



Applied Electromagnetics Laboratory

Members

● Prof. Sangwook Nam

- Professor, Dept. of ECE, Seoul National University (1990 – Present)
- Education:
 - Ph.D. in ECE, Univ. of Texas at Austin
 - M.S. in EE, KAIST
 - B.S. in ECE, Seoul National University
- Recent Publications:
 - 2020(-ING): 4 SCI(E) Journals, 1 Intl. Conf.
 - 2019: 10 SCI(E) Journals, 5 Intl. Conf.

● Students

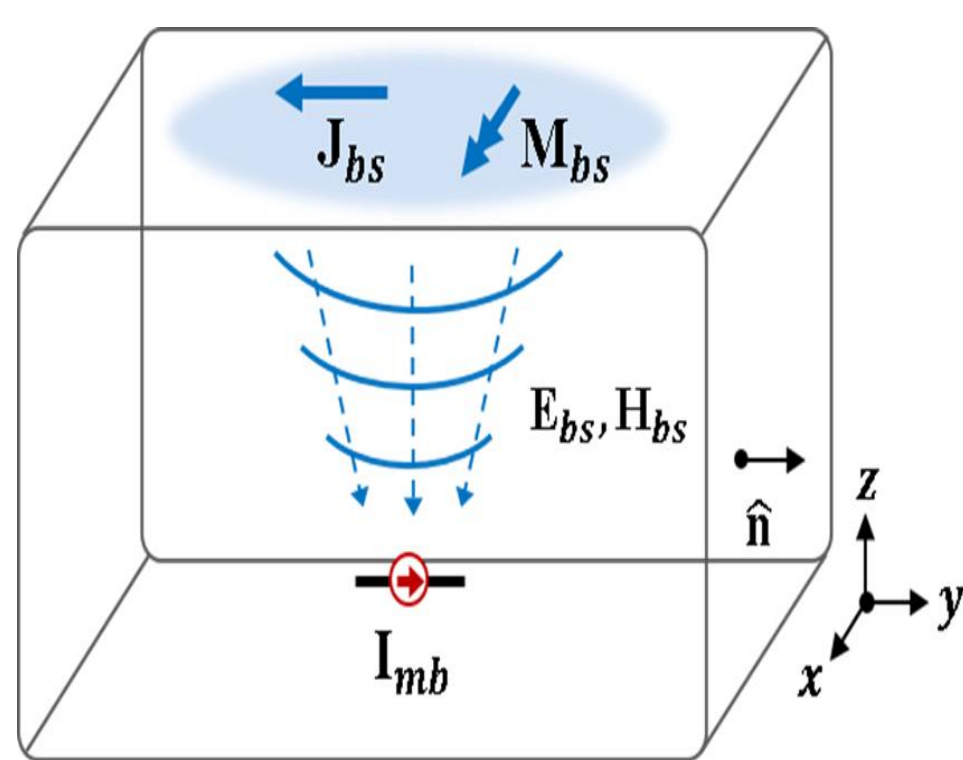
- 2 Postdoctoral researchers
- 8 Ph.D. Candidates
- 3 M.S. Candidates

● Alumni

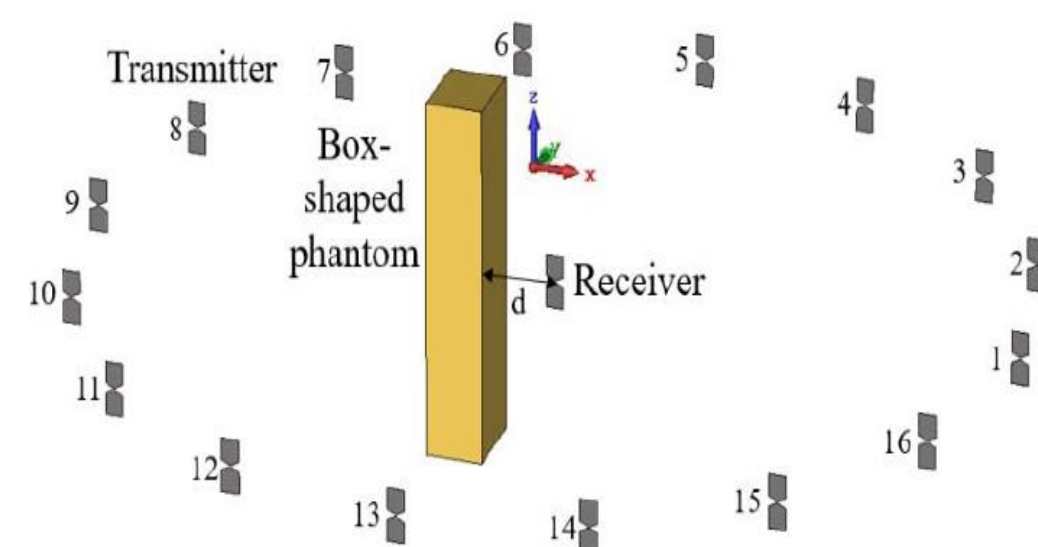
- 24 Ph.D.
- 54 M.S.

