

CURRICULUM VITAE

EUROPEAN FORMAT



PERSONAL INFORMATION

Name, Surname	Maya Ignatova
Address	J k. "Hristo Smirnenski", bl. 43, Entr. B, 1574, Sofia, Bulgaria
House number, street name, postcode, city, country	
Telephone	Mobile:(+359) 887.332.990
Fax	(+359 2) 870.33.61
E-mail	maya.ign@gmail.com
Website	http://www.ir.bas.bg
Nationality	Bulgarian
Place and Date of birth	Sofia, Bulgaria, 09.01.1948

WORK EXPERIENCE

Dates (from – to)

Add separate entries for each relevant post occupied, starting with the most recent.]

Name and address of employer	2010 – at present IR-BAS, 2, Acad. G. Bontchev Str., 1113 Sofia, Bulgaria Department "Mechatronic Bio/Technological Systems"
Type of business or sector	Bioprocess Control
Occupation or position held	Full Professor-Certificat No 000216/10.04.2012, Deputy Director of ISER-BAS, Head of Department "Bioengineering"
Main activities and responsibilities	Leader of Scientific Projects
Name and address of employer	1994– 2010 ICSR-BAS, 2, Acad. G. Bontchev Str., 1113 Sofia, Bulgaria Department "Adaptive and Robust Control"
Type of business or sector	Bioprocess Control
Occupation or position held	Associate Professor, Scientific Secretary of ICSR-BAS, Head of Department "Adaptive and Robust Control"

Principali mansion e responsabilità / Main activities and responsibilities	Leader of Scientific Projects
Name and address of employer	1984– 1994 Central Laboratory of Bio-Automation-BAS, 105, Acad. G. Bontchev Str., 1113 Sofia, Bulgaria Department "Bioprocess Control"
Type of business or sector	Bioprocess Control
Occupation or position held	Associate Professor- Diploma No 16045/04.01.1992,
Main activities and responsibilities	Participant in Scientific Projects
Name and address of employer	1979– 1984 Central Laboratory of Automation –Ministry of Chemical Industry, 1, Tcarichina Str., 1505, Sofia, Bulgaria
Type of business or sector	Control of Chemical Processes
Occupation or position held	Assistant Professor
Main activities and responsibilities	Industrial Application of Control Systems
Name and address of employer	1971– 1975 Central Institute of Information Technologies, 1, Tcarichina Str., 1505, Sofia, Bulgaria
Type of business or sector	Control of Chemical Processes
Occupation or position held	Engineer
Main activities and responsibilities	Industrial Application of Control Systems

EDUCATION AND TRAINING

Dates (from – to)

Add separate entries for each relevant course you have completed, starting with the most recent.]

Name and type of organisation providing education and training	1975-1979 Technical University of Sofia Faculty "Automation"
Principal subjects occupational skills covered	
Title of qualification awarded	PhD Student "Sliding Mode Systems for Industrial Process Control"
Level in National classification	PhD Diploma No 9500/28.12.1979
Name and type of organisation providing education and training	1966-1971 Technical University of Sofia Faculty "Automation"
Principal subjects occupational skills covered	
Title of qualification awarded	Student "Technological Processes Automation"
Level in National classification	Electro Engineer – M. Sc. Diploma No 007025/12.01.1972; Reg. No 16326

RESEARCH ACTIVITIES

PROFESSOR FELLOWSHIPS:

ECC INICO-COPERNICUS grant contract ERB-CIPA-CT-92-0159. Subject: "On-line estimation by variable structure systems", realized in LAAS CNR, - Toulouse, France, 3 months in 1993.

Danish Technical Research Council grant Sags nr: 9903100, Reg. nr 288132000- Subject: "Methods and algorithms for modelling, estimation and control of biotechnological processes", realized in DTU, Lygby, Denmark, one year 2000-2001.

UTIA-AVCR grant No 2032. Subject: Preliminary investigations of the system DESIGNER for control of continuous yeast cultivation realized in UTIA-AVCR, Prague, Czech Republic 1 month in 2001.

