Europass Curriculum Vitae

Personal information

First name / Surname	**Rumen Andreev**
Telephone	(+359 2) 872 0132 int. 127
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E-mail	rumen@isdip.bas.bg
Nationality	Bulgarian

Work experience

Dates	1994 -
Occupation or position held	Associate Professor
Main activities and responsibilities	Head of Department of Communication Systems and Services (from 2010) Director of Technology Transfer Office
Name and address of employer	Institute of Information and Communication Technologies – Bulgarian Academy of Sciences (former Institute of Computer and Communication Systems - Bulgarian Academy of Sciences)
Type of business or sector	Research in the field of personalized computer-enhanced learning and human-computer interactions
Dates	1988 - 1992
Occupation or position held	Research fellow
Main activities and responsibilities	Head of group "Computer Aided Design"
Name and address of employer	Central Laboratory on Automation and Scientific Instrumentation, Bulgarian Academy of Sciences
Type of business or sector	Research and development in the field of Computer Graphics and Computer Aided Design
Dates	1980 -1988
Occupation or position held	Engineer, Research fellow
Main activities and responsibilities	Software development
Name and address of employer	Central Institute for Computer Technique and Technology, Sofia, Bulgaria
Type of business or sector	Programmer, development of graphics systems and CAD systems

Education and training

Dates	1983 - 1987
Title of qualification awarded	PhD
Principal subjects/occupational skills covered	Computer Aided Design in Machinery Construction
Name and type of organisation providing education and training	Higher Institute of Machine and Electrical Engineering (Technical University), Sofia
Dates	1975 -1980
Title of qualification awarded	Engineer

Principal subjects/occupational skills covered	Automation
Name and type of organisation providing education and training	Higher Institute of Machine and Electrical Engineering (Technical University), Sofia
Level in national or international classification	MSc

Professional Awards

1. Listed in the 20th, 21st and 26th Editions of **Who is Who in the World**
2. Citation in **2000 Outstanding Intellectuals of the 21st Century**, International Biographical Centre, Cambridge Third Edition
3. Listed in the 8th Edition of **Who is Who in Science and Engineering, 2004**
4. **The Award of the** International Biographical Centre, Cambridge **"International Scientist of the 2003 Year".**
5. Listed in the 32nd, 33rd, 34th, 35th Editions of the Dictionary of International Biography published by International Biographical Centre, Cambridge .
6. A member of **the Leading Scientists of the World 2005,** International Biographical Centre, Cambridge
7. Listed in the Premier Edition of *The International Directory of Experts and Expertise* published by American Biographical Institute (ABI).
8. **The Award of the** International Biographical Centre, Cambridge "Diploma of Achievement in Science, 2005.
9. **Listed in International Directory of Experts and Expertise, Premiere Edition; American Biographical Institute, USA, 2006**
10. Listed in in 61st Edition of Who's Who in America, Marquis WHO'S WHO
11. Listed in **The Cambridge Blue Book of Foremost International Intelectuals**, IBC Cambridge, 2008

International experience

Reviewer
1. International Journal of Human Computer Studies (Academic Press/Elsevier) - reviewer
2. IEEE Computer Society – reviewer
3. International Multi-Conference on Engineering and Technological Innovation, Florida, USA: IMETI 2008, 2009 – reviewer.
4. The 2nd International Conference on Knowledge Generation, Communication and Management, Florida, USA: KGCM, 2008 – reviewer.
5. A member of the committee for the European Conference on Entrepreneurship and Innovation, 2009.
6. International Conference on Engineering and Meta-Engineering, Florida, USA: ICEME 2010 - reviewer

Mother tongue — **Bulgarian Language**

Self-assessment

European level (*)

	Understanding			Speaking				Writing	
	Listening		Reading		Spoken interaction		Spoken production		
Russian Language	B	Independent user	C1	Proficient user	B	Independent user	A	Basic user	A	Basic user
English Language	B	Independent user	C1	Proficient user	B	Independent user	B	Independent user	C1	Proficient user

Publications	Principal Publications

Monographs, Books

1. **Rumen D. Andreev**. Graphics Systems: Architecture and Realization. North Holland/ Elsevier, Amsterdam, 1993., 420 pages

