

## Europass Curriculum Vitae



### Personal information

**First name(s) / Surname(s)** Yuri Pavlov  
**Address(es)** Bl. 2, "Acad. G. Bonchev" Str., Sofia 1113, Bulgaria  
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**E-mail** yupavlov15@isdip.bas.bg  
**Nationality** Bulgarian  
**Date of birth** 25.11.1952

**Occupational field** Institute of Information and Communication Technologies, Bulgarian Academy of Sciences

### Work experience

**Dates** 1982-1994, Research associate in Central Laboratory for Control Systems /CLCS, Bl.107/, Bulgarian Academy of Sciences, research group for "System Analysis", Block 107  
**Dates** 1996-2007, Research associate in CLBME, Bulgarian Academy of Sciences, research group for "Modeling and optimization of bioprocess systems", Block 105  
**Dates** 2007-2011, Assoc. Prof. in CLBME /Bl.105/, Bulgarian Academy of Sciences, group "Modeling and optimization of bioprocess systems", Bl. 105, <http://www.clbme.bas.bg/>;  
**Dates** 2011-June, Assoc. Prof. in CLBME /Bl.105/, Bulgarian Academy of Sciences, research group "Modeling and optimization of bioprocess systems", Block 105, <http://www.clbme.bas.bg/>.

**Occupation or position held** 2011- Assoc. Prof. in Institute of Information and Communication Technologies, Bl. 2, Bulgarian Academy of Sciences, research group "Communication Systems and Services".

**Main activities and responsibilities**

- Methods and algorithms for mathematical modeling, optimization and control of biotechnological processes and systems. Different approaches for stabilization and control of biotechnological models, reduction and equivalent transformation of nonlinear mathematical models, optimization of continuous and fed-batch cultivation processes are also of current interest.
- Decision making and decision support in complex systems, utility theory and theory of measurement, machine learning and stochastic approximation. The scientific research is carried out in the following fields:
  - mathematical modeling of human judgment;
  - decision support systems in complex bioprocess systems.

**Name and address of employer** Bulgarian Academy of Sciences, Institute of Information and Communication Technologies, Acad. G. Bonchev str. Bl. 2, Sofia 1113, Bulgaria

**Type of business or sector** Department "Communication Systems and Services".

## Education and training

Dates	1986-1989
Title of qualification awarded	PhD
Principal subjects/occupational skills	Procedures for Decision Making in Complex Systems with Applications
Name and type of organisation providing education and training	Bulgarian Academy of Sciences, Central Laboratory for Control Systems
Dates	1978-1980
Title of qualification awarded	Diploma
Principal subjects/occupational skills	Applied Mathematics
Name and type of organisation providing education and training	Technical University of Sofia
Dates	1973-1978
Title of qualification awarded	Engineer
Principal subjects/occupational skills	Automation and control
Name and type of organisation providing education and training	Technical University of Sofia
Dates	1973
Title of qualification awarded	Diploma, deuxieme cycle
Principal subjects/occupational skills	Mathematics
Name and type of organisation providing education and training	PARIS VI, PARIS, (France)
Dates	1970-1972
Title of qualification awarded	Diploma, DUES
Principal subjects/occupational skills covered	Mathematics and Physique
Name and type of organisation providing education and training	University PARIS VI, PARIS, (France)

## Personal skills and competences

Mother tongue(s) **Bulgarian**

Other language(s)

Self-assessment

*European level (\*)*

**Language**

**Language**

Understanding		Speaking		Writing	
Listening	Reading	Spoken interaction	Spoken production		
		French			
		English			
		Russian			

(\*) [Common European Framework of Reference for Languages](#)

**Member of:**

Union of Automation and Informatics (UAI-Bulgaria) ;

UBM, Bulgaria;

Union of Scientists in Bulgaria ;

International Institute of Informatics and Systemics (IIIS- U.S.A.), <http://www.iiis.org/iiis/Members.asp/>;

Informing Science Institute, <http://informingscience.org/members.php> .