NATO grant Cp(Bu)27/C/01/Po. Subject: "Technological strategy of recombinant protein production in yeast based on general approach for control design", realized in BIOTECNOL, SA, Oeiras, Portugal, 6 months in 2002.

NATO grant No 391249C. Subject: "Modelling, estimation and optimal control of biological sequencing batch reactor used for c/n removal processes in wastewater treatment plants", realized in Laboratoire de Biotechnologie de l'Environnement (LBE) -Institute National de la Recherche Agronomique (INRA) Narbonne, France, 9 months in 2004.

MEMBER OF EDITORIAL BOARDS of :

Biotechnology & Biotechnological Equipment, ISSN 1310-2818, Diagnosis Press 2005-2010 r.

Acta Universitatis Cibiniensis, Series E Food thechnology, ISSN 1221-4973, "Lucian Blaga" University of Sibiu, Romania,

http://saiapm.ulbsibiu.ro/rom/cercetare/ACTA_E/2AUCFT.html

MEMBER of IFAC Technical committee on biosystems and bioprocesses:

<http://www.ensic.inpl-nancy.fr/TcBioTech/>

REVIEWER of:

Journal of Process Control, Elsevier, ISSN: 0959-1524

Comptes rendus de l' academie bulgare des sciences, ISSN 1310-1331

Biotechnology & Biotechnological Equipment, ISSN 1310-2818

CITATIONS: over 50, most of them from foreign scientists in journals with Impact Factor.

PROJECTS:Supervisor of 20 scientific projects national and international.

PUBLICATIONS: Over 120 in international scientific journals and peer-reviewed international conferences

Selected publications

Books

1. **Ignatova M.**, V. Lyubenova. (2011). Control of biotechnological processes - new formalization of kinetics: Theoretical aspects and applications. LAP LAMBERT Academic Publishing, GmbH & Co. Saarbrücken Germany, ISBN-10: 3844326235, ISBN-13: 978-3844326239, 120 pages.
2. Ангелов М., Г. Костов, **М. Игнатова**, П. Копринкова-Христова, С. Попова, В. Любенова. (2011). Кинетика и управление на биопроцесите, рецензент Проф. А. Ламбрев, Издателство 7Д, Пловдив, 2011, ISBN 978-954-9774-30-6 (учебник за магистърски курс), 284 стр.

Publications

3. **Ignatova, M.**, V. Lyubenova. (2007). Adaptive control of fed-batch process for poly-b hydroxybutyrate production by mixed culture, *Comptes rendus de l' academie bulgare des sciences*, ISSN 1310-1331, **60**(5), 517-524, **IF-0.106**, **ISI:000247024100008**.
4. **Ignatova M.**, V. Lyubenova. (2007). Control of class bioprocesses using on- line information of intermediate metabolite production and consumption rates, *Acta Universitatis Cibiniensis, Series E: Food Technology*, ISSN 1221-4973, **11** (1), 3-16.

