

Curriculum Vitae Alexander Dvorkovich / October 2016

1. Personal details

Name: Alexander Dvorkovich
Born: 1967, Moscow, Russia
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2. Higher Education

<u>Date: From- To</u>	<u>Institute</u>	<u>Degree</u>	<u>Area of specialization</u>
2003-2006	Bauman Moscow State Technical University	Dr.Tech.Sci. (awarded 12.10.2007) Supervisor: Corr.- Memb. RAS, Prof. Yury B. Zubarev	Radio Techniques, including Television Systems and Devices, "R&D of High Efficient Systems for Digital Processing of Moving Pictures and Its' Quality Evaluation"
1990-1993	Moscow Institute of Physics and Technology	Ph.D. (awarded 19.10.1993) Supervisor: Prof. Arkadiy D. Margolin	Chemical Physics, including Physics of Combustion and Explosion, "Combustion of Condensed Systems under Impact of Outer Power Sources"
1984-1990	Moscow Institute of Physics and Technology	Engineer-Researcher <i>Graduate with distinction</i>	Applied Physics and Mathematics

3. Appointments

<u>Date: From-To</u>	<u>Institute</u>	<u>Title</u>	<u>Research area</u>
2015- Present	Moscow Institute of Physics and Technology (MIPT)	Head of Lab, Professor	Multimedia Systems and Technology

2013-2015	SAD-COM Ltd.	General Director	Multimedia Broadcasting
2008-2013	General Radio Frequency Center	Head of Scientific Department	Digital Transmission of Multimedia
2007-2008	NIIR-COM Ltd.	Technical Director	R&D in Telecommunications
1998-2007	Radio R&D Institute	Head of Lab	Video Compression and Metrology
1993-1998	Institute of Chemical Physics RAS	Scientific Researcher	Physics of Combustion

4. **Additional Functions/Tasks**

2010 - Present: Moscow Power Engineering Institute (MPEI), Dept. of Radio Technical Devices and Antenna Systems, Professor.

Total 56 Journal Papers, 59 Printed Conference Reports, 9 Books, 10 Patents.

Dr. Tech. Sciences, Professor of Russian Academy of Sciences (RAS) Alexander Dvorkovich is now Head of Multimedia Systems and Technology Lab (MIPT, Moscow, Russia), Professor of Multimedia Technology and Telecommunications (MIPT), Professor of Radio Technical Devices and Antenna Systems Department (MPEI, Moscow, Russia). He specializes in video compression, digital multimedia transmission systems, metrology of video information systems.

He is a member of Organizing Committee and Section Chair of two International Conferences: Digital Signal Processing and Applications (18-th Conference DSPA-2016 took place in Moscow, Russia, March 30 – April 01) and Engineering & Telecommunications (3-d Conference En&T-2016) take place in Dolgoprudny, Moscow Region, Russia, November 29-30).

Alexander Dvorkovich leads the research team, that develops a set of systems and equipment in telecommunication area, including video encoders, digital multimedia broadcasting system RAVIS (standardized in Russia and presented at international level – in ITU and CEPT Reports), videoconferencing systems, measurement devices for analogue and digital TV.

He takes part in the activity of ITU-R Study Group 6 (terrestrial broadcasting issues) and was a Chair of 3 Rapporteur Groups, that developed new Reports and Recommendations.

5. **Other Activities**

Awards:

- 2004: Russian Federation Government Award in Science and Technique
- 2015: Professor of Russian Academy of Sciences

6. **List of Publications (last years)**

Main Publication in English

1. Viktor P. Dvorkovich, Alexander V. Dvorkovich. Image Processing Using Multiscale Discrete Wavelet Transform // 5th Mediterranean Conference on Embedded Computing MECO 2016, Bar, Montenegro, 12-14 June 2016.: Proceedings – Research monograph – P. 180-183.
2. Viktor P. Dvorkovich, Alexander V. Dvorkovich. Discrete Wavelet Transforms of the Finite Spectrum Digital Images // MECO Publication - Works in Progress in Embedded Computing, Vol. 2, No. 1, June 2016. – P. 5-9.
3. Dvorkovich V.P., Dvorkovich A.V. New Methods for Calculation of Dolph–Chebyshev and Barsilon–Temes Window Functions and Their Modifications // Journal of Communications Technology and Electronics, 2015, Vol. 60, No. 4, pp. 345-361.
4. Dvorkovich V.P., Dvorkovich A.V. Analysis of the Parameters of I/Q Signals in Digital Television Systems // Measurement techniques, 2015, Vol. 58, No. 2, pp. 195-202.
5. Viktor P. Dvorkovich and Alexander V. Dvorkovich. The Problems of Digital TV and Radio Broadcasting Systems Implementation // Vladimir Vishnevsky, Dmitry Kozyrev, Andrey Larionov (Eds.), Distributed Computer and Communication Networks, 17th International Conference, DCCN 2013, Moscow, Russia, October 7–10, 2013, Revised Selected Papers. – Springer International Publishing Switzerland 2014. PP. 91-100.

Books in Russian

1. Dvorkovich V.P., Dvorkovich A.V. Digital Video Information Systems (Theory and Practice). – Moscow: Technosphaera, 2012. – 1008 p.
2. Dvorkovich V.P., Dvorkovich A.V. Measurements in Video Information Systems (Theory and Practice). – Moscow: Technosphaera, 2015. – 784 p.
3. Dvorkovich V.P., Dvorkovich A.V. Window Functions for Harmonic Analysis of Signals. Second Edition. – Moscow: Technosphaera, 2016. – 208 p.