

GEORGE MENGOV, Ph.D.

Professor of Decision Science and IT Management
Faculty of Economics and Business Administration
Sofia University St. Kliment Ohridski
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Education

- 1994 – 2001 Ph.D. in Cybernetics, Technical University of Sofia
Thesis: *Neural networks for analysis and prediction in organizational behaviour: A study with empirical data from the industry*
- 1986 – 1991 M.Sc., Electrical Engineering (Electronics), Technical University of Sofia
- 1984 – 1986 Military Service
- 1979 – 1984 First English Language High School, Sofia

Languages

English (Bilingual), Russian (Fluent), German (C1), Bulgarian (Native)

Work Experience

- 2016 – Present Professor of Decision Science and IT Management
Department of Industrial Economics and Management
Faculty of Economics and Business Administration
Sofia University St. Kliment Ohridski
- 2015 – Present Head of the Centre for Modelling Socioeconomic Systems, Sofia University
St. Kliment Ohridski
- 2010 – 2016 Associate Professor
Department of Industrial Economics and Management (2014–2016)
Department of Statistics and Econometrics (2010–2014)
Faculty of Economics and Business Administration
Sofia University St. Kliment Ohridski
- 2005 – 2010 Assistant Professor
Department of Statistics and Econometrics
Faculty of Economics and Business Administration
Sofia University St. Kliment Ohridski
- 2002 – 2005 Affiliated Lecturer
Faculty of Economics and Business Administration
Sofia University St. Kliment Ohridski
- 2001 – 2004 Research Associate
Prof. Ivan Daskalov Centre of Biomedical Engineering
Bulgarian Academy of Sciences
- 1995 – 2000 Information Services Consultant
Unisys Corporation
Worked as business processes analyst; assistant to a senior manager,
responsible for restructuring the European Division of the Corporation;
software developer; software tester.

Projects:

- Coutts & Co. Global Customer Management Information System, City of London, UK, 1999
- The Isle of Man Land Registry System, Leeds, UK, 1998
- Unisys EAD Restructuring, Uxbridge, London, UK, 1996
- Savings Bank of the Russian Federation, St. Petersburg, Russia, 1995
- A number of projects for off-shore software development for Unisys Corporation, Unisys Bulgaria, 1996 – 1999

1994 – 1998	Affiliated Researcher Dutch-Bulgarian-Hungarian COPERNICUS EU research project on work motivation and quality of working life.
1993 – 1994	Coordinator Dutch-Bulgarian project for consulting Bulgarian small and medium-sized enterprises sponsored by the Dutch Government, Sofia
1991 – 1992	Free-lance interpreter, English & Bulgarian, Sofia

Invited Lectures

John Atanasoff Society of Automation and Informatics, Sofia, Bulgaria, November 2017.

Paris V Descartes University for Science and Technology, Paris, France, December 2015.

John Atanasoff Society of Automation and Informatics, Sofia, Bulgaria, November 2015.

European Researchers' Night, City of Vratsa, Bulgaria, September 2014.

Academic Speech in the Aula of Sofia University St. Kliment Ohridski, May 24th, 2014.

Anhalt University of Science and Technology, Bernburg, Germany, June 2013.

Max Planck Institute of Economics in Jena and University of Jena, Germany, January 2010.

Justus Liebig University, Giessen, Germany, February 2009.

Courses Taught

Decision Science, Decision Making under Risk and Uncertainty, Advanced Statistics for Social Scientists, Foundations of Behavioral Economics, Management of Software Projects and IT Companies, Economic Agents' Decision Making, Risk Management, Informatics Seminars, Organization Development Seminars, Quantitative Methods in Management and Marketing.

Doctoral Dissertations Supervised

Magdalena Vlahova–Veleva, 2022, *Risk management of the acceptance of a European Union member state in the economic and monetary union.*

Teodora S. Marinova, 2021, *Success factors for user integration in industrial and consumer innovation.*

Iliya S. Atanasov, 2020, *Microeconomic and macroeconomic effects of the digital connectedness in early XXI c.*

Anton A. Gerunov, 2015, *Macroeconomic dynamics under heterogeneous expectations.*

Momchil H. Kiryakov, 2015, *Personal and professional aspects of the participation in virtual social networks.*

Professional Service

- 2013 – Present Associate Editor, *International Journal of Neural Networks and Advanced Applications*, North Atlantic University Union, Oregon, USA
- 2013 – Present Member of the Editorial Board, *Automation & Informatics*, John Atanasoff Society of Automation and Informatics, Sofia, Bulgaria
- 2010 – Present Reviewer for *International Journal of Data Science, Automation & Informatics, Proceedings of the Bulgarian Academy of Sciences (Comptes Rendus)*, etc.
- 2013 – Present Program Committee Member of various international conferences: *IEEE International Conference Automatics and Informatics (ICAI) 2021, 2022, International Joint Conference on Neural Networks (IJCNN) 2013-2017, International Conference on Artificial Neural Networks (ICANN) 2013*, etc.
- 2006 – 2009 Scientific Secretary of the Department of Statistics and Econometrics; Organized a number of research seminars in the Department.