## Publications

1. Pavlov, Yuri P. Preferences Based Stochastic Value and Utility Function Evaluation Proceedings of Informing Science & IT Education Conference (InSITE) 2011, p.p.404-411, Novi Sad; 2011 <http://proceedings.informingscience.org/InSITE2011/index.htm>;
2. Pavlov, Yuri P. Preferences, utility function and control design of complex processes. Proceedings in Manufacturing Systems, Rumania. 2010; 5(4):225-230, ISSN 2067-9238
3. Pavlov, Yuri P. Control and stabilization of the growth rate of fed-batch cultivation processes (Chapter 3). St. Tzonkov (Ed.) Contemporary approaches to modeling, optimization and control of biotechnological process, Academic publishing house "M. Drinov", Sofia, Bulgaria, 2010, pages 242 ISBN: 978-954-322-384-8
4. Pavlov, Yuri P. Control and Stabilization of Cultivation Processes: Peculiarities and Solutions. Proceedings of AUTOMATICS AND INFORMATICS'09", September 30-October 4, 2009,, Sofia, Bulgaria , 2009
5. Pavlov, Y. P. Equivalent Models and Sliding Mode Stabilization of Cultivation Processes. International Journal Bioautomation. v. 13(1), 2009
6. Pavlov, Y. P. Preferences based Control Design of Complex Fed-batch Cultivation Process, Int. J. Bioautomation, vol. 13(2), 2009 pp. 61-72
7. Pavlov, Yu. P. Equivalent Models and Sliding Mode Stabilization of Cultivation Processes. International Journal Bioautomation. v. 13(1), 2009
8. Pavlov, Yuri P. Equivalent Forms of Wang-Yerusalimsky Kinetic Model and Optimal Growth Rate Control of Fed-batch Cultivation Processes. International Journal Bioautomation. v. 12(1), 2008
9. Terzieva, V, Y. Pavlov, R. Andreev. E-learning usability: a learner-adapted approach based on the evaluation of learner's preferences. Communication and cognition, vol. 40, (1-2), Ghent, BELGIQUE, 2007, 77-94
10. Pavlov, Yuri P. Brunovsky Normal Form of Monod Kinetics Models and Growth Rate Control of a Fed-batch Cultivation Process. International Journal Bioautomation. v. 11(1), 2007
11. Fleisher, A., R. Andreev, Pavlov Yu., Terzieva V., An Approach to Personalized Learning: a Technique of Estimation of learner's Preferences. Proceedings of conference "Computer Science meets Automation", Technische Universitat Ilmenau, September 2007, pp. 485-490.
12. Pavlov, Yu., Equivalent Models, Maximum Principle and Optimal Control of Continuous Biotechnological Process: Peculiarities and Problems. Bioautomation, v.2, Sofia, 2005, pp. 24-29.
13. Pavlov, Yuri P. Equivalent Models, Maximum Principle and Optimal Control of Continuous Biotechnological Process: Peculiarities and Problems. International Journal Bioautomation. v. 19(1), 2005
14. Pavlov Yu., Value based decisions and correction of ambiguous expert preferences: an expected utility approach. Proceedings of Int. Conference BioPS' 04, Sofia, December 6-8, 2004, I.13-I.16
15. Pavlov Yu., Ljakova K., Machine Learning and Expert Utility Assessme Pavlov Yu., K. Ljakova, Jaffray-Karni Theorem and an Approximation Based Elicitation Method of Subjective Probabilities. International nt. International Conference. Proceedings of Int. Conference CompSysTech'2003, Sofia, 19-20 June, 2003.
16. Ljakova K., Yu. Pavlov, Modelling and Prognoses in Birdproduction Decision Support. Journal: Automatica & Informatics, № 1, 2002, pp. 42-48.
17. Pavlov Yu., K. Ljakova, Jaffray-Karni Theorem and an Approximation Based Elicitation Method of Subjective Probabilities. International Conference "AUTOMATICS AND INFORMATICS'02", 5-6. 11, 2002, Sofia, pp. 73-76.
18. Pavlov Yu., Exact Linearization of a Non Linear Biotechnological Model /Brunovsky

- Model/. Comptes Rendus de l'Academie Bulgares des Sciences, n. 10, 2001, pp. 25-30.
19. Pavlov Yu., St. Tzonkov, Stabilization of a specific biotechnological process: comparative analysis (Сравнителен анализ при стабилизиране на непрекъснат ферментационен процес в избрана работна точка). Technical ideas, N 3-4, 2000, pp. 21-36 (in Bulgarian).
  20. Pavlov Yu., St. Tzonkov, Algorithm for construction of utility functions. C. R. Acad. Bulg. Sci. Vol.52, (1-2), 1999, pp. 21-24.
  21. Pavlov Yu., R. Nenov, St. Tzonkov, Processing of expert information in complex systems (Обработка на качествена информация в сложни системи). Technical ideas, N 3-4, 1998, 3-10 (in Bulgarian).
  22. Pavlov Yu., D. Grancharov, V. Momchev, Economical and ecological utility oriented analysis of the process of anaerobic digestion of waste waters. Eur. J. Oper. Res., Vol. 88, No.2, 1996, pp. 251-256.
  23. Pavlov Yu., D. Grancharov, G. Tivchev, V. Momchev, Value based Economical and Ecological Analysis of the Process of Anaerobic Digestion of waste Waters of Lifestock Breeding. Proceedings of Int conf. "Modelling and Control of Biotechnological and Environment Systems", May 2-9, Sofia, 1993, pp. 279-280.
  24. Pavlov Yu., K. Vassilev, Recurrent construction of utility functions. C. R. Acad. Bulg. Sci. Vol. 45, No.3, 1992, pp. 5-8.
  25. Pavlov Yu., A recurrent algorithm for the construction of the value function. C. R. Acad. Bulg. Sci., vol. 42, No.7, 1989, pp. 41-42.
  26. Stanoulov N., Tsv. Bournazka, Yu. Pavlov, New Results About Decision Making Through DIMCO Method. Its Positional Supplement and Pareto Optimality. Syst. Anal. Model. Simul., 8, 1986, 293-296.
  27. Pavlov Yu., M. Tonev, Combinatorial Algorithm for Finding the Kemeny Median of a Partial Relations Set (Комбинаторный алгоритм нахождения медианы Кемени на множестве частичных отношений). In "Optimization, Decision Making and Microprocessor Systems", Academic Press, Sofia, 1985, pp. 138-147 (in Russian)

## Annexes

List any items attached. (Remove heading if not relevant, see instructions)