# **CURRICULUM VITAE**

#### Date personale:

Nume: <u>ROBU</u> Prenume: <u>SERGIU</u>

Naționalitate: Moldovan

Data nașterii: 5 Septembrie, 1972

Locul de naștere: Nisporeni, Republica Moldova

Starea civilă: Căsătort

Copii: 2 copii

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Studii:

1992 - 1997, Universitatea Technică of Moldova

Specialitate: Sisteme și rețele energetice 1999 - 2004, Institutul de Energetică al AȘM

Studii prin doctorat, Tema: Impactul generării distribuite asupra sistemului energetic integrat

## Domenii de specializare:

Audit Energetic. Sisteme de Management Energetic. Planuri și Programe de Eficiență Energetică. Modele și metode computerizate pentru modelarea dezvoltării sistemelor energetice; conservarea energiei; tarife; management și economia sectorului energetic; poluarea mediului datorită activității sectorului energetic; scenarii de diminuare a poluanților atmosferici.

## Cunoașterea limbilor străine:

Limba	Citire	Vorbire	Scriere	
Româna	Limba maternă			
Engleza	1	2	2	
Rusa	1	1	1	

Angajare în cîmpul muncii și în projecte internationale:

Data.	Locul	Compania	Poziția	Descriere
de la – pînă				
la				
2017- 2018	Moldova	GFA	Consultant –	Developmenty of Energy Efficiency Programs
		Consulting	Expert	for RDA Gagauzia
2012-2016	Moldova	GIZ Moldova	Consultant –	Energy Efficiency Plan for Calarasi city. Energy
		MLPS	Expert	Efficiency Programs for Development Regions
				of Moldova.
2011-2015	Moldova	Chamber of	Consultant –	EUREM – European Energy Manager Program:
		Commerce and	Expert	Teaching and presenting solutions to EUREM
		Industry of		students in Moldova on national and
		Moldova, and		international (Germany) training programmes.
		GIZ Moldova		
2011-2012	Moldova	The EU-BSEC	Energy	Project PROMITHEAS – 4, "Knowledge transfer
		Energy and	Expert	and research needs for preparing mitigation/
		Climate Policy		adaptation policy portfolios":

Data. de la – pînă la	Locul	Compania	Poziția	Descriere
		Network		Responsible for Chapter: Choice and implementation of models for energy systems assessment: MARKAL, MESSAGE, LEAP, MAED, WASP-IV, and others.
2011-2012	Moldova	UNFCCC, Ministry of Environment of Moldova	Energy Expert	Project: Enabling Activities for the preparation of the Third National Communication under the UNFCCC Responsible for preparation of long term scenario of GHG emissions for energy sector.
2011-2012	Moldova	UNDP Moldova	Energy Expert	"RFP: Design and Carry out an Educational Initiative on Renewable Energy": Responsible to write a book about renewable energy sources and biomass for primary school children of age 14-15.
2011	Moldova	UNDP Moldova, Climate Change Office Moldova	Consultant	"Low Carbon Development Strategy of the Republic of Moldova to the year 2020":  • Responsible for Energy Sector Policy Assessment.
08/2011- 01/2012	Moldova	GFA envest, Germany Kreditanstalt für Wiederaufbau (KfW), Germany	Local EE expert	<ul> <li>Energy Market Assessment Moldova, the project "Demand and Implementation Study Green For Growth Fund II":</li> <li>Responsible for assessment of market potential of Moldova for implementation of financial mechanisms to support energy efficiency and renewable energy projects.</li> <li>Project funded by European investment Bank, and KfW, and other donors.</li> <li>The Development of a Public Private Equity Fund to Support Energy Efficiency and Renewable Energy Projects in the Eastern Neighbourhood Region of the EU Neighbourhood Investment Facility (Green for Growth Fund II)</li> </ul>
02.2012- 07.2012	Azerbaijan, Ukraine, Armenia, Georgia, Moldova (EPC- Eastern Partnership Countries)	GFA envest, Germany European Investment Bank (EIB), Luxembourg	Local EE expert	New facilities supporting the development of EE and RE investments in the cities of EPC
2010 – 2012	Moldova	USAID, Hellenic Aid and Ministry of Economy	National Expert	USAID/Hellenic Aid Cooperative Energy Program – SYNENERGY Strategic Planning (SSP) MARKAL/TIMES model: Performed calculations Developed scenarios of energy system development of Moldova for period of 2006 - 2030. It was estimated the resource demand and benefits from implementation of Energy Efficiency and Renewable Energy Sources till

