

## Curriculum Vitae



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J. ANTIDZE

## Curriculum Vitae

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**Post occupied and scientific grades:** Head of Department of Programming, I.Vekua Scientific Institute of Applied Mathematics, Tbilisi State University; Director of Scientific Institute of Informatics, Sokhumi State University; Ph.D., Senior Researcher in Software Engineering.

**Languages:** English, French, Georgian (native) and Russian.

### Education and Qualification

I graduated from Tbilisi State University (TSU) with a degree in mathematics and mechanics, in 1958. Then, I continued postgraduate studies at the Academy of Sciences of USSR with the specialty of software engineering. In 1961 terminated the postgraduate studies and began to work at TSU at the chair of Numeric Analysis and Computer Technique as an assistant. In 1966 I was awarded a Ph.D. degree in mathematics. Since 1968, I have been working at I.Vekua Scientific Institute of Applied Mathematics (VIAM). Firstly, I worked as an assistant of the head of the Programming Department and since 1973 as the head of the Systemic Programming Department till 2006. In 2011, I was Director of Scientific Institute of Mathematics and Information Technology, Sokhumi State University. Since 2016, I am a director of the scientific institute of informatics of Sokhumi state university. In 1978, I received the qualification of the Senior Scientist in Software development. In 1983-87, I was in mission at Annaba State University (Algeria). There, I worked at the faculty of Computer Science as a professor. I have given lectures (in French) on the art of programming using WAX computers and on the theory of formal grammar and compilation. There, by my supervision were fulfilled 10 master's works and two Ph.D. dissertations. Three times, in 1991, 1995 and 2003, I was in scientific mission at Saarland University (Germany).

## Pedagogical and scientific activities

Since 1961, I have been giving lectures on the theory and practice of programming at TSU. I gave lectures at the Faculty of Exact and Natural Sciences. I have been giving lectures using many programming languages, such as ALGOL-61, ALGOL-68, FORTRAN, PASCAL, DELPHI, BASIC, PL/1, TURBOPROLOG, VPROLOG, C, C++, C#, PERL, OZ, Alice, Haskell and so on. I also have used modular and object-oriented programming, graphical interfaces, database theory and practice with corresponding languages - ACCESS, FOXPRO, DBS, and SQL. I have been using in practical activity the following operational systems: DOS, WINDOWS, NT4, and UNIX (in particular, LINUX). I have been giving lectures on Internet application and Internet programming.

By my supervision and participation, many projects have been realized. Among them: Experimental machine translation from Georgian into Russian (1966); Automated system of the financial and management activity of TSU (using PL/1 language and a database managing own system), 1975; PL/1 interactive translator for БЭСМ-6 computer (1978); Package of programs for solutions of spatial problems of solid mechanics (1980) charged by GNTK of USSR, Automated system for construction of teaching courses and their application (the system is composed on TURBOPROLOG ) in 1990; Computerized publishing house of TSU (1996); Constructed and published on Internet the database on activity of TSU (Grant of EURASIA Foundation, 1997); Constructed and published on Internet electronic dictionaries ( English-Georgian - 24000 entries Grant of Soros Foundation; German-Georgian, 23000 entries; multilingual dictionary of mathematical terms, 2400 entries; German-Georgian tourist guide), 1990-2000; System of programs of morphological and syntactical analysis of Georgian texts, 1990-2006. 2006-2009, I was a leader of the TSU team of the project "Formal practical verification of programs, using automated reasoning and model checking", financed by INTAS. Also, Moscow State University, Kiev State University, Institute of Cybernetics of Kiev, Timisoara University (Romania) and Linz University (Austria) participate in the project. 2013-2015, I was a scientific head of the TSU project " A Pattern Calculus with Hedge variables " financed by Rustaveli National Scientific Foundation. I was a scientific head of the TSU project "LCP(HC): foundation, implementation, applications" financed by Rustaveli National Scientific Foundation, 2015-17.

I have more than 110 published scientific works on theoretical and practical problems of programming; I have been participated in many international scientific conferences as a honorary chair or co-chair of conferences(see <http://fpv.science.tsu.ge>). For example: 1-2 June 2013, I was co-chair of 3 international conferences in Paris, with my keynote speech, organized by The International Association of Computer Science and Information Technologies (IACSIT); 1-2 May 2014, I was honorary chair of 3 international conferences in Singapore, organized by IACSIT; 17-18 September 2014, I was a co-chair of 3 international conferences in Paris, organized by IACSIT;. In 2015, I am invited to many conferences as honorary chair, co-chair or program committee member. By my supervision, eight postgraduate students have done Ph.D. dissertations in Software Engineering. Many of them are working abroad at scientific institutes. I am: an expert of UNESCO in informatics; a senior member of IACSIT; a redactor-in-chief of international journal - Lecture Notes on Software Engineering (LNSE); a redactor of the international journal on software engineering, American Science and Education Publishing; a member of scientific committee (International Academy of Engineers); J. Antidze was awarded: by the golden medal on 100 year birthday of V.I. Lenin, in TSU, 1970; by the certificate of TSU, 1999; by the Medal of TSU, 2016; by the honorary certificate of the Supreme Council of the Autonomy Republic of Abkhazia, 2017; by the honorary certificate of Sokhumi State University, 2018.

