Seyed Ali Razavi Parizi

Associate professor
Graduate university of advanced technology, Kerman, Iran

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Courses:

- Electromagnetic (under graduate)
- Electromagnetic Fields and waves (under graduate)
- Theory of advanced electromagnetics (graduate)
- Antenna I (under graduate)
- Antenna II (graduate)
- Printed circuit antennas (graduate)
- Optical communication systems (graduate)

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Education:

PhD: University: Ferdowsi University of Mashhad, Iran

M.SC: University: Ferdowsi University of Mashhad, Iran

B.Sc: University: Shahid Bahonar Kerman, Iran

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Research experiences

MSc Thesis (under supervision of Prof. Amir-reza Attari, *Department of electrical engineering, Ferdowsi University of Mashhad, Iran*):

- High frequency methods for calculation of backscattered fields from large objects.
- Improving the flatness of RCS pattern for corner reflectors.

PhD Thesis (under supervision of Dr. Mohammad Hassan Neshati, *Department of electrical engineering, Ferdowsi University of Mashhad, Iran*):

- Application of SIW technology in design and fabrication of antennas (Our focus were on Horn, cavity backed, leaky wave and slot array antennas).

Visiting scholar

1. Chalmers University of technology, Sweden, 2013 (with Prof. Per-Simon Kildal*, Department of signals and systems, division of antenna systems*)

Design and fabrication of a high gain planar slot array antenna at 60 GHz based on SIW and gap-waveguide technologies (*This work was supported in part by Hawei Technologies Sweden AB via a project to Gapwave AB, Gothenburg, Sweden*).

2. Chalmers University of technology, Sweden, 2017 (with Dr. Ashraf Uz Zaman, *Department of signals and systems, division of antenna systems*)

Design of a 60GHz multi beam antenna for fixed access points using gap waveguide technology

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Academic and professional membership:

- European Association on Antennas and Propagation (EurAAP).

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Other experiences:

- Head of the business incubator center at "Kerman Hi-Tech Science & Technology Park" (2023-Now).

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Honors and awards:

- Best antenna engineer silver award from antenna group in Chalmers University of Technology, Sweden, 2013.
- Best researcher of electrical engineering group in Ferdowsi University of Mashhad, Iran, 2013.

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Patents:

- "A Planar Multilayer Antenna" European Patent Office, WO2015172841 (A1), 2015-11-19, Applicant: Huawei Tech Co Ltd.

- "H-plane ridge gap-waveguide horn antenna capable of changing its beam direction and supporting surface" Industrial Property General Office, 94759, 2018-01-16.

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Book chapters

Chapter1: "Bandwidth Enhancement Techniques" in "Trends in Research on Microstrip Antennas," IntechOpen, 2017. ISBN: 978-953-51-3602-6

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Publications:

Conference papers

[1]. **Seyed Ali Razavi,** Ashraf Uz Zaman, “A multi beam slot array antenna fed by contact-less multi-layered 4×8 buttler matrix using gap waveguide technology for 60GHz fixed wireless access applications,” *European Conference on Antennas and Propagation (Eucap)*, Florence, 2023

[2]. **Seyed Ali Razavi,** Ashraf Uz Zaman, “High gain and fixed broadside radiation at 140GHz band by a leaky wave slotted waveguide,” *European Conference on Antennas and Propagation (Eucap)*, Madrid, 2022.

[3]. M. Mohammadpour, F. Mohajeri, **Seyed Ali Razavi**, “A New wide band H-plane horn antenna in groove gap waveguide technology,” *Iranian Conference on Electrical Engineering (ICEE),* Tabriz, 2020.

[4]. E. Nematpour, M. H. Ostovarzadeh, **Seyed Ali Razavi**, “Design of a 20dB bethe hole coupler using groove gap waveguide (GGW) technology,” *National Conference on Applied Research in Electrical, Mechanical, Computer and It Engineering*. 2018.

