



**Europass  
Curriculum Vitae**

**Personal information**

First name(s) / Surname(s) **SCHIOPU PAUL**

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[opto@tehfi.pub.ro](mailto:opto@tehfi.pub.ro)

Nationality **Romana**

Date of birth

Gender **male**

**Occupational field** **Educational/Research**

**Work experience**

Dates **2008 - present**

Occupation or position held **Head of Department (2008 – present), Professor(1992 – 2008), Associate professor/  
Lecturer(1980 -1992), University Assistant (1971- 1980)**

Main activities and responsibilities **Education and research**

Name and address of employer **University Politehnica Bucharest, Faculty of Electronics, Telecommunications and Informational  
Technology**

Type of business or sector **Higher education**

**Education and training**

Dates **1973-1977**

Title of qualification awarded **Diploma fizicist  
Profil: Solid State Physics**

Principal subjects/occupational skills covered

- Mathematics
- Physics Statistics
- Quantum Mechanics
- Solid State Physics

Name and type of organisation providing education and training **Universitatea București Facultatea Fizică**

Dates **1966-1971**

Title of qualification awarded **Diploma engineer  
Profile: Electronics and Telecommunications  
Specialization : Physicists Engineers**

Principal subjects/occupational skills covered

- Electronic devices
- Electronic circuits
- Amplifiers and electronic oscillators
- Experimental methods in Physics
- Particle accelerators

Name and type of organisation providing education and training **Universitatea Politehnica București**

**Personal skills and competences**

Mother tongue(s) **Romanian**

Other language(s)

Self-assessment

<b>Understanding</b>	<b>Speaking</b>	<b>Writing</b>
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European level (*)	Listening	Reading	Spoken interaction	Spoken production				
English	C1	B2	A2	B2			B2	
France	A2	A2	A2	A2			A2	

(\*) Common European Framework of Reference for Languages

Social skills and competences	Team work : I have worked in various types of research teams for national projects and programmes; Mediating skills : I work on between students, assistant professor, research policy and researcher ;
Organisational skills and competences	Head of Education Department and Head of Optoelectronics Research Center
Technical skills and competences	My didactic activities contain lectures for Optoelectronics, Devices and Photonic Materials, and Photonics Measurements and Transducers; I educate masters and physicians degree in Optoelectronics. I published more than 80 scientific studies in the Proceedings of the Scientific International and National Symposiums or Conferences and 11 books in the domains of the Optoelectronic Devices and Circuits and of the Advanced Materials for Electronics. I manage scientific researches in following sub-domains: <i>Photonic Micro and Nanostructures, Optical Processing of Information, Optical Fiber Communications and Electronic Devices-Circuits related to the Optoelectronic Systems</i> . I am the Editor of the Optoelectronics series on Ed.Matrixrom.
Computer skills and competences	YES
Driving licence	Category B
Additional information	Scientific and publicational activity

### List of scientific work and publications

#### I. Doctoral thesis

DISPOZITIVE OPTOELECTRONICE PENTRU PROCESAREA OPTICA A INFORMATIEI  
Bucuresti, 1980

#### II. Books :

- Paul Şchiopu și Carmen Liliana Şchiopu, Materials Science, 2002, Editura UPB Bucuresti,
- P. Şchiopu, C. L. Şchiopu, Electrooptic Devices, 2005, 260 pagini, editura Printech, ISBN 973-718-194-8.
- Paul Şchiopu, Velizar Sorescu, Senzori si traductoare, 2006, editura URANIUS, Bucuresti, ISBN 973-87514-5-4.
- Monica Nadasan, Şchiopu, Cristale si pensete fotonice, 2006, 230 pagini, editura MatrixRom Bucuresti, seria Optoelectronica nr. 6, ISBN (10) 973-755-052-8, ISBN (13) 978-973-755-052-1.
- Paul Şchiopu, Neculai Grosu, Ionica Cristea, Optoelectronica-Indrumar de laborator, Ed. MATRIXROM, Bucuresti, ISBN 978-973-755-379-9, 180 pagini.
- Paul Şchiopu, Optoelectronics, Ed. MATRIXROM, 2009, ISBN 978-973-755-443-7.
- Paul Şchiopu, Carmen Liliana Schiopu, Electronic Materials, editura AETERNITAS, Alba Iulia 2009, ISBN 978-973-1890-51-7.
- Paul Şchiopu, Dispozitive Dielectrice și Magnetice, Ed. MATRIXROM, ISBN 978-973-775-591-5, Bucuresti 2010.
- Paul Şchiopu, Neculai Grosu, Măsurători optoelectronice. Îndrumar, Ed. MATRIXROM, ISBN 978-973-755-694-3, 2011.
- Paul Şchiopu, Adrian Manea, Materiale pentru electronică. Îndrumar, Ed. MATRIXROM, ISBN 978-973-755-703-2, 2011.
- Paul Şchiopu, Carmen Şchiopu, Dispozitive piezoelectrice, Ed. MATRIXROM, ISBN 978-973-755-719-3, 2011

