

Viktar Asadchy
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Department of Electronics and Nanoengineering
Viktar Asadchy Group
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Artistic and research interests

Main research interests include spatially dispersive materials, metasurfaces, reconfigurable intelligent surfaces, photonic crystals, electromagnetic nonreciprocity, time-varying systems, Weyl semimetals, and advanced diffractive optical components.

Qualifications

Doctor of Science, Radio Engineering, Aalto University School of Electrical Engineering
Award Date: 19 Oct 2017

Master of Science, Functional metasurfaces with controllable properties, Francisk Skorina Gomel State University
1 Sept 2013 → 20 Jun 2014
Award Date: 20 Jun 2014

Bachelor of Science, Transmission of electromagnetic waves through layers of metamaterials based on bi-anisotropic inclusions, Francisk Skorina Gomel State University
1 Sept 2008 → 30 Jun 2013
Award Date: 30 Jun 2013

Employment

Assistant Professor

Assistant Professor
Department of Electronics and Nanoengineering
Aalto University
15 Aug 2022 → present

Viktar Asadchy Group

Aalto University
1 Aug 2022 → present

Postdoctoral Fellow

Stanford University
Stanford, United States
6 Jan 2019 → 31 Jul 2022

Postdoctoral Researcher

Aalto University
Aalto, Finland
1 Oct 2017 → 1 Dec 2018

Activities

Karlsruhe Institute of Technology

Asadchy, V. (Visiting researcher)
15 Oct 2016 → 15 Dec 2016

36th ESA Antenna Workshop, Alankomaat

Asadchy, V. (Contributor)
2015

9th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics, UK

Asadchy, V. (Contributor)

2015

Prizes

2019 Sergei A. Schelkunoff Transactions Prize Paper Award

Asadchy, V. (Recipient), Cuesta Soto, F. (Recipient), Faniayeu, I. A. (Recipient) & Tretiakov, S. (Recipient), 2019

Aalto Dissertation Award

Asadchy, V. (Recipient), 2018

Aalto ELEC Doctoral School Funding

Asadchy, V. (Recipient), 2015

Foundation for Aalto University Science and Technology

Asadchy, V. (Recipient), 2016

Foundation for Aalto University Science and Technology

Asadchy, V. (Recipient), 2016

Jorma Ollila Grant

Asadchy, V. (Recipient), 2018

Nokia Foundation

Asadchy, V. (Recipient), 2014

Nokia Foundation Nokia Foundation, Finland

Asadchy, V. (Recipient), 2015

The award of the Gomel Regional Executive Committee

Asadchy, V. (Recipient), 2013

The Finnish Foundation for Technology Promotion

Asadchy, V. (Recipient), 2018

The scholarship of the President of the Republic of Belarus

Asadchy, V. (Recipient), 2013

Young Scientist Best Paper Award at URSI EMTS 2019

Asadchy, V. (Recipient), 2019

Projects

-: 2022 SA Profi 7

Hämäläinen, J. (Principal investigator), Zhao, B. (Project Member), Kallio, T. (Project Member), Asadchy, V. (Project Member), Hakonen, P. (Project Member), Elalaili, T. (Project Member), Moumaneix, L. (Project Member), Timonen, J. (Project Member), Siddiqui, W. (Project Member), Mourouvin, R. (Project Member), Hyysalo, S. (Project Member), Jin, B. (Project Member), Järvinen, M. (Project Member), Hilamo, O. (Project Member), Shi, J. (Project Member), Ebrahimpoor Gorji, A. (Project Member), Chaudhry, Y. (Project Member), Jouhten, P. (Project Member), Upadhyay, R. (Project Member), Bothof, L. (Project Member), Kalachikova, P. (Project Member), Pekkinen, S. (Project Member), Roas Escalona, N. (Project Member), Roussel, B. (Project Member), Li, Z. (Project Member), Jokinen, I. (Project Member), Baumann, D. (Project Member), Khadka, P. (Project Member), Möttönen, M. (Project Member), Rosenthal, M. (Project Member),