Research Area

● Mid/Long-range Wireless Power Transfer

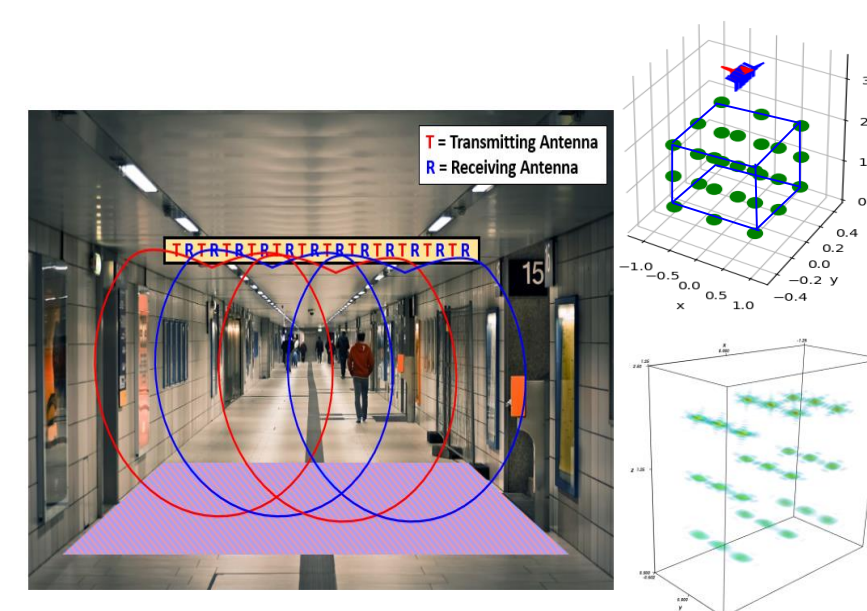


Derivation of the theoretical efficiency for mid/long-range WPT

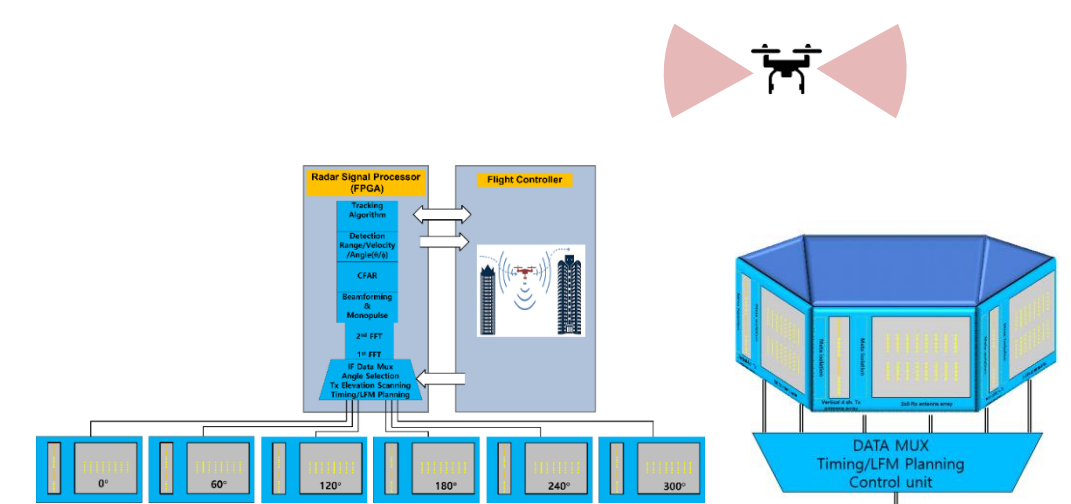


Optimized WPT considering human body effects

