PROFESSOR NIKOLA KASABOV

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More information about Professor Nikola Kasabov

Knowledge Engineering & Discovery Research Institute (KEDRI)

Qualifications:

- PhD (Math. Sciences), Technical University, Sofia, 1975
- MSc (Applied Math.), Technical University, Sofia, 1972
- MSc (Comp. Science and Eng.), Technical University, Sofia, 1971

Memberships and Affiliations:

- IEEE (Institute of Electrical and Electronic Engineers), since 1994, Fellow 2010
- RSNZ (Royal Society of New Zealand), since 1996, Fellow, 2001
- IITP (previously New Zealand Computer Society), since 1992, Fellow 2002

- INNS (International Neural Network Society) since 1995, Senior Member, 2008
- APNNA (Asia-Pacific Neural Network Assembly) – since 1993 as a co-founder.

Distinctions (e.g., prizes, scholarships, invited memberships, notable posts, honorary degrees):

- The AUT Medal for 2015 – sustained and outstanding contribution to the academic success of AUT.
- Distinguished Visiting Fellowship by the Royal Academy of Engineering (RAE), UK, 2013.
- Recipient of the 'Outstanding Achievements Award' of the Asia Pacific Neural Network Assembly (APNNA), 2012.
- Recipient of the INNS Gabor Award for 2012 (www.inns.org).
- EU FP7 Marie Curie Fellowship, 2011 and 2012, INI/ETH and University of Zurich.
- Distinguished Lecturer of the IEEE Distinguished Lectureship Program, CI Society (2011-2013).
- Fellow of the IEEE (the Institute of Electrical and Electronic Engineers), since 2010.
- President, International Neural Network Society (INNS, www.inns.org), 2009-2010.
- Member of the Board of Governors, INNS, since 2005.
- Honorary Guest Professor at Shanghai Jiao Tong University, China, (since 2010).
- The AUT Vice Chancellor Award for Individual Research Excellence, 2010.
- President, Asia-Pacific Neural Network Assembly, APNNA, www.apnna.net, 2008.
- Best Paper Award, IEEE International Workshop on Data Mining & Artificial Intelligence, in conjunction with 11th IEEE Int. Conference on Computer and Information Technology (ICCIT2008), Bangladesh.
- The Bayer Science Innovator Award, 2007.
- The AUT Vice Chancellor's Award for Postgraduate Research Supervision, 2007.
- DAAD Visiting Professorship, 2005-2006, Germany.
- APNNA Excellent Service Award for overall contribution to Neuro-information Processing, 2005.
- President of the Asian Pacific Neural Network Assembly (APNNA), 1997 and 2008.
- International Neural Network Society, Vice President, 2007 and 2008
- Best Paper Award, IEEE 2003 Int. Conf. on Neural Networks & Signal Processing, Nanjing, China, December 2003.
- Fellow of the Royal Society of New Zealand, since 2001.
- The Royal Society of New Zealand Silver Medal for Contribution to Science and Technology,2001.
- Member of the Top Achiever Doctoral Committee, Tertiary Education Committee, NZ (since 1999).
- International Neural Network Society, Distinction, Washington DC, 1999.
- New Zealand FRST Award for supervision of a PhD student (M. Laws), 1999.

- Best paper award, The Fourteenth European Meeting on Cybern. and System Research, Vienna, 04/1998.
- IFIP (International Federation for Information Processing), WG 12 for Artificial Intelligence, since 1997
- NWO/SION (Dutch Organisation for Scient./Comp.Science) Research Grant, U. Maastricht, The Netherlands, 1998.
- Research Fellowship Grant, University of Twente, The Netherlands, 1998.
- Prize for Invention with High Practical Applicability, National Institute of Inventions, Bulgaria, 1992.
- Leverhulme Trust Research Fellowship, University of Essex, United Kingdom, 1989/90.
- Czechoslovakia, Research Fellowship, Institute of Cybernetics, Bratislava, 1987.
- Research Fellowship, Research and Education Ministry, The Netherlands, 1984.

Biography:

Nikola K Kasabov is the Director of the Knowledge Engineering & Discovery Research Institute and Personal Chair of Knowledge Engineering in the School of Computer and Information Sciences, AUT.

He has published over 600 works, among them journal papers, text books, edited research books and monographs, conference papers, book chapters, edited conference proceedings, patents and authorship certificates in the area of intelligent systems, connectionist and hybrid connectionist systems, fuzzy systems, expert systems, speech recognition, bioinformatics, neurocomputing and neural networks. These works has been cited more than 10,000 times.