Chiang, K.-H. (Project Member), Niinimäki, K. (Project Member), Chen, Z.-Y. (Project Member), Törmä, P. (Project Member), Strelnikov, A. (Project Member), Böling, S. (Project Member), Wang, L. (Project Member), Hammouali, A. (Project Member), Lahdelma, R. (Project Member), Flindt, C. (Project Member), Winiarski, P. (Project Member), Villo, S. (Project Member), Pekola, J. (Project Member), Tunn, I. (Project Member), Barbe, A.-S. (Project Member), Liski, M. (Project Member), Nypelö, T. (Project Member), Linder, M. (Project Member), Rinke, P. (Project Member), Vehviläinen, I. (Project Member), Beaune, G. (Project Member), Lilleng, K. (Project Member), Santasalo-Aarnio, A. (Project Member), Horelli, L. (Project Member), Petry, A. (Project Member), Gaziulusoy, İ. (Project Member), Sakas, G. (Project Member) & Nielsen, S. K. (Project Member)
01/01/2023 → 31/12/2030

-: Academy of Finland - National Science Foundation Partnership

Asadchy, V. (Principal investigator) & Tretiakov, S. (Principal investigator)
01/01/2022 → 31/12/2024

VISORSURF: A Hardware Platform for Software-driven Functional Metasurfaces

Tretiakov, S. (Principal investigator), Chowkwale, B. (Project Member), Liu, F. (Project Member), Ptitsyn, G. (Project Member), Tzarouchis, D. (Project Member), Jayathurathnage, P. (Project Member), Mirmoosa, M. (Project Member), Cuesta, F. (Project Member), Wang, X. (Project Member) & Asadchy, V. (Project Member)
01/01/2017 → 31/12/2020

DeCAP: Designer Composites with Axionic Properties

Asadchy, V. (Principal investigator), Mostafa, M. (Project Member), Safaei Jazi, S. (Project Member) & Amrahi, B. (Project Member)
01/09/2023 → 31/08/2027

AKA-NSF-Haneda: Impact of user, environment, and artificial surfaces on above-100 GHz wireless communications

Haneda, K. (Principal investigator), Kourani, A. (Project Member), Kiviharju, P. (Project Member), Kurvi, V. (Project Member), Arshad, N. (Project Member), Vähä-Savo, L. (Project Member), Ala-Laurinaho, J. (Project Member), Xue, B. (Project Member), Juvonen, A. (Project Member), De Guzman, M. (Project Member), Tuomela, J. (Project Member), Al Mahmud, S. (Project Member), Asadchy, V. (Project Member), Vuyyuru, S. K. R. (Project Member), Mostafa, M. (Project Member), Asgari, M. (Project Member), Ptitsyn, G. (Project Member) & Kosulnikov, S. (Project Member)
01/01/2022 → 31/12/2024

LATERA: Large-Area, flexible TERahetz Arrays

Räsänen, A. (Principal investigator), Asadchy, V. (Project Member), Wang, X. (Project Member), Ala-Laurinaho, J. (Project Member), Zheng, J. (Project Member) & Semkin, V. (Project Member)
01/09/2015 → 31/08/2018

MetaTune: Reconfigurability using inversely designed metasurfaces

Asadchy, V. (Principal investigator)
01/03/2026 → 28/02/2030

DoD T40404: Self-Programmable Metasurface Networks for Wireless Communications and IoT

Asadchy, V. (Principal investigator), Yuan, S. S. A. (Project Member), Tretiakov, S. (Project Member), Vuyyuru, S. K. R. (Project Member), Cuesta, F. (Project Member), Asgari, M. (Project Member), Ba Hurmuz, H. (Project Member), Rahman, I. (Project Member) & Parfenova, A. (Project Member)
01/01/2025 → 31/12/2028

-: SUSTAIN/T41103

Asadchy, V. (Principal investigator)
01/10/2022 → 31/03/2026

Transparent reflectors: Functional metasurfaces for future antenna technology

Tretiakov, S. (Principal investigator), Albooyeh, M. (Project Member), Cuesta, F. (Project Member), Radi, Y. (Project Member), Tcvetkova, S. (Project Member), Ptitsyn, G. (Project Member), Asadchy, V. (Project Member) & Diaz Rubio, A. (Project Member)
01/09/2015 → 31/08/2019