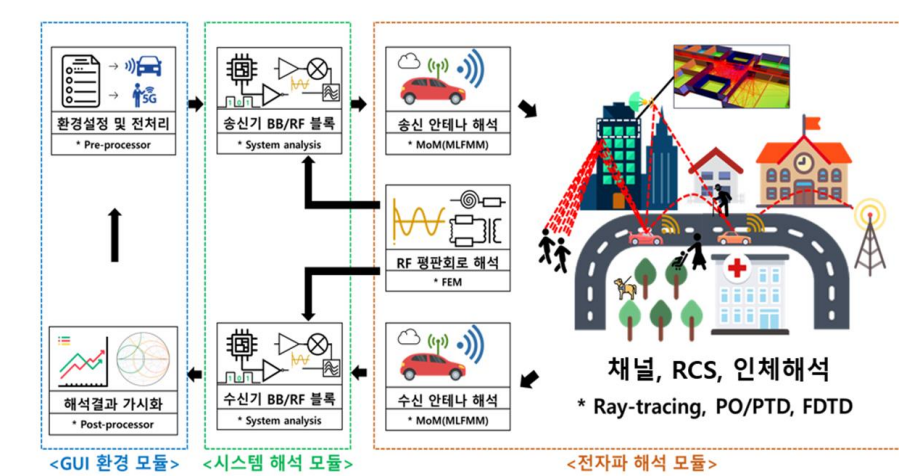
● Industrial Radar Sensor Development



MIMO Imaging radar sensor for personal security system

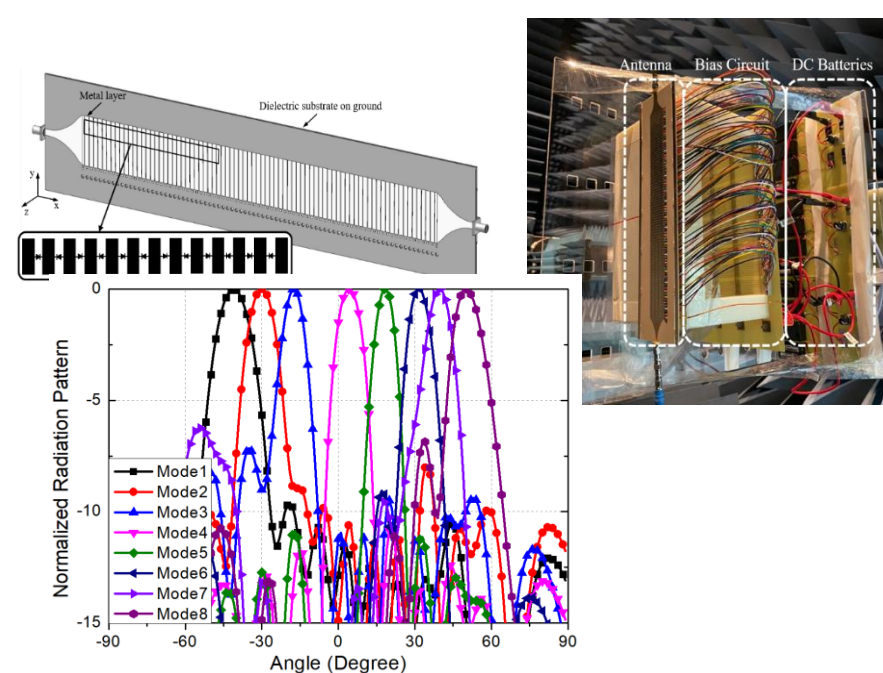


Radar sensor for unmanned vehicle mounting for omnidirectional detection

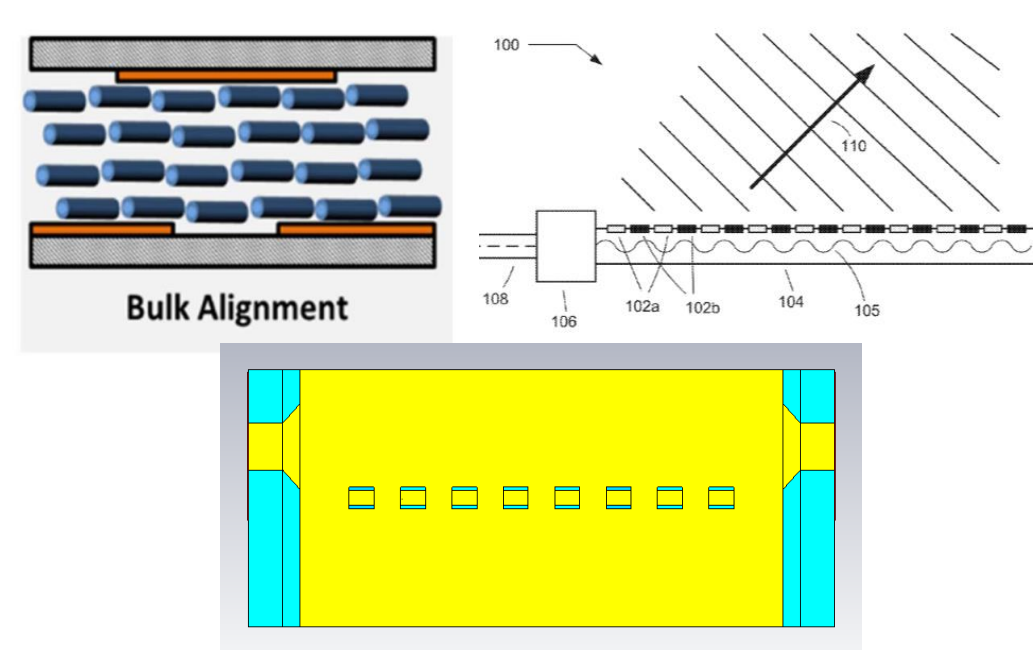


