CV OF PROFESSOR VADIM ZHMUD



DATE OF BIRTH

8.06.1959.

POSITION

Head of Department of Automation in Novosibirsk State Technical University (NSTU),

Vice-director on Science in Novosibirsk Institute of Program Systems,

Leading researcher of Institute of Laser Physics Siberian Branch of Russian Academy of Sciences,

Accredited Expert of Accreditation Agency of Russia for checking up of Higher Education Organizations (Institutes, Universities, Science Centers etc.) of all levels of Education (bachelor, engineer, master, PhD) on IT, Laser Physics, Automation, Radio physics etc.

Expert of "Federal Reestr of Experts in Science-Technical Sphere (ExTech)", https://reestr.extech.ru/docs/experts.php

Expert of Corporation "ROSNANO" http://en.rusnano.com/.

SCIENCE DEGREES AND ACADEMIC STATUS

Science degree "Doctor of technical sciences" awarded 16 January, 2004. The diploma DK N 020425

Earlier PhD awarded 20 September, 1990. **The diploma KD N 027722**

EDUCATION AND SPECIALTY

Novosibirsk Electro-Technical Institute (NETI), Novosibirsk, Russia, finished in 1981. Specialty 0606 – "Automation and Tele-mechanics" (Department of Automation and Computers) The graduate work topic: "The design of the PI-regulator for the control of technologic objects" Diploma N: G-1 N354335, electro engineer.

CERTIFICATES

Deputy-professor of Laser Systems awarded in February 2000 г. Certificate DTs 002793 from 16 February, 2000

Certificate of Russian Corporation on nanotechnology "RosNano" N469 (signed by: A.B. Chubais, S. V. Kaliuzhniy) from 15.01. 2010 for the right of scientific and technical expertise and industrial-technological expertise <u>http://en.rusnano.com/</u>.

Accredited expert of *Federal agency on the supervision on the field of education and science of Russia, order* № 1860-06 *from* 09.06.2011.

Certificate N_{O} *POCC. RU. A.*04Ш*H.BA.*0169 *from* 07.09.2010 *of the Federal agency on the technical controlling and metrology "StroyStandardSert".*

OTHER FACTS

I am a member of the editorial board of the following journals

 Main Editor of Russian bilingual journal "Automatics & Software Engineering" Website of the journal: <u>http://jurnal.nips.ru/en</u> WEB of the journal in Russian: <u>www.jurnal.nips.ru</u> The journal is published in Russian and English. The editorial board site: <u>http://jurnal.nips.ru/en/node/20</u>

2. Bulgarian bilingual journal "Bulgarian journal for engineering design"

Website of the journal: <u>http://bjed.tu-sofia.bg/</u> The journal is published in Bulgarian and English. The editorial board site: <u>http://bjed.tu-sofia.bg/</u>

3. Journal "International Journal of Engineering and Mathematical Modelling"

Website of the journal: <u>http://www.orb-academic.org/index.php/journal-of-engineering-modelling</u>

The editorial board site: <u>http://www.orb-academic.org/index.php/journal-of-engineering-modelling/about/editorialTeam</u>

4. Journal of Advances in Management Sciences & Information Systems,

<u>http://www.lifescienceglobal.com/independent-journals/journal-of-advances-in-management-sciences-information-systems</u>, <u>http://www.lifescienceglobal.com/independent-journals/journal-of-advances-in-management-sciences-information-systems/editorial-board</u>

5. International Journal of Communications (IJS), <u>http://www.seipub.org/ijc/Default.aspx</u>, <u>http://www.seipub.org/ijc/PageInfo.aspx?PARAMS=VGl0bGVeRWRpdG9yaWFsIEJvYXJkXk</u> <u>ZpbGVOYW11XkVkaXRvcmlhbEJvYXJkLmh0bQ_0_0</u>

6. International Journal of Advances in Thermal Sciences and Engineering, http://serialsjournals.com/editorial-board.php?journals_id=227