#### III. Articles :

- P. Schiopu, F.I. Vasile, The determination of the signal and pumping envelopes for Erbium-doped fiber amplifier, The Hyperion Scientific Journal, Series A: Mathematics, Physics and Electrical Engineering, vol. 3, number 2, 2002, pp. 159-162, ISSN 1582-4330.
- P. Schiopu, M. Nadasan, I. Cristea, A. Manea, N. Grosu, Optimizing 2D Photonic band gap structures, Buletin Stiintific, Pitesti 2003
- P. Schiopu, F. Vasile. The determination of the overlap factor between signal mode and Er<sup>3+</sup>-doping distribution. University Politehnica of Bucharest, Scientific Bulletin, 2004, Series A, vol. 66, number 2-4, pp. 57-64, ISSN 1223-7027.
- P. Schiopu, D. Dudu, S. Nistor, Fast constant fraction differential discriminator for positron life-time spectroscopy, Scientific Bulletin of University Politehnica of Bucharest, Series C: Electrical Engineering and Computer Science, volume 72, Issue 2, 2010, Politehnica Press, pp 97-106, ISSN 1454-234x.
- F. Garoi, P.C. Logofatu, D. Apostol, C. Udrea And P. Schiopu, *Interferometric Vibration Displacement Measurement*, Romanian Reports in Physics, Vol. 62, No. 3, P. 671-677, 2010, Dedicated to the 50th LASER Anniversary, (LASERFEST-50)

- F. Garoi, D. Apostol, V. Damian and P. Schiopu, *Traceable vibration amplitude measurement with a laser interferometer*, Romanian Journal of Physics 55 (3-4),369–375 (2010);
- E. Franti, G. Stefan, P. Schiopu, M. Teodorescu, *Design and Testing an Artificial Arm Microsystems in Virtual Environment*, in print in International Journal of Mathematics and Computers In Simulation.

