

# KiHong Choi

📍 Dept. of Information Display, Kyung Hee University, Seoul, S.Korea

☎ +82 10 3404 1594

✉ kihong08@gmail.com

## Education

---

2015 – Present

### Ph.D. in Information Display

Kyung Hee University, Seoul, S.Korea

- Pursuing Doctor of Philosophy in Optical Engineering
- Expected graduation August 2018

2013 – 2015

### M.S. in Information Display

Kyung Hee University, Seoul, S.Korea

2007 – 2013

### B.S. in Information Display

Kyung Hee University, Seoul, S.Korea

- Course stopped during the military service (2009–2011)

## Experience

---

2015 – Present

### Doctoral Candidate

Display Optical Application Laboratory, Kyung Hee University

- Principal Investigator: Prof. Sung-Wook Min
- Major contribution on the invention and development of digital holographic recording systems, especially the self-interference digital holographic camera system (four pending patents)
- Contributed on developing and analyzing the auto-stereoscopic 3D display
- Co-authored 8 peer-reviewed journal related to the autostereoscopic 3D display and holographic recording system.

2013 – 2015

### MS candidate

Display Optical Application Laboratory, Kyung Hee University

- Major contribution on the investigation of human visual reaction toward a three-dimensional (3D) display, especially the accommodative reaction of the human eye on the autostereoscopic 3D information.
- Contributed on developing head-up display for automobiles
- Co-authored one peer-reviewed journal publication related to the autostereoscopic 3D display

2013 – 2014, 2016

### Teaching Assistantships

Department of Information Display, Kyung Hee University

- Display systems experiment: assisted the experiments related to understand the circuit mechanism of the flat panel displays (2013-2014)
- Photo-electronics experiment: organized and taught how to perform a basic optical experiments (2016)

## SKILLS

---

### Languages

Korean – native

English – Professional working proficiency (ILR 3)

### Experimental techniques

General image and signal processing, holographic data processing

Optical simulation – Ray or wave analysis

Optical prototyping, especially the holographic system and auto-stereoscopic display

Auto-refractometer operation and its data analysis

Software techniques	Optical simulation tools
	<ul style="list-style-type: none"> <li>• LightTools</li> <li>• Zemax</li> </ul>
	Computer graphics and design tools
	<ul style="list-style-type: none"> <li>• Cinema4D</li> <li>• Unity</li> <li>• Photoshop</li> <li>• Illustrator</li> <li>• After effect</li> <li>• AutoCAD</li> </ul>
	Programming language
	<ul style="list-style-type: none"> <li>• Python</li> <li>• C#</li> <li>• MATLAB</li> </ul>
	Publication language
	<ul style="list-style-type: none"> <li>• LaTeX</li> <li>• HTML &amp; CSS</li> </ul>

## Award

---

- 2018 Outstanding poster award in 2018 Japan-Korea workshop on Digital Holography and Information Photonics  
 "Compact incoherent digital holographic video camera," **KiHong Choi**, Hyeongkyu Do, SeungHwi Yoo, Hyunsik Sung, and Sung-Wook Min
- 2016 Best paper award in 2016 Optical society of Korea summer meeting  
 "Study about confocal Fresnel incoherent holography by using polarizer-pinhole," **KiHong Choi**, Junkyu Yim, Youngmin Kim, and Sung-Wook Min

## Publications

---

- "Compact self-interference incoherent digital holographic camera system with real-time operation," **Kihong Choi**, Kyung-Il Joo, Tae-Hyun Lee, Hak-Rin Kim, Junkyu Yim, and Sung-Wook Min, Opt. Express 27, 4818-4833 (2019)
- "Optical sectioning using compressive Fresnel holography with dictionary learning," Junkyu Yim, **KiHong Choi**, Sung-Wook Min, Opt. Eng. 57(7), 073102 (2018).
- "Achromatic phase shifting self-interference incoherent digital holography using linear polarizer and geometric phase lens," **Kihong Choi**, Junkyu Yim, and Sung-Wook Min, Opt. Express 26, 16212-16225 (2018)
- "Self-interference digital holography with a geometric-phase hologram lens," **Ki-Hong Choi**, Junkyu Yim, Seunghwi Yoo, and Sung-Wook Min, Opt. Lett. 42, 3940-3943 (2017)
- "Optical defocus noise suppressing by using a pinhole-polarizer in Fresnel incoherent correlation holography," **KiHong Choi**, Junkyu Yim, and Sung-Wook Min, Appl. Opt. 56, F121-F127 (2017) [Editor's pick]
- "Real object pickup method of integral imaging using offset lens array," Junkyu Yim, **Ki-Hong Choi**, and Sung-Wook Min, Appl. Opt. 56, F167-F172 (2017)
- "Analysis on expressible depth range of integral imaging based on degree of voxel overlap," Young Min Kim, **Ki-Hong Choi**, and Sung-Wook Min, Appl. Opt. 56, 1052-1061 (2017)
- "Analysis of Condition for Integral Floating Display Inducing Proper Accommodation Responses," **Ki-Hong Choi**, Myoung Ju Won, Mincheol Whang, and Sung-Wook Min, J. Display Technol. 12, 1352-1363 (2016)
- "Measurement of accommodation response of human eye to integral floating display," **Ki-Hong Choi**, Junkyu Yim, Young Min Kim, and Sung-Wook Min, Appl. Opt. 54, 7925-7932 (2015)