7. Signal Processing Research (SPR),

http://www.seipub.org/spr/PageInfo.aspx?PARAMS=VGl0bGVeRWRpdG9yaWFsIEJvYXJkXk ZpbGVOYW11XkVkaXRvcmlhbEJvYXJkLmh0bQ_0_0

8. International Journal of Information and Computer Science (IJICS), <u>http://www.iji-cs.org/PageInfo.aspx?PARAMS=VGl0bGVeRWRpdG9yaWFsIEJvYXJkXkZpbGVOYW11Xk</u> VkaXRvcmlhbEJvYXJkLmh0bQ_0_0

Expert of web-site "National information center on Science and innovations" <u>http://orange.strf.ru/client/expert.aspx</u>

Expert of Bortnik Foundation (program Start in 2005 – 2006). Moderator of the two City conferences on Automation. Editor and coordinator from the Russian side of the two international workshops "Indo-Russian Joint Workshop on Computational Intelligence and Modern Heuristics in Automation and Robotics" CIMHAR-2010 and "Russian-Indian Joint Workshop on Computational Intelligence and Modern Heuristics in Automation and Robotics" CINHAR – 2011.

Foreign Languages

English

The experience of the Leading work

Head of Laboratory of "Electronic Laser Systems" in Institute of Laser Physics of Siberian Branch of the Academy of Sciences (ILP SB RAS) from 1997 to 2009. Head of the Department of the Automatics in Novosibirsk State Technical University (NSTU) from 1 March, 2009 up to date.

The experience of the pedagogic work

From 1995 – Deputy-professor of NSTU. From 2004 – Professor of NSTU and Professor of Novosibirsk State University (NSU). I give lectures on the next courses: "Electronic Systems of the Laser Light Feedback Control", "High-Precise Feedback Systems", "Sensors and its Using", "Modeling and Optimization", "Electronics", "Precision Control Systems".

The total professional experience

From 1981 to present day.

AUTOBIOGRAPHY

I was born in Novosibirsk, Russia 8 June, 1959. From 1966 to 1976 – school N 159, Novosibirsk. From 1976 to 1981 – Novosibirsk Electro-Engineering Institute (Today - NSTU), Department of Automation and Computers. 1981-1993 – work in Institute of Automation and Electrometric researches (IA&E): Post graduate – engineer – minor/major science researcher. 1993 – Institute of Laser Physics (ILP SB RAS): 1993 – 1997 – major science researcher. From 1997 – Head of laboratory in ILP SB RAS. From 2009 – till now – Head of Department of Automation in NSTU.

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E-mail: <u>oao_nips@bk.ru</u>, <u>zhmud@corp.nstu.ru</u>, <u>v.zhmud@nips.ru</u> Web-sites: <u>http://www.nstu.ru/phone/person?requestPerson=498</u> <u>http://www.famous-scientists.ru/9240/</u>

AWARDS

- **I.** Bronze medal № 45917 "For the achievements in the development of national economy of USSR", Main Committee of the Exhibition of achievements of national economy of USSR Resolution from 14.10.86 №714-H.
- **II.** Title "Honored veteran of Siberian Brunch of the Russian academy of Sciences" with the certificate N16321 and breast badge.
- **III.** Certificate and breast badge in honor to the 110-years of Novosibirsk "For the fruitful work for the City economy" in 2003.
- **IV.** Certificate and breast badge in honor to the 50-years of Siberian Brunch of the Russian academy of Sciences in 2007 "Silver Sigma"
- **V.** Certificate and breast badge in honor to the 115-years of Novosibirsk "For the fruitful work for the City economy" in 2008.

