Curriculum Vitae

Weilong (Ben) Cong
Ph.D.

Department of Industrial, Manufacturing,
and systems Engineering,
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EDUCATION

Ph.D. in Industrial Engineering

Kansas State University (KSU), Manhattan, KS, USA May 2013

- Dissertation: Drilling of high-performance materials: experimental, numerical, and theoretical investigations. Advisor: Professor Z.J. Pei.

B.S. in Heat and Power Engineering

Dalian Ocean University (Formerly Dalian Fisheries University), China July 2007

WORK EXPERIENCE

Assistant Professor, Department of Industrial, Manufacturing, and Systems Engineering
Texas Tech University (TTU), Lubbock, TX 08/2014 – Present

Research Assistant Professor, Department of Industrial and Manufacturing Systems Engineering
Kansas State University, Manhattan, KS 01/2014 – 08/2014

Post-Doctoral Fellow, Department of Industrial and Manufacturing Systems Engineering
Kansas State University, Manhattan, KS 07/2013 – 12/2013

Graduate Teaching Assistant, Department of Industrial and Manufacturing Systems Engineering
Kansas State University, Manhattan, KS 07/2011 – 05/2013

Graduate Research Assistant, Department of Industrial and Manufacturing Systems Engineering
Kansas State University, Manhattan, KS 05/2008 – 05/2013

PUBLICATION SUMMARY AND CITATIONS

- Authored or co-authored 91 published (including accepted) papers, book, and book chapters (48 journal papers, 40 conference papers, 3 book / book chapters)
- Authored or co-authored 7 submitted manuscripts
- 1168 citations with an h-index of 18 according to Google Scholar (as on 08/27/2017).
- 822 citations with an h-index of 15 according to Scopus (as on 08/27/2017).

RESEARCH INTERESTS

- Rotary ultrasonic machining of high performance aerospace materials
- Laser additive manufacturing of metal and ceramic based materials
- Ultrasonic vibration-assisted manufacturing processes
- Composite materials fabrication and machining

GRANT PROPOSALS EXPERIENCES

Proposals funded / approved

- NSF CMMI-1538381, "Fundamental Research on Hole Drilling and Surface Grinding of Carbon Fiber Reinforced Plastic Composites with Rotary Ultrasonic Machining", (as the solo PI, funded, 12/2015-11/2018, $309,479).
- REU Supplement for NSF CMMI-1538381, (as the PI, funded, 03/2016, $9,800)
- DOE, "Clean Energy Manufacturing Innovation Institute (CEMII) for Reducing Embodied-energy and Decreasing Emissions (REMADE) in Material Manufacturing", TTU is one of joint institute, (TTU portion, as the Co-PI, selected by DOE, 01/2017, no direct budget)
- DOD DURIP (Through ARO), "Nano-mechanical testing equipment for laser deposition-additive manufacturing of superior performance nano-structured metal based materials", (as the PI, funded in 07/15/2017-07/14/2018, $186,651).
- NSF DUE-1712311, "Collaborative research: Creating an upper division additive manufacturing course and laboratory for enhancing undergraduate research and innovation", (as the PI, funded in 09/01/2017-08/31/2020, $146,539)

TEACHING EXPERIENCE

Teaching at Kansas State University, Manhattan, KS 07/2011 – 05/2014

- **IMSE 250**, Introduction to Manufacturing Processes and Systems (sophomore, 2 credit hours).
  - Teaching semesters: Fall 2011, Spring & Fall 2012, Spring & Fall 2013, and Spring 2014.
  - Approximately 160-170 students enrolled each semester.
- **IMSE 602**, Introduction of Renewable Energy Manufacturing (senior level, 3 credit hours).
  - Teaching semester: Spring 2014.
  - 22 students enrolled.

