Xiao Zhang

Ph.D. student, Flexible Electronics and Additive Printing (FEAP) Laboratory, In-situ Characterization for Additive Printing (iCAP) Laboratory, Department of Industrial and Manufacturing Systems, Iowa State University

1117 Black Engineering Building
2529 Union Drive
Ames, IA, 50010-2030

email: xiao1@iastate.edu
webpage: zhangxiao2018.github.io

RESEARCH INTERESTS & AREAS OF EXPERTISE

Electrohydrodynamic Jet Printing for fabricating micro/nano flexible electronics
In-situ Image processing and close-loop control process
Laser diffraction and laser ablation manufacturing technique
Bio-printing and Food printing manufacturing
Large Scale Integrated Circuit manufacturing

EDUCATION

Ph.D. in Department of Industrial and Manufacturing Systems, in progress
Iowa State University; Ames, Iowa

Ph.D. in Mechanical and Aerospace Engineering, December 2017
North Carolina State University; Raleigh, North Carolina

M.S. in Department of Material Science and Engineering, June 2015
Wuhan University of Technology; Wuhan,China

B.A. in Department of Material Science and Engineering, June 2012
Wuhan University of Technology; Wuhan,China

B.A. in Business Administration, June 2012
Wuhan University; Wuhan,China

RESEARCH EXPERIENCE

Graduate Research Assistant, December 2017 - present
Department of Industrial and Manufacturing Systems; Iowa State University
Flexible electronic fabrication by electrohydrodynamic jet printing technique combined with laser ablation

Graduate Research Assistant, March 2018 - present
Department of Food Science and Human Nutrition; Iowa State University
Food printing for patients in hospitals

Graduate Research Assistant, December 2017 - present
Center for Nondestructive Evaluation; Iowa State University
In-situ characterization for additive printing

Graduate Research Assistant, October 2016 – March 2017
Department of Biological and Agricultural Engineering; North Carolina State University
Air quality evaluation, data processing for modeling and simulation

Graduate Research Assistant, September 2013 – June 2015
Department of Material Science and Engineering; Wuhan University of Technology
Helical gear deformation technique and optimization for the mold

Graduate Research Assistant, September 2013 – June 2015
Department of Automotive Engineering; Wuhan University of Technology
Fine blanking deformation technique including the machine, process, material.

Graduate Research Assistant, September 2013 – June 2015
Department of Material Science and Engineering; Wuhan University of Technology
National Natural Science Foundation of China project "Helical cylindrical gear precision forming mechanism and technology research" (project number: Project Number: 51375356).

TEACHING EXPERIENCE

Teaching Assistant, January 2018 – Present
Eng160F; Iowa State University

Tutor For Undergraduate Research, December 2013 – June 2014
Department of Material Science and Engineering; Wuhan University of Technology

WORK EXPERIENCE

Equipment Engineer, March 2013 – September 2013
Semiconductor Manufacturing Incorporation (SMIC); Shanghai
Wafer package and testing, PVD, CVD, photoresist coater/decoater machine maintenance, recipe development

HONORS & AWARDS

National Scholarship,Wuhan University of Technology,2013–2014

University Scholarship,Wuhan University of Technology,2009–2011

PUBLICATIONS & REPORTS

1. "Machine vision assisted micro-filament detection for real-time monitoring of electrodydrodynamic inkjet printing", in process, FAIM2018, Ohio State University; June 2018.

PRESENTATIONS

1. "MICRO-FILAMENT DETECTION OF ELECTROHYDRODYNAMIC JET PRINTING", Industry/University Research Center Semi-Annual Review. Ames, Iowa; April 2018.

2. "Application of 3D Printing to Food Preparation at Ames Hospitals", poster competition, Center for Crops Utilization Research BioCentury Research Farm. Ames, Iowa; April 2018.

3. "Model Reconstruction in Additive Printing: A New Approach for in-situ Monitoring and Nondestructive Evaluation of Printed Constructs", Industry/University Research Center Semi-Annual Review. Ames, Iowa; April 2018.

4. “Machin vision assisted micro-filament detection for real-time monitoring of electrodydrodynamic inkjet printing, Rahul in process”, FAIM2018 conference. Columbus, Ohio; June 2018.

ORTHER MEETINGS & WORKSHOPS

1. ASME 2018/MSEC Manufacturing Science and Engineering Conference. Taxas A&M University, TX; June 2018
2. Industry/University Research Center Semi-Annual Review. Ames, Iowa; April 2018
3. The 15th Shanghai International Automobile Industry Exhibition. Wuhan, China; April 2013
4. Munich Shanghai Electronic Components Expo. Shanghai, China; March 2013
5. Advanced Engineering Symposium. Wuhan, China; December 2011

SERVICE

Reviewed articles for:
The American Society of Mechanical Engineers Department of Material Science and Engineering; Wuhan

Vice president of Information and Cyber Association
August 2009- May 2012

MEMBERSHIP

IEEE Member; March 2018 - present
ASME Member, March 2018 - present

OTHER SKILLS

VBA, Python, MATLAB, SOLIDWORKS, ANSYS, DEFORM, PROE, ORIGIN