Science publications: total amount 360 Including: Patents and registered computer programs – 55 Monograph – 3 Textbooks for higher education – 15

PATENTS OF VADIM ZHMUD

- [1] Y.N. Dubnischev, V.A. Zhmud, V.A. Pavlov, A.A. Stolpovskii. Apparatus for measuring the speed Author Certificate N 1139261, 1982, MCI G 01 P3 / 36.
- [2] V.A. Zhmud, V.S. Sobolev, A.A. Stolpovskii. An apparatus for processing a Doppler signal Author Certificate N 1091087, 1982, MCI G 01 R23 / 02
- [3] V.A. Zhmud, G.A. Plotnikova, V.S. Sobolev, A.A. Stolpovsky. Tracking filter demodulator Doppler-ray signal AS N 1186058, 1983, IPC H 03 7/00.
- [4] RF Patent N 2210785 (priority of 13/07/01.) Digital frequency. V.A. Vasiliev, V.A. Zhmud, A.M. Goncharenko. Publ.: State. Register inventions Russian Federation. Bull. N23, 20.08.03. G01 R25 / 00, H03 D13 / 00
- [5] V.A. Vasiliev, V.A. Zhmud, A.M. Goncharenko. RF Patent N 2210783 (priority of 20/08/01.) Scaler time. Publ .: State. Register inventions Russian Federation. Bull. N23, 20.08.03. G01 R23 / 00
- [6] V.A. Vasiliev, V.A. Zhmud, A.M. Goncharenko. RF Patent N 2225012 (priority from 19.04.02.) Phase Shift with a heterodyne frequency conversion. Publ .: State. Register inventions Russian Federation. Bull. N6, 27.02.04. G01 R23 / 02
- [7] V.A. Zhmud, V.M. Semibalamut, R.Y. Ishimtsev. The controller for the system with feedback. RF Patent RU 2368933 C1. G05B 11/14. Opubl.27.09.09. Bull. № 27. The application number 2008110243, Copyright: Institute of Laser Physics SB RAS.
- [8] V.A. Zhmud, V.I. Gololobov, A.V. Liapidevskii. Linear displacement meter. RF patent RU 87252 U1. G05C 3/00. Opubl.27.09.09. Bull. № 27. Application № 2009120333/22 (028,069), the right holder: NEWS-Birsky Program Systems Institute.
- [9] V.A. Zhmud, A.A. Voevoda, V.M. Semibalamut, R.Y. Ishimtsev. Regulator for the multidimensional object. Pa-tent of the Russian Federation RU 93994 U1. G01R 23/02, G01P 3/36. Opubl.10.05.10. Bull. № 27. Application № 2009138894/22 from 20.10.2009, the right holder: GOU VPO Novosibirsk State Technical University and the Institute of Institute for Laser Physics.
- [10] A.M. Goncharenko, V.A. Zhmud. Digital counter. RF patent N2278390. G01R 23/02. Publ. Bull. N17, from 20.06.06.
- [11] V.A. Zhmud, V.M. Semibalamut. Controller for systems with feedback. RF patent RU 76719 U1. G01R 23/02, G01P 3/36. Opubl.27.09.08. Bull. № 27. Application № 2008108410/22 from 04.03.2008, the right holder: In-Institute for Laser Physics.
- [12] A utility model patent № 107346. interferometer. Copyright: Institution of the Russian Academy of Sciences, Siberian Branch of the Institute of Laser Physics (Ru), Author:

V.A. Zhmud (Ru), Over-the turnout number 2011100243, the priority of the utility model of 11 January 2011, registered in the State Register of Utility Models of the Russian Federation August 10, 2011, will expire January 11, 2021 Posted in Bulletin N 22, 10.08.2011. Class IPC G01 B 9/02 (2006.01).