Teaching at Texas Tech University, Lubbock, TX 09/2014 – Present

- **IE 5352**, Advanced Manufacturing Engineering (graduate level, 3 credit hours).
  - Teaching semester: Spring 2015.
  - 10 students enrolled (9 on-campus students and 1 distance student).
- **IE 5351**, Advanced Manufacturing Processes (graduate level, 3 credit hours).
  - Teaching semester: Fall 2015 and Spring 2017.
  - 30 students enrolled (27 on-campus students and 3 distance students), in Fall 2015.
  - 6 students enrolled in Spring 2017
- **IE 4352**, Manufacturing Engineering II (undergraduate upper level, 3 credit hours).
  - Teaching semester: Spring 2016.
  - 25 students enrolled (on-campus students).
- **IE 3351**, Manufacturing Engineering I (junior level, 3 credit hours).
  - Teaching semester: Fall 2016.
  - 30 students enrolled (on-campus students).

STUDENTS ADVISING

Fuda Ning, Ph.D. candidate, Expected graduation: 05/2018

- **Research topic**: Ultrasonic vibration-assisted mechanical and thermal manufacturing processes

Yingbin Hu, Ph.D. student, Expected graduation: 05/2019

- **Research topic**: Laser deposition additive manufacturing of ceramic and ceramic reinforced composites

Hui Wang, Ph.D. student, Expected graduation: 05/2019

- **Research topic**: Surfacing and hole making of CFRP composites using rotary ultrasonic machining processes

Awards & honors from the Ph.D. students:

- Doctoral Dissertation Completion Fellowship ($27.5 k), 2017: Fuda Ning.
- Horn Professors Graduate Achievement Award at TTU (five awardees in TTU), 2016: Fuda Ning.
- First Runner-up in NAMRI/SME Outstanding Student Research Presentation Competition, 2017: Fuda Ning.
- Second place in 16th Annual Graduate School Poster Competition at TTU, 2017: Yingbin Hu.
- First place in 15th Annual Graduate School Poster Competition at TTU, 2016: Fuda Ning.
- NSF Student Travel Awards for students
  - For SFF 2017 Symposium in Austin, Texas, 2017: Fuda Ning and Yingbin Hu.
  - For SFF 2016 Symposium in Austin, TX, 2016: Fuda Ning and Yingbin Hu.
  - For ASME-MSEC 2017 Conference in Los Angeles, CA, 2017: Yingbin Hu and Hui Wang.
  - For ASME-MSEC 2016 Conference in Blacksburg, VA, 2016: Yingbin Hu and Fuda Ning.
  - For ASME-MSEC 2015 Conference in Charlotte, NC, 2015: Fuda Ning.

SERVICES AND ACTIVITIES

- TTU IE departmental graduate students' academic advisor (08/2015– Present).
- TTU IE departmental graduate committee member (09/2015– Present).
- TTU IE departmental faculty search committee member (2015–2016).
- TTU IE department chair search committee member (2016–2017).
- TTU IE department strategic planning committee member (09/2015– Present).
- TTU IE department moving committee member (09/2015– Present).
- TTU IE department scholarship committee member / Chair (09/2014– Present)
- Section (Co)Chair in ASME 2015/ 2016 International Manufacturing Science and Engineering Conference (MSEC)
- Section (Co)Chair in the 44th SME North American Manufacturing Research Conference (NAMRC)
- Reviewer for more than 20 different journals and conferences.
- American Society of Mechanical Engineers (ASME) member.
- Panel reviewer for NSF proposals (2015).
- Advising/advised three Ph.D. students, four visiting scholars, and two REU students.
- Supporting/supported three undergraduate students.