Publications

Books

- Mengov, G. (2015) *Decision Science: A Human Oriented Perspective*. Springer–Verlag: Berlin Heidelberg.
- Vatchkov, G., Dotchev, S., Kovatchka-Dimitrova, M., Mengov, G., Spassov, B., Toslev, F., Tziklovsky, R. (2016) *Study Guide in Management of Software Projects and IT Companies*. Sofia University Press: Sofia. [In Bulgarian].
- Mengov, G. (2010) *Decision Making under Risk and Uncertainty*. Janet 45: Plovdiv. [In Bulgarian].
- Mengov, G. (2009) *Lecture Notes in Decision Making*. Sofia: Faculty of Economics and Business Administration. [In Bulgarian].

Journal Articles

- Mengov, G., Georgiev, N., Zinovieva, I., and Gerunov, A. (2022) Virtual social networking increases the individual's economic predictability. *Journal of Behavioral and Experimental Economics*, 101 (2022) 101944.
- Nenov, I., Mengov, G., Ganev, K., and Simeonova–Ganeva, R. (2021) Neurocomputational economic forecasting with a handful of data. *Proceedings of the Bulgarian Academy of Sciences (Comptes Rendus)*, 74 (10), 1511-1518.
- Gerunov, A., Atanasov, I., and Mengov, G. (2020) Time Series Decomposition for Anomalous E-commerce Transactions. *Bulgarian Economic Papers*, BEP-04-2020, ISSN: 2367-7082.
- Mengov, G., Nenov, I., and Zinovieva, I. (2019) A model for collective emotion forecasts financial data. *Elsevier IFAC-PapersOnLine*, 52-25 (2019) 208–213.
- Mengov, G., Trifonov, T., and Georgiev, K. (2018) Solving an emotional memory equation. *Proceedings of the Bulgarian Academy of Sciences (Comptes Rendus)*, 71 (12), 1672-1678.
- Mengov, G. (2016) The road to socioeconomic fractality. *Bulgarian Economic Papers*, BEP-05-2016, ISSN: 2367-7082.
- Mengov, G. (2015) Ideas for Neurocomputational Social Science. *Elsevier IFAC-PapersOnLine*, 48 (24), 219-224.
- Mengov, G. (2014) Person-by-person prediction of intuitive economic choice. *Neural Networks*, 60, 232-245.

- Mengov, G. (2013) Stochastic calibration of a neurocomputational model for economic decision-making. *Proceedings of the Bulgarian Academy of Sciences (Comptes Rendus)*, 66 (5), 739-748.
- Mengov, G. and Georgiev, N. (2013) Econometric vs. ARTMAP prediction of economic choice. *Proceedings of the Bulgarian Academy of Sciences (Comptes Rendus)*, 66 (3), 415-422.
- Mengov, G. (2010) Neurobiology and decision making: An intriguing rendezvous? *Information Technologies and Control*, 8 (2), 6-11.
- Egbert, H. and Mengov, G. (2009) Satisfaction and disappointment in consumer choices – an experiment. *Psychological Investigations*, 4-2009, 71-80.
- Mengov, G., Egbert, H., Pulov, S., and Georgiev, K. (2008) Affective balances in experimental consumer choices. *Neural Networks*, 21 (9), 1213-1219.
- Mengov, G. and Nikolova S. (2008) Utility function derived from affective balance theory. *Proceedings of the Bulgarian Academy of Sciences (Comptes Rendus)*, 61 (12), 1605-1612.
- Mengov, G., Georgiev, K., Pulov, S., Trifonov, T., and Atanassov, K. (2006) Fast computation of a gated dipole field. *Neural Networks*, 19, 1636-1647.
- Trifonov, T., Georgiev, K., and Mengov, G. (2008) Interactions in an ART neural system. *Advanced Studies in Contemporary Mathematics*, 16 (1), 105-114.
- Georgiev, K., Trifonov, T., and Mengov, G. (2005) Efficient orienting subsystem in an adaptive resonance theory (ART) neural network. *Proceedings of the Bulgarian Academy of Sciences (Comptes Rendus)*, 56 (5), 531-536.
- Mengov, G. (2005) Analytical solution of the resonance in an adaptive resonance theory (ART) neural system. *Advanced Studies in Contemporary Mathematics*, 10 (1), 45-52.
- Mengov, G., Pulov, S., Atanassov, K., Georgiev, K., and Trifonov, T. (2003) Modelling neural signals with a generalized net. *Advanced Studies in Contemporary Mathematics*, 7 (2), 155-166.
- Mengov, G., Hadjitodorov, S., and Aarons, A. (2003) Prediction of serum tobramycin in patients with NONMEM and simulated annealing. *Proceedings of the Bulgarian Academy of Sciences (Comptes Rendus)*, 56 (5), 47-50.
- Mengov, G. D., Zinovieva, I. L., and Sotirov, G. (1999) Modeling work motivation with a Fusion ARTMAP neural network. *International Journal of Computing Anticipatory Systems*, 3, (2), 85-99.