- [13] V.A. Zhmud, V.M. Semibalamut. The system of frequency stabilization of laser radiation. A patent for an invention. RU 2431909 C2, INC H01S 3/10 (2006.01). Application 2009137713/28 from 12.10.2009. Date of commencement of the 12.10.2009. Filing date 12.10.2009., date of publication of the application: 20.04.2011. Bull. №11. Posted on 20.10.2011., Bull. № 29. Copyright: Establishment of RAS SB RAS ILF. Formulas 2 figures 4.
- [14] A.L. Pechnikov, V.G. Trubin, V.A. Zhmud. Certificate of state registration of the computer program "EdpCtrlServer_v004.ru» № 2014612791, Copyright: Federal State Educational Institution of Higher Professional Education "Novosibirsk State Technical University." Application number 2013660275, date of receipt 11 November 2013, the date of state registration in the Register of Computer Programs March 6, 2014
- [15] A.L. Pechnikov, V.G. Trubin, V.A. Zhmud. Certificate of state registration of the computer program "EdpCtrlClient_v004.ru» № 2014612792, Copyright: Federal State Educational Institution of Higher Professional Education "Novosibirsk State Technical University." Application number 2013660287, date of receipt 11 November 2013, the date of state registration in the Register of Computer Programs March 6, 2014
- [16] N.R. Rakhimov, Zhmud V.A., Alizhanov D.D., Madumarov S.I. Stand-alone receiver X-ray and ultraviolet radiation. The patent for the invention № 2522737. IPC G01T 1/00 (2006.01), H01L 31/09 (2006.01). Application № 2012157959. Priority from 27.12.2012. Registered in the register of inventions-teny RF 05/21/2014. Valid until 12/27/2032. Rightholder VPO NSTU.
- [17]Zhmud V.A., Yadryshnikov O.D., Zavorin A.N., A.V. Polishchuk. Adaptive system for the regulation and stabilization of physical quantities. The patent for the invention № 2522899. IPC G05D 1/00 (2006.01). Application № 2012152697. priority from 06.12.2012. Registered in the Register of Inventions of the Russian Federation 05.21.2014. Valid until 06/12/2032. Rightholder VPO NSTU.
- [18] Measuring device for linear displacement. The patent for the invention № RU 2522742
 C2. INC G01C 3/00 (2006.01) Copyright Holder VPO NSTU. AV Liapidevskii, VA Zhmud. Posted 20.07.2014. Bulle-shadow № 20. Application № 20120133845/28.
 07.08.2012. Valid until August 7, 2032 <u>http://www.freepatent.ru/patents/2522742</u>
- [19] VA Zhmud. Feedback system. The patent for the invention № 2540461. Application number 2013145173, priority from 08.10.2013. Registered in the State Register of Inventions of the Russian Federation December 19, 2014 term of the patent expires on 10/08/2033. Rightholder VPO NSTU. IPC G05B 13/02.
- [20] VA Zhmud. Feedback system. The patent for the invention № 2541684. Application number 2013146115, priority from 10.15.2013. Registered in the State Register of Inventions of the Russian Federation January 15, 2015 term of the patent expires on 10/25/2033. Rightholder VPO NSTU. IPC G05B 13/02.
- [21] VA Zhmud, VM Semibalamut. Designing complete multichannel PD controller by numerical optimization in simulation. Reports TUSUR, 2014, №4 (34), s.127-133.
- [22] VA Zhmud, DO Tereshkin, AV Liapidevskii, AV Zakharov, VI Gololobov. Phase meter with a heterodyne frequency conversion. RF patent № 2497136. Registered 27 October 2013 Copyright: JSC "INPI" and VPO NSTU. Website: http://www.findpatent.ru/patent/249/2497136.html
- [23] AM Goncharenko, VA Vasiliev, V.A.Zhmud. Phase meter with a heterodyne frequency conversion. RU Patent 2225012: H03D13. G01R25, G01R 21/00; G01R 29/02; H03D. The owners of the patent: Institute of Laser Physics SB RAS. http://www.findpatent.ru/patent/222/2225012.html

