamic Systems And Control Conference (DSCC) 2011, ASME, Arlington, VA, USA, October 2011
109. "Chaired the Manufacturing Innovations Workshop", ASME International Mechanical Engineering Congress (IMECE) 2011, ASME, Denver, CO, USA, November 2011
110. "Mechanical Engineering Department Chairs' Executive Committee Meeting and Workshop ", ASME International Mechanical Engineering Congress (IMECE) 2011, ASME, Denver, CO, USA, November 2011
111. "Technical Communities Operating Board Meeting, Systems and Designs Technical Meeting, Board of Research and Technology Development Meeting", ASME International Mechanical Engineering Congress (IMECE) 2011, ASME, Denver, CO, USA, November 2011

ADDITIONAL TEACHING ACTIVITIES

1. Coordinated New Course ME W379M, "Machine Tool Operations for Engineers", University of Texas at Austin, 2010-11.
2. Taught "Network Thermodynamics," University of Texas at Austin, in addition to full time teaching load, Spring 1988
3. Developed new Graduate Course ME 397, "Modeling of Complex Physical Systems" with Professor Raul Longoria,Spring 1995
4. Developed a new Freshman Seminar Course on the "Engineered World: Systems Modeling." Course material for non-ME students focused on the book Longitude, along with the video. The class built projects to understand the basics of engineering, Spring 2008

PH.D. SUPERVISIONS COMPLETED

1. Pottebaum, Kenneth L., Mechanical Engineering, 1982
2. Khonsari, M. M., Mechanical Engineering, 1983

3. Wang, S. Y., Mechanical Engineering, 1983
4. Hamilton, P. S., Mechanical Engineering, 1984 Co-supervised with R. Barr
5. Chaney, M. J., Mechanical Engineering, 1988
6. Deckard, C. R., Mechanical Engineering, 1988
7. Longoria, Raul G., Mechanical Engineering, 1989
8. Da Silva, R. E., Mechanical Engineering, 1991
9. Lipp, S. C., Mechanical Engineering, 1991
10. Sun, M-S. M., Mechanical Engineering, 1991
11. Wu, Y. J., Mechanical Engineering, 1991
12. Melvin, L. S., Mechanical Engineering, 1994
13. Chen, KenWei, Mechanical Engineering, 1998 Co-supervised with R. H. Crawford
14. Das, Suman, Mechanical Engineering, 1999
15. Hongyun Wang, Fall 1999 Co-supervised with Dave Bourell
16. David Thompson, Summer 2000 Co-supervised with Rich Crawford
17. Seok-Min Park, Mechanical Engineering, Fall 2000 "Advanced Data Exchange for Solid Freeform Fabrication" Co-supervised with R. H. Crawford
18. Jepson, Larry Ray, Mechanical Engineering, 1995 – 2002 "Multiple Material Selective Laser Sintering"
19. Carey Wayne King, Mechanical Engineering, Spring 2004 "Design Synthesis of Multistable Equilibrium Systems" Co-supervised with Matthew Campbell
20. Rodrigo Ruizpalacios, Mechanical Engineering, Fall 2004 "Laser Direct-Write of Optical Components Prepared Using the Sol-Gel Process"
21. Seokyoung Ahn, Mechanical Engineering, Spring 2005 "Modeling, Estimation, and Control of Electroslag Remelting Process"
22. Timothy J. Silverman, Mechanical Engineering, Fall 2010
23. Dongwoo Kim, Mechanical Engineering, June 2009 - Summer 2012 "Prediction of Microstructure Evolution of Heat-Affected Zone in Gas Metal Arc Welding of Steels" Co-supervised with Eric Taleff
24. Vikram Devaraj, Mechanical Engineering, Summer 2012 "Modeling, Design, Development, and Control of a Pilot-Scale Continuous Coating Line for Proton Exchange Membrane Fuel Cell Electrode Assembly"
25. Andy Zimbroff, Mechanical Engineering, Summer 2013, “Occlusion of the Left Atrial Appendage Using Catheter-Delivered Hydrogels for Prevention of Thromboembolic Phenomena”
26. Felipe Lopez, Mechanical Engineering, December 2014, “Model-based estimation of a solidification process”

M.S. SUPERVISIONS COMPLETED:

1. Meyers, R. Scott, Mechanical Engineering, 1981
2. Armour, David L., Mechanical Engineering, 1982
3. Pavelko, Anthony J., Mechanical Engineering, 1982
4. Berry, Don T., Mechanical Engineering, 1983
5. Cutherell, D., Mechanical Engineering, 1985
6. Sobhi, Ali, Mechanical Engineering, 1985
7. Deckard, C., Mechanical Engineering, 1986