Journal Articles in Bulgarian

- Mengov, G., Gerunov, A., and Kiryakov, M. (2016) Economic behavior in an experiment in a virtual social network. *Automation and Informatics*, 49 (3), 31-36.
- Shtetinska, A., Zinovieva, I., and Mengov, G. (2016) Work motivation of the Bulgarian IT experts – ten years later. *Automation and Informatics*, 49 (2), 43-46.
- Mengov, G., Zinovieva, I., Karaivanova, M., and Paunova-Markova, E. (2015) Attitudes toward information sharing in a virtual economic network. *Psychological Investigations*, 18 (2), 135-140.
- Mengov, G., Zinovieva, I., Paunova-Markova, E., and Karaivanova, M. (2015) Perceptions of success in economic decision making. *Psychological Investigations*, 18 (2), 129-134.
- Mengov, G., Zinovieva, I., and Shtetinska, A. (2015) The work motivation of software developers and IT support professionals. *Industrial Management*, 12 (2), 61-70.
- Mengov, G. (2014) Rationality and intuition in human decision making. *Strategies for Policy in Science and Education*, 22 (3), 275-282.
- Mengov, G. (2013) Social fractality. *Technosphere*, 3(21), 25-36.

- Georgiev, N. and Mengov, G. (2013) Consumer satisfaction in experimental setting. *Yearbook of the Faculty of Economics and Business Administration of Sofia University St. Kliment Ohridski*, vol. 11, 97-111.
- Mengov, G. (2009) Stochastic approximation in support of the Received View. *Machine Building and Machine Science: Economics and Management Series*, 4 (3), 77-81.
- Mengov, G. (2009) Objective probability and expert belief. *Machine Building and Machine Science: Economics and Management Series*, 4 (3), 44-48.
- Totkov, A. and Mengov, G. (2009) Personal attitudes towards investment risks. *Automation and Informatics*, 2, 53-57.
- Mengov, G. and Nikolova S. (2009) The economic agents' utility functions. *Yearbook of the Faculty of Economics and Business Administration of Sofia University St. Kliment Ohridski*, vol. 8, 149-166.
- Mengov, G. and Todorova, O. (2009) Managerial experience and negative affect in a hypothetical choice of a manager. *Yearbook of the Faculty of Economics and Business Administration of Sofia University St. Kliment Ohridski*, vol. 8, 167-178.
- Mengov, G. (2007) Subjective judgments based on small samples. *Automation and Informatics*, 41 (4), 36-40.
- Mengov, G. and Mintova, D. (2006) Rationality in investment decisions. *Automation and Informatics*, 40 (4), 38-40, 48.
- Mengov, G., and Gerganov, E. (2004) Decision making under risk and uncertainty: I. Theoretical review. *Psychological Investigations*, 3-2004, 63-75.
- Hristova, E., Mengov, G., and Gerganov, E. (2005) Decision making under risk and uncertainty: II Empirical study of Bulgarian economists and IT experts. *Psychological Investigations*, 1-2005, 5-20.
- Mengov, G., Zinovieva, I., and Stoikova, V. (2005) Attitudes of the Bulgarian IT experts and economists towards their employer. *Automation and Informatics*, 39 (2), 66-69.
- Mengov, G. and Hristova, E. (2004) The human factor in decisions under risk in industrial systems. *Automation and Informatics*, 38 (2), 11-13.
- Mengov, G. and Sotirov, G. (2001) Neural networks for analysis of organizational behaviour in industrial systems: I. MLP. *Automation and Informatics*, 35 (3/4), 37-40.
- Mengov, G. and Sotirov, G. (2001) Neural networks for analysis of organizational behaviour in industrial systems: II. ARTMAP. *Automation and Informatics*, 35 (5/6), 25-29.

Book Chapters

- Mengov, G. (2013) The intuitive-emotional economic agent. *Sofia University St. Kliment Ohridski Research Excellence 2008-2013*, pp. 35-37. Sofia: Sofia University Press.