[5]. **Seyed Ali Razavi**, Asharf Us Zaman, “A Compact Phase Shifter in Groove Gap Waveguide for Millimeter-Wave applications,” *European Conference on Antennas and Propagation (Eucap)*, London, 2018.

[6]. F. Ahmadfard, **Seyed Ali Razavi,** “Backlobe suppressed H-Plane ridge gap waveguide (RGW),” *Iranian Conference on Electrical Engineering (ICEE)*, Tehran, 2017.

[7]. N. Hassani, M. H. Ostovarzadeh**, Seyed Ali. Razavi**, “Ridge gave waveguide (RGW) cavity and its analytical model,” *International conference on New Perspective in Electrical & Computer Engineering*, Tehran, 2016.

[8]. F. Ahmadfard, **Seyed Ali Razavi,** “H-Plane horn antenna in ridge gap waveguide technology,” *Iranian Conference on Communication Engineering (ICCE)*, Shiraz, 2016.

[9]. A. Moghimizadeh, **Seyed Ali. Razavi**, M. H. Ostovarzadeh, “Cavity backed slot antenna based on groove gap waveguide technology,” *International conference on New Perspective in Electrical & Computer Engineering*, Tehran, 2016.

[10]. **Seyed Ali. Razavi**, Mohammad H. Neshati, "Modified substrate integrated wave guide (SIW) horn antenna," *European Conference on Antennas and Propagation (Eucap)*, pp. 1307-1310, Davos, 2016.

[11]. **Seyed Ali Raz**avi, Per-S. Kildal, “An air-filled cavity-backed 2×2 slot sub-array fed by inverted microstrip gap waveguide”, *European Conference on Antennas and Propagation (Eucap)*, Lisbon, 2015.

[12]. Esperanza Alfonso, **Seyed Ali Razavi**, Liangliang Xiang and Haiguang Chen, “Analysis of Large Planar 60 GHz Array Including Microstrip-Ridge Gap Waveguide Distribution Network Using Modular Approach”, *European Conference on Antennas and Propagation (Eucap)*, Lisbon, 2015.

[13]. **Seyed Ali Razavi**, Per-S. Kildal, L. Xiang, E. Alfonso and H. Chen, "Design of 60GHz Planar array antennas asing PCB-based microstrip-Ridge gap waveguide and SIW," *European Conference on Antennas and Propagation (Eucap)*, pp. 1825-1828, Hague, 2014.

[14]. J. Yang and **Seyed Ali razavi**, "A new E-plane bend for SIW circuits and antennas using gapwave technology," *Proceedings of the International Symposium on Antennas & Propagation (ISAP)*, vol. 1, pp. 593-596, China, 2013.

[15]. **Seyed Ali. Razavi**, Mohammad H. Neshati, "Low profile h-plane horn antenna based on half mode substrate integrated waveguide technique," *20th Iranian Conference on Electrical Engineering (ICEE)*, pp. 1351-1354, Tehran, 2012.

[16]. **S. A. Razavi** and M. H. Neshati , "A dielectric loaded HMSIW h-plane horn antenna," *PIERS Proceedings*, pp. 1640-1643, Kuala Lumpur, Malaysia, March 27-30, 2012.

[17]. **Seyed Ali razavi** and Mohammad H Neshati, "Design Investigation of a Leaky Wave Antenna Using HMSIW Technique," *6th International Symposium on Telecommunications (IST)*, pp. 29-32, Tehran, 2012.

[18]. **Seyed Ali. Razavi**, Mohammad H. Neshati, "Low profile circularly polarized cavity backed antenna using HMSIW technique," *20th Iranian Conference on Electrical Engineering (ICEE),* pp. 1355-1358, Tehran, 2012.

Journal papers

[1]. M. Mohammadpour, F. Mohajeri, **S. A. Razavi Parizi, "** H-plane gap-RGW horn antenna with very low side lobe level" *Scientific Reports,* vol. 14, No. 18289, 2024.

