David Kakulia
Associate Professor
Electromagnetic compatibility
Email: davit.kakulia@tsu.ge
Tel: +995 599 679835

Education

- Candidate of Sciences in Physics and Mathematics - Iv. Javakhishvili Tbilisi state university
- Master of Arts - Sokhumi Branch of Tbilisi State University Specialty - physicist, specialized in radiofrequency

Courses

- Engineering Problem Solving with MATLAB
- Applied electrodynamics
- Numerical methods in electrodynamics
- Waveguides and the antenna theory: additional chapters

Scientific interests

- Computational electromagnetism
- Method of auxiliary sources
- Periodic structures
- Heat transfer

Participation in projects

- "Nanostructural Materials for Energy Transformers" - Shota Rustaveli National Science Foundation
- “Cancer Treatment Using Nano-Particles: Understanding Hyperthermia at Cell-level” - Shota Rustaveli National Science Foundation
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List of publications (last 5 years)

1. **D. Kakulia** ; A. Lomia ; G. Ghvedashvili. “CO” shape wire antenna, XXIst International Seminar/Workshop on Direct and Inverse Problems of Electromagnetic and Acoustic Wave Theory (DIPED-2016), 26-29 Sept. 2016, Tbilisi Georgia, p:108-113.
2. **D. Kakulia**, A. Tavkhelidze, V. Gogoberidze, M. Mebonia, “Density of Quantum States in Quasi-1D layers”.Physica E: Low-dimensional Systems and Nanostructures. Physica E 78 (2016) 49–55.
3. I. M. Petoev, V. A. Tabatadze, **D. G. Kakulia**, R. S. Zaridze PLANE WAVE DIFFRACTION BY THE MULTILAYER STRUCTURE OF THE INFINITE 2D PERIODIC LATTICES JOURNAL OF APPLIED ELECTROMAGNETISM (JAE), VOL. 17, NO.2, 2015.
4. I. M. Petoev, V. A. Tabatadze, **D. G. Kakulia**, R. S. Zaridze. “Method of auxiliary sources applied to thin plates and open surfaces“ **Electrodynamics And Wave Propagation** Journal of Communications Technology and Electronics. April 2015, Volume 60, Issue 4, pp 311-320

5. K. Lomia, L. Shoshiashvili, **D. Kakulia**, G.Ghvedashvili, F. Shubitidze "Bio heat Equation Modeling on Macro and Micro Scales", XIXth International Seminar/Workshop on Direct and Inverse Problems of Electromagnetic and Acoustic Wave Theory (DIPED-2014), September 22-25, 2014,Tbilisi, Georgia p: 121– 123.
6. **D. Kakulia**, V. Ghoghoberidze, G. Ghvedashvili "Extension of the method of Auxiliary Sources for the Eigenvalue Problem of the Laplace operator in Case of Space Periodic Boundaries", XIXth International Seminar/Workshop on Direct and Inverse Problems of Electromagnetic and Acoustic Wave Theory (DIPED-2014), September 22-25, 2014,Tbilisi, Georgia p: 105 – 107.
7. A. Kochlashvili, M. Prishvin, **D. Kakulia**, D. Kvavadze, G. Jambazishvilim, R. Zaridze "Experimantal Localization of Dielectric Object Near a two-Way Line", XIXth International Seminar/Workshop on Direct and Inverse Problems of Electromagnetic and Acoustic Wave Theory (DIPED-2014), September 22-25, 2014,Tbilisi, Georgia p: 100 – 101.
8. M. Prishvin, L. Bibilashvili, V. Jeladze, **D. Kakulia**, R. Zaridze, "Study odf antenna matching influence on the results of RF exposure simulations", XVIIth International Seminar/Workshop on Direct and Inverse Problems of Electromagnetic and Acoustic Wave Theory (DIPED-2012), September 24-27, 2012,Tbilisi, Georgia p: 81 –84.
9. **D. Kakulia**, A. Lomia, T. Gogua, G. Ghvedashvili, T. Gavasheli "The MAS based simulation of plane wave angular incident on two-dimensional dielectric sphere array", XVIIth International Seminar/Workshop on Direct and Inverse Problems of Electromagnetic and Acoustic Wave Theory (DIPED-2012), September 24-27, 2012,Tbilisi, Georgia p: 63 – 67.
10. I. Petoev, V. Tabatadze, **D. Kakulia**, R. Zaridze "About scattered field's singularities and Rayleigh hipothesis", XVIIth International Seminar/Workshop on Direct and Inverse Problems of Electromagnetic and Acoustic Wave Theory (DIPED-2012), September 24-27, 2012,Tbilisi, Georgia p: 17 – 22.
11. I. Petoev, V. Tabatadze, **D. Kakulia**, R. Zaridze, "APPLICATION OF THE METHOD OF AUXILIARY SOURCES TO THE THIN OPEN SURFACES", 2012 International Conference on Mathematical Methods in Electromagnetic Theory, Aug 28-30, 2012, Kharkiv, Ukraine. pp: 271– 274.