Conference Presentations with Proceedings Publications

- Mengov, G. (2022) Mathematical psychology models in economics and business. *Proceedings of the jubilee international conference commemorating 50 years of education in psychology at Sofia University St. Kliment Ohridski, 1-3 June 2022*, 27-36.
- Pantcheva, R. and Mengov, G. (2022) Recycling Rate in Europe: Econometric Modeling and dART Clustering Analysis. *Proceedings of the International Conference AUTOMATICS AND INFORMATICS`2022, October 06 - 08, 2022, Varna, Bulgaria (ICAI'22)*.
- Atanasov, I., Mengov, G., and Gerunov, A. (2021) Expert information, economic rumors, and market self-organization: A lab study. *Proceedings of the International Conference AUTOMATICS AND INFORMATICS`2021, September 30 - October 02, 2021, Varna, Bulgaria (ICAI'21)*.

- Mengov, G. and Nenov, I. (2020) Towards an Intelligent Neural System for Economic and Business Forecasting. *Proceedings of 2020 IEEE 10th International Conference on Intelligent Systems, Varna, Bulgaria*.
- Nenov, I. and Mengov, G. (2018) Searching for collective economic behaviour in stock price data. *Proceedings of the joint scientific conference of Sofia University and UNWE, Sofia, November 2018*.
- Atanasov, I. and Mengov, G. (2017) Economic agents' strategies under limited information. *Proceedings of the International Conference Automatics and Informatics, Sofia, 4-6.10.2017*.
- Mengov, G., Gerunov, A., and Kiryakov, M. (2016) Economic Decisions in a Virtual Social Network. *Proceedings of the International Conference Automatics and Informatics, Sofia, 4-5.10.2016*.
- Mengov, G. (2016) Economic Behaviour in a Social Network Experiment. *Abstract Proceedings of the 19th International Joint Conference "Economic Challenges: Migration, Globalization, Sustainability Policies", Sofia, 21-22.10.2016*.
- Mengov, G. (2015) Ideas for Neurocomputational Social Science. *Abstract Proceedings of the 16th IFAC Conference on technology, Culture, and International Stability, Sozopol, 89*.
- Zinovieva, I., Kiryakov, M., and Mengov, G. (2013) How personal characteristics and social network participation influence economic choice. *Abstract Proceedings of the 16th EAWOP Congress, Munster, 883*.
- Mengov, G. and Egbert, H. (2009) The benefit from computational neuroscience for economic psychology. *Conference Papers Abstracts & Authors, South-East European Conference of Psychology – Sofia, 30.10 – 1.11. 2009, p. 121*.
- Mengov, G. (2009) Levels of decision analysis. *Proceedings of the UAI International Conference of Automatics and Informatics, Sofia, Bulgaria, 29.09 - 2.10. 2009, V, 25-27*.
- Mengov, G., Egbert, H., Pulov, S., and Georgiev, K. (2007) The role of disappointment and satisfaction in consumer decisions. *Abstract Book of the 10th Annual Conference of FEBA, Sofia, 5-7 October 2007, p. 20*.
- Mengov, G. (2007) Introducing new instruments into science: An example from experimental economics. *Tutorial presented at the second summer school for doctoral students, June 2007, Faculty of Economics and Business Administration*.
- Mengov, G., Hadjitodorov, S., and Shannon, A. (2001) Modeling Cognitive Brain Processes with a Generalized Net. *Proceedings of the Second International Workshop on Generalized Nets, Sofia, June '01, vol. 1, 59-61*.
- Mengov, G. D., Zinovieva, I. L., and Sotirov, G. (2000) Patterns of Work Attitudes: A Neural Network Approach. In Dubois, D., (Ed.), *Proceedings of the Third International Conference on Computing Anticipatory Systems CASYS'99*, Liege, Belgium, American Institute of Physics, Melville, New York, pp. 221-229.
- Mengov, G., Zinovieva, I. L., and Sotirov, G. (1998) Predicting work-related psychological variables with a Fuzzy ARTMAP neural network. In Trappl, R. (Ed.), *Proceedings of the Fourteenth European Meeting on Cybernetics and Systems Research (EMCSR '98)*, Austrian Society for Cybernetic Studies, Vienna, vol. 2, 610 – 615.
- Mengov, G. (1995) Bulgaria – Country Profile Autumn 1995. Report, *Project Work motivation and quality of working life, COPERNICUS CIPA-CT93-0259*.
- Mengov, G. (1994) Bulgaria – Country Profile Spring 1994. Report, *Project Work motivation and quality of working life, COPERNICUS CIPA-CT93-0256*.

Professional Affiliations (Past and Present)

IEEE, International Neural Networks Society, John Atanasoff Society of Automation and Informatics