[2]. M. H. Anjomshoa, **S. A. Razavi Parizi**, "Horn array antenna with high aperture efficiency and suppressed grating lobes" *IET Microwaves Antennas & Propagation*, vol. 18, No. 6, pp. 430-438, 2024.

[3]. Mohammad Norozi, Mohamad Hossein Ostovarzadeh, **Seyed Ali Razavi Parizi**, "Design of V Band 4×4 Butler Matrix in Ridge Gap Waveguide Technology," *Applied electromagnetics*, vol. 11, No. 2, pp. 17-24, 2023.

[4]. M. H. Ostovarzadeh, **Seyed Ali Razavi**, "Development of a compact transverse slot array antenna using corrugation in groove gap waveguide technology," *International Journal of Communication Systems*, vol. 23, No. 2, e5374, 2023.

[5]. M. Mohammadpour, F. Mohajeri, **S. A. Razavi Parizi**, "H-plane horn antenna with very low side lobes using partially dielectric-filled gap waveguide technology," *IET Microwaves Antennas & Propagation*, vol. 16, No.5, pp. 272-282, 2022.

[6]. F. Farzinnasab, **S. A. Razavi Parizi**, M. H. Ostovarzadeh, "A flat aperture antenna composed of a series fed H-plane horn array excited by a ridge gap waveguide horn," *IET Microwaves Antennas & Propagation*, vol. 16, No.2, pp. 113-123, 2022.

[7]. M. Mohammadpour, F. Mohajeri, **S. A. Razavi Parizi**, "A new wide band and compact H-plane horn antenna based on groove gap waveguide technology," *IEEE Trans. Antennas and Propagat.,*vol. 70, No. 1, pp. 221-228, 2022.

[8]. M. H. Ostovarzadeh, **Seyed Ali Razavi,** "Design of compact transverse slot array antenna using corrugated H plane horn," *International Journal of Information and Communication Technology Research(IJICTR),* vol. 13, No. 2, pp. 1-7, 2021.

[9]. M. Mohammadpour, F. Mohajeri, **S. A. Razavi Parizi**, "Development of a wideband symmetric pillbox antenna with low side lobes in gap waveguide technology," *IET Microwaves Antennas & Propagation,* vol. 15, No. 14, pp. 1813-1820, 2021.

[10]. M. H. Ostovarzadeh, **Seyed Ali Razavi,** "Design of Ku band monopulse antenna in gap waveguide technology," *Radar*, vol. 8, no. 1, pp. 111-117, 2020.

[11]. S. Ghorbani, **Seyed Ali Razavi,** M. H. Ostovarzadeh, A. Farahbakhsh , "Development of a center fed slot array antenna with very low side lobes using ridge gap waveguide (RGW) technology," *International Journal of Electronics and Communications (AEÜ)*, vol. 125, 2020.

[12]. M. H. Ostovarzadeh, **Seyed Ali Razavi**, "Design of a Ku band magic-T using groove gap waveguide technology," *Journal of Electrical and Electronics Engineering*, vol. 13, no. 2, pp. 73-76, Oct 2020.

[13]. E. Sabbaghi, **Seyed Ali Razavi**, M. H. Ostovarzadeh, "Wide band ridge gap waveguide (RGW) fan beam antenna with low side lobes based on parabolic reflector principle," *IET Microwaves Antennas & Propagation,* vol. 14, no. 5, pp. 343-347, 2020.

[14]. A. Moghimizadeh, **S. A. Razavi Parizi**, M. H. Ostovarzadeh, "Development of a compact and low profile cavity backed slot antenna using microstrip gap waveguide technology," *Journal of Communication Engineering*, vol. 8, no. 2, 2019.

[15]. E. Nematpour, M. H. Ostovarzadeh, **Seyed Ali Razavi**, "Development of a wide band TEM-based Bethe Hole coupler using ridge gap waveguide technology," *International Journal of Electronics and Communications (AEÜ)*, vol. 111, 2019.