Prof. Kasabov is a Fellow of IEEE, Fellow of the Royal Society of New Zealand and the New Zealand Institute for IT Professionals. He is Past President and Board member of the International Neural Network Society (INNS) and the Asia Pacific Neural Network Assembly (APNNA). Prof. Kasabov is Advisory- Professor at Shanghai Jiao Tong University, China.

Prof. Kasabov is the General Chairman of a series of biannual international conferences on Neurocomputing in New Zealand. He has been awarded several prestigious awards, such as : the INNS Gabor Award (2012); the APNNA Outstanding Achievement Award (2012); The Bayer Science Innovator Award (2007); The Royal Society of New Zealand Silver Medal (2001). He is a co-editor in chief of the Springer Evolving Systems journal an Associate Editor of numerous international journals.

Prof. Kasabov's main areas of expertise are:

- Information Sciences
- Artificial Intelligence (Neural Networks, Fuzzy Systems, Evolutionary Computation)
- Knowledge Engineering
- Bioinformatics
- Brain-like computing and neuroinformatics
- Signal, Speech and Image Processing
- Parallel Computer Systems

Teaching Areas:

- Neuroinformatics

- Data mining and knowledge engineering
- Bioinformatics
- Machine learning
- Neural Networks

Research Areas:

- Neurocomputation
- Artificial Intelligence (Neural Networks, Fuzzy Systems, Evolutionary Computation)
- Machine learning
- Data Mining and Knowledge Engineering
- Neuroinformatics
- Bioinformatics
- Signal, Speech and Image Processing

Current Research Projects:

- A novel neurocomputing technology - NeuCube
- Tripartite NZ-China agreement: SJTU-XU-AUT
- Project related to European Union FP7
- AUT SRIF project 'Intellecte'

Publications:

Prof. N. Kasabov's Publications and Citations on Google Scholar (29.10.2014): 9350 citations, h-ind=44; i10-ind=146:
http://scholar.google.com/citations?hl=en&user=YTa9Dz4AAAAJ&view_op=list_works

Books

Authored

1. Kasabov, N. Evolving Connectionist Systems: The Knowledge Engineering Approach (new edition), Springer Verlag, London, (2007) 458p
2. Benuskova, L. and N.Kasabov, Computational neuro-genetic modelling: Integrating bioinformatics and brain science data, information and knowledge via computational intelligence, Springer, New York, 2007, 290 pages
3. Kasabov, N. Evolving connectionist systems: Methods and applications in bioinformatics, brain study and intelligent machines, Springer Verlag, London, (2003) 308p
4. Kasabov, N. Foundations of Neural Networks, Fuzzy Systems and Knowledge Engineering. Cambridge, Massachussets, MIT Press (1996) 550p
5. Kasabov, N. and Romanski, R. Computer Architectures and Techniques Sofia, Technika (1992) 435p (in Bulgarian)
6. Stoichev, S. and Kasabov, N. Programming in PASCAL. Sofia, Technika (1989) 136p (in Bulgarian)
7. Stoichev, S. and Kasabov, N. Synthesis and Analysis of Algorithms. Sofia, Technika (1988) 84p (in Bulgarian)
8. Stoichev, S. and Kasabov, N. Computer Architectures and Techniques. Sofia, Technika (1986) 348p (in

Bulgarian)
9. Stoichev, S. and Kasabov, N. Computers – Theory and Practice (Programming of Microprocessors). Sofia, Technika (1984) 120p (in Bulgarian)

Edited scientific, research books:

1. M. Hadjiski, N.Kasabov, D.Filev, V.Jotsov (eds) Novel Applications of Intelligent Systems, Springer, 2016.
2. Koprinkova-Hristova, P., Mladenov, V., & Kasabov, N. (2015). Artificial Neural Networks Methods and Applications in Bio-/Neuroinformatics (Vol. 4). Springer. doi:10.1007/978-3-319-09903-3
3. N.Kasabov (ed) The Springer Handbook of Bio- and Neuroinformatics, Springer (2014) 1230 p
4. P.Angelov, D.Filev, and N.Kasabov (eds) Evolving intelligent systems, IEEE Press and Wiley, 2010
5. Kasabov, N. (ed.) Future Directions for Intelligent Systems and Information Sciences, Heidelberg, Physica-Verlag (Springer Verlag) (2000), 420pp
6. Kasabov, N. and Kozma, R. (eds.) Neuro-Fuzzy Techniques for Intelligent Information Systems, Heidelberg, Physica-Verlag (Springer Verlag) (1999), 450pp
7. Amari, S. and Kasabov, N. (eds.) Brain-like Computing and Intelligent Information Systems, Singapore, Springer Verlag (1998), 533 p.