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- [25] The certificate of registration of the EFM number 2013611161 ZipDataFlowNSTU. Copyright: VPO NSTU. Russia. Authors: Tereshkin DO, Zhmud VA Application number 2012660916 on 11 December 2012 was registered in the Register of Computer Programs January 9, 2013
- [26] The certificate of registration of the EFM number 2013611162 DefProcNSTU. Copyright: VPO NSTU. Russia. Authors: Tereshkin DO, Zhmud VA Application number 2012660917 on 11 December 2012 was registered in the Register of Computer Programs January 9, 2013
- [27] The certificate of registration of the EFM number 2013611164 FlashReadNSTU. Copyright: VPO NSTU. Russia. Authors: Tereshkin DO, Zhmud VA Application number 2012660919 on 11 December 2012 was registered in the Register of Computer Programs January 9, 2013
- [28] The certificate of registration of the EFM number 2013613341 ZScanerNSTU. Copyright: VPO NSTU. Russia. Authors: AM Goncharenko, VA Zhmud. Application number 2013611238 on 13 February 2013 registered in the Register of Computer Programs February 2, 2013
- [29] Certificate of registration of the computer number 2013611160 FreqAndAllanLabNSTU. Copyright: VPO NSTU. Russia. Authors: AM Goncharenko, VA Zhmud Application number 2012660915 on 11 December 2012 was registered in the Register of Computer Programs January 9, 2013
- [30] Certificate of registration of the computer number 2013617769 Bluetooth_HC-05_Driver-v001. Copyright: VPO NSTU. Russia. Authors: A. Eskin, Zhmud VA Application number 2013615378 on 13 February 2013 Registered in Computer Program Register August 22, 2013
- [31]Certificate of registration of a computer program number 2013618271 HC-SR04_Ulitrasonic_Driver-v002. Copyright: VPO NSTU. Russia. Authors: VA Zhmud, VG Trubin. Application № 2013616195. Date Added July 18, 2013. Date of state. registration in the registry of the computer programs September 4, 2013
- [32] Certificate of registration of the computer number 2013615343 NXT_MotorDriverv003a. Copyright: VPO NSTU. Russia. Authors: VA Zhmud, AV Eskin. Application № 2013616195. Date Added April 26, 2013. Date of state. registration in the registry of the computer programs June 5, 2013
- [33] V.A.Zhmud, VM Semibalamut, AA Voevoda. Adaptive system for the regulation and stabilization of physical quantities. The patent for the invention RU № 2457529. Application № 2011100407. Registered 27.07.2012. Copyright: Establishment of Russian Academy of Sciences Institute of Laser Physics, Siberian Branch (RU) Translation: VA Zhmud, V.M. Semibalamut, A.A. Voevoda. Adaptive System for regulation and stabilization of physical values. Patent RU № 2457529. Claim № 2011100407. Published 27.07.2012. Rightholder: Institute of Laser Physics SB RAS.
- [34] VA, Zhmud, AA Voevoda, VM Semibalamut, AM Goncharenko, SV Hillocks. Phase meter with a heterodyne frequency conversion. Patent for invention №2470312. Application: 2010139880/28, 28.09.2010. Published: 20.12.2012. Patentee: State Educational Institution of Higher Professional Education "Novosibirsk State Technical University" (RU), Institution of the Russian Academy of Sciences, Siberian Branch of the Institute of Laser Physics (RU) Website: http://ru-patent.info/24/70/2470312.html Translation : VA Zhmud, A.A. Voevoda, V.M. Semibalamut, A.M. Goncharenko, S.V. Bugrov. Phase meter with heterodyne frequency transformation. Patent RU №2470312. Claim: 2010139880/28, 28.09.2010. Published: 20.12.2012. Rightholders: Novosibirsk

State Technical University and Institute of Laser Physics SB RAS. URL: <u>http://ru-patent.info/24/70/2470312.html</u>