Advanced and Integrated Software Development for Automotive Radar Analysis

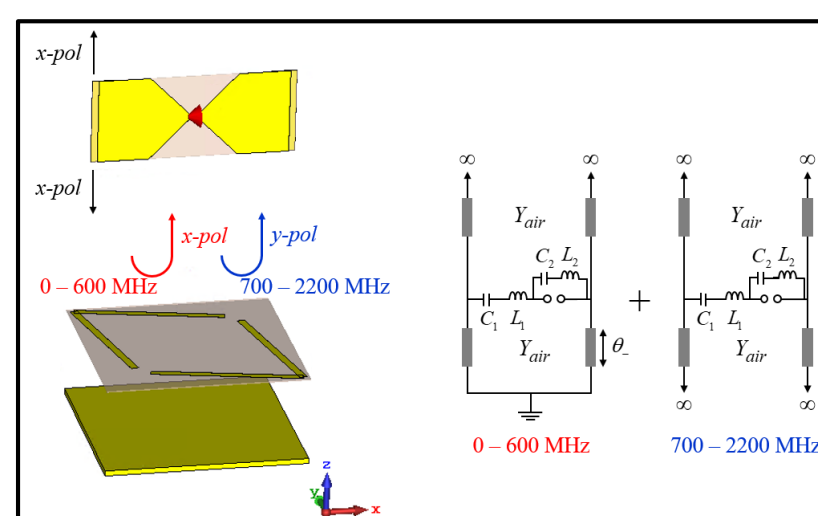
● Innovative Beamforming Antenna System



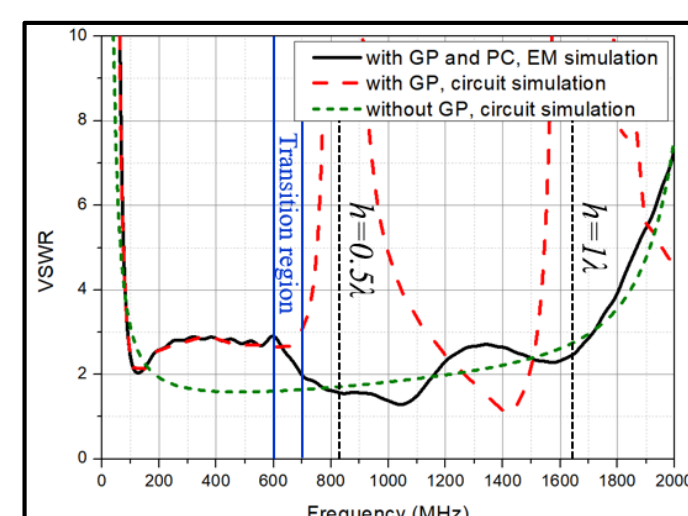
Beamforming using tunable elements(Varactor)



