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## Section Ukraine

### MTT/ED/AP/ EMC Georgia Chapter

**Revaz S. Zaridze**  
Chapter Chairman

Tbilisi State University,  
Laboratory of Applied Electrodynamics  
3 Chavchavadze Ave.  
Tbilisi, 380008, Georgia  
Tel: +995 32 290821  
Fax: +995 32 290845  
E-mail: [rzaridze@resonan.ge](mailto:rzaridze@resonan.ge)  
[rzaridze@lae.ictsu.tsu.edu.ge](mailto:rzaridze@lae.ictsu.tsu.edu.ge)

	Chair	Vice Chair	Secretary
Name	Prof. Revaz Zaridze	Dr. Zaur Tchakhnakia	Dr. Nina Khuchua
Address	3 Chavchavadze Ave., TSU, Laboratory of Applied Electrodynamics (LAE), 380028, Tbilisi, Georgia	13 Chavchavadze Ave., TSU, RPC "Electron Technology", 380079, Tbilisi, Georgia	13 Chavchavadze Ave., TSU, RPC "Electron Technology", 380079, Tbilisi, Georgia
Phone	+ 995 32 29-08-21	+ 995 32 22-06-36	+ 995 32 22-06-26
Fax	+ 995 32 29-08-45	+ 995 32 22-06-26	+ 995 32 22-06-26
Email	<a href="mailto:rzaridze@resonan.ge">rzaridze@resonan.ge</a> <a href="mailto:rzaridze@lae.ictsu.tsu.edu.ge">rzaridze@lae.ictsu.tsu.edu.ge</a>	<a href="mailto:zaur@gol.ge">zaur@gol.ge</a>	<a href="mailto:nt@gol.ge">nt@gol.ge</a>

## The Chapter Activities in 2002

### 1. The Membership Development

The total membership of the Georgian Chapter was counted the 23 IEEE members in 2002. The EDS subsidized the 12 members, the rest of them were supported from the Chapter budget.

### 2. Technical Activities

The 20 technical meetings were held during the 2002. The most interesting of them were the following:

1. "Experimental and numerical investigation of pear-shaped antenna", Giorgi Ghvedashvili, Tbilisi State University, Tbilisi, Georgia.

2. "Investigation of the resonance characteristics of the car case," David Kakulia, Tbilisi State University, Tbilisi, Georgia.
3. "Scattering and propagation in finite Photonic crystals with complex material filling", David Karkashadze, Tbilisi State University, Tbilisi, Georgia.
4. "Efficient FDTD simulation of fields in coaxial cables with multi-layered insulation partially formed by dispersive layers of extremely high permittivity," Anna Gheonjian, Tbilisi State University, Tbilisi, Georgia.
5. "Software creation for the finite photonic crystals simulation," Alexander Bijamov, Tbilisi State University, Tbilisi, Georgia.
6. "The method of decomposition on eigenfunctions application to inhomogeneous coaxial cables simulation," Elena Nikolaeva, Tbilisi State University, Tbilisi, Georgia.
7. "About evaluation of the potential integrals for near field calculations in MoM solution to EFIE for triangulated surfaces," Faik Bogdanov, Tbilisi State University, Tbilisi, Georgia.
8. "Visualization of the latent body's shape and position based on the measured scattered field", Kakhaber Tavzarashvili, Tbilisi State University, Tbilisi, Georgia.
9. "Drop-Shaped Antenna Radiation And Its Interaction With The User", Giorgi Ghvedashvili, Tbilisi State University, Tbilisi, Georgia.
10. "On the theory of symmetric short vibrator", Prof. Guram Kevanishvili, Georgian Technical University, Tbilisi, Georgia.
11. "Electromagnetic imaging for a conducting cylinder buried in the three layers structure", Dr. Chien-Ching Chiu, Tamkang University, Tamsui, Taiwan.
12. "Implementation a hybrid MAS and SPA algorithm for broadband electromagnetic induction problems", Irma Shamatava, Thayer School of Engineering, Dartmouth College, Hanover, USA.
13. "The Generalized Function Method in the Theory of Symmetric Dipole", Prof. Guram Kevanishvili, Georgian Technical University, Tbilisi, Georgia.

### **3. Publicity Activities**

Chapter Web Site is available for the interested persons, please refer to: <http://ewh.ieee.org/r8/ukraine/georgian>. The information about Chapter officers, the supporting scientific conferences, and recent Chapter activities is available in the Web Site.

### **4. The Supporting Conference**

**The VII<sup>th</sup> International Seminar/Workshop on Direct and Inverse Problems of Electromagnetic and Acoustic Wave Theory (DIPED-2002)**

The VII<sup>th</sup> International Seminar/Workshop DIPED-2002 was organized together with the IEEE MTT/ED/AP/CPMT/SSC West Ukraine Chapter. It was held on October 10-13, 2002, at Tbilisi State University, Tbilisi, Georgia. The Electron Devices Society provided technical co-sponsorship of the DIPED-2002; the Seminar Proceedings were included in the IEEE Book Broker Program. The MTT, AP, CPMT, SSC Societies, and Section Ukraine were among the supporting IEEE institutions.

The 33 papers from Georgia, Germany, Poland, Russia, Taiwan, USA, and Ukraine were presented at the Seminar in the 5 sections:

Propagation and Scattering in Non-homogeneous Media  
 Electrodynamics of Crystals and Waveguide Structures  
 Antennas and Scattering  
 Waveguides and Transmitting Lines  
 Synthesis Theory and Acoustics

Young scientists, students, and Ph.D. students participated in the DIPED as well. The Organizing Committee traditionally awards the young speakers for the best papers. This year three young speakers were recognized for their presentations. They were: Giorgi Ghvedashvili, Tbilisi State University, Tbilisi, Georgia (Experimental and Numerical Investigation of Pear-shaped Antenna), David Kakulia, Tbilisi State University, Tbilisi, Georgia (Investigation of the resonance characteristics of the car-case), Oleg Kusyi, Pidstryhach Institute of Applied Problems of Mechanics and Mathematics, NASU, Lviv, Ukraine (Bicriterion optimization problems for power transmitting line).

## 5. The 2002 Chapter Budget

### INCOMES:

ED-S 2002 financial support	957
AP-S Travel Grant support	1000
AP-S financial support	500
<b>Total:</b>	<b>2457</b>

### EXPENSES:

#### *Chapter's Seminar/Workshop DIPED-2002:*

Publishing the Proceedings	180
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#### *Other expenses:*

Travel grant for the AP-S 2002 Symposium	1000
Memberships/Publications	777
<b>Total:</b>	<b>1957</b>

<b>Surplus:</b>	<b>500</b>
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**Note.** Because of some problems in our Bank we have informed just on January that AP-S had transferred on our Chapter's Account (particularly on David Karkashadze's account) the financial support in amount of \$500 (as we requested) on May 30, 2002.

Since we didn't know about this support, we haven't spent this money in 2002 year. So, we are going to use this amount in 2003 to support our members to attend the Chapter Seminar/Workshop DDED-2003.

David Karkashadze  
Chapter Secretary/Treasurer

## **6. The Planed Activities for 2003**

The VIII<sup>th</sup> International Seminar/Workshop on Direct and Inverse Problems of Electromagnetic and Acoustic Wave Theory (DIPED-2003) will be organized together with the MTT/ED/AP/CPMT/SSC West Ukraine Chapter at Pidstryhach Institute of Applied Problems of Mechanics and Mathematics, NASU, Lviv, Ukraine, on September 23-25, 2003.

The 20 technical meetings with the scientific subjects of interest to the Chapter's members will be organized.