Ruixuan ZHAO *contact information:*
Email:rxzhao@hust.edu.cn

EDUCATION

HuaZhong University of Science and Technology (HUST） HUST, September 2015 - Present
B.S. in Optical and Electronic Engineering
Rank: 2/292
GPA: 3.94/4.00 or 92.4/100

REASEARCH

Generation of Orbital Angular Momentum(OAM) Beam Advisor: Shuhui Li, Assistant Professor
Undergraduate research assistant HUST, October 2016 - August 2017

* Established optical system for beam transfer
* Developed fusion splicer's manual mode
* Assisted a MS student to finish asymmetrical fusion experiment

Optical Tweezer and Spanner Advisor: Shuhui Li, Assistant Professor
Undergraduate research assistant HUST, July 2017 - August 2018

* Designed and optimized structure for optical lens with Matlab and FDTD
* Explored the way of fabricating fiber lens via fiber fusion splicer
* Experimentally realized stable particle trapping and rotation
* Wrote paper

Fault Detection Based On POTDR Advisor: Ming Tang, Professor
Undergraduate research assistant HUST, June 2018 - Present

* Built simulation environment about signal transmission with Matlab
* Used POTDR to realize distributed fiber sensor
* Combined with Kalman filter

Microcontroller's Application Designing Project Advisor: YuBin Wu, Senior Engineer
Undergraduate research assistant HUST, April 2018 - July 2018

* Did schematic, PCB design, circuit soldering
* Realized arbitrary waveform generation function by coding in Keils 4
* Developed GUI for PC controlling in Matlab

HONORS/AWARDS

"Outstanding Student" HUST, September 2017
"Scholarship of Academic Excellence" HUST, September 2017

PUBLICATIONS

Patent HUST, December 2016

* ***A kind of optical Vortices Converter***

Paper

* Li, S., Xu, Z., **Zhao, R.**, Shen, L., Du, C., & Wang, J. (2018). ***Generation of Orbital Angular Momentum Beam Using Fiber-to-Fiber Butt Coupling***. *IEEE Photonics Journal*

* Xu, Z., Li, S., **Zhao, R.**, Shen, L., Du, C., & Wang, J. (2018, February). ***Experimental demonstration of broadband generation of optical vortices using asymmetrically spliced fibers***. In *Complex Light and Optical Forces XII* (Vol. 10549, p. 105490J). International Society for Optics and Photonics.

* **Zhao, R.,** Xu, Z., Li, S., Shen, L., Du, C., & Wang, J. ***Design of All-fiber spanner using high-index parabolic tip***. *Optical Express* **(submitted)**

SKIILS

Technical: MATLAB, ZEMAX, FDTD Solutions, ISE Design suit, Altim Designer(basic), Multisim
Language: Verilog, Assembly Language, C