

초고주파통신 연구실

1. 지도교수: 박익모 (원310-3호, E-mail : ipark@ajou.ac.kr, 전화: 2374)

2. 연구 분야: 안테나

3. 학력

1984.05 State University of New York at Stony Brook (학사전공 : 전자공학)

1989.08 University of Illinois at Urbana-Champaign (석사전공 : 초고주파공학)

1994.01 University of Illinois at Urbana-Champaign (박사전공 : 초고주파공학)

4. 주요 경력

LG 종합기술원 (안테나 설계)

HUMAN DEVICES (회로 설계)

NANO ENS 기술자문 (차량용 안테나 설계)

5. 학·협회 활동

IEEE 정회원

미국 Tau Beta Phi, Eta Kappa Nu 정회원

한국전자파학회 정회원 및 상임이사

대한전자공학회 평생회원

Conference Vice-Chair, International Conference on Infrared, Millimeter, and Terahertz Waves

TPC Chair, International Workshop on Antenna Technology

TPC Vice-Chair, Global Symposium on Millimeter-waves

TPC Member, International Symposium on Antennas and Propagation

TPC Member, Asia-Pacific Microwave Conference

6. 논문·특허

가. 논문 현황

H. Wang, A. Ali, Y. B. Park and I. Park, "A mode-compressed wideband dipole antenna integrated with solar cell for dual-function operation," IEEE Trans. Antennas Propag., vol. 71, no. 12, pp. 9932~9937, Dec. 2023.

H. Wang, G. Byun, Y. B. Park and I. Park, "Circularly polarized wideband uniplanar crossed-dipole antenna with folded striplines and rectangular stubs," IEEE Access, vol. 11, pp. 63252~63260, Jun. 2023.

H. Wang, G. Byun, Y. B. Park and I. Park, "Novel method for sidelobe level suppression in multi-element angled dipole array antennas," IEEE Access, vol. 10, pp. 100215~100223, Sep. 2022.

H. Wang, Y. B. Park and I. Park, "Low-profile wideband solar-cell-integrated circularly polarized CubeSat antenna for the Internet of Space Things," IEEE Access, vol. 10, pp. 61451~61462, Jun. 2022.

K. E. Kedze, H. Wang, and I. Park, "A metasurface-based wide-bandwidth and high-gain circularly polarized patch antenna," IEEE Trans. Antennas Propag., vol. 70, no. 1, pp. 732~737, Jul. 2021.

H. Wang, I. Park, "Compact wideband circularly polarized dipole antenna using modified quadrature hybrid couplers," IEEE Trans. Antennas Propag., vol. 69, no. 12, pp. 8896~8901, Jul 2021.

A. Ali, H. Wang, J. Lee, Y. H. Ahn, and I. Park, "Ultra-low profile solar-cell-integrated antenna with a high form factor," Scientific Reports, vol. 11, Oct. 2021.

C. H. S. Nkimbeng, H. Wang, and I. Park, "Low-profile wideband unidirectional circularly polarized metasurface-based bowtie slot antenna," IEEE Access, vol. 9, pp. 134743~134752, Sep. 2021.

A. Ali, Y. Yun, H. Wang, K. Lee, J. Lee, and I. Park, "Photovoltaic cell with built-in antenna for Internet of Things applications," IEEE Access, vol. 9, pp. 107437~107445, Jul. 2021.

