Fist Name	**SVETLANA**
Second Name	**VICTOROVNA**
Surname	**CHUMACHENKO**
Personal	Date of birth: 09 Jul 1969

Education

1986-1991 – Kharkov State University (now – Kharkov National University named after V.N. Karazin), Mechanics and Mathematics Faculty, specialty – mathematics, qualification – mathematician, mathematics teacher, diploma UV № 819994, Degree thesis – "Toroidal functions and some of its applications".

1994-1997 – post-graduate student of Theoretical Radiophysics Department, Kharkov National University named after V.N. Karazin.

1999 – Cand. Sc. (Physics and Mathematics), diploma DK № 006036, 15.03.2000, Kharkov State Technical University of Radio Electronics (now – Kharkov National University of Radio Electronics), specialty 01.04.03 – Radiophysics, PhD thesis – "Stationary oscillations and time-varying electromagnetic fields in the cylindrical cavities of the complicated form".

2002-2005 – Post Doc (Department of Digital Design Automation), School of Computer Engineering and Control, Kharkov National University of Radioelectronics.

2008 – Dr. of Science, diploma DD № 007283, 28.04.2009; Dr thesis – "Modeling nonlinear objects with the distributed parameters on the basis of reproducing kernels", specialty 01.05.02 – mathematical modelling and computing methods; Kharkov National University of Radioelectronics.

Publications

128 publications, 1 book (monograph)

Among of them:

1. Chumachenko S.V. Eigenfrequency Equation and Field Components for a Cavity with Two Turning Plungers // Telecommunications and Radio Engeneering.– 1997. – Vol. 51, №9. P. 88-93.

2. Oleg A. Tretyakov, Svetlana V. Chumachenko. Rotational Mode Oscillations in a Cavity with a Time-Varying Medium Proc. International Conf.on Math. Methods in Electromagnetic Theory VII (MMET). Kharkov (Ukraine). – 1998. P.355-357.

3. Tretyakov O.A., Chumachenko S.V. Oscillations in the cavity with a linear non-stationary medium without dispersion / Electromagnetic waves and electronic systems. V.3, № 5. Moscow, 1998. P.10-20.

4. Svetlana V. Chumachenko. Calculation of a Cavity of a Laser Beam Modulator by the Functional Expansion Method on Elective Values // Proc. of CAOL'2003. 1-st International Conference on Advanced Optoelectronics and Lasers. 2003. Vol. 1. P.211-213.

5. Svetlana V. Chumachenko. In-phase excitation of infinite phased array antenna // IV International Conference on Antenna Theory and Techniques. Sevastopol, Ukraine. September 9-12, 2003. Vol. 1. P. 304-306.

6. Svetlana Chumachenko, Vladimir Hahanov. Reproducing Transformations method for IP-core of summatory and integral equations solving // Proc. of DSD 2004 Euromicro Symposium On Digital System Design: Architectures, Methods And Tools. August 31 - September 3, 2004, Rennes – France (Work in progress).

7. Chumachenko S.V. Solving Electrodynamics Problems by Reproducing Transformations Method // Proc. BEC 2004. Tallinn. October 3-6, 2004. PP. 319-322.

8. Chumachenko S.V., Hahanov V.I., Melnikova O.V. RKHS-Methods at Solving Some Radiophysics Problems // Elektonika ir Elektrotechnika. Kaunas University of technology. 2005. №6 (62). P. 5-8.

9. Chumachenko S.V., Hahanov V.I., Melnikova O.V. Series Summation RKHS-Method Applications for Radio-Physics Problems Simulations // Elektonika ir Elektrotechnika. Kaunas University of technology. 2005. №7 (63). P. 5-9.

10. Chumachenko S., Kirichenko L. RKHS-Methods at Series Summation for Software implementation // International Conferences on Information Theories and Applications. Proc. of Third International Conference "Information research, applications, and education". Varna-Sofia, Bulgaria. June, 2005. P. 124-129.

11. Chumachenko S., Kirichenko L. RKHS-Methods at Series Summation for Software implementation // International Journal on Information Theories and Applications. – Varna-Sofia, Bulgaria. – June, 2005. – 227-233 p.

12. Hahanov V., Chumachenko S., Skvortsova O., Melnikova O. SUM IP core generator – means for verification of models-formulas for series summation in RKHS // Proceedings of the 4rd East-West Design and Test Workshop, Sochi, Russia, September 15-19, 2006, pp. 322-326.

13. Adamov A., Hahanov V., Melnik D., Chumachenko S., Hanko V. Transactional Data Analysis of Electronic System Level Models // Proc. of IEEE East-West Design and Test Symposium, Yerevan, Armenia, September 7-10, 2007. pp.745-748.

14. Hahanov V., Chumachenko S., Melnik D., Taran A. SUM IP Core Generator for Solving Task for RKHS Series Summation // 9th International Conference The Experience of Designing and Application of CAD Systems in Microelectronics. Polyana, UKRAINE, 19 - 24 February 2007. P. 258-259.

15. Vladimir Hahanov, Anna Hahanova, Svetlana Chumachenko, Sergey Galagan. Optimal Embedded Repairing of SoC Memory // Proceedings of the 12th WSEAS International Conference on CIRCUITS, Heraklion, Greece, July 22-24, 2008. P. 131-136.

16. Hahanov V., Hahanova A., Chumachenko S., Galagan S. Diagnosis and repair method of SoC memory // Journal "WSEAS transactions on circuits and systems." 2008. Vol. 7. P. 698-707.