PUBLICATIONS

Journals and transactions (Peer-reviewed)

1. Hu, Y.B., Cong W.L., Wang, X.L., Li, Y.C., Ning, F.D., and Wang, H. (2017). "Laser deposition-additive manufacturing of titanium matrix composites with novel three-dimensional quasi-continuous network microstructure: Effects of laser power," Composites Part B: Engineering. (Accepted)
2. Hu, Y.B., Ning, F.D., Wang, H., Cong, W.L., and Zhao, B., 2017, "Laser engineered net shaping of

quasi-continuous network microstructural TiB reinforced titanium matrix bulk composites: microstructure and wear performance," Optics & Laser Technology. (Accepted)

3. Wang, H., Ning, F.D., Hu, Y.B., Du, D.P., and Cong, W.L., 2017, "Surface grinding of CFRP composites using rotary ultrasonic machining: design of experiment on cutting force, torque, and surface roughness," International Journal of Manufacturing Research. (Accepted)
4. Hu, Y.B., Ning, F.D., Wang, X.L., Wang, H., Zhao, B., Cong, W.L., and Li, Y.Z., 2017, "Laser deposition-additive manufacturing of in-situ TiB reinforced titanium matrix composites: TiB growth and part performance," The International Journal of Advanced Manufacturing Technology, DOI 10.1007/s00170-017-0769-0.
5. Cong, W.L., and Ning, F.D., 2017, "A fundamental investigation on ultrasonic vibration-assisted laser engineered net shaping process," International Journal of Machine Tools and Manufacture, Vol 121, pp. 61-69.
6. Kim H., Cong, W.L., Zhang H.C., and Liu Z.C., 2017, Laser engineered net shaping of nickel-based superalloy Inconel 718 powders onto AISI 4140 alloy steel substrates: Interface Bond and Fracture Failure Mechanism, Materials, Vol. 10, No. 4, pp. (341)1-18.
7. Li, Y.Z., Cong, W.L., Hu, Y.B., Zhi, L., and Guo, Z.N., 2017, "Additive manufacturing of alumina using laser engineered net shaping: effects of deposition variables," Ceramics International, Vol. 43, No. 10, pp. 7768-7775.
8. Hu, Y.B., Zhao, B., Ning, F.D., Wang, H., and Cong, W.L., 2016, "In-situ ultrafine three-dimensional quasi-continuous network microstructural TiB reinforced titanium matrix composites fabrication using laser engineered net shaping," Materials Letters, Vol. 195, pp. 116-119.
9. Ning, F.D., Cong, W.L., Wang, H., Hu, Y.B., Hu, Z.L., and Pei, Z.J., 2017, "Surface grinding of CFRP composites with rotary ultrasonic machining: a mechanistic model on cutting force in the feed direction," International Journal of Advanced Manufacturing Technology, Vol. 192, No. 1-4, pp. 1217-1229.
10. Ning, F.D., Wang, H., Cong, W.L., and Fernando, P.K.S.C., 2017, "A mechanistic ultrasonic vibration amplitude model during rotary ultrasonic machining of CFRP composites," Ultrasonics, Vol. 76, pp. 44-51.
11. Ning, F.D., Cong, W.L., Hu, Z.L., and Huang, K., 2017, "Additive manufacturing of thermoplastic matrix composites using fused deposition modeling: A comparison of two reinforcements," Journal of Composite Materials, DOI: 10.1177/0021998317692659.
12. Liu, Z.C., Ning, F.D., Cong, W.L., Jiang, Q.H., Zhang, H.C., and Zhou, Y.G., 2016, "Energy consumption and saving analysis for laser engineered net shaping of metal powders," Energies, Vol. 9, No. 10, pp. 763-774.
13. Ning, F.D. and Cong, W.L., 2016, "Microstructures and mechanical properties of Fe-Cr stainless steel parts fabricated by ultrasonic vibration-assisted laser engineered net shaping process," Materials Letters, Vol. 179, pp. 61-64.
14. Ning, F.D., Cong, W.L., Pei, Z.J., and Treadwell, C., 2016, "Rotary ultrasonic machining of CFRP: A comparison with grinding," Ultrasonics, Vol. 66, pp. 125-132.
15. Ning, F.D., Cong, W.L., Hu, Y.B., and Wang, H., 2016, "Additive manufacturing of CFRP composites using fused deposition modeling: Effects of process parameters on tensile properties," Journal of Composite Materials, DOI: 10.1177/0021998316646169.
16. Xu, M.S., Jiang, J.B., Li, B.B., Cong, W.L., and Zhang D.D., 2016, "Experimental characterizations of laser cladding of iron- and nickel-based alloy powders on carbon steel 1045 for remanufacturing," Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, DOI: 10.1177/1464420716660126.
17. Wang, H., Ning, F.D., Hu, Y.B., Fernando, P.K.S.C., Pei, Z.J., and Cong, W.L., 2016, "Surface grinding of CFRP composites using rotary ultrasonic machining: effects of tool variables," Advances in Mechanical Engineering, Vol. 8, No. 9, pp. 1-14.
18. Li, Y.Z., Ning, F.D., Cong, W.L., Zhang, M., and Tang, Y.J., 2016, "Investigating pellet charring and temperature in ultrasonic vibration-assisted pelleting of wheat straw for cellulosic biofuel manufacturing," Renewable Energy, Vol. 92, pp. 312-320.

