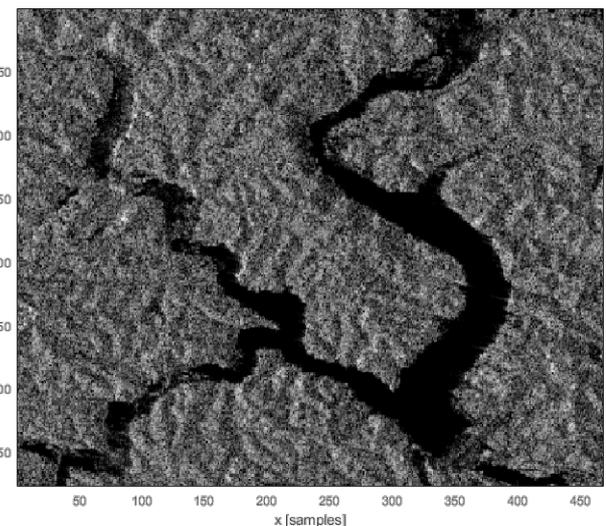
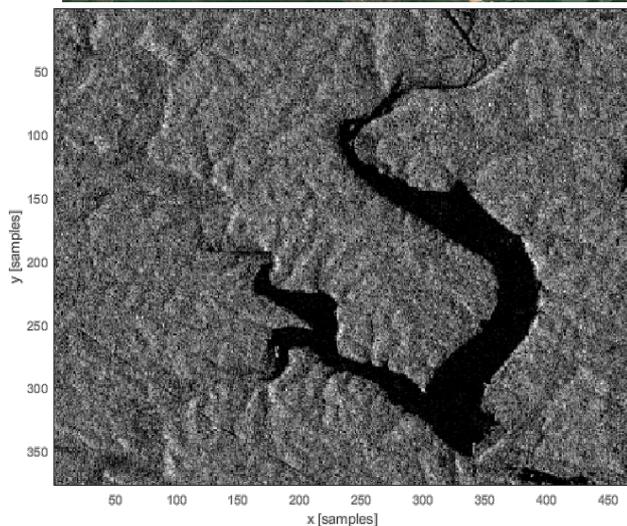
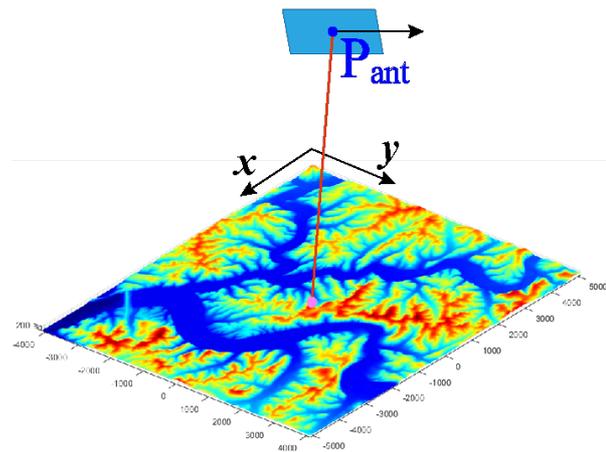
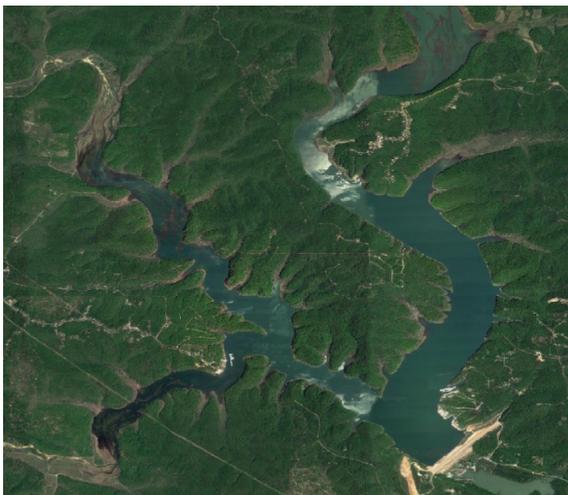


Modeling & Simulation of Mono/Bi/Multi-Static SAR Systems with Electromagnetic Virtual Synthetic Environment for Radar Remote Sensing

2nd Feb. 2023, Min-Ho, Ka

- I. Modeling and Simulation of mono/bi/multi-static SAR systems.
 - Mission design, system modeling and performance evaluation for radar remote sensing systems of various platforms such as satellites, aircrafts and drones.
 - Development of robust image formation algorithms obtained from arbitrary imaging modes and satellites geometry.
- II. Generation of Electromagnetic Virtual Synthetic Environment for Radar Remote Sensing.
 - Building a virtual synthetic environment with radar scattering information from various remote sensing data with complex composition of land, sea and artificial objects.



Missouri Region (N37° W90°): Sentinel-1 SAR Image(left), and Synthesized Image(right) from DEM and surface information

Biography



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Min-Ho Ka received the B.S. and M.S. degrees in electronics engineering from Yonsei University, Seoul, Korea, in 1989 and 1991, respectively, and the Ph.D. degree in radio engineering from the Moscow Power Engineering Institute in 1997.

From 1997 to 2000, he was with the Agency for Defense Development, Ministry of Defense for the development of spaceborne and airborne synthetic aperture radars (SAR). From 2002 to 2010, he was a Professor with Tech university of Korea (TuKorea), He was a Visiting Scholar at Virginia Tech, USA, 2009 and German Aerospace Center (DLR), Germany, 2021.

Professor Ka is/was with committees of national radar/SAR programs such as 425 SAR, K-water C-band SAR, microsatellite group SARs, AESA radar, etc., and is the Chairman of APSAR Korea, was the Chairman of the Radar Group, Korean Institute of Electromagnetic Engineering and Science.

He is currently a full professor at School of Integrated Technology, Yonsei University, supervising Radar Systems and Wave Sensing Laboratory (<https://radar.yonsei.ac.kr>). His research interests include the system design and development of radars and SARs for remote sensing research.