5. Lyubenova, V., **M. Ignatova**, M. Novak, T. Patarinska. (2007). Reaction rates estimators of Fed-Batch Process for Poly- β -Hydroxybutyrate (PHB) Production by Mixed Culture, *Biotechnology & Biotechnological Equipment*, ISSN 1310-2818, **21**(1), 113-116, **ISI:000254704400019**
6. Lyubenova, V., S. Ochoa, J. Repke, **M. Ignatova** and G. Wozny. (2007). Control of one stage bio ethanol production by recombinant strain, *Biotechnology & Biotechnological Equipment*, ISSN 1310-2818, **21**(3), 372 - 376, **ISI:000254704400019**.
7. Angelov, M., Kostov, G., Koprinkova-Hristova, P., **M. Ignatova**. (2008). Oxygen concentration influence on the continuous pre-fermentation process parameters for yogurt starter formation, *Food science and technology*, UDK 664:001:891, **3**(4), 46-49.
8. Fibrianto H, D. Mazouni, **M. Ignatova**, M. Herveau, J. Harmand, D. Dochain. (2008). Dynamical modelling, identification and software sensors for SBRs, Mathematical and computer modelling of dynamical systems, CT 5th International Conference on Mathematical Modelling - MATHMOD 2006, CY 2006, CL Vienna, AUSTRIA, HO Vienna Univ Technol, ISSN 1387-3954, **14**(1), 17-26,. **IF=0.309**, **ISI:000252959300003**
9. **Ignatova M.N.**, Lyubenova, V.N., Garcia, M.R., Fernandes, K.V., Alonso, A.A. (2008). [Indirect adaptive linearizing control of a class of bioprocesses – Estimator tuning procedure](#), *Journal of Process Control*, Elsevier, ISSN: 0959-1524, **18**(1), 27-35. **IF=1.606**, **ISI:000253101600004**
10. **Ignatova, M.**, V. Lyubenova, T. Eerikainen, K. Salonen, K. Kiviharju. (2008). Software sensor of substrate kinetics and its application for control of α -amylase production by *Bacillus subtilis*, *Comptes rendus de l' academie bulgare des sciences*, ISSN 1310-1331., **61**(11), 1449-1458, **IF=0.152**, **ISI:000262146600012**
11. Ochoa, S., V. Lyubenova, J. Repke, **M. Ignatova**, G.Wozny (2008). [Adaptive Control of the Simultaneous Saccharification - Fermentation Process from Starch to Ethanol](#), Book series *Computer-Aided Chemical Engineering: 18th European Symposium on Computer Aided Process Engineering*, Edited by: Bertrand Braunschweig and Xavier Joulia, , **25**, 489-494, ISBN: 9780444532275. **ISI:000287713600083**
12. Angelov, M., G. Kostov, P. Koprinkova-Hristova, **M. Ignatova**. (2009). Characteristics of pH-stat yogurt starter pre-fermentation process, "Food science, engineering and technologies 2009", Scientific Conf. of UFT', ISSN 0477-0250, **56**(2), 221-226.
13. Angelov, M., G. Kostov, P. Koprinkova-Hristova, **M. Ignatova**. (2009). Microbial populations' growth at different initial dissolved oxygen concentrations for yogurt starter cultures formation, "Food science, engineering and technologies 2009", Scientific Conf. of UFT'2009, ISSN 0477-0250, **56**(2), 215-220.
14. **Ignatova M**, V. Lyubenova, M. Angelov, G. Kostov. (2009). pH control during continuous prefermentation of yogurt starter culture by strains *treptococcus thermophilus* 13a and *lactobacillus bulgaricus*, 2-11, *Comptes rendus de l' academie bulgare des sciences*, ISSN 1310-1331, **62**(12), 1587-1594,. **IF=0.204**, **ISI:000273863700015**
15. Kostov G., M. Angelov, P. Koprinkova-Hristova, **M. Ignatova**, A. Orsoni. (2009). Modeling of oxygen effect on kinetics of batch fermentation process for yogurt starter culture formation, Conference on Modelling and Simulation ECMS'2009, June 9-12, Madrid, Spain, 46-51.
16. Mironescu M., I.D. Mironescu, A. Trifan, **M. Ignatova**, V. Mironescu. (2009). Influence of the Liquefied Starch Composition and pH on the saccharification at the obtaining of maltose syrup, *Bulletin UASVM Agriculture*, ISSN 1843-5246; *Electronic ISSN 1843-5386*, **66**(2), 364-369.
17. García MR, C. Vilas, E. Balsa-Canto, V.N. Lyubenova, **M.N. Ignatova**, A.A. Alonso. (2011) [On-line estimation in a distributed parameter bioreactor: Application to the gluconic acid production](#), *Computers and Chemical Engineering*, ISSN: 0098-1354, **35**, 84-91. **IF=2.072**, **ISI:000285856200007**
18. Lyubenova V. **M.N. Ignatova**, K. Salonen, K. Kiviharju, T. Eerikainen. (2011). Control of α -amylase production by *Bacillus subtilis*, *Bioprocess Biosyst Eng*, ISSN: 1615-7591, **34**(3), 367-374. **IF=2.060**, **ISI:000288049700012**
19. Lyubenova V. **M. Ignatova**. (2011). Cascade software sensors for monitoring of activated sludge waste water treatment processes, *Comptes rendus de l' academie bulgare des sciences* ISSN 1310-1331, **64**(3), 395-404. **IF=0.219**, **ISI:000289710300013**.
20. Mironescu J.D., M. Mirunesru, **M. Ignatova**. (2009). Design of a data acquisition system for biotechnological systems. *Acta Universitatis Cibiniensis Series E: FOOD TECHNOLOGY*, ISSN 1221-4973, **13**(2), 15-24.
21. Popova S, **M. Ignatova**, V. Lyubenova, S. Junne, P. Neubauer (2012). Extended Kalman filter for investigation of inhomogeneous dynamics in industrial bioreactors. *Acta Universitatis Cibiniensis, Series E: Food Technology*, ISSN 1221-4973, pp.73-78.
22. Lyubenova V, Kostov G, **Ignatova M**. (2012). Discrete adaptive control of continuous fermentation with immobilized yeasts *Saccharomyces Cerevisiae* 46 EVD. In: ECC'12, 2-4 December, Paris, France, pp 25-29. ISSN: 978-1-61804-142-5
23. Lyubenova V, Junne S, **Ignatova M**, Neubauer P. Dynamics monitoring of industrial bioprocesses realized in scale-down simulators. In: 15th European congress on biotechnology, 23-26 September, Istanbul Turkey, Vol.29, Issue S, 2012, pp 76-77. ISSN: 1871-6784
24. Kostov G., D. Pircheva, V. Naydenova, V. Iliev, V. Lyubenova, **M. Ignatova**. (2013). Kinetics Investigation Of Bio-Ethanol Production With Free And Immobilized Cells, *Comptes rendus de l' academie bulgare des sciences* ISSN 1310-1331, 1463-1472, **IF=0.211**
25. Lyubenova V, Junne S, **Ignatova M**, Neubauer P. (2013). Software sensors for investigation of inhomogeneous dynamics in industrial bioreactors *Biotechnology Bioengineering*. 2013, 110(7), 1945–1955. DOI:10.1002/bit.24870, **IF=3.648**.
26. Popova S., G. Kostov, **M. Ignatova**, V. Lyubenova, D. Pircheva, L. Nakov, M. Angelov, I. Mihailova (2013). State and kinetic parameters estimation of bio-ethanol production with immobilized cells, 2nd WSEAS International Conference on Applied and Computational Mathematics Athens 2013, Proceedings of the 2nd International Conference on Applied and Computational Mathematics (ICACM '13), ISBN: 978-1-61804-184-5, 51-57