- [35] V.A. Zhmud, A.V. Liapidevskii. Phase meter with a heterodyne frequency conversion. Patent of Russian Federation № 2551837. The patent owner: JSC "Novosibirsk Institute of software systems." Application № 2013147228. priority of October 22, 2013, registered in gov't. Register of inventions of the Russian Federation 27 April 2015 Valid until October 22, 2033
- [36] V.A. Zhmud. Feedback system. The patent for the invention of the Russian Federation № 2540461. The patent owner: VGBOU HPE «Novosibirsk State Technical University." Application № 2013145173. priority from October 8, 2014, in zvaregistrirovano gov't. Register of inventions of the Russian Federation December 19, 2014 Valid until October 8, 2033
- [37] V.A. Zhmud. Feedback system. The patent for the invention of the Russian Federation № 2541684. The patent owner: VGBOU HPE «Novosibirsk State Technical University." Application № 2013146115. priority of 15 October 2014, zvaregistrirovano in gov't. Register of inventions of the Russian Federation January 15, 2015 Valid until October 15, 2033
- [38] V.A. Zhmud. Feedback system. The patent for the invention № 2540461. The application number 2013145173, priority of 10.08.2013. Registered in the State Register of Inventions of the Russian Federation December 19, 2014 The term of the patent expires on 08/10/2033. Rightholder VPO Novosibirsk State Technical University. IPC G01R 23/02, 3/36. Bull. Number 4.
- [39] V.A. Zhmud. Feedback system. The patent for the invention № 2541684. The application number 2013146115, priority of 15.10.2013. Registered in the State Register of Inventions of the Russian Federation January 15, 2015 The term of the patent expires on 10/25/2033. Rightholder VPO Novosibirsk State Technical University. IPC G01R 23/02, 3/36. Bull. Number 5.
- [40] V.A. Zhmud. Feedback system. The patent for the invention № 2566339. The priority of 08.10.2013. Registered in the State Register of Inventions of the Russian Federation October 20, 2015 Bull. Number 29. The validity of a patent expire on 10/08/2033. Rightholder VPO Novosibirsk State Technical University. IPC G01R 23/02, 3/36.
- [41] V.A. Zhmud. Feedback system. The patent for the invention № 2584925. The priority of 03/05/15. Registered in the State Register of Inventions of the Russian Federation 27.04.16. Bulletin number 14. The validity of a patent expire 05/03/35. Rightholder VPO Novosibirsk State Technical University. IPC G01R 23/02, G01P 3/36.
- [42] V.A. Zhmud, A.N. Zavorin. Structure model to optimize the system with feedback. The patent for the invention № 2554291. The priority of 01.04.14. Registered in the State Register of Inventions of the Russian Federation 27.06.15. Bulletin number 18. The validity of a patent expire 04/01/34. Rightholder VPO Novosibirsk State Technical University. IPC G01R 23/02, G01P 3/36.
- [43] A.L. Pechnikov, V.G. Trubin, V.A. Zhmud. The certificate of state registration of the computer program "EdpCtrlServer_v004.ru" number 2014612791, the right holder: Federal State Educational Institution of Higher Professional Education "Novosibirsk State Technical University." Authors: The application number 2013660275, date of receipt 11 November 2013, the date of state registration in the Register of the computer programs March 6, 2014
- [44] A.L. Pechnikov, V.G. Trubin, V.A. Zhmud. The certificate of state registration of the computer program "EdpCtrlClient_v004.ru" number 2014612792, the right holder: Federal State Educational Institution of Higher Professional Education "Novosibirsk State Technical University." The application number 2013660287, date of receipt 11 November 2013, the date of state registration in the Register of the computer programs March 6, 2014