2. Pavlov Yuri, **R. D. Andreev**, *Decision Control, Management, and Support in Adaptive and Complex Systems: Quantitative Models* (Chapter 10. Personalized E-learning Systems). IGI Global, Pennsylvania (USA), 2013, pp. 1- 268   17033-1240, ISBN: 13: 9781466629677, ISBN10: 1466629673, EISBN13: 9781466629684

3. Pavlov, Yu. P**.**, **Andreev, R.D.**. Preferences, Utility, and Stochastic Approximation. Mehdi Khosrow-Pour, D.B.A.(Ed.) Advanced Methodologies and Technologies in Business Operations and Management, IGI Global, Pennsylvania (USA), 2019, ISBN:9781522573623, DOI:10.4018/978-1-5225-7362-3, 14, 734-747

4. Pavlov, Yuri, **R. Andreev,** Book Chapter 190 "*Preferences, utility and stochastic approximation: Value based modeling"* In Mehdi Khosrow-Pour, D.B.A.(Ed), Encyclopedia of Information Science and Technology, Fourth Edition, 2017, IGI Global, Pennsylvania (USA), pp. 2188-2199, DOI: 10.4018/978-1-5225-2255-3.ch190, ISBN13: 9781522522553, ISBN10: 1522522557, DOI: 10.4018/978-1-5225-2255-3

5. Pavlov, Yuri, **R. Andreev**, Book chapter 54 **"***Stochastic Programming and Value Based Decisions*", in Artificial Intelligence: Concepts, Methodologies, Tools, and Applications, 2017**,** IGI Global, Pennsylvania (USA), pp. 1324-1338, ISBN13: 978152251759,|ISBN10: 1522517596|, DOI: 10.4018/978-1-5225-1759-7; DOI: 10.4018/978-1-5225-1759-7.ch054

6. **Andreev**, **Rumen,** Daniela Borissova, Alexander Shikalanov, Tsvetelina Yorgova, Book chapter 14 "Model-Driven Design of eMedia: Virtual Technology Transfer Office", in Artur Lugmayr, Emilija Stojmenova, Katarina Stanoevska, Robert Wellington (eds), Information Systems and Management in eMedia and Entertainment, International Series on Computer Entertainment Media Technology, pp. 279-298, 2016**,** Springer, Chapter DOI 10.1007/978-3-319-49407-4_14, ISBN 978-3-319-49405-0

7. Pavlov, Yuri, **Rumen Andreev**, Book chapter 207 " *Stochastic Programming and Value Based Decisions*", in Wang, J (Ed.), Encyclopedia of Business Analytics and Optimization, 2014, IGI Global, Pennsylvania (USA), pp. 2299-2310, DOI: 10.4018/978-1-4666-5202-6, ISBN13: 9781466652026

8. **Andreev, R.D.** (ed). Proceedings of International Conference on "*Big Data, Knowledge and Control Systems Engineering"*, 5 November 2014, Sofia Bulgaria, "John Atanasoff" Union of Atomatics and Informatics, Bulgaria, ISSN: 2367-6450]

9. **Andreev,** R.D. (ed). Proceedings of International Conference on "*Big Data, Knowledge and Control Systems Engineering"*, 5-6 November 2015, Sofia Bulgaria, "John Atanasoff" Union of Atomatics and Informatics, Bulgaria, ISSN: 2367-6450

10. **Andreev, R.D**., Pavlov, Yuri (eds) Special issue "Big Data Aspects: Data Analysis and Computing Infrastructure" International Journal of Data Science, InderScience Publishing, **ISSN**: print: 2053-0811, online: 2053-082X

Papers in International journals:

11. Ilchev S., D. Petkov, **R. Andreev**, Z. Ilcheva, Smart Electronic Control of a Compact Laser System for Animation Projections,.j. Cybernetics and Information Technologies, Print ISSN: 1311-9702; Online ISSN: 1314-4081, Volume 19, No 3, BAS, Sofia, 2019, pp. 137 – 153, SJR (2018) - 0.215, DOI: 10.2478/cait-2019-0030

12. **Gaidarski, I. K.**, **Minchev, Z. B.**, **Andreev, R. D.**. Model Driven Approach for Designing of Information Security System. Journal of Information Assurance and Security, 13, MIR Labs, 2019, ISSN:1554-1010, 149-158

