

# Huakang Chen

Email: chk@dochk.cn / s160101002@cqupt.edu.cn • Ph: (+86)13350376703

## EDUCATION

### Chongqing University of Posts and Telecommunications

Chongqing, China

M.Eng. in Information and Communication Engineering  
(GPA: 3.38 / 4.0)

Sep 2016 – Jun 2020

### Chongqing University of Posts and Telecommunications

Chongqing, China

B.Eng. in Electronic Information Engineering  
(GPA: Total: 3.15 / 4.0)

Sep 2012 – Jun 2016

1st year: 2.96 / 4.0    2nd year: 2.96 / 4.0    3rd year: 3.36 / 4.0    4th year: 3.68 / 4.0

## PUBLICATIONS

- **Huakang Chen**, Yu Shao, Zhangjian He, Changhong Zhang, Zhizhong Zhang, “A Millimeter-Wave Wideband Circularly Polarized Planar Spiral Antenna Array with Unequal Amplitude Feeding Network,” *International Journal of Antennas and Propagation*, vol. 2021, Article ID 9955502, pp. 1–10, July 2021.
- **Huakang Chen**, Yu Shao, Keyao Li, Changhong Zhang, Zhizhong Zhang, “Low-Profile Millimeter-Wave Wideband Circularly Polarized Spiral Antenna Array,” presented at the *14th European Conference on Antennas and Propagation (EuCAP)*, Copenhagen, Denmark, March 15–20, 2020.
- **Huakang Chen**, Yu Shao, Yajing Zhang, Changhong Zhang, Zhizhong Zhang, “A Millimeter Wave Triple-band SIW Antenna with Dual-sense Circular Polarization,” *IEEE Transactions on Antennas and Propagation*, vol. 68, no. 12, pp. 8162–8167, May 2020.
- **Huakang Chen**, Yu Shao, Yajing Zhang, Changhong Zhang, Zhizhong Zhang, “A Low-profile Broadband Circularly Polarized mmWave Antenna with Special-shaped Ring slot,” *IEEE Antennas and Wireless Propagation Letters*, vol. 18, no. 7, pp. 1492–1496, June 2019.
- **Huakang Chen**, Yu Shao, Yajing Zhang, Changhong Zhang, Zhizhong Zhang, “A Triple-band Millimeter Wave SIW Antenna with Dual-Sense Circular Polarization,” presented at the *IEEE International Symposium on Antennas and Propagation & USNC/URSI National Radio Science Meeting*, Atlanta, GA, USA, July 7–12, 2019.
- **Huakang Chen**, Zhizhong Zhang, Fang Lei, “A Design of Dual-band Circularly Polarized Millimeter-wave Microstrip Antenna,” in *IEEE International Symposium on Antennas and Propagation & USNC/URSI National Radio Science Meeting*, Boston, MA, USA, 2018, pp. 1827–1828.
- Jiao Xiang, Guoquan Li, Doudou Guo, **Huakang Chen**, Jian Wu, “A Dual-Band Circularly Polarized Microstrip Antenna for BDS Application,” presented at the *2020 International Symposium on Antennas and Propagation (ISAP)*, Osaka, Japan, Jun. 25–28, 2021.
- Changhong Zhang, **Huakang Chen**, “A Broadband Circularly Polarized Substrate Integrated Antenna with Dual Magnetolectric Dipoles Coupled by Crossing Elliptical Slots,” in *IEEE 18th International Conference on Communication Technology (ICCT)*, Chongqing, China, Oct. 8–11, 2018, pp. 564–567.

## PROJECTS

### Smart Bracelet

### Wenfeng Innovation and Entrepreneurship Project of Chongqing University of Posts and Telecommunications, Director

Mar 2015 – Jul 2016

- Utilizing nRF51822 as the control chip, it connects with the mobile application through Bluetooth protocol. Smart bracelet can send the status and position information of the detected person collected by the sensor to the mobile application program. The bracelet has the characteristics of interaction with mobile phones and low power consumption.
- Three iterative versions of hardware and two interaction APPs based on Android and IOS system are proposed respectively.
- **Technical skill sets:** Skilled with Digital Circuit and Analog Circuit Design, Experienced with 32-bit ARM Cortex M0 Architecture CPU Programming, Bluetooth Communication Protocol Configuration, and debugging of hardware and software.

