WENBIN LI

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342 Toomey Hall, 400 W.13th St., Rolla Missouri, U.S.A, 65409

Gender : Male
Date of birth : 11/18/1987
Research area : Additive manufacturing of advanced ceramics
Position : Graduate Research Assistant

Education

2014-prsent **Missouri University of Science and Technology**

PhD. Candidate in Mechanical Engineering, Department of Mechanical and Aerospace Engineering

Graduate Research Assistant in Virtual Reality and Additive Manufacturing Laboratory.

Advisor: Dr. Ming C. Leu

2011-2014 **Beijing Institute of Technology, China (BIT)**

M.S. in Sensing and Electromechanical Controls, School of Mechanical Engineering

Graduate student in Mechatronics Center, Beijing Institute of Technology

Degree thesis: *Study on Digital Control System of Maglev Positioning Stage,* Advisor: Shuyuan Ma

2007-2011 **Beijing Institute of Technology, China (BIT)**

B.S. in Mechanical Engineering and Automation, School of Mechanical Engineering

Degree thesis: *Laser Radar Based Navigation Control for P3-AT Wheeled Robot,* Advisor: Shuyuan Ma

Research Experience

01/14-present **Additive Manufacturing of Smart Parts with Embedded Sensors for in-situ Monitoring in Advanced Energy Systems (Funded by U.S. Department of Energy)**

· Methods and theories of building ceramic parts with Freezeform Extrusion Fabrication process.

· Motion and extrusion control in Ceramic On-Demand Extrusion process.

· Additive manufacturing of smart parts with embedded sensors.
· Additive manufacturing of functionally graded parts
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10/12-01/14 **Theory and Method of Cross-scale Maglev Nano-positioning System (Funded by NSF, China)**

· Embedded hardware design of digital control system for Nano-positioning stage.
· Data acquisition and processing of Renishaw laser interferometer.

05/11-09/11 **Intelligent Vehicle Future Challenge 2011 (Funded by NSF, China)**

· Research on Laser radar based navigation for Intelligent Vehicle.
· Data processing for laser radar, local path planning for wheeled robot.

Honors & Scholarships

04/2015 **Intelligent Systems Center Graduate Research Symposium**

· Second place for paper "*A Novel Additive Manufacturing Process for Embedding Sensors into Ceramic Parts".*

11/2014 **Intelligent Systems Center Poster Presention**

· Second place for presentation "*Additive Manufacturing of Ceramic Liner Blocks with Embedded Sensors for Advanced Energy Systems".*

09/2010 **The 4th HONDA Econo-power Car Competition**

· Ranked 3rd in this competition among the 120 teams, including competitors from vehicle enterprises, colleges, overseas universities. Served as team leader of 12 members.

09/2009 **The 3rd HONDA Econo-power Car Competition**

· Won the championship among the 100 teams, including competitors from colleges, overseas universities, set a new record of fuel efficiency in China with the performance of 1279.6 km/liter.

05/2008 **The 2nd Structural Design Competition of BIT**

· Won the first prize among the 200 teams. Served as team leader of 3 members.

10/2009 **TOYATA Scholarship by Toyota Motor Corporation**

List of Publications

1. Li, W., Ghazanfari, A., Leu, M. C., and Landers, R.G., "Methods of Extrusion-On-Demand for High Solids Loading Ceramic Paste in Freeform Extrusion Fabrication," *Solid Freeform Fabrication Symposium*, Austin, TX, 2015, pp. 332-345.
2. Ghazanfari, A., Li, W., Leu, M. C., and Landers, R.G., "Optimal Rastering Orientation in Freeform Extrusion Fabrication Processes," *Solid Freeform Fabrication Symposium*, Austin,

TX, 2015, pp. 1324-1333.

3. Ghazanfari, A., Li, W., Leu, M. C., and Landers, R.G., "Planning Freeform Extrusion Fabracation Process with Consideration of Horizontal Staircase Effect," *Solid Freeform Fabrication Symposium*, Austin, TX, 2015, pp. 1313-1323.
4. Ghazanfari, A., Li, W., and Leu, M. C., "Adaptive rastering algorithm for freeform extrusion fabrication processes," *Virtual and Physical Prototyping*, vol. 10, pp. 163–172, 2015.
5. Li, W., Ghazanfari, A., McMillen, D., Leu, M. C., Himas, G. E. and Jeremy, W., " Properti es of Partially Stabilized Zirconia Components Fabricated by the Ceramic On-Demand Extru sion Process," *Solid Freeform Fabrication Symposium*, Austin, TX, 2016
6. Li, M., Ghazanfari, A. Li, W., Landers, R.G. and Leu, M.C. "Modeling and Analysis of Paste Freezing in Freeze-Form Extrusion Fabrication of Thin-Wall Parts via a Lumped Method,"*Journal of Materials Processing Technology* 237, pp. 163-180, 2016.