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2010 – 2012	Moldova	Ministry of Environment of Moldova	Consultant	Project E112, Support to the Implementation of the Convention on Long-range Transboundary Air Pollution in the Republic of Moldova: "Integrated assessment modelling of air pollution control in Moldova using GAINS Model to meet the obligation under the Gothenburg Protocol": Responsible for forecast of emissions to year 2030 using GAINS model, and environmental policy evaluation
2010	Moldova	SKPI	Energy Expert	TACIS Project "Support to Kyoto Protocol Implementation" (SKPI): Responsible for calculation of energy intensity of industrial activities of Moldova
2009	Moldova	TERMOCOM, Municipal district heating company	Consultant	Forecasts of tariffs for heat energy in Chisinau municipality till 2015 based on trends on international market for gas and oil. Calculation of final tariff for final users of centralised heat supply system with consideration of electricity load of CHP Chisinau. Consideration of changing tariff for heating, based on outside temperature, introduction of differential tariff
2007-2012	Moldova	Institute of Power Engineering, Academy of Sciences of Moldova	Head of Dpt. of International Cooperation	Responsible for international cooperation issues of the Institute
2007-2012	Moldova	UNIDO	National Expert	"Reducing Greenhouse Gas Emissions through Improved Energy Efficiency in the Industrial Sector in Moldova", for UNIDO: Identified companies from industrial sector in Moldova for implementation of energy efficiency measures based on energy audit of about 50 most relevant enterprises of the country Implemented ISO50001 Organized and taught national training for engineers from industrial sector in Moldova concerning the energy saving potential and the benefits of ISO50001 implementation
2007-2008	Moldova	Institute of Power Engineering of Academy of Sciences	Researcher	Project of Strategy of Utilization of Renewable energy Sources till 2010 and in perspectives, National Program of Utilization of Renewable Energy Sources till 2015:  • Participation in the elaboration of "Energy strategy of Moldova till 2020"
2007	Moldova	UNDP	National Energy Expert	Improved Capacities for Managing Development (UNDP MCC)
2006 - 2008	Moldova	UNEP	National Energy	UNEP Project "Enabling Activities for the preparation of the Second National

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			Expert	Communication under the United Nations Framework Climate Change":  Responsible for Energy Sector of the National Communication (Chapter: Energy).
2005 – 2007	Moldova	Institute of Power Engineering, Academy of Sciences of Moldova, Chisinau MD	Science Secretary of the Institute	Coordination of Scientific Council of the Institute and research plans of the Institute
2005	Moldova	World Bank	Energy Expert	<ul> <li>"The implementation of Stockholm convention on PCBs in Moldova":</li> <li>Calculation of oil leakage from energy transformers and emissions of PCB of Energy Sector</li> </ul>
2004 – 2008	Moldova	Technical University of Moldova, Dpt. of Thermotechnics and Management of Energy	Professor - Assistant	<ul> <li>Teaching: Energy Economics, Energy Management, Integrated Energy Planning, Environmental Pollution</li> <li>Overseeing the design and development of the overall curricula</li> <li>Developing and delivering a range of programmes of study (sometimes for entirely new courses) at various levels</li> <li>Transfer of knowledge including practical skills, methods and techniques. To challenge thinking, foster debate and develop the ability of students to engage in critical discourse and rational thinking.</li> <li>Supervising student projects, field trips and, where appropriate, placements.</li> </ul>
2001	Moldova	Ministry of Ecology, Construction and Territorial Development in co-operation with UNDP Moldova	Energy Expert	<ul> <li>"Technology Needs and Development Priorities", Report elaborated under the United Nations Framework Convention on Climate Change:</li> <li>Responsible for Chapter: Energy, of National Communication to UNFCCC.</li> <li>Calculated emissions from energy sector of Moldova and made forecast of emissions till 2030.</li> </ul>
1997 – present(only part-time)	Moldova	Institute of Power Engineering, Academy of Sciences of Moldova	Scientific Researcher	<ul> <li>Topics of research: Energy Planning, Energy Efficiency and Environmental Protection.</li> <li>Developed a database of energy system of Moldova for the period of 1990-2000 concerning resource supply, demand of energy and economic activities of the country.</li> <li>Long term planning of energy system development of Moldova using Model for Analysis of the Energy Demand (MAED) and Wien Automatic System Planning</li> </ul>

Data. de la – pînă la	Locul	Compania	Poziția	Descriere
				Package (WASP) models of Energy Power Evaluation program (ENPEP).

