# Karim Mohammadpouraghdam, Ph.D.

School of Electrical and Computer Engineering

University of Tehran

Tel (Direct): +98 (21)82084999

email: kaghdam@ut.ac.ir

Website:

**EDUCATION**

**Ph.D In Electrical Engineering**K.U.Leaven, Belgium 2008-2011
**Ph.D In Electrical Engineering**University of Tehran 2005-2011
**M.Sc In Electrical Engineering**University of Tehran 2001-2003
**B.Sc In Electrical Engineering**Sharif University of Technology 1997-2001

**PUBLICATIONS**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **610** | **13** | **24** | **25** | **0** |
| Citations | h-Index | Article | Conference | Book |

***Articles***

**1.** High-Frequency (30 MHz–6 GHz) Breast Tissue Characterization Stabilized by Suction Force for Intraoperative Tumor Margin Assessment. Mokhtari Dowlatabad Hadi, Mamdouh Amir, Yousefpour Narges, Mahdavi Reihane, Zandi Ashkan, Hosseinpoor parisa, Moosavi-Kiasari Seyed Mohammad Sadegh, Abbasvandi Fereshteh, Kordeh Lachin Yasin, Parniani Mohammad, Mohammadpouraghdam Karim, Faranoush Pooya, Foroughi-Gilvaee Mohammad Reza, Abdolahad Mohammad (2023)., Diagnostics, 13(2), 179.

**2.** Shared Aperture Dual-Wideband Planar Antenna Arrays Using Any-Layer PCB Technology for mm-Wave Applications. Roodaki Lavasani-Fard Masoud, Sinha Siddhartha, Soens Charlotte, GAE Vandenbosch, Mohammadpouraghdam Karim, Faraji Dana Reza (2022)., IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, 69(09), 1-1.

**3.** Strain Engineering of Epitaxial Pt/Fe Spintronic Terahertz Emitter. Gupta Rahul, BAGHERIKORANI EBRAHIM, Mottamchetty Venkatesh, Pavelka Martin, Jatkar Kasturie, Dancila Dragos, Mohammadpouraghdam Karim, Rydberg Anders, Brucas Rimantas, A.Durr Hermann, Svedlindh Peter (2021)., arXiv, 21(10).

**4.** On Postprocessing Reduction of Phase Noise in FMCW Radars. Rezaei Mohammad, Mohammadpouraghdam Karim (2020)., IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES, 68(12), 5103-5114.

**5.** Low-Cost Comb-Line-Fed Microstrip Antenna Arrays with Low Sidelobe Level for 77 GHz Automotive Radar Applications. Yasini Soheil, Mohammadpouraghdam Karim, Mohammad Taheri Mahmoud (2020)., Progress In Electromagnetics Research M, 94(7), 179-187.

**6.** Direction Finding of Wideband Radar Signals with Two Rotating Antennas. Ahmadi Ali, Okhovvat Majid, Mohammadpouraghdam Karim (2020)., journal of radar, 7(2).

**7.** Design and Implementation of a DC-18 GHz Microwave Triplexer in Suspended Stripline Technology. Miri Seyed Milad, Mohammadpouraghdam Karim, Miri Seyed Omidreza (2019)., journal of iranian association of electical and electronics engineers, 2(2).

**8.** A wideband, sharp roll‐off U‐band diplexer in suspended stripline technology. Miri Seyed Milad, Mohammadpouraghdam Karim, Miri Seyed Omidreza (2019)., INTERNATIONAL JOURNAL OF RF AND MICROWAVE COMPUTER-AIDED ENGINEERING, 1(1).

**9.** Highly Selective Lowpass Filter with Wide Stopband in Suspended Stripline Technology for Millimeter-wave Diplexer Applications. Miri Seyed Milad, Mohammadpouraghdam Karim, Miri Seyed Omidreza (2019)., AUT Journal of electrical Engineering, 1(1).

**10.** A Pole Extraction Algorithm for Wall Characterization in Through-the-Wall Imaging Systems. Sadeghi Sajjad, Mohammadpouraghdam Karim, Ren Kai, Faraji Dana Reza, Burkholder Robert J. (2019)., IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, 67(10), 1-1.

**11.** Design of a low-cost broadband loaded dipole antenna for VHF/UHF frequency range. Bod Mohammad, Ahmadi-boroujeni Mehdi, Mohammadpouraghdam Karim (2019)., IET Microwaves Antennas & Propagation, 0(0).

**12.** A DORT-Uniform Diffraction Tomography Algorithm for Through-the-Wall Imaging. Sadeghi Sajjad, Mohammadpouraghdam Karim, Faraji Dana Reza, Burkholder Robert J (2019)., IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, 01(01), 1-1.

**13.** A miniaturized broadband monopulse comparator with all DELTA channels nulling in Ku band. Alamdar Saeid, Mohammadpouraghdam Karim, Khalili Hossein, Mohammad Taheri Mahmoud (2018)., International Journal of Microwave and Wireless Technologies, 1(1), 7.

**14.** Low Cost Series-fed Microstrip Antenna Arrays with Extremely Low Side-lobe Level for Perimeter Remote Sensing. Khalili Hossein, Mohammadpouraghdam Karim, Alamdar Saeid, Mohammad Taheri Mahmoud (2018)., IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, 66(9), 4606-4612.

**15.** High temperature superconducting YBCO microwave filters. Aghabagheri Somayeh, Rasti Mohammad, Mohammadi Zadeh Mohammad Reza, Kameli Parviz, Salamati Hadi, Mohammadpouraghdam Karim, Faraji Dana Reza (2018)., PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS, 549(1), 22-26.

**16.** Computer Aided Design for Rectangular Waveguide Leaky Wave Antenna with Meandering Longitudinal Slot. هادی فائزی, Sadeghi Sajjad, Mohammadpouraghdam Karim, M. Tayarani, Hojat Kashani Farrokh (2016)., Modares Journal of electrical engineering, 1(1), 1-8.

**17.** Broadband loaded monopole antenna with a novel on-body matching network. Bod Mohammad, مهدی احمدی بروجنی, Mohammadpouraghdam Karim (2016)., AEU-INTERNATIONAL JOURNAL OF ELECTRONICS AND COMMUNICATIONS, 70(11), 1551-1555.

**18.** Design of a Printed Non-Planar Dual-Polarized Log-Periodic Dipole Array. Shirinabadi Hossein, Ahmadi-broujeni Mehdi, Arbabi Ehsan, Mohammadpouraghdam Karim (2016)., IET Microwaves Antennas & Propagation, 1(1), 1-5.

**19.** Electromagnetic Time-Reversal Imaging of Pinholes in Pipes. Ebrahimi-zadeh Javad, Dehmollaian Mojtaba, Mohammadpouraghdam Karim (2016)., IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, PP(99), 1-1.

**20.** DESIGN AND REALIZATION OF A NOVEL NONPLANAR DUAL-POLARIZED LOG-PERIODIC DIPOLE ARRAY FOR 1–13 GHz. Shirinabadi Hossein, Arbabi Ehsan, Bagheri Korani Ebrahim, Ahmadi-broujeni Mehdi, Mohammadpouraghdam Karim (2016)., MICROWAVE AND OPTICAL TECHNOLOGY LETTERS, 58(1), 37-39.

**21.** A physical optics based near-field analysis method for the design of dual polarized fan beam shaped reflector antennasE. Bagheri Korani Ebrahim, Mohammadpouraghdam Karim, احمدی بروجنی مهدی, Arbabi Ehsan, Nemati Mohammadhossein (2015)., AEU-INTERNATIONAL JOURNAL OF ELECTRONICS AND COMMUNICATIONS, S(S), S.

**22.** Miniaturized Integrated Antennas for Far-Field Wireless Powering. Mohammadpouraghdam Karim, Radiom Soheil, Faraji Dana Reza, Guy A E Vandenbosch, Walter Deraedt (2012)., AEU-INTERNATIONAL JOURNAL OF ELECTRONICS AND COMMUNICATIONS, 66(10), 789-796.

**23.** \_\_Miniaturized RFID/UWB Antenna Structure that can be optimized for Arbitrary Input Impedance. Mohammadpouraghdam Karim, Radiom Soheil, Faraji Dana Reza, Guy A E Vandenbosch, Georges G E Gielen (2012)., IEEE ANTENNAS AND PROPAGATION MAGAZINE, 54(2), 74-87.

**24.** the design of a dual polarized QUASI-YAGI antenna array. Mohammadpouraghdam Karim, Kamarehei Mahmoud (2006)., MICROWAVE AND OPTICAL TECHNOLOGY LETTERS, 43(6), 1164-1169.

***Books***

***Conferences***

**1.** Circularly polarized Wideband Planar Antenna Array using Any-Layer PCB Technology for mm-Wave Applications. Roodaki Lavasani-Fard Masoud, GAE Vandenbosch, Mohammadpouraghdam Karim, Faraji Dana Reza (2022)., European Conference on Antennas & Propagation, 28-31 March, Madrid, Spain.

**2.** A Millimeter-wave High Selective Lowpass Filter in Suspended Stripline Technology. Miri Milad, Mohammadpouraghdam Karim, Miri Omidreza (2018)., 5th International Conference on Millimeter-Wave and Terahertz Technologies, 18-20 December, Tehran, Iran.

**3.** Design of a Millimeter-Wave Frequency-Scanning Slot Array Antenna in SIW Technology. Molaee-Ghaleh Farbod, Mohammadpouraghdam Karim (2018)., 5th International Conference on Millimeter-Wave and Terahertz Technologies, 18-20 December, Tehran, Iran.

**4.** A Novel Gap Waveguide Structure based on Suspended Strip Line. Sadeghi Sajjad, Mohammadpouraghdam Karim (2018)., 2018 9th International Symposium on Telecommunications (IST), 17-19 December.

**5.** Phase Noise Reduction in Low Cost 24/77 GHz FMCW Sensors. Rezaei Mohammad, Mohammadpouraghdam Karim (2018)., 18th Mediterranean Microwave Symposium -MMS2018, 31 October-2 November, İSTANBUL, Turky.

**6.** A Novel Algorithm for Wall Characterization in Through-the-Wall Imaging based on Spectral Analysis. Sadeghi Sajjad, Mohammadpouraghdam Karim, Faraji Dana Reza, Burkholder Robert J. (2018)., 18th International Symposium on Antenna Technology and Applied Electromagnetics (ANTEM), 19-22 August, Waterloo, CANADA.

**7.** An Optically Controllable Millimeter-Wave Phase Shifter. Soltani Mohammad, Yaraghi Shaghayegh, Mohammadpouraghdam Karim, Shahabadi Mahmoud (2017)., IEEE Asia Pacific Microwave Conference (APMC2017), 13-16 November, Kuala Lumpur, Malaysia.

**8.** Wideband Tunable Meander-line Loaded Antenna with Dual-mode Capability in V/UHF Frequencies. Molaee-Ghaleh Farbod, Mohammadpouraghdam Karim (2017)., IEEE Asia Pacific Microwave Conference (APMC2017), 13-16 November, Kuala Lumpur, Malaysia.

**9.** Design of a dual-mode meander-line loaded monopole antenna with characteristic mode theory. Bagheriasl Mohammad, Mohammadpouraghdam Karim, Faraji Dana Reza (2017)., European Conference on Antennas and Propagation (EUCAP), 19-24 March, paris, France.

**10.** Millimeter wave rectangular waveguide to grounded CPW transition on multi-layer substrate. Hosseini Fahraji Ali, Mohammadpouraghdam Karim, Faraji Dana Reza (2016)., Fourth International Conference on Millimeter-Wave and Terahertz Technologies (MMWaTT), 20-22 December, Tehran, Iran.

**11.** A 77 GHz Stepped Diffractive Dielectric Lens with Enhanced Directivity and Reduced SLL. Wossugieniri Owrang, Mohammadpouraghdam Karim (2016)., 4th International Conference on Millimeter-Wave and Terahertz Technologies, 20-22 December, Tehran, Iran.

**12.** Millimeter Wave Rectangular Waveguide to Grounded CPW Transition on Multi-Layer Substrate. Hosseini-fahraji Ali, Mohammadpouraghdam Karim, Faraji Dana Reza (2016)., 4th International Conference on Millimeter-Wave and Terahertz Technologies, 20-22 December, Tehran, Iran.

**13.** Design and Simulation of a Comb-line fed Microstrip Antenna Array with low side lobe level at 77GHz for Automotive Collision Avoidance Radar. Yasini Soheil, Mohammadpouraghdam Karim (2016)., 4th International Conference on Millimeter-Wave and Terahertz Technologies, 20-22 December, Tehran, Iran.

**14.** Fabrication of a microwave filter by PLD-films of YBCO. Aghabagheri Somayeh, Mohammadi Zadeh Mohammad Reza, Kamali Payam, Mohammadpouraghdam Karim, Bagheri Vahidreza, Hosseini-fahraji Ali, Faraji Dana Reza (2016)., 3rd International Workshop on Superconducting Sensors and detectors, 14-17 November, Japan.

**15.** Efficient Design Procedure of Dual-Mode Antennas Based on the Characteristic Modes Theory. Bagheriasl Mohammad, Mohammadpouraghdam Karim, Faraji Dana Reza (2016)., IEEE Middle-east Conference on Antennas & Propagation, MECAP 2016, 20-22 September, Beirut, Lebanon.

**16.** Ultra-wideband electromagnetic space-frequency time reversal beamforming in a rectangular metal tube. Ebrahimi-zadeh Javad, Dehmollaian Mojtaba, Mohammadpouraghdam Karim (2016)., Iranian Conference on Electrical Engineering (ICEE) 24th, 2016, 10-12 May, Shiraz, Iran.

**17.** Design of wideband millimeter-wave bandpass filter using substrate integrated waveguide. Hosseini-fahraji Ali, Mohammadpouraghdam Karim, Faraji Dana Reza (2016)., 2016 24th Iranian Conference on Electrical Engineering (ICEE), 10-12 May.

**18.** Design, Simulationand and Condtruction of Microwave Passive Filters in 20-40GHz. Afkhami Khairabadi Farshad, Karzazi Jamal, Mohammadpouraghdam Karim, Mohammad Taheri Mahmoud (2016)., 4th Iranian National Conference on Engineering Electromagnetic, 13-14 April, Nowshahr, Iran.

**19.** A procedure for the design of wideband slant-polarized shaped reflector antennas using a PO-based near field analysis method. Bagheri Korani Ebrahim, Ahmadi-broujeni Mehdi, Mohammadpouraghdam Karim (2015)., Asia-Pacific Microwave Conference (APMC2015), 6-9 December, Beijing, China.

**20.** Modelling of pyramidal microwave absorber with a slab dielectric in 400-1600 MHz. Shadi Maryam, Mohammadpouraghdam Karim (2015)., 23th Iranian Conf. on Electrical Engineering (ICEE2015), 10-14 May, Tehran, Iran.

**21.** Design, Construction and Measurement of a Millimeter-wave Filter with 40-60 GHz Pass-band. Bagheri Vahidreza, Mohammadpouraghdam Karim, Mansouri Mahdad, Faraji Dana Reza (2015)., 3rd Conference on Millimeter-Wave and Terahertz Technologies, MMWATT 2014, 30 December-1 January, Tehran, Iran.

**22.** DOA Estimation Based on Sparse Covariance Vector Representation Using Two-Channel Receiver. Jabbarian-jahromi Mohammad, Mohammadpouraghdam Karim, Foudazi Ghasem, Mohammad-salehi Masoudreza (2014)., 11th European Radar Conference, 8-10 October, Rome, Italy.

**23.** Ultra-Low Phase Noise Compact Down-converter with Frequency Coverage of 18-40 GHz. Shahrokhi Soheil, Mohammadpouraghdam Karim, Ebrahimipour Payam, Khezri Amimohammad (2014)., International Conference on Computer, Communication, and Control Technology, 2-4 September, Malaysia.

**24.** A Multiband Feed-Horn Antenna with Broadband Probes for Feeding the Lower Band. Arbabi Ehsan, Ahmadi Mehdi, Nemati Mohammadhossein, Mohammadpouraghdam Karim (2013)., EuCAP2013 - European Conference on Antenna & Propagation, 8-12 April, Stockholm, Sweden.

**25.** Wideband omnidirectional dual-polarized antennas; a comparison of two approaches. Bagheri Korani Ebrahim, Arbabi Ehsan, Nemati Mohammadhossein, Ahmadi Mehdi, Mohammadpouraghdam Karim (2013)., EuCAP2013 - European Conference on Antenna & Propagation, 8-12 April, Stockholm, Sweden.

**HONORS and AWARDS**

**26th Research Festival** 2017, Tehran, Iran

**Best Thesis Award** 2012, Tehran, Iran

**ACADEMIC POSITIONS**

**COURSES OFFERED**

**Antenna Laboratory

Antenna Laboratory

Antenna 2

Radar Principles and Systems

Antenna 2

Antenna Laboratory

Antenna Laboratory

Radar Principles and Systems

Active Microwave Circuits

Engineering Mathematics

Active Microwave Circuits

Antenna 2

Antenna Laboratory

Antenna Laboratory

Antenna Laboratory

Radar Principles and Systems

Active Microwave Circuits

Engineering Mathematics

Industrial Training

Antenna 2

Antenna Laboratory

Antenna Laboratory

Engineering Mathematics

Radar Principles and Systems

Active Microwave Circuits

Antenna 2

Antenna Laboratory

Antenna Laboratory

Radar Principles and Systems

Antenna 2

Antenna Laboratory

Antenna Laboratory

Antenna Laboratory

Engineering Mathematics

Radar Principles and Systems**

**LABORATORIES**