27. Lyubenova, V.N., Ignatova, M.N., Shopska, V.N., Kostov, G.A., Roeva, O.N. [Simultaneous State and Kinetic Observation of Class-Controllable Bioprocesses](#) (2022) *Mathematics*, 10 (15), art. no. 2665, .
28. Lyubenova, V., Ignatova, M., Roeva, O. [Contemporary Bioprocesses Control Algorithms for Educational Purposes](#) (2022) *Studies in Computational Intelligence*, 1044, pp. 95-110.
29. Lyubenova, V., Ignatova, M., Roeva, O., Junne, S., Neubauer, P. [Adaptive monitoring of biotechnological processes kinetics](#) (2020) *Processes*, 8 (10), art. no. 1307, pp. 1-14. Cited 4 times
30. Lyubenova, V., Ignatova, M., Kostov, G., Shopska, V., Petre, E., Roman, M. [An interactive teaching system for kinetics modelling of biotechnological processes](#) (2018) *2018 22nd International Conference on System Theory, Control and Computing, ICSTCC 2018 - Proceedings*, art. no. 8540688, pp. 366-371. Cited 4 times.
31. Lyubenova, V., Ignatova, M., Kostov, G. [Interactive teaching system for structural and parametric identification of bioprocess models](#)(2018) *Comptes Rendus de L'Academie Bulgare des Sciences*, 71 (6), pp. 820-829. Cited 1 time.

23.03.2023

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