# Activitatea profesională:

#### Expert național în următoarele proiecte:

- 1. UNDP Project "Technology Needs and Development Priorities", 2004
- 2. "The implementation of Stockholm convention on PCBs in Moldova", 2005.
- 3. Proiectul "Perfectarea celei de-a doua Comunicări naționale în conformitate cu cerințele Convenției-cadru a Organizației Națiunilor Unite cu privire la schimbarea climei" 2006 2007.
- 4. Expert național în utilizare modelelor computerizate ale Agenției Internaționale a Energiei Atomice (AIEA) privind dezvoltarea sistemelor energetice.
- 5. Energy Expert UNDP Project "Improved Capacities for Managing Development", 2007 2008
- 5. UNIDO Project "Reducing Greenhouse Gas Emissions through Improved Energy Efficiency in the Industrial Sector in Moldova" 2007-2012
- 6. USAID/Hellenic Aid Cooperative Energy Program SYNENERGY Strategic Planning (SSP) MARKAL/TIMES model, 2009 -2012
- 7. TACIS Project "Support to Kyoto Protocol Implementation" (SKPI), 2010
- 8. EUREM European Energy Manager Program, 2011-2012
- 9. GIZ Moldova MLPS, 2012 2018

## Activitatea de perfectare profesională și școlarizări peste hotare:

- 1. "Regional Training Course on Comparative Assessment of Nuclear Power and Other Energy Sources", International Centre for Theoretical Physics ICTP, Trieste, Italy, 1999.
- 2. "Workshop on Designing Sustainable Energy Systems", ICTP, Trieste Italy. 2004
- 3. "Bologna Conference on Student Mobility in Higher Education" Bad-Honef, Germany, 16-18 March 2005
- 4. "Workshop on Methods and Mathematical Models for Estimating Environmental Damage from Electricity Generation" ICTP Trieste, Italy, 18 22 Apr. 2005
- 5. "Young Scientists Summer Program YSSP-2005", IIASA Laxenburg, Austria, 30 may 30 August 2005
- 6. Training Course "Energy Management for Central and Eastern European Countries", Japan International Cooperation Agency, Kitakyushu, JAPAN, 9 March 26 My, 2006.
- 7. Regional Training Course on "Analysis of Energy Scenarios and Energy Security Issues using IAEA's Energy Model MESSAGE", Bratislava, Slovak Republic, 26 June 7 July 2006.
- 8. Workshop on Energy Saving Technologies. Tokyo, JAPAN, 14-25 Sept. 2007.
- 9. "Tutorial workshop on the GAINS (Greenhouse gas Air pollution Interactions and Synergies) model", IIASA Laxenburg, Austria, 22-25 February 2009, and June 2011.
- 10. "Conference on the Atmospheric Air Protection", and the "Workshop of the CLRTAP Task Force on Hemispheric Transport of Air Pollution: Focusing on Eastern Europe, Central Asia and Arctic", St. Petersburg, Russia. 30th of March 3rd of April 2009.
- 11. "International Workshop on scientific foundations for analyses and monitoring of energy security of Moldova and Byelorussia and elaboration of practical recommendation for its improving" Minsk, Byelorussia, May 26 June 01, 2009.
- 12. Expert Group Meeting on "Next Generation Bio-fuels and Bio-refineries. Case Studies for selected East European Countries", Italia, Trieste, ICS-UNIDO High Technology and New Materials, AREA Science Park, 1-5 December, 2009