19. Ning, F.D., Cong, W.L., Qiu J.J., Wei J.H., Wang S.R., 2015, "Additive manufacturing of carbon fiber reinforced thermoplastic composites using fused deposition modeling", Composite Part B: Engineering, Vol. 80, October, pp. 369-378.
20. Tang, Y.J., Cong, W.L., Xu, J., Zhang, P.F., Liu, D.F., 2015, "Ultrasonic vibration-assisted pelleting for cellulosic biofuels manufacturing: A study on in-pellet temperatures", Renewable Energy, Vol. 76, No. 4, pp. 296-302. *corresponding author*
21. Wei, J.H., Wang, J.L., Su, S.H., Wang, S.R., Qiu, J.J., Zhang, Z.H., Christopher, G., Ning, F.D., and Cong, W.L., 2015, "3D printing of an extremely tough hydrogel," RSC Advances, Vol. 5, No. 99, pp. 81324-81329.
22. Cong, W.L., Pei, Z.J., Deines, T.W., Liu, D.F., and Treadwell, C., 2014, "Preliminary study on rotary ultrasonic machining of CFRP/Ti stacks", Ultrasonics, Vol. 54, No. 6, pp. 1594-1602.
23. Cong, W.L., Pei, Z.J., Sun, X., and Zhang, C.L., 2014, "Rotary ultrasonic machining of CFRP: a mechanistic predictive model for cutting force," Ultrasonics, Vol. 52, No. 2, pp. 663-675.
24. Cong, W.L., Pei, Z.J., Deines, T.W., Zhang, P.F., and Treadwell, C., 2013, "Surface roughness in rotary ultrasonic machining: hypotheses and their testing via experiments and simulations," Journal of Manufacturing Research, Vol. 8, No. 4, pp. 378-393.
25. Cong, W.L., Pei, Z.J., Deines, T.W., Liu, D.F., and Treadwell, C., 2013, "Rotary ultrasonic machining of CFRP/Ti stacks using variable feedrate," Composites Part B, Vol. 52, pp. 303-310.
26. Zhang, C.L., Feng, P.F., Pei, Z.J., and Cong, W.L., 2013, "Rotary ultrasonic machining of sapphire: feasibility study and designed experiments," Key Engineering Materials. Vol. 589-590, pp. 523-528.
27. Zhang, C.L., Cong, W.L., Feng, P.F., and Pei, Z.J., 2013, "Rotary ultrasonic machining of optical K9 glass using compressed air as coolant: a feasibility study," Journal of Engineering Manufacture (Proceedings of the Institution of Mechanical Engineers), Vol. 228, No. 4, pp. 504-514.
28. Zou, X.T., Cong, W.L., Wu, N., Tian, Y., Wang, H.F., Pei, Z.J., and Wang, X.W., 2013, "Cutting temperature in rotary ultrasonic machining of titanium: experimental study using novel Fabry-Perot fiber optic sensors," International Journal of Manufacturing Research, Vol. 8, No. 3, pp. 250-261.