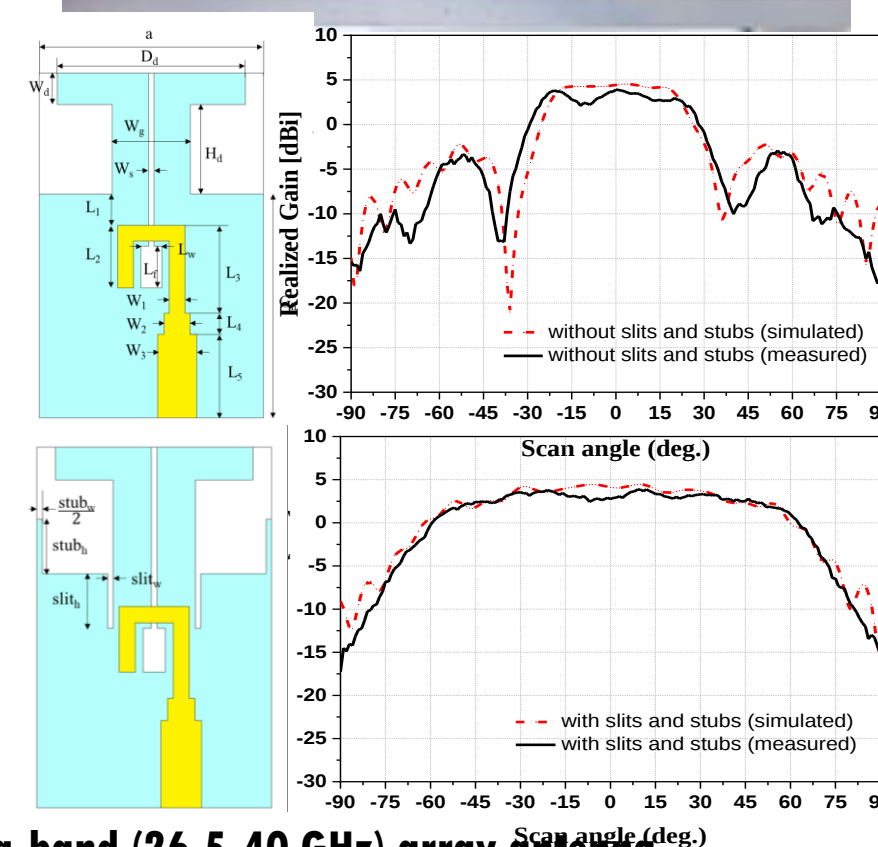
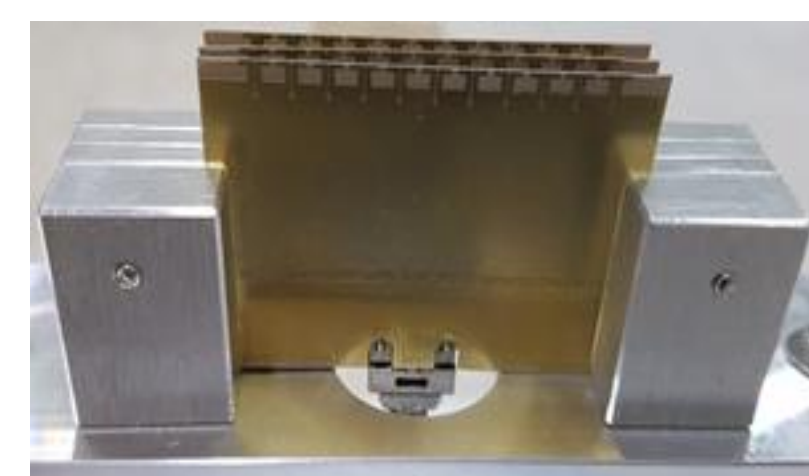
Beamforming using liquid crystal