<b>NOTABLE COMPETITIONS</b>	<b>Radio Frequency Transmitter System</b>	
	<b>2016 IEEE International Symposium on Radio-Frequency Integration Technology (RFIT2016)</b>	
	<b>Student Design Competition</b>	Aug 2016
	<ul style="list-style-type: none"> <li>• Build a wireless transmitter and an antenna to transmit a 2.8 GHz CW signal, real time, on-site, in an assigned period (6 hours). The 2.8GHz transmitter oscillator circuit and power amplifier circuit are manually manufactured on site using the provided transistor.</li> <li>• A patch Yagi antenna with 9 dB gain and 2.8 GHz central operating frequency was fabricated.</li> <li>• <b>Technical skill sets:</b> Experienced with Printed Circuit Board (PCB) Technical, Knowledge of Radio Frequency Circuit Design, and Skilled with Electromagnetic Simulation Software, e.g., CST, HFSS.</li> </ul>	
	<b>Gain controllable RF amplifier</b>	
	<b>2015 National Undergraduate Electronic Design Contest</b>	Aug 2015
	<ul style="list-style-type: none"> <li>• A gain controllable RF amplifier is designed and fabricated in 4 days. The gain range is from 0 dB to 52 dB, and the frequency range is from 40 MHz to 200 MHz.</li> <li>• The whole system is divided into three cascades to achieve 52dB amplification and powered by a single power supply. The first two stages are programmable gain amplifier circuit and the last stage is fixed gain amplifier circuit. The circuit is controlled by the Xilinx basy 3 board core and interacts with the user through a touchable display screen.</li> <li>• <b>Technical skill sets:</b> Skilled with Power supply circuit design and analog circuit design, Experienced with FPGA Programming.</li> </ul>	
<b>EXPERIENCE</b>	<b>Chongqing University of Posts and Telecommunications</b>	
	<b>Graduate Teaching Assistant, Integrated Design of Electronic Systems II / Integrated Design and Simulation of Electronic Systems</b>	Sep 2016 – Jun 2019
	<ul style="list-style-type: none"> <li>• Teaching undergraduates electronic system design courses with instructor.</li> <li>• The main contents of the course include circuit design, simulation, PCB manufacturing, validated testing and MCU programing, etc.</li> </ul>	
<b>PATENTS</b>	• A broadband circularly polarized substrate integrated waveguide endfire antenna, Chinese Patent NO.202110305208.4	(pending)–Mar 2021
	• A millimeter wave triple-band triple-polarization substrate integrated waveguide antenna, Chinese Patent NO.201910140731.9	(authorized)–Feb 2019
	• A millimeter wave broadband circularly polarized microstrip antenna, Chinese Patent NO.201810914385.0	(authorized)–Aug 2018
<b>HONORS &amp; AWARDS</b>	• Chongqing Univ. of Posts and Telecom. First Academic Scholarship	Apr 2019
	• National College Students Smart Connected Innovation Competition, Second Prize	Dec 2017
	• Chongqing Univ. of Posts and Telecom. Outstanding Graduate Student	Dec 2017
	• Chongqing Univ. of Posts and Telecom. First Academic Scholarship	Dec 2017
	• “HUAWEI Cup” The 14th China Post-Graduate Mathematical Contest in Modeling, Second Prize	Dec 2017
	• “Internet +” China Innovation and Entrepreneurship Competition for College Student, Gold Award	Nov 2017
	• ”HUAWEI Cup” The 13th China Post-Graduate Mathematical Contest in Modeling, Third Prize	Dec 2016
	• Chongqing Univ. of Posts and Telecom. First Academic Scholarship	Dec 2016
	• National Undergraduate Electronic Design Contest, Sencond Prize	Dec 2015
	• Chongqing Univ. of Posts and Telecom. Second Academic Scholarship	Dec 2015
	• TI Cup Chongqing Univ. Students Electronic Design Competition, Second Prize	Sep 2014
<b>PROFESSIONAL SKILLS</b>	<b>Advanced Programming :</b> C/C++ ( Qt, Visual Studio ), Embedded Linux Programming, Python.	
	<b>Hardware Programming :</b> Verilog/VHDL ( Quartus, Vivado ), Assembly language ( Keil, IAR ).	
	<b>Hardware :</b> Circuit simulation ( Proteus, Multisim ), Electromagnetic simulation ( CST, HFSS ), Circuit Design ( Altium Designer, Cadence ), Engineering drawing ( AutoCAD ).	

[CV compiled on 2021-08-27 general use]