



**Hahanov Vladimir Ivanovich**, Doctor of Science, Professor of Computer-Aided Design Department, Kharkov National University of Radioelectronics (KhNURE), Dean of Computer Engineering Faculty, IEEE Computer Society Senior and Golden Core Member, academician of Science Academy of Applied Radio Electronics.

Address: Ukraine, 61166, Kharkov, Lenin ave. 14, Phone. (+380)-57-7021326.

E-mail: [hahanov@kture.kharkov.ua](mailto:hahanov@kture.kharkov.ua)

### Education

1996 – Dr of Science, Kharkov National University of Radio Electronics on specialties: 05.13.08 – Computers, systems and networks, components and devices of computers and control systems; 05.13.02 – mathematical modeling in scientific research. The subject of thesis – Models and methods of digital microprocessors system for fault simulation and testing service. 1997 – Professor of Computer-Aided Design Department, KhNURE.

1985 – Ph.D, Kharkov Institute of Radio Electronics (KhIRE), specialty – control in technical systems. The subject of thesis - Digital systems models and testing methods for computer-aided design. 1988 – Ass. Professor of Computer Department, KhIRE.

1978 – Systems Engineering, Kharkov Institute of Radio Electronics, a specialty - automated control systems. The subject of thesis - Automatic control of digital devices.

### Teaching

Lecture courses: “Digital Computational Systems”, “Logic Simulation”, “Testing of systems and computers”, “Electronic Computer Devices”, “Special Mathematics”, “Discrete Mathematics”, “Certification and Verification of Software for Computer Systems”, “Designing, Testing and Optimization of Computer Systems and Networks”, “Basics of the Design Automation”.

### Scientific work

Research interests include computer and software engineering, cyberspace analysis and virtual computers, technical diagnostics of computer systems and networks, software and hardware products, brain-like and quantum computing.

Scientific and technical achievements: automated logic simulation, test generation, fault diagnosis for digital devices and microprocessor-based systems, two-frames cubic calculus, cubic form of graph representation, cubic models of digital devices, synchronous and multi-valued methods and algorithms for fault-free modeling; deductive method for cubic fault simulation, deductive-parallel method for back tracing faults, topological deductive-parallel method for back tracing faults; cubic method for test generating, conditional and unconditional algorithms for diagnosing faults in digital systems and networks, models and methods for testing software and hardware products, based on assertion engine, co-verification of digital projects, theory and practice of vector associative logic calculations to solve problems of information space analysis by means of multi-processor systems, models and methods for brain-like and quantum computing.

Supervisor of 22 PhD's and 3 Doctors in the fields 05.13.05 -“Computer systems and components”, 05.13.12 “Computer Aided Design”. Doctors: Eliseev V.V., Chumachenko S.V., Litvinova E.I. PhD's: Monzharenko I.V., Hanko, V.V., Kovalyov E., Masood Mehedi, Dzhahirul Haq, Khalil Abu Zanuneh, Skvortsova O.B., Sysenko I.Yu., Berezhnaya M.A., Kolesnikov K.V., Egorov A.A., Guz O.A., Wadi Gharibi, Hassan Ktiaman, Kaminska M., Kamenyuka E.A., Parfentiy A.N. Pobezhenko I.A., Zaychenko S.A., Christopher Ngene, Filippenko I.V., Yves Tiekura.

### Publications and patents

510 publications, 15 books (textbook, 8 manuals and 6 monographs), 2 patents. Among them are: 1. Hahanov V.I. “Technical diagnostic of digital microprocessor structures”, 1995. 2. Hahanov V.I.

“Technical diagnostic of elements and connections of personal computers”, 1997. 3. Bondarenko V.F., Krivulia G.F., Rabcev V.G., Fradkov S.A. Hahanov V.I. „Design and diagnostic of computer systems and networks”, 2000. 4. Semenets V.V., Hahanova I. V., Hahanov V.I. „Design of digital systems with usage of VHDL language”, 2003. 5. V. Hahanov, I. Hahanova VHDL+ Verilog = Synthesis for a minutes. Kharkov, KhNURE. 2007. 264p. 6. Design and Test for digital system-on-chip / V. Hahanov, E. Litvinova, O.Guz.– Kharkov, KhNURE. 2009.– 484 p. 7. Verilog & System Verilog. Design and verification for SoC / Hahanova I. V., Hahanov V.I., Litvinova Y.I., Guz O.A.– Kharkov, KhNURE.– 2010.– 526 p. 8. Brain-like computing Infrastructure / M.F. Bondarenko, O.A. Guz, V.I. Hahanov, Yu.P. Shabanov-Kushnarenko.– Kharkov: Novoye Slovo.– 2010.– 160 p.

### **Public and international activity**

Chief-editor of 2 journals: “Radio Electronics and informatics”, “Computer aided control systems and devices”. Member of two specialized scientific boards for defense of thesis for a Doctor’s degree: D 64.052.02 – systems of design automation, D 64.807.02 – information technologies in control systems. Chairman of the annual international symposium “IEEE East-West. Design and Test”. Member of the editorial boards of 23 international journals, organizational and program committees of international conferences. Member of IEEE Computer Society since 2001. Scientific adviser of corporations Aldec, USA, Echostar, USA, DataArt Lab, Kaspersky Lab. Head of student scientific club Club Elite Teaching «Aldec». Member of the International Committee for the International Prize of the world in Global IT.

### **Honors**

Diploma of the "Best scientist of Kharkov region" in 2000 and 2001, INTEL award of scientific projects competition, "The best professor of Ukraine", 2005, IEEE Recognition Award, 2005; IEEE Gerald W. Gordon Award, 2005; IEEE Diploma for the IEEE conference organization, 2005; IEEE Computer Society Golden Core Member, 2006. Medal winner of the competition "Kharkov 2005", IEEE Computer Society certificates for international recognition in 2006 and 2007, a diploma and a premium watch from the President of Ukraine in 2006. Diploma of winner of the competition "Kharkov - the names of the best" in the nomination "The Best Dean" in 2008. Award «Computer Society Outstanding Contribution Award» from the President of IEEE. Medal "For scientific achievements," 2009.

### **Personal qualities**

Born February 27, 1953. Hobbies: music, traveling, basketball, ski, soccer.