Edited Conference Proceedings:

1. Angelov, P., Atanassov, K.T., Doukovska, L., Hadjiski, M., Jotsov, V., Kacprzyk, J., Kasabov, N., Sotirov, S., Szmidt, E., Zadrożny, S. (Eds.) (2015) Proceedings of the 7th IEEE International Conference Intelligent Systems IS'2014, September 24-26, 2014, Warsaw, Poland, Volume 1: Mathematical Foundations, Theory, Analyses, Springer, 2015.
2. V.Mladenov, P.Koprinkova, B.Apoloni, N.Kasabov, Proc. of ICANN 2013, Sofia, 2013, Springer LNCS, 2013.
3. M.Koeppen, N.Kasabov and G.Coghill, Advancements in Neural Information Processing, Proc. off ICONIP 2008, Springer LNCS, vol. 5506/5507, 2009
4. J.Si, R.Sun, D.Brown, I.King and N.Kasabov (eds) Proceedings of the Int Joint Conference on Neural Networks – IJCNN, 12-16 August 2007, IEEE Press, 2007
5. A.Koenig, M.Koeppen, A.Abraham, C.Igel and N.Kasabov, Proc. Seventh Int. Conference on Hybrid Intelligent Systems – HIS 2007, 17-19 Sept.2007, IEEE Comp.Soc.Press
6. P.Angelov, D.Filev, N.Kasabov, O.Cordon (eds) Proc. 2006 Int. Symp. Evolving Fuzzy Systems, Lancaster, UK, IEEE Press, 2006
7. N. Pal, Nikola Kasabov et al, (eds) Proc. of the Int. Conf. on Neuro Information Processing, Calcutta, November 2004, Springer Verlag, Vol. 3316, ICONIP'2004, Heidelberg, 2004
8. M.Barley, N.Kasabov (eds) Intelligent Multi-agent Systems, LNAI, vol. , 2004
9. Kasabov N., Pang S., (eds) International Journal of Computers, Systems and Signals, Volume 5 No. 2, 2004
10. K. Chen, Shu Heng Chen, Heng Da Cheng, David K.Y. Chiu, Sanjoy Das, Richard Duro, Zhen Jiang, Nik Kasabov, Etiene Kerre, Hong Va Leong, Qing Li,, Mi Lu, Manuel Grana Romay, Don Ventura, Paul P. Wang, Jie Wu (eds) Proceedings of the 7th Joint Conference on Information Sciences, JCIS 2003, 1780 pages
11. Kasabov, N, Zeke S.H. Chan (eds) Proceedings of the Conference on Neuro-Computing and Evolving Intelligence, November 2003, Auckland University of Technology, (2003) 122 pages
12. Kasabov, N. Proceedings of the Neurocomputing Colloquium and Workshop, October, AUT, (2002) 85 pages
13. Kasabov, N., B.Woodford (eds) Proceedings of the ANNES'2001, University of Otago (2001) 150 pages
14. Gedeon, T., P.Wong, S.Halgamuge, N.Kasabov, D.Nauck, and K.Fukushima (eds) ICONIP'99-Proceedings of the 6th Inter. Conf. on Neural Information Processing, 16-20.11.1999, Perth, IEEE Press

(1999), Vol. I & II, 842 pages
15. Kasabov, N., and K.Ko, (eds) Emerging Knowledge Engineering and Connectionist-based Information Systems. Proceedings of the ICONIP/ANZIIS/ANNES'99 Workshop "Future directions for intelligent systems and information sciences, Dunedin, 22-23 Nov.1999, University of Otago (1999)
16. Kasabov, N., Kozma, R., O'Shea, R., Ko, K., Coghill, G., and Gedeon, T., (eds) Advances in Connectionist-Based Information Systems. Proc. Int. Conf. Neural Information Processing ICONIP'97, Springer Verlag, (1998), 1550 pages
17. Kasabov, N. and Coghill, G. (eds) Proceedings of the Second New Zealand International Conference on Artificial Neural Networks and Expert Systems, ANNES'95, Dunedin, IEEE Computer Soc. Press, Los Alamitos (1995) 401 pages
18. Kasabov, N. (ed.) The First New Zealand International Conference on Artificial Neural Networks and Expert Systems, Proceedings of ANNES'93 Dunedin, IEEE Computer Society Press (1993) 346 pages

Book Chapters

1. Kasabov, N. (2015) Evolving connectionist systems: From neuro-fuzzy-, to spiking – and neurogenetic, in: Kacprzyk and Pedrycz (eds) Springer Handbook of Computational Intelligence, Springer, 771-782.
2. Kasabov N.K. Integrative Computational Neurogenetic Modeling. In: Arthