Babken Arthur Hovhannisyan

b.hovhannisyan@ysu.am

Institute of Physics
Chair of Radiophysics and Telecommunications
Assistant

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Chair of Radiophysics and Telecommunications
Assistant

Education

Institution	Yerevan State University
Faculty	Faculty of Radiophysics
Date	2019 - 2022
Degree name	PhD student

Institution	Yerevan State University
Faculty	Faculty of Radiophysics
Date	2017 - 2019
Degree name	Masters

Institution	Yerevan State University
Faculty	Faculty of Radiophysics
Date	2013 - 2017
Degree name	Bachelor

Scientific Rank/degree

Institution	Yerevan State University
Date	2022
Degree name	Candidate
Scientific Supervisor	Armen Makaryan
Research Topic	INVESTIGATION OF BIOLOGICAL SIGNALS USING HIGHER-ORDER SPECTRAL ANALYSIS

Language skills

Հայերեն Русский English

Work experience

Institution	YSU
Period of time	2022 till now
Rank/degree	lecturer

Institution	Institute of Radiophysics and Electronics
Period of time	2022 - 2025
Rank/degree	Junior Researcher

Institution	Russian-Armenian University
Period of time	2022 till now
Rank/degree	Senior lecturer

Institution	Aviation University named after A. Khanperyants
Period of time	2020 - 2021
Rank/degree	Lecturer

Institution	National instruments
Period of time	2019 - 2025
Rank/degree	engineer

Institution	LT-Pyrkal
Period of time	2016 - 2019
Rank/degree	engineer

Membership

Institution	Council of Young Scientists of RA National Academy of Sciences
Period of time	2022 till now

Institution	Member of YSU Board of Trustees
Period of time	2017 - 2022

Institution	Member of academic council of Radiophysics Faculty
Period of time	2014 - 2022

State awards and honorary titles

2021 "Annual educational award for the best students in the field of IT" in the "Best PhD" category

2019 YSU "Best Student-2019"

2019 “Bronze medal” from Yerevan State University

Publications

Article

Sensor Technologies for Brain Signal Registration and RF Emission Analysis
Babken Hovhannisyan, Tigran Hovhannisyan, Armen Makaryan, Vanand Mkhoyan

Armenian Journal of Physics 2025 48-52

Article

IMPLEMENTATION AND OPTIMIZATION OF 5G NETWORKS USING SOFTWARE-DEFINED RADIO (SDR) AND OPENAIRINTERFACE (OAI)
B.A. Hovhannisyan, A.S. Vardanyan, K.Z. Vardanyan

Armenian Journal of Physics 2025 14-17

Article

Detection of Phase Coupling in Radio Frequency Signals Using Bispectral Analysis
Babken Hovhannisyan, Eduard Sivolenko, Andrey Rashich, Alex Mkoyan, Vanand Mkhoyan,

Anna Vardanyan

International Conference on Electrical Engineering and Photonics, EExPolytech 2025 207-209

https://ieeexplore.ieee.org/document/11252262

Article

Experimental Verification of Brain-Origin RadioFrequency Emissions in an RF-Isolated Environment
Babken Hovhannisyan, Eduard Sivolenko, Andrey Rashich, Alex Mkoyan, Vanand Mkhoyan,

Anna Vardanyan

International Conference on Electrical Engineering and Photonics, EExPolytech 2025 210-212

https://ieeexplore.ieee.org/document/11251972

Article

Techniques for Locating GPS Jammers using GNU Radio
B. Hovhannisyan, M. Sahakyan, V. Mkhoyan, E. Sivolenko, A. Aharonyan, S. Makarov

Communications of the Byurakan Astrophysical Observatory 2024 409-411

Article

Analysis of Harmonic Signals in Non-Real Time of Moving Targets in Complex Environments Using Higher-Order Statistics in LabVIEW [Анализ гармонических сигналов в нереальном времени движущихся целей в сложных средах с использованием статистики более выс...
A. Hakhoumian, M. Barseghyan, N. Gasparyan, B. Hovhannisyan, E. Sivolenkoa

Proceedings of NAS RA Physics 2024 408–412

Article

Statistical analysis of the electroencephalographic signals
Babken Hovhannisyan, Tigran Hovhannisyan, Armen Makaryan, Eduard Sivolenko, Vanand Mkhoyan

IET conference proceedings. 2024 23-25

Article

Biosignal processing using machine learning methods
A. Mkoyan, A. Manasyan, A. Makaryan, B. Hovhannisyan, T. Hovhannisyan, S. Khachunts

International Conference on Microwave & THz Technologies, Wireless Communications and OptoElectronics (IRPhE 2022)
2023 22987012/ 4-6

Article

Biosignal processing using machine learning methods
T. Hovhannisyan, A. Makaryan, B. Hovhannisyan, S. Khachunts, A. Mkoyan, A. Manasyan

International Conference on Microwave & THz Technologies, Wireless Communications and OptoElectronics (IRPhE 2022)
2023 3

Article

Registration of Brain Radio Signals and Their Bispectral Analysis
B. A. Hovhannisyan, H.L. Ayvazyan, S.V. Antonyan, A. H. Makaryan, E. R. Sivolenko, G. A. Tsaturyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2022 87-90

Article

Extracting Human Brain Signals from the EEG Records Using LabVIEW and Advanced Signal Processing
Babken Hovhannisyan, Eduard Sivolenko, Armen Makaryan, Hamlet Ayvazyan, Andrei Medvedev,

Valentina Temkina
Springer proceedings in physics 2022 183-190

Article

РЕГИСТРАЦИЯ РАДИОСИГНАЛОВ МОЗГА И ИХ БИСПЕКТРАЛЬНЫЙ АНАЛИЗ
Г.Л. АЙВАЗЯН, С.В. АНТОНЯН, А.О. МАКАРЯН, Б.А. ОГАНЕСЯН, Э.Р. СИВОЛЕНКО, Г.А. ЦАТУРЯН

Proceedings of NAS RA Physics 2022 125-130

Article

Study of Brain Radio Signals Using Bispectral Analysis
B.A. Hovhannisyan
Armenian Journal of Physics 2021 138-141

Article

ЧАСТОТНО-ВРЕМЕННОЙ АНАЛИЗ ЭЛЕКТРОКАРДИОГРАММ
Б.А. ОГАНИСЯН, А.О. МАКАРЯН, Т.Н. ОГАНЕСЯН

Proceedings of NAS RA Physics 2020 575-581

Conference

AM signal finding in the environment full of micro doppler shifts using bispectral analysis.
Babken Hovhannisyan, Sivolenko Eduard, Andrey Medvedev

2019 117-119

https://ieeexplore.ieee.org/xpl/conhome/8897535/proceeding?isnumber=8906787&sor...