13. **Andreev, R. D.**, **Ilchev, S.**, Chikalanov, A., Petkov, Yu.. CONCEPTUAL MODELING OF IoT ECOSYSTEMS: A BUSINESS-ORIENTED APPROACH. Serdica Journal of Computing, 12, 1, Institute of Mathematics and Informatics, Bulgarian Academy of Sciences, 2018, ISSN:1312-6555, 1-22**,**

14. **Ilchev, S.**, **Andreev,R.D.**, **Ilcheva, Zl.**. HETEROGENEOUS IoT PLATFORM FOR DEVICE MANAGEMENT AND ENVIRONMENTAL SENSOR DATA GATHERING. Serdica Journal of Computing, 12, 1-2, Institute of Mathematics and Informatics, Bulgarian Academy of Sciences, 2018, ISSN:1312-6555,

23-45,

15. **Pavlov, Yu. P.**, **Andreev , R.D.**. Complex system, utility and decision control: a risk portfolio optimization case. Mathematical modeling, Editor Prof. ANDREY FIRSOV, 2, 2, Scientific Technical Union of Mechanical Engineering "Industry 4.0", 2018, ISSN:2535-0978 ; 2603-2929, 84-87.

16. Trosheva A., V. Terzieva, A. Atanasova, P. Kademova-Katzarova .**R. Andreev**: *Computer Games for Beginner Readers, Developing Abilities to Recognize Words*, International Conference Education, Research & Development, 05.09. – 06.09.2013, Journal of International Scientific Publications: Educational Alternatives, Vol. 11, part 2, pp. 200- 211, ISSN 1313-2571

17. Terzieva V., P. Kademova-Katzarova, **R. Andreev**, A Multi-agent Approach to Development of E-Learning Facilities, In: D. Dicheva et al.(Eds) Software, Services & Semantic Technologies AISC 101, pp. 219–220. Springer-Verlag, Berlin Heidelberg, 2011, ISBN 978-3-642-23162-9.

18. Aneta Atanasova, Valentina Terzieva, Anna Trosheva, Petia Kademova-Katzarova, **Rumen Andreev**: Computer-based support for basic education in reading, International Conference Education, Research & Development, 07.09. – 11.09.2012, Journal of International Scientific Publications: Educational Alternatives, Vol. 10, part 1, pp. 133- 143, ISSN 1313-2571

19. Ivanova, T., **R. Andreev**, V. Terzieva, *Integration of Ontology with Development of Personalized E-Learning Facilities for Dyslexics*. LNAI v. 6304, pp. 265--266. Springer, 2010, pp. 265-266

20. Terzieva, V. Pavlov Y., **Andreev R**. e-Learning Usability: a Learner-Adapted Approach Based on the Evaluation of Learner's Preferences. Communication and Cognition, v 40, no 1/2, 2007,pp. 77-94

21. **R.D. Andreev**. A Linguistic Approach to User Interface Design. *Interacting with Computers*, vol.13, no.5 (May), 2001, pp. 581-599, Elsevier

22. **R.D. Andreev** and E. Sofianska. New Algorithm for Two - Dimensional Line Clipping. *Computers and Graphics*, vol. 15, no. 4, 1991, pp. 519-526

23. **R.D. Andreev**. Algorithm for Clipping Arbitrary Polygons. *Computer Graphics Forum*, vol. 8, no. 3,1989, pp. 183-191

International Conferences:

24. Alexandrov A.**, Andreev, R.,** Batchvarov, D., Boneva, A., Ilchev, S., Ivanov, S., Doshev, J.. Method for modeling and simulation of parallel data integration processes in Wireless Sensor Networks. Lecture Notes in Computer Science, 11529, Springer Nature, 2019, ISSN:0302-9743, E-ISSN:1611-3349, 291-301. SJR (Scopus):0.283

25. Alexandrov, A., Monov, V.**, Andreev, R**, Doshev, Y.. QoS based method for energy optimization in ZigBee Wireless Sensor Networks. Vladimir M. Vishnevskiy, Konstantin E.Samouylov, Dmitry V. Kozyrev (Eds) Proceedings of 22-nd International Conference "Distributed Computer and Communication Networks" (DCCN 2019), Distributed Computer and Communication Networks. Communications in Computer and Information Science, 1141, Springer, 2019, ISBN:978-3-030-36624-7, ISSN:1865-0929, DOI:https://doi.org/10.1007/978-3-030-36625-4_4, 41-52. SJR (Scopus):0.17