17. Svetlana Chumachenko, Wajeb Gharibi, Anna Hahanova, Aleksey Sushanov. Soc Software Components Diagnosis Technology // Proceeding of the IEEE East-West Design & Test Symposium. October 2008. P. 155-158.

18. Hahanov Vladimir, Chumachenko Svetlana, Litvinova Eugenia, Zakharchenko Oleg, Kulbakova Natalka. Technology for Faulty Blocks Coverage by Spares // Proc. of IEEE East-West Design and Test Symposium. Moscow. Russia. 2009. P. 353-359.

19. Vladimir Hahanov, Svetlana Chumachenko, Wajeb Gharibi, Ngiene Christipher Umerah. Algebra-Logical Fault Diagnosis Method for SOC Functional Blocks // Proc. of IFAC Discrete-Event System Design. Gandia Beach. Spain. 2009. P. 44-50.

20.Vladimir Hahanov, Svetlana Chumachenko, Ngene Christopher Umerah, Tiecoura Yves. Brain-Like Computer Structures // Radioelectronics & Informatics. 2009. N4. P.30-40.

21. Hahanov V., Wajeb Gharibi, Litvinova E., Chumachenko S. Cyber space and brain-like computing Proc. of IEEE East-West Design and Test Symposium. St. Petersburg. Russia. 17-20 September 2010. P.98-109. (ТЕЗИ)

22. Hahanov V., Wajeb Gharibi, Chumachenko S., Litvinova E. Vector logic analysis of associative matrices // Proc. of IEEE East-West Design and Test Symposium. St. Petersburg. Russia. 17-20 September 2010. P.110-117. (ТЕЗИ)

23. Hahanov V., Chumachenko S., Litvinova E. Logical analysis of information in tabular form // International conference on computational technologies in electrical and electronics engineering "Sibircon - 2010". Irkutsk, Russia. July 11-15. 2010. P. 72-79.

24. Chumachenko S.V. Series summation of special types at simulating radio-electronic devices. Kharkov: KHNURE, 2005. 174 p. (Monograph).

Public relations: 1 TV programs in Ukraine about scientific results for last four years.

Experience

1992 – 2008 – Instructor, Assistant Professor, Associate Professor (Certificate Ministry of Education DC № 005494 from 17.10.2002).

2005 – till now – Deputy Dean (Reseach), School of Computer Engineering and Control, Kharkov National University of Radioelectronics.

2009 – till now – professor of Department of Digital Design Automation,

Kharkov National University of Radioelectronics;

2002 – 2012 – Adjunct Professor of International Solomon University.

Lecture courses: “Discrete Mathematics”, “Special Mathematics”
Scientific supervisor of 4 Ph. D’s in the fields 05.13.05 – “Computer systems and components”, 01.05.02 – mathematical modelling and computing methods; Supervised more than 10 Bachelor/Master degree works.
Scientific interests:

- Mathematical modeling and computational methods,
- Series Summation Theory;
- Discrete Optimization methods;
- Testing knowledge technology.
- Algebra Logic fault localization and memory repair methods of SoC Functionality;
- Creation of the computer-aided system for logic simulation, test generation, faults diagnosis of digital devices;
- Design automation for educational applications in the field of computer engineering;
- Brain like computing for Multiprocessor

Projects

1991–1993 – research as a mathematician and programmer in scientific and practical Lab (Kharkov National University named after V.N. Karazin);
2007–2008 – Responsible executor of state research "Energy-efficient information technology based on parallel computing processes, wireless systems and networks», № GR 0107U001540;
2009–2010 – Responsible executor of state research "Models of software and hardware design energy-saving digital computing SoC to simulate and enhance the functionality of a human on an example of a complex robotic”;
2011–2013 – Responsible executor of state research "Multiprocessor search, pattern recognition and decision making for information computer Ecosystems";
2000, 2005 – fundamental research within an Agreement cooperation on scientific and technical "Strategic partnership" with the firm Aldec Inc. (USA);

Honors

2003 – “Best methodologist of University”;
2003 – INTEL award of scientific projects competition;
2004 – honors from “Best yang scientist of Kharkov”;
2005 – Winner of grants named after G.F. Proskury (technical sciences) from the Kharkov Regional State Administration for significant achievements in science.
2005 – Excellence in Education in Ukraine from Ministry of Education;
2004, 2005, 2010 – Certificates of honor from Rector of Kharkov National University of Radiotlectronics;
2006 – IEEE Diploma (IEEE Certificate of Appreciation for significant services to East-West Design & Test Symposium for over three years) for the IEEE conference organization;
2010 – Certificate of of Appreciation from Kharkov’s Administration for many years of conscientious work, contributed to the development of education and science, training of qualified specialists for Ukraine.

Other Activities

Executive Secretary of 2 scientific journals:
- “Radio Electronics and informatics”
- “Computer aided control systems and devices”

International activities:
2001 - 2002 – organization of International conferences "Design in educational process" (26.04.2001, 15.10.2001, 17-18.10.2002) in the organizing committee and as a speaker;
2003 – till now Executive secretary of the Annual International Scientific Symposium "IEEE East-West Design & Test Symposium".
Member of IEEE Computer Society since 2011.

Languages

Russian – native, Ukrainian – native, English – average

Personal qualities

Hobbies: music, traveling, sport, photo.