29. Cong, W.L., Zou, X.T., Deines, T.W., Wu, N., Wang, X.W., Pei, Z.J., 2012, "Rotary ultrasonic machining of CFRP composites: an experimental study on cutting temperature," Journal of Reinforced Plastics and Composite, Vol. 31, No. 22, pp. 1516-1525.
30. Cong, W.L., Pei, Z.J., Deines, T.W., Srivastava, A., Riley, L., and Treadwell, C., 2012, "Rotary ultrasonic machining of CFRP composites: a study on power consumption," Ultrasonics, Vol. 52, No. 8, pp. 1030-1037. http://dx.doi.org/10.1016/j.bbr.2011.03.031.
31. Cong, W.L., Pei, Z.J., Feng, Q., Deines, T.W., and Treadwell, C., 2012, "Rotary ultrasonic machining of CFRP: a comparison with twist drilling," Journal of Reinforced Plastics and Composite, Vol. 31, No. 5, pp. 313-321.
32. Cong, W.L., Feng, Q., Pei, Z.J., Deines, T.W., and Treadwell, C., 2012, "Edge chipping in rotary ultrasonic machining of silicon," International Journal of Manufacturing Research, Vol. 7, No. 3, pp. 311-329.
33. Cong, W.L., Feng, Q., Pei, Z.J., Deines, T.W., and Treadwell, C., 2012, "Rotary ultrasonic machining of carbon fiber reinforced plastic composites: using cutting fluid versus cold air as coolant," Journal of Composite Materials, Vol. 46, No. 14, pp. 1745-1753.
34. Tang, Y.J., Zhang, P.F., Liu, D.F., Pei, Z.J., and Cong, W.L., 2012, "Ultrasonic vibration-assisted pelleting of cellulosic biomass for biofuel manufacturing: a study on pellet cracks," Journal of Manufacturing Science and Engineering, Vol. 134, No. 5, pp. 051016 (8 pages).
35. Ahmed, Y., Cong, W.L., Stanco, M.R., Xu, Z.G., Pei, Z.J., Treadwell, C., Zhu, Y.L., and Li, Z.C., 2012 "Rotary ultrasonic machining of alumina dental ceramics: a preliminary experimental study on surface and subsurface damages," Journal of Manufacturing Science and Engineering, Vol. 134, No. 6, pp. 064501 (5 pages).
36. Feng, Q., Cong, W.L., Pei, Z.J., and Ren, C.Z., 2012, "Rotary ultrasonic machining of carbon fiber reinforced polymer: feasibility study," Machining Science and Technology, Vol. 16, No. 3, pp. 380-398.
37. Liu, D.F., Cong, W.L., Pei, Z.J., and Tang, Y.J., 2012, "A cutting force model for rotary ultrasonic