8. Nereson, K., Mechanical Engineering, 1986, Co-supervised with G. Masada
9. Ramage, J., Mechanical Engineering, 1986
10. Trelford, J.A., Mechanical Engineering, 1986, Co-supervised with G. Masada
11. Tso, D., Mechanical Engineering, 1986, Co-supervised with G. Masada
12. Yang, B., Mechanical Engineering, 1986
13. Morrow, J.D., Mechanical Engineering, 1987
14. Panayiotis, S.S., Mechanical Engineering, 1988
15. Walshak, D.B., Mechanical Engineering, 1988
16. Chang, W.R., Mechanical Engineering, 1989
17. Forderhase, P.F., Mechanical Engineering, 1989
18. Michael, D.A., Mechanical Engineering, 1989
19. Jackson, J., Mechanical Engineering, 1990
20. Melvin, Lawrence S., Mechanical Engineering, 1991
21. Wu, Yong Qui, Mechanical Engineering, 1992
22. Devereux, Daniel, Mechanical Engineering, 1993
23. Jog, Anand, Mechanical Engineering, 1993
24. Tobin, James , Mechanical Engineering, 1993
25. Moore, Nathan, Mechanical Engineering, 1994
26. Ana Maria Castano, Mechanical Engineering, 1996
27. Neal D. Lipman, Mechanical Engineering, 1996
28. Hysinger, Christopher, Mechanical Engineering, 1997
29. Park, Seok-min, Mechanical Engineering, 1997
30. Savoie, Troy B., Mechanical Engineering, 1997
31. Danyo, Gregory, Mechanical Engineering, 1998
32. Genovese, Stacey, Mechanical Engineering, 1998
33. Wang, Hongyun, Mechanical Engineering, 1998, Co-supervised with Dave Bourell
34. Engel, Brett, Mechanical Engineering, 1999, Co-supervised with Dave Bourell
35. Perez, Julie, Mechanical Engineering, 1999, Co-supervised with Kris Wood
36. Venkataramani, Ravi, Mechanical Engineering, 1999
37. Vinay Sriram, Fall 2003 "Parametric Modeling of Sol-gel Based Multi Layer Thin Films for Optical Waveguides", Co-supervised with Kristin L. Wood
38. Dennis J. Tweten, Spring 2004 "Thermal and Electrical Model of the Electrode of the Electroslag Remelting Process"
39. Shweta Bhandari, Spring 2004"Binder Optimization for Manufacturing of Silicon Carbide Preforms", Co-supervised with David L. Bourell
40. Gerard Adriel Johnson, Mechanical Engineering, Spring 2007 "Modeling Of A Silicon/Silicon Carbide Pressureless Infiltration Process"
41. Ahmad El-Zataari, Mechanical Engineering, Fall 2007 - Spring 2009 "Evaluation of Bond Graph Tools, A Comparative Study"
42. Patrick J. Casey, Mechanical Engineering, Fall 2007 - Summer 2009 "Real-Time Estimation of MIG Welding Weld Bead Width using an IR Camera"
43. Vikram Devaraj, Mechanical Engineering, Fall 2009 - Fall 2009 "Compression/Injection Molding of Bipolar Plates for Proton Exchange Membrane Fuel Cells "
44. John Cameron Booth, Mechanical Engineering, Fall 2007 - Fall 2010

45. John Cameron Boothe, Mechanical Engineering, Fall 2007 - Fall 2010
46. Peter Doblar, Mechanical Engineering, Fall 2009 - Spring 2011
47. Luis Filipe Lopez, Mechanical Engineering, Fall 2009 - Spring 2012 "Implementation of a High-Fidelity Axisymmetric Model in a Vacuum Arc Melting Process"
48. Walker Wroe, Mechanical Engineering, August 2015, “Improvements and effects of Thermal History on Mechanical Properties for Polymer Selective Laser Sintering (SLS)”

PH.D. SUPERVISIONS IN PROGRESS:

1. Marcel Ojinnaka, Spring 2013 – present
2. Cameron Booth, Fall 2010 – present
3. Debbie Hagen. Spring 2015 – present
4. Tim Phillips, Fall 2014 – present
5. Samantha Taylor, Spring 2015 – present

M.S. SUPERVISIONS IN PROGRESS:

1. Jimmy Yi, Spring 2016 – present

OTHER STUDENT RESEARCH SUPERVISION:

1. Munkvold, G. D. , Active committee member and provided substantial funding. Chemical Engineering student supervised by T.Edgar. (1990)
2. Bunnell, D.L., Active committee member and provided substantial funding. Student supervised by D. Bourell. (1996)
3. Xue, Sumin, Active committee member and provided substantial funding. Chemical Engineering student supervised by J. Barlow. (1996)
4. Lee, Goonhee, Active committee member and provided substantial funding. Chemical Engineering student supervised by J. Barlow. (1998)
5. Harlan, Nicole, Active committee member and provided substantial funding. Student supervised by D. Bourell. (1999)
6. Wohlert, Martin, Active committee member and provided substantial funding. Student supervised by D. Bourell. (Summer 2000)
7. Brisa Ponce, undergraduate research assistant in SFF lab (Fall 2001)
8. Eric Schafer, Undergraduate Research Assistant in SFF Lab (Fall 2001)
9. Andres Sanchez, Student Assistant (Summer 2002)
10. Bryan L. Blackmur, Undergraduate - LANL (2005)
11. T. Nga, Undergraduate Biomedical, 2013