- H. Wang, I. Park, "Coplanar strip line-fed series dipole array antenna for high gain realization," IEEE Trans. Antennas Propag., vol. 69, no. 8, pp. 5106~5111, Feb. 2021.
- K. E. Kedze, H. Wang, Y. Kim, and I. Park, "Design of a reduced-size crossed dipole antenna," IEEE Trans. Antennas Propag., vol. 69, no. 2, pp. 689~697, Aug. 2020.
- H. Wang, K. E. Kedze, and I. Park, "A high gain and wideband series-fed angled printed dipole array antenna," IEEE Trans. Antennas Propag., vol. 68, no. 7, pp. 5708~5713, Feb. 2020.
- K. E. Kedze, H. Wang, S. X. Ta, and I. Park, "Wideband low-profile printed dipole antenna incorporated with folded strips and corner-cut parasitic patches above the ground plane," IEEE Access, vol. 7, pp. 15537~15546, Feb. 2019.
- K. E. Kedze, H. Wang, and I. Park, "Compact broadband omnidirectional radiation pattern printed dipole antenna incorporated with split-ring resonators," IEEE Access, vol. 6, pp. 49537~49545, Sep. 2018.
- S. X. Ta, I. Park, "Compact wideband circular polarized patch antenna array using metasurface," IEEE Antennas Wireless Propagat. Lett., vol. 16, pp. 1932~1936, Mar. 2017.
- H. H. Tran, I. Park, and T. K. Nguyen, "Circular polarized bandwidth-enhanced crossed dipole antenna with a simple single parasitic element," IEEE Antennas Wireless Propagat. Lett., vol. 16, pp. 1776~1779, Mar. 2017.
- S. X. Ta, K. Lee, and I. Park, "Compact crossed-dipole antennas loaded with near-field resonant parasitic elements," IEEE Trans. Antennas Propag., vol. 65, Feb. 2017.
- S. X. Ta, J. Lee, and I. Park, "Solar-cell metasurface-integrated circular polarized antenna with 100% insolation," IEEE Antennas Wireless Propagat. Lett., vol. 16, pp. 2675~2678, Mar. 2017.
- S. X. Ta, I. Park, "Low-profile broadband circular polarized patch antenna using metasurface," IEEE Trans. Antennas Propag., vol. 63, pp. 5929~5934, Dec. 2017.

4. 특허 현황

- I. Park and Y. Lee, "Multiple meander strip monopole antenna with broadband characteristic," United States Patent, 696731, Nov. 22, 2005.
- I. Park, J. H. Jung, Y. Moon, and S. Lee, and Y. Kim, "Electromagnetically coupled small broadband monopole antenna," United States Patent, 7215288 B2, May, 2007.
- J. K. Ryoo, J. Y. Choo, C. Y. Lee, H. Choo, I. Park, "Microstrip antenna," United States Patent, 8395559 B2, March 12, 2013.
- I. Park and H. H. Tran, "Compact dipole antenna for RFID tag," United States Patent, 9887464 B2, Feb. 2, 2018.
- I. Park and S. X. Ta, "Broadband circularly polarized antenna using metasurface," United States Patent, 9831557 B2, Nov. 28, 2017.
- I. Park and H. H. Tran, "Compact dipole antenna for RFID tag," United States Patent, 15171670 B2, Feb. 2, 2018.
- I. Park and H. H. Tran, "Multi-beam antenna and multi-beam antenna array system including the same," United States Patent, 10483652 B2, Nov. 19, 2019.
- I. Park, J. Lee, and S. X. Ta, "Solar cell integrated with radio wave transceiving apparatus," United States Patent, 10594387 B2, Apr. 18, 2020.

7. 연구과제 수행 및 기술 이전 실적

2017. 11~2018. 10 다중채널 마이크로파 침입감지 레이더 시스템 개발, 블루웨이브텔
2016. 11~2021. 06 차세대 박막형 태양전지 고급트랙, 아주대학교
2013. 03~2015. 02 GPS 안테나 개발, 단암시스템즈
2011. 03~2012. 02 S/C 대역 광대역 안테나 개발, 단암시스템즈
2010. 02~2011. 01 밀리미터파 패턴인식 시스템용 마이크로스트립 안테나 개발, 나노이엔에스
2009. 02~2010. 01 테라헤르츠 포토믹서용 안테나 개발, 레이저옵틱

2009. 03 – 2018. 02 ERC (Center for THz-Bio Application Systems), 교육과학기술부

8. 수상 및 기타

2023 한국전자과학회 하계종합학술발표회 IEEE AP-S Seoul Chapter Chair 상

2022 한국전자과학회 동계종합학술발표회 우수논문상

2021 한국전자과학회 동계종합학술발표회 우수논문상

2020 한국전자과학회 추계학술발표회 우수논문상

2010 한국전자과학회 종합학술발표회 우수논문상

2007 한국광학회 하계학술대회 우수논문상

2005 Best Paper Award, International Workshop on Antenna Technology

9. 연구실 현황

가. 연구실(원332호, 전화: 2374)

나. 박사후 연구원: 1명, 대학원생: 2명

박사후 연구원: 왕희수,

박사과정: Ahmed Ali, Cho Hillary Scott Nkimbeng.

다. 특혜 : 등록금 전액 장학금, BK 장학금 지원, RA 추가 지원 가능, 국외 학회 참석 지원 (년 1회)