- 12. SIDA and LIFE Academy's International Training Program "Wind Power Development and Use" Beijing, CHINA, June 24-25, 2009; Karlstad, SWEDEN, August 31 —September 25, 2009; Bhopal, INDIA, 08 20 March 2010
- 14. USAID/Hellenic Aid Cooperative Energy Program SYNENERGY Workshop, "Integration and analysis of the National Energy Efficiency Action Plans using the MARKAL Model", Kiev, Ukraine, October, 2009; Skopje, Macedonia, February 2010.
- 15. Workshop on the "Vulnerability of energy systems to climate change and extreme events", Trieste, Italy, ICTP-IAEA, 19 23 April 2010
- 16. International Summer School "PEM Fuel Cells Applications and Integration",

<u>Istanbul Technical University, Turkey, July 19 – 23, 2010.</u>

- 17. EUREM European Energy Manager, International Training, Germany 2011
- 18. Energy Management in buildings and energy systems, Georgia, 2017
- 19. Energy Management in Industrial sector, ISO50001. Moldova

### Școlarizări susținute de AIEA:

- 1. "The analyses of the development of the Power System of Republic Moldova using MAED and WASP models" ISPE, Bucharest, Romania, 2000.
- 2. "Economic Aspects of Atomic Energy (0E)", External Costs of Energy Generation, Zagreb, Croatia 2004.

# Membru al asociațiilor profesionale:

- 1. Counsiliul Național al Energiei al Republicii Moldova.
- 2. Membru NIAM Network for Integrated Assessment Modelling. www.niam.scarp.se
- 3. Membru IIASA Society, (International Institute for Applied Systems Analysis).

http://www.iiasa.ac.at

4. Membbru LIFE Academy Global Network, http://www.life.se

## **UNELE PUBLICATII:**

- 1. S. Robu, I. Comendant "The damage costs of environmental pollution of power generation in Moldova", International conference Energy of Moldova 2005.
- 2. I. Comendant, A. Sula, Iu. Panfilchina, S. Robu "The investment concepts for implementation of scenarios for development of power generation sources" International conference Energy of Moldova 2005.
- 3. "Technology Needs and Development Priorities", Report elaborated under the United Nations Framework Convention on Climate Change, Ministry of Ecology, Construction and Territorial Development in co-operation with UNDP Moldova. 2001
- 4. I. Comendant, G. Valcereanu, A. Sula, Iu. Panfilchina, S. Robu "The development of the power generation sources in new market environment of the Republic of Moldova", International conference of National Energy Council Moldova 2000.
- 5. Chapter "Energy of Moldova: achiving the level of energy security, efficiency and competitiveness" in the framework of cooperation with Association ADEPT. The Chapter is a part of a national study "Priorities for Guvernance". http://www.e-democracy.md/publications/prioritati-guvernare-2009/
- 6. Second National Comunication of the Republic of Moldova to UNFCCC http://unfccc.int/essential\_background/library/items/3599.php?rec=j&priref=7159&suchen=n
- 7. Ion Comendant, Sergiu Robu, "Greenhouse Gas reduction for scenarios of power sources development of the Republic of Moldova", Electronic Journal nr. 1(12) (2010) " Problems of the Regional Energetics " http://ieasm.webart.md/archive\_ro/

- 8. Sergiu Robu, Elena Bikova, Philip Siakkis, Dr. George Giannakidis, "MARKAL Application for Analysis of Energy Efficiency in Economic Activities of the Republic of Moldova and Feasible use of Renewable Energy Sources", Electronic Journal nr. 2(13) (2010) " Problems of the Regional Energetics " http://ieasm.webart.md/archive ro/
- 9. S. Robu, "Impacts of extreme weather events on energy infrastructure in the Republic of Moldova", Joint ICTP-IAEA Workshop on Vulnerability of Energy Systems to Climate Change and Extreme Events, Trieste, Italy: http://cdsagenda5.ictp.trieste.it/full\_display.php?smr=0&ida=a09141
- 10. Sergiu Robu, Philip Siakkis, Dr. George Giannakidis, "MARKAL application in the Republic of Moldova for Energy Efficiency and RES Analysis", The Energy Technology Systems Analysis Program - ETSAP Workshop and Executive Committee meeting, Stockholm, Sweden, June 24, 2010: http://www.etsap.org/Workshop/Stockholm\_Sweden\_2010/Index.htm