#### IV. Scientific papers (selective) :

1. Florentin Vasile, Paul Schiopu, Two wavelength dependence of the dispersion in single-mode fibers, The 33-rd International Scientific Symposium of the Military Equipment and Technologies Research Agency, Bucharest, May 23-24,2002, Proceedings vol. III, pp. 112-117, ISBN 973-8323-11-8.
2. Monica Nadasan, Paul Schiopu, Two-dimensional hexagonal photonic band gap structures, The 33-rd International Scientific Symposium of the Military Equipment and Technologies Research Agency, Bucharest, May 23-24,2002, Proceedings vol. III, pp. 124-129, ISBN 973-8323-11-8.
3. Gabriel Vasile, Cristian Lepadatu, Paul Schiopu, Carmen Moldovan, Chemical absorption processes in polymeric films for optical gas sensors, International Semiconductor Conference CAS 2002 8-12 october 2002, Sinaia, Romania, Proceedings, vol. 1, pp. 59-62, IEEE catalog number 02TH8618, ISBN 0-7803-7440-1.
4. D. Cojoc, P. Schiopu, N. Fressengeas, Characterization of a limitation of the power emitted by the laser sources, International Symposium of Advanced Topics in Optoelectronics Micro and Nanotechnologies ATOM-N 2002, Bucharest, Nov.21-24,2002, Proceedings of SPIE, volume 5227, pp. 187-194, ISSN 0277-786X, ISBN 0-8194-5100-2.
5. P. Schiopu, F. Vasile, The signal and pumping power for EDFA, Semiconductor International Conference CAS 2003, 2003, Sinaia, Proceeding vol. 1, pp. 178-181, ISBN: 0-7803-7821-0.
6. S. Degeratu, V. Degeratu, P. Schiopu, The light intensity transformation in to optical digital signal, Semiconductor International Conference CAS 2003, 2003, Sinaia, Proceeding vol. 1, pp. 182-185, ISBN: 0-7803-7821-0.
7. M. Nădășan, P. Schiopu, I. Cristea, A. Manea, N. Grosu, Characterization of colloidal crystals by means of optical diffraction, International Semiconductor Conference CAS 2003, the 26th edition, septembrie, 2003, Sinaia, , Proceeding vol. 1, pp. 186-195, ISBN: 0-7803-7821-0.
8. Monica Nadasan, Adrian Manea, Paul Schiopu, Iancu Ovidiu, Methods of photonic band structures calculation, The 35-th International Scientific Symposium of Military Equipment and Technologies Research Agency-METRA, 27-28 May 2004, Bucharest, Romania, Proceedings, volume I, pp.95-100, ISBN 973-0-03501-6.
9. Vasile Degeratu, Stefania Degeratu, Paul Schiopu, General Logical Gate with Optical Devices, The 10th International Conference on Information Systems Analysis and Synthesis: ISAS 2004 and International Conference on Cybernetics and Information Technologies, Systems and Applications: CITSA 2004, Orlando, Florida, USA, July 21-25, 2004.
10. Vasile Degeratu, Stefania Degeratu, Paul Schiopu, Perceptron with one layer based on optical devices, The 2nd International Conference Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies – ATOM-N, 2004, 24-26 november, Bucharest, Romania, Proceedings of SPIE, volume 5972, pp.59720V-1+59720V-6, ISSN 0277-786X, ISBN 0-8194-5991-7.
11. Vasile Degeratu, Stefania Degeratu, Paul Schiopu, Demultiplexer and multiplexer in optical technology, The 2nd International Conference Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies – ATOM-N, 2004, 24-26 november, Bucharest, Romania, Proceedings of SPIE, volume 5972, pp.597214-1+597214-6, ISSN 0277-786X, ISBN 0-8194-5991-7.
12. Florentin Vasile, Paul Schiopu, The optical fibers parameters used in optical transmission systems, The 36th International Scientific Symposium of METRA, 26-27 mai 2005, Proceedings volume I, p.544-549, ISBN 973-0-03923-2.
13. Ovidiu Iancu, Paul Schiopu, Adrian Manea, Ionica Cristea, Monica Nadasan, Neculai Grosu, Autonomous Remote Sensing with SAW Devices, International Symposium for Design and Technology of Electronic Packages – SIITME 2006, 21-24 septembrie 2006, Iasi, Romania, isbn 978-973-8961-23-4, Editura STEF.
14. O. Iancu, P. Schiopu, A. Manea, I. Cristea, N. Grosu, Laser Characterization of the Periodic Line/Space Micro/Nano Structures, 30th International Spring Seminar on Electronics Technology, ISSE 2007, 9-13 mai 2007, pp. 188, ISBN 978-973-713-174-4
15. Cazimir G. Bostan, Paul Schiopu, Oana Mita, Guided and leaky modes in hexagon-type silicon-on-insulator slabs, The 4th edition of the International Conference Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies ATOM-N 2008, 28-31 august, Constanta, Romania, Ed. MATRIX-ROM, ISBN 978-973-755-387-4.
16. Paul Schiopu, Ionica Cristea, Neculai Grosu, Alexandru Craciun, Recent developments in surface acoustic wave sensors, The 4th edition of the International Conference Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies ATOM-N 2008, 28-31 august, Constanta, Romania, Ed. MATRIX-ROM, ISBN 978-973-755-387-4.
17. F. Garoi, D. Apostol, P. Schiopu, P. C. Logofatu, V. Damian, Nano-metrology of macro-systems, The 4th edition of the International Conference Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies ATOM-N 2008, 28-31 august, Constanta, Romania, Ed. MATRIX-ROM, ISBN 978-973-755-387-4.
18. V. Damian, M. Bojan, P. Schiopu, I. Iordache, B. Ionita, D. Apostol, White light interferometry applications in nanometrology, The 4th edition of the International Conference Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies ATOM-N 2008, 28-31 august, Constanta, Romania, Ed. MATRIX-ROM, ISBN 978-973-755-387-4.
19. Paul Schiopu, Ionica Cristea, Neculai Grosu, Alexandru Craciun, Test Methods for Gaussian Laser Beam Characterization, 14th Edition of International Symposium for Design and Technology of Electronic Packaging SIITME 2008, 18-21 september, Predeal, Romania, ISSN 1843-5122, pp. 159-163.
20. Neculai Grosu, Paul Schiopu, Ionica Cristea, and Alexandru Craciun, Optoelectronic techniques for constructive characterization of SAW microdevices, The Ninth International Conference "Correlation Optics 2009", Chernivtsi National University, Ukraine, September 20-24 2009, proceedings SPIE in print