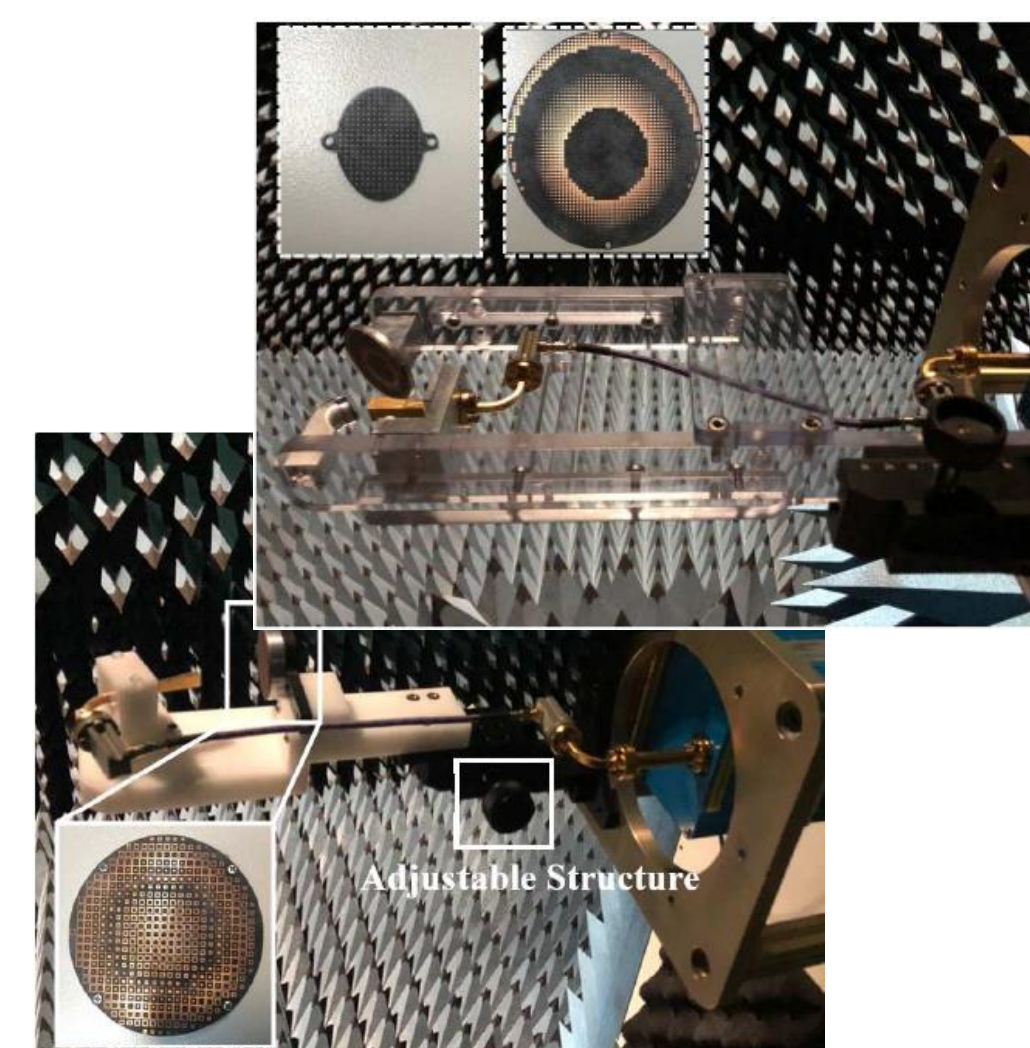
20:1 Ultra-wideband beamforming antenna with polarization converter



● mmwave Antenna Technology



Ka-band (26.5-40 GHz) array antenna
:Theoretical analysis & performance enhancement



W-band (75-110 GHz) Reflectarray Antenna

Lab. Information

● Homepage: <http://ael.snu.ac.kr>

● Location: Building 132 (INMC), Room 311

● Contact: (02)880-8432

● Preacquisition

- Electromagnetics
- Signal & System, Linear algebra
- Electric/Electronic circuits