machining of brittle materials," International Journal of Machine Tools and Manufacture, Vol. 52, No. 1, pp. 77-84.

38. Liu, D.F., Tang, Y.J., and Cong, W.L., 2012, "A review of mechanical drilling for composite laminates," Composite Structures, Vol. 94, No. 4, pp. 1265-1279.
39. Wu, J.Q., Cong, W.L., Williams, R.E., and Pei, Z.J., 2011, "Dynamic process modeling for rotary ultrasonic machining of alumina," Journal of Manufacturing Science and Engineering, Vol. 133, No. 4, pp. 041012-1 – 041012-5.
40. Cong, W.L., Pei, Z.J., Deines, T.W., and Treadwell, C., 2011, "Rotary ultrasonic machining of CFRP using cold air as coolant: feasible regions," Journal of Reinforced Plastics and Composites, Vol. 30, No. 10, pp. 899-906.
41. Cong, W.L., Pei, Z.J., Mohan1ty, N., Van Vleet, E., and Treadwell, C., 2011, "Vibration amplitude in rotary ultrasonic machining: a novel measurement method and effects of process variables," Journal of Manufacturing Science and Engineering, Vol. 133, No. 3, pp. 034501-1– 034501-6.
42. Cong, W.L., Pei, Z.J., Zhang, P.F., Qin, N., Deines, T.W., and Lin, B., 2011, "Ultrasonic-vibration-assisted pelleting of switchgrass: effects of ultrasonic vibration," Transactions of Tianjin University, Vol. 17, No. 5, pp. 313-319.
43. Zhang, P.F., Pei, Z.J., Wang, D.H., Wu, X.R., Cong, W.L., Zhang, M., and Deines, T.W., 2011, "Ultrasonic vibration-assisted pelleting of cellulosic biomass for biofuel manufacturing," Journal of Manufacturing Science and Engineering, Vol. 133, No. 1, pp. 011012-1 – 011012-7.
44. Feng, Q., Cong, W.L., Zhang, M., Pei, Z.J., and Ren, C.Z., 2011, "An experimental study on charring of cellulosic biomass in ultrasonic vibration-assisted pelleting," International Journal of Manufacturing Research, Vol. 6, No. 1, pp. 77-86.
45. Cong, W.L., Pei, Z.J., Deines, T.W., Wang, Q.G., and Treadwell, C., 2010, "Rotary ultrasonic machining of stainless steels: empirical study of machining variables," International Journal of Manufacturing Research, Vol. 5, No. 3, pp. 370-386.
46. Cong, W.L., Zhang, P.F., and Pei, Z.J., 2009, "Experimental investigations on material removal rate and surface roughness in lapping of substrate wafers: a literature review," Key Engineering Materials, Vol. 404, pp. 23-31.
47. Cong, W.L., Pei, Z.J., Churi, N.J., and Wang, Q.G., 2009, "Rotary ultrasonic machining of stainless steel: design of experiments," Transactions of the North American Manufacturing Research Institution of SME, Vol. 37, pp. 261–268.
48. Wang, Q.G., Cong, W.L., Pei, Z.J., Gao, H., and Kang, R.K., 2009, "Rotary ultrasonic machining of potassium dihydrogen phosphate (KDP) crystal: an experimental investigation on surface roughness," Journal of Manufacturing Processes, Vol. 11, No. 2, pp. 66-73.

Peer-reviewed conference Proceedings

49. Ning, F.D., Hu, Y.B., Liu, Z.C., Cong, W.L., Li, Y.Z., and Wang, X.L., 2017, "Ultrasonic vibration-assisted laser engineered net shaping of Inconel 718 parts: effects of ultrasonic vibration," 45th SME North American Manufacturing Research Conference (NAMRC45), June 4-8, 2017, Los Angeles, CA, USA.
50. Ning, F.D., Wang, H., Hu, Y.B., Cong, W.L., Zhang, M., and Li, Y.Z., 2017, "Rotary ultrasonic surface machining of CFRP composites: a comparison with conventional surface grinding," 45th SME North American Manufacturing Research Conference (NAMRC45), June 4-8, 2017, Los Angeles, CA, USA.
51. Liu, Z.C., Cong, W.L., Kim, H., Ning, F.D., Jiang, Q.H., Li, T., Zhang, H.C., and Zhou, Y.G., 2017, "Feasibility exploration of superalloys for AISI 4140 steel repair using laser engineered net shaping," 45th SME North American Manufacturing Research Conference (NAMRC45), June 4-8, 2017, Los Angeles, CA, USA.
52. Hu, Y.B., Wang, H., Ning, F.D., Cong, W.L., and Li, Y.Z., 2017, "Surface grinding of optical BK7/K9 glass using rotary ultrasonic machining: an experimental study," Proceedings of the ASME 2017 International Manufacturing Science and Engineering Conference (MSEC2017-2780), June 4-8, 2017, Los Angeles, CA, USA.