26. Terzieva, V.**,** Todorova, K.**,** Pavlov, Y.**, Andreev, R.,** Kademova-Katzarova, **P.**. Value-Based Management of a Furniture Factory. Proceedings of 12th Woodema Annual International Scientific Conference Digitalisation and Circular Economy: Forestry and Forestry Based Industry Implications, Union of Scientists of Bulgaria, 2019, ISBN:978-954-397-042-1, 281-287

27. Pavlov, Yu. P.**, Andreev, R.D.**. Complex System and Value-Based Management and Control: Multi-Attribute Utility Approach. Dmitry G. Arseniev, Ludger Overmeyer, Heikki Kälviäinen, Branko Katalinic (Eds) Proceedings of International Conference "Cyber-Physical Systems and Control",(CPS&C 2019), Lecture Notes in Networks and Systems, 95, Springer, 2020, ISBN:978-3-030-34982-0, ISSN:2367-3370, DOI:10.1007/978-3-030-34983-7, 225-234

28. Ivanova V., D. BatchvarovV, Z. Ilcheva, A. Boneva, S. Ilchev, A. Alexandrov, **R. Andreev** Experimental Studies of the Structure of Biological Tissues Through Mechanical Effects with a Smart Laparoscopic Instrument, j. MATEC Web of Conferences, eISSN: 2261-236X, Published by: EDP Sciences, Volume 287, No. 07005, pp., 1-7, (Published online: 14 August 2019), DOI https://doi.org/10.1051/matecconf/201928707005, SJR2018 – 0,169

29. Terzieva V., P. Kademova-Katzarova, K. Todorova, **R. Andreev**: Technology-Enhanced Personalized Education, Proceedings of International Conference on Application of Information and Communication Technology and Statistics in Economy and Education" ICAICTSEE-2012", October 5-6th, 2012 pp. 464 – 473, ISBN 978-954-92247-4-0

30. Kademova-Katzarova P., **Andreev R**., V. Terzieva, *An Adaptable E-Learning System for Pupils with Specific Learning Difficulties*, Proceedings of 55nth International Scientific Colloquium (IWK), Technische Universität Ilmenau, 13–17 September, 2010, Germany,

31. **Andreev R**., V. Terzieva, P. Kademova-Katzarova, *An Approach to Development of Personalized E-learning Environment for Dyslexic Pupils' Acquisition of Reading Competence*.

In: Rachev, B., Smrikarov, A. (eds.) CompSysTech 2009. ACM International Conference Proceeding Series, vol. 433. ACM, New York (2009); Proceedings of the International Conference on Computer Systems and Technologies CompSysTech'09, 18–19 June, Ruse, Bulgaria, 2009, pp. IV.13-1–IV.13-6

32. **Andreev, R.**, A Model of Self-Organizing Collaboration. Proceedings of IFIP WCC 2008 Conference on Biologically Inspired Collaborative Computing, Book Series in Computer Science: IFIP Advances in Information and Communication Technology, Springer, 2008, pp. 223-231.

33. Fleischer A., **Andreev R.**, Y. Pavlov, V. Terzieva, *An Approach to Personalized Learning: A Technique of Estimation of Learner's Preferences*. Proceedings of 52nd International Scientific Colloquium (IWK), Technische Universität Ilmenau, Germany, 10–13 September, 2007, Vol. II, pp. 485–490.

34. **Andreev, R.D.**, Troyanova, N.V. E-learning Design: An Integrated Agent-Grid Service Architecture. Proceedings of IEEE JVA International Symposium on Modern Computing, IEEE Computer Society, Los Almos California USA, 2006, pp. 208-213

35. **R.D. Andreev**, I.D. Madjarov, V.T. Vassilev. An Approach to 2D Graphics Terminal Emulation. Proceedings of Eurographics International Conference on Computer Aided Design and Computer Graphics, August 10-12, 1989, Beijing, China, Pergamon Press

36. I..K.Georgiev, **R.D. Andreev**, S.H. Blagoev. Realization of GKS Workstation. *K. Boyanov, R. Angelinov (eds) Network Information Systems* , 1989, pp. 329-335, North Holland, Amsterdam (Proceedings of IFIP TC6/TC8 Open Symposium on Network Information Processing Systems, 9-13 May, 1989, Sofia, Bulgaria).