[16]. E. Nematpour, M. H. Ostovarzadeh, **Seyed Ali Razavi**, "Ku band Bethe hole coupler using gap waveguide technology," *Journal of Telecommunication and Information Technology,* pp. 70-74, 2019.

[17]. F. Ahmadfard, **S. A. Razavi Parizi**, "Bandwidth and Gain Enhancement of Ridge Gap Waveguide (RGW) H-plane Horn Antennas Using Outer Transitions," *IEEE Trans. Antennas and Propagat.* vol. 66, no. 8, pp. 4315-43-19. Aug 2018.

[18]. N. Hassani, M. H. Ostovarzadeh, **Seyed Ali. Razavi** "Realization of a dual mode filter in ridge gapwaveguide (RGW) technology," *Microwave ant opt Tech Letters*.,vol. 60, pp. 1975-1979, 2018

[19]. F. Ahmadfard, **S. A. Razavi Parizi**, "Groove Gap Waveguide (GGW) H-plane Horn Antenna and a Method for Its Back lobe Suppression," *Journal of Communication Engineering*, vol. 7, No. 1, 2018.

[20]. **Seyed Ali. Razavi**, Mohammad H. Neshati, "A low profile, broadband linearly and circularly polarized cavity backed antenna Using halved-dual mode SIW cavity," *Applied Computational Electromagnetics Society (ACES) Journal*. vol. 31, no. 8, pp. 953-959, 2016.

[21]. **Seyed Ali Razavi**, Per-S. Kildal, L. Xiang, E. Alfonso and H. Chen,"2×2-slot element for 60GHz planar array antenna realized on two doubled-sided PCBs using SIW cavity and EBG-type soft surface fed by microstrip-ridge gap waveguide" *IEEE Trans. Antennas and Propagat.* vol. 62, no. 9, pp. 4564-4573. Sep 2014.

[22]. **Seyed Ali. Razavi**, Mohammad H. Neshati, "Design and analysis of modified HMSIW leaky wave antenna," *Int. Journal of Information and communication Technology Research IJICTR.,* vol. 6, no. 3, pp. 1-6, summer 2014.

[23]. **Seyed Ali. Razavi**, Mohammad H. Neshati, "Development of slot array antenna using a multiresonant SIW cavity," *Microwave ant opt Tech Letters.*, vol. 55, no. 11, pp. 2763-2767. November 2013.

[24]. **Seyed Ali. Razavi**, Mohammad H. Neshati, "Development of a low profile circularly polarized cavity backed antenna using HMSIW technique," *IEEE Trans. Antennas and Propagat.*, vol. 61, no. 3, pp. 1041-1047. March 2013.

[25]. **Seyed Ali. Razavi**, Mohammad H. Neshati, "Development of a linearly polarized cavity backed antenna using HMSIW technique," *IEEE Antennas and Wireless Propagation Letters*., vol. 11, pp. 1307-1310, 2012.

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Review experiences:

- IEEE Transactions on antennas and propagations (TAP)
- IET Microwaves, Antennas & propagation
- IET Electronic Letters
- IEEE Antennas and Wireless Propagation Letters (AWPL)
- IEEE Access
- WILEY International Journal of RF and Microwave Computer-Aided Engineering
- WIEY Microwave and Optical Technology Letters (MOP)
- International Journal of Electronics and Communications (AEÜ)

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Workshops:

- Design of 2×2 slot element backed by SIW cavity for microstrip ridge gap waveguide, gap wave workshop at Chalmers University of Technology, Sweden, 21-22 November, 2013.
- Different designs for 2×2 slot subarray in 60GHz planar array, gap wave workshop at Chalmers University of Technology, Sweden, 13-14 November, 2014.

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Skills

HFSS, FEKO, 3D Maxwell, CST and ADS softwares