- [45] V.A. Zhmud, V.G. Trubin. The certificate on registration of computer program № 2013618271 HC-SR04_Ulitrasonic_Driver-v002. Copyright: VPO Novosibirsk State Technical University. Russia. Application № 2013616195. Date 18 July 2013 Date of state. registration in the register of computer programs 4 September 2013
- [46] V.A. Zhmud, A.V. Eskin. Program registration certificate number 2013615343 computer NXT_MotorDriver-v003a. Copyright: VPO Novosibirsk State Technical University. Russia. Authors: Application № 2013616195. Date 26 April 2013 Date of state. registration in the registry of the computer program June 5, 2013
- [47] A.V. Eskin, V.A. Zhmud. Program registration certificate number 2013617769 computer Bluetooth_HC-05_Driver-v001. Copyright: VPO Novosibirsk State Technical University. Russia. Application number 2013615378 on 13 February 2013 Registered in Computer Program Register on August 22, 2013
- [48] V.A. Zhmud, D.O. Tereshkin, A.V. Liapidevskii, A.V. Zakharov, V.I. Gololobov. Phase meter with a heterodyne frequency conversion. RF patent for the invention № 2497136. Registered October 27, 2013 Copyright: JSC "INPI" and VPO Novosibirsk State Technical University. Website: http://www.findpatent.ru/patent/249/2497136.html
- [49] [49] AM Goncharenko, VA Vasilyev, V.A.Zhmud. Phase meter with a heterodyne frequency conversion. Patent RU 2225012: H03D13. G01R25, G01R 21/00; G01R 29/02; H03D. The owners of the patent: Institute of Laser Physics SB RAS. http://www.findpatent.ru/patent/222/2225012.html
- [50] Program registration certificate number 2012618604 for EFM DamMonitorNSTU. Copyright: VPO Novosibirsk State Technical University. Russia. Authors: Goncharenko AM, Zhmud VA Application number 2012616410 from July 27, 2012 Registered in Computer Program Register on September 21, 2012
- [51] D.O.Tereshkin, V.A. Zhmud. Program registration certificate number 2013611161 for EFM ZipDataFlowNSTU. Copyright: VPO Novosibirsk State Technical University. Russia. Application number 2012660916 on December 11, 2012 Registered in Computer Program Register on January 9, 2013
- [52] D.O. Tereshkin, V.A. Zhmud. Program registration certificate number 2013611162 for EFM DefProcNSTU. Copyright: VPO Novosibirsk State Technical University. Russia. Application number 2012660917 on December 11, 2012 Registered in Computer Program Register on January 9, 2013
- [53] D.O. Tereshkin., V.A. Zhmud. Program registration certificate number 2013611164 for EFM FlashReadNSTU. Copyright: VPO Novosibirsk State Technical University. Russia. Application number 2012660919 on December 11, 2012 Registered in Computer Program Register on January 9, 2013
- [54] A.M. Goncharenko, V.A. Zhmud. Program registration certificate number 2013613341 for EFM ZScanerNSTU. Copyright: VPO Novosibirsk State Technical University. Russia. Application number 2013611238 on 13 February 2013 Registered in Computer Program Register on February 2, 2013
- [55] A.M.Goncharenko, V.A. Zhmud. Program registration certificate number 2013611160 computer FreqAndAllanLabNSTU. Copyright: VPO Novosibirsk State Technical University. Russia. Application number 2012660915 on December 11, 2012 Registered in Computer Program Register on January 9, 2013

MAIN SCIENTIFIC PUBLICATIONS IN ENGLISH

[56] V.A. Zhmud, A.A. Voevoda, V.M. Semibalamut, D.O. Tereshkin. New structures of adaptive feedback systems. // Proceedings of DST-RFBR-Sponsored Second Indo-Russian Joint Workshop on Computational Intelligence and Modern Heuristics in Automation and Robotics. NSTU, Novosibirsk, Russia. 9th – 12th September 2011. Новосибирск, НГТУ. pp. 89–93.

- [57] V.A. Zhmud, A.A. Voevoda, V.M. Semibalamut, D.O. Tereshkin. Adaptive control of object with delay // Proceedings of DST-RFBR-Sponsored Second Indo-Russian Joint Workshop on Computational Intelligence and Modern Heuristics in Automation and Robotics. NSTU, Novosibirsk, Russia. 9th – 12th September 2011. Новосибирск, НГТУ. pp. 94–96.
- [58] V.A. Zhmud, O.D. Yadryshnikov, A.N. Zavorin. The study of the influence of high-frequency part of logarithmic frequency response curve to the quality of the feedback controls system // Proceedings of DST-RFBR-Sponsored Second Indo-Russian Joint Workshop on Computational Intelligence and Modern Heuristics in Automation and Robotics. NSTU, Novosibirsk, Russia. 9th 12th September 2011. Новосибирск, НГТУ. pp. 97–101.
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