53. Wang, H., Hu, Y.B., Ning, F.D., Li, Y.Z., Zhang, M., Cong, W.L., and Smallwood, S., 2017, "Surface grinding of CFRP composites using rotary ultrasonic machining: effects of ultrasonic power," Proceedings of the ASME 2017 International Manufacturing Science and Engineering Conference (MSEC2017-2726), June 4-8, 2017, Los Angeles, CA, USA.
54. Fernando, P., Zhang, M., Pei, Z.J., and Cong, W.L., 2017, "Rotary ultrasonic machining: effects of tool end angle on delamination of CFRP drilling," Proceedings of the ASME 2017 International Manufacturing Science and Engineering Conference (MSEC2017-2863), June 4-8, 2017, Los Angeles, CA, USA.
55. Liu, Z.C., Ning, F.D., Cong, W.L., and Zhang, H.C., 2016, "Laser engineering net shaping (LENS) of metal powders: A study on energy consumption," 2016 Annual International Solid Freeform Fabrication (SFF2016) Symposium, August 8-10, Austin, Texas, USA.
56. Ning, F.D., Cong, W.L., Jia, Z.Y., Wang, F.J., and Zhang, M., 2016, "Additive manufacturing of CFRP composites using fused deposition modeling: effects of process parameters," Proceedings of the ASME 2016 International Manufacturing Science and Engineering Conference (MSEC2016-8561), June 27 - July 01, 2016, Blacksburg, VA, USA.
57. Hu, Y.B., Wang, H., Ning, F.D., and Cong, W.L., 2016, "Laser engineered net shaping of commercially pure titanium: effects of fabricating variables," Proceedings of the ASME 2016 International Manufacturing Science and Engineering Conference (MSEC2016-8812), June 27 - July 01, 2016, Blacksburg, VA, USA.
58. Li, Y.Z., Cong, W.L., Huang, R.X., and Ning, F.D., 2016, "Laser cladding of alumina material coating: effects on deposition quality," Proceedings of the ASME 2016 International Manufacturing Science and Engineering Conference (MSEC2016-8814), June 27 - July 01, 2016, Blacksburg, VA, USA.
59. Zhang, M., Song, X.X., Grove, W., Hull, E., Pei, Z.J., Ning, F.D., and Cong, W.L., 2016, "Carbon nanotube reinforced fused deposition modeling using microwave irradiation," Proceedings of the ASME 2016 International Manufacturing Science and Engineering Conference (MSEC2016-8790), June 27 - July 01, 2016 Blacksburg, VA, USA.
60. Kumar, M.N., Jin, X., and Cong, W.L., 2016, "Vibration assisted grinding of additively manufactured stainless steel," the 11th International Conference on Micro Manufacturing, March 29-31, 2016, Orange County, CA, USA.
61. Ning, F.D., and Cong, W.L., 2015, "Rotary ultrasonic machining of CFRP: design of experiments", Proceedings of the ASME 2015 International Manufacturing Science and Engineering Conference (MSEC2015-9227), June 8-12, 2015, Charlotte, NC, USA.
62. Ning, F.D., Cong, W.L., Wei, J.H., Wang, S.R., Zhang, M., 2015, "Additive manufacturing of CFRP composites using fused deposition modeling: effects of carbon fiber content and length", Proceedings of the ASME 2015 International Manufacturing Science and Engineering Conference (MSEC 2015-9436), June 8-12, 2015, Charlotte, NC, USA.
63. Hull, E., Grove, W., Zhang, M., Song X.X., Pei, Z.J., and Cong W.L., "Effects of process variables on extrusion of carbon fiber reinforced ABS filament for additive manufacturing" Proceedings of the ASME 2015 International Manufacturing Science and Engineering Conference (MSEC2015-9396), June 8-12, 2015, Charlotte, NC, USA.
64. Fernando, P., Pei, Z.J., Zhang M., Song X.X., and Cong W.L., 2015, "Rotary ultrasonic machining of carbon fiber reinforced plastics: a design of experiment", Proceedings of the ASME 2015 International Manufacturing Science and Engineering Conference (MSEC2015-9391), June 8-12, 2015, Charlotte, NC, USA.
65. Zou, X.T., Cong, W.L., Wu, N., Pei, Z.J., and Wang, X.W., 2012, Novel fiber optic sensors and their application on cutting temperature measurement in rotary ultrasonic machining of titanium, ASME/ISCIE 2012 International Symposium on Flexible Automation (ISFA2012-7142), June 18-20, 2012, St. Louis, MO, USA.
66. Cong, W.L., Feng, Q., Pei, Z.J., Deines, T.W., and Treadwell, C., 2011, "Experimental study on cutting temperature in rotary ultrasonic machining," Proceedings of the 39th SME North American Manufacturing Research Conference (NAMRC Vol. 39, pp. 369-376), June 13-17, 2011, Corvallis,

OR, USA.