## Publications

1. J.Antidze. Special Approach for Some Projects' Computer Realization, XXXII International Enlarged Session of IPM TSU, 18-20 April 2018.
2. Irakli Kardava, Nana Gulua, Beka Toklikishvili, and Jemal Antidze, Training Process Automation for Computer Vision, Lecture Notes in Engineering and Computer Science: Proceedings of The World Congress on Engineering 2018, 4-6 July 2018, London, U.K., pp96-100, ISBN 978-988-14047-9-4
3. J.Antidze. About one Approach on Machine Translation, Seminar of IPM, TSU, 04 April 2018.
4. Irakli Kardava, Jemal Antidze, and Nana Gulua - Solving the Problem of the Accents for Speech Recognition Systems, International Journal of Signal Processing Systems, volume 4, number 3, pages 235-238, June 2016, USA, ISSN 2315-4535
5. J. Antidze. Data Structures for One Approach of Georgian Texts Morphological and Syntactic Analyses, Seminar of I.Vekua Scientific Institute of Applied Mathematics, TSU, 25 May 2016.
6. J. Antidze, N. Gulua, I. Kardava, Solving the Problem of the Accents for Speech Recognition Systems, IACSIT, 2015 5th International Conference on Computer Communication and Management, Rome, Italy, 18-19 May 2015.
7. Aminur Rahman, Jemal Antidze, redactors, 2015 International Conference on Network Security & Computer Science (ICNSCS-15) International Conference on Mechanical and Industrial Engineering (ICMAIE'2015) 2015 International

Conference on Innovations in Chemical and Agricultural Engineering (ICICAE'2015), Organized By International Academy of Engineers (IA-E), [www.ia-e.org](http://www.ia-e.org), Kuala Lumpur (Malaysia), ISBN 978-93-84468-16-3

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9. J. Antidze, N. Putkaradze, Redactors, 2015 Tbilisi International Conference on Computer Science and Applied mathematics Conference's Proceedings, Nakeri, Tbilisi, Georgia, ISBN 978-9941-457-15-9, pages 284.
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11. J. Antidze, N. Gulua, I. Kardava, Solving the Problem of the Accents for Speech Recognition Systems, IACSIT, 2015 5th International Conference on Computer Communication and Management, Rome, Italy, 18-19 May 2015, ISSN 2301-3559, DOI 10.18178/LNSE.2015.v3.179 c 2015
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14. J. Antidze. software tools for computer modeling of a natural language text, keynote speech on 2013 2<sup>nd</sup> International Conference on Software and Computer Applications (ICSCA 2013), 1-2 June 2013, Paris (France), <http://www.icsca.org>.
15. J. Antidze. Automatic Recognition of Morphological Structure for Given Natural Language Word-form, keynote speech on 2013 5<sup>th</sup> International Conference on Software Technology and Engineering, 28-29 September 2013, Bandar Seri Begawan (Brunei), <http://www.icste.org>.
16. J. Antidze. Programming means for modeling of natural and formal languages, Second International Conference "Modern Problems in Applied Mathematics", 4-7 September 2013, TSU, Tbilisi (Georgia), ISBN 978-9941-13-296-4
17. J. Antidze. Software for Modeling of Natural Language Texts, Georgian Parliament, 08 July 2013, Kutaisi (Georgia), Materials of the conference - "Georgian Language – Challenge of 21-eme Century", in Georgian, pages 71-80.
18. J. Antidze, N. Gulua. Software Tools for Some Natural Language Texts Computer Processing, International Journal of Computer Technology and Application, David Publishing Company, vol. 3, #3, 2012, USA, ISSN 1934-7332
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[http://rmi.ge/~gmu/II\\_Annual\\_Conference/comming/Abstracts\\_Batumi\\_2011\\_Final.pdf](http://rmi.ge/~gmu/II_Annual_Conference/comming/Abstracts_Batumi_2011_Final.pdf)
24. J. Antidze, N. Gulua. Generalized Tools for Computer Realization of Natural Language Models, Proceedings of "The Eleventh International Conference on Pattern Recognition and Information Processing", pages 362-365, Minsk, Belarus, 2011.
25. J. Antidze, N. Gulua. Automatic Semantic Analysis of Georgian Language Phrases accepted to publish in "Proceedings of Sokhumi State University", 2011.
26. J. Antidze. Using Rule-Based Programming for Natural Language texts' Processing, XXV enlarged session of I. Vekua Institute of Applied Mathematics' seminar, 20-21 April 2011
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