21. F. Garoi , D. Apostol, P. Schiopu , Lateral shearing interferometry with a deformable mirror for wavefront analysis, The 5-th International Conference Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies, ATOM-N 2010, Constanta, 26-29 August 2010, CD Editura MATRIX-ROM, ISSN 2067-158X.
22. Paul Schiopu, Neculai Grosu, Adrian Manea, and Alexandru Craciun, Integration of optoelectronics and SAW technology, The 5-th International Conference Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies, ATOM-N 2010, Constanta, 26-29 August 2010, CD Editura MATRIX-ROM, ISSN 2067-158X.
23. P. Schiopu, I. Cristea, N. Grosu, A. Craciun, "Development of SAW filters based on GaPO<sub>4</sub>", 17th International Symposium for Design and Technology in Electronic Packaging (SIITME-2011), Proceedings of SIITME-2011(in print),Timisoara, 2011.
24. Mihai Kusko, Andrei Avram, Adrian Dinescu, Cristian Kusko, Florin Comanescu, Carmen Iorga, Raluca Muller, Experimental studies of silicon nitride waveguides fabrication, *Proceedings of CAS 2011, Sinaia, Romania(in print)*;
25. F. Comanescu, C. Tibeica, M. Purica, P. Schiopu, Comparative study of two types electro-thermally actuated micromirrors on silicon substrate, *Proceedings of CAS 2011, Sinaia, Romania(in print)*;

#### V. Research contracts :

- Contract CEEEX nr. 3 din 05.10.2005, Cercetari privind nanometrologia microsistemelor – *NMS*;
- Contract CEEEX nr. X1 C15 din nov.2005, Metodă nedistructivă pentru evaluarea caracteristicilor straturilor rutiere – *MNSR*;
- Contract CEEEX nr. 16 IO4 din nov.2005, Dezvoltari de tehnologii mixte pentru micro/nano structuri si sisteme fotonice integrate cu aplicatii in comunicatii – *FOTONTECH*;
- Contract CEEEX nr. 30 din 10.10.2005, Microsisteme integrate de monitorizare in timp real a parametrilor de foraj pentru optimizarea exploatareii resurselor petroliere – *MICROSYSOIL*;
- Contract CEEEX nr. 6130 din 03.10.2005, Materiale avansate nanocompozite cu proprietati antibacteriene, de autocuratare si structuri integrate de concentratoare de energie solara utilizate in constructii civile pentru ameliorare ambientala – *NANOAMBIENT*;
- Contract CEEEX nr. 14 / 10.10.2006, Noi tehnologii de obtinerea microbiosenzorilor pentru detectia in timp real si monitorizarea tuberculozei in grupuri cu potential de risc crescut – *MICROBALERT*;
- Contract CEEEX nr. 135/03.2006, Dezvoltare dispozitive optice micro si nano-structurate pentru procesarea optica a informatiei - *DOMINO*;
- Contract CNCISIS 67/2006, Studii si cercetari privind cristalele fotonice coloidale;
- Contract PN II/P4 nr. 11-017 din 10.09.2007, Sistem de microsenzori piezoelectrice, de masurare, analiza si control multiparametru, integrat 3D – *PIEZOSENZ*;
- Contract PN II/P4 nr.11-027 din 10.09.2007, Cercetari de metrologie optica activ-adaptiva 3D pentru nano stiinte si tehnologii. ME de instalatie adaptiva de holografie digitala – *MAST*;
- Contract INOVARE nr.3 din 10.09.2007, Minikit pentru verificarea autenticitatii documentelor si a persoanelor – *MKVD*;
- Contract INOVARE nr.99 din 28.09.2007, Sistem modular de senzori optoelectronici pentru achizitie, transmitere si prelucrare a imaginilor in domeniul vizibil si ir – *OPTELLA*;
- Contract INOVARE nr.239 din 01.10.2008, Robot mobil de observare, cercetare si supraveghere – *ROBO MOCS*;
- Contract INOVARE nr.221 din 30.09.2008, Arij de microtraductori multifunctionali pe substrat monocristalin piezoelectric pentru monitorizarea conditiilor de stocare a cerealelor si / sau a plantelor industriale in silozuri / ferme mici – *AGRICOLA*;
- Contract PN II/P4 nr.12 098 din 01.10.2008, Dezvoltare microdispozitive cu unde acustice de suprafata - SAW, pentru telecomunicatii, bazate pe ortofosfat de galii - GaPO<sub>4</sub> - *DESAT*;
- Contract PN II/P4 nr.12 103 din 01.10.2008  
Arij de micro/nanosenzori de prag pentru detectia in timp real a contaminarii mediului acvatic cu agenti chimici – *AQUAPROTECT*.