67. Cong, W.L., Feng, Q., Pei, Z.J., Deines, T.W., and Treadwell, C., 2011, "Dry machining of carbon fiber reinforced plastic composite by rotary ultrasonic machining: effects of machining variables," Proceedings of the ASME 2011 International Manufacturing Science and Engineering Conference (MSEC2011-50116), June 13-17, 2011, Corvallis, OR, USA.
68. Cong, W.L., and Pei, Z.J., 2011, "Survey of courses on renewable energy manufacturing at American universities," Proceedings of the ASME 2011 International Manufacturing Science and Engineering Conference (MSEC2011-50080), June 13-17, 2011, Corvallis, OR, USA.
69. Qin, N., Pei, Z.J., Cong, W.L., Treadwell, C., and Guo, D.M., 2011, "Ultrasonic vibration-assisted grinding of brittle materials: a mechanistic model for cutting force," Proceedings of the ASME 2011 International Manufacturing Science and Engineering Conference (MSEC2011-50055), June 13-17, 2011, Corvallis, OR, USA.
70. Cong, W.L., Feng, Q., and Pei, Z.J., 2010, "Drilling of silicon based solar panels: a review," Proceedings of the ASME 2010 International Manufacturing Science and Engineering Conference (MSEC 2010-34324), October 12-15, 2010, Erie, PA, USA.
71. Cong, W.L., Feng, Q., Pei, Z.J., and Treadwell, C., 2010, "Comparison of superabrasive tools in rotary ultrasonic machining of stainless steel," Proceedings of the ASME 2010 International Manufacturing Science and Engineering Conference (MSEC2010-34154), October 12-15, 2010, Erie, PA, USA.
72. Feng, Q., Cong, W.L., Zhang, M., Pei, Z.J., and Ren, C.Z., 2010, "An experimental study on temperature in ultrasonic vibration-assisted pelleting of cellulosic biomass," Proceedings of the ASME 2010 International Manufacturing Science and Engineering Conference (MSEC2010-34148), October 12-15, 2010, Erie, PA, USA.
73. Qin, N., Pei, Z.J., Cong, W.L., and Guo, D.M., 2010, "Effects of tool design on edge chipping in ultrasonic-vibration-assisted grinding," Proceedings of the ASME 2010 International Manufacturing Science and Engineering Conference (MSEC2010-34182), October 12-15, 2010, Erie, PA, USA.
74. Zhang, P.F., Deines, T.W., Cong, W.L., Qin, N., Pei, Z.J., and Nottingham, D., 2010, "Ultrasonic vibration-assisted pelleting of switchgrass: effects of moisture content on pellet density, spring-back, and durability," Proceedings of the 20th International Conference on Flexible Automation and Intelligent Manufacturing (FAIM 2010), July 12-14, 2010, California State University, CA, USA.
75. Zhang, M., Song, X.X., Deines, T.W., Zhang, P.F., Zhang, Q., Cong, W.L., Qin, N., and Pei, Z.J., 2010, "Ultrasonic-vibration-assisted pelleting of switchgrass: effects of binder material," Proceedings of the IIE Annual Conference and Expo 2010, June 5-9, 2010, Cancun, Mexico.
76. Qin, N., Pei, Z.J., Cong, W.L., and Guo, D.M., 2010, "UVAG of brittle materials: DOE with a cutting force model," Proceedings of the IIE Annual Conference and Expo 2010, June 5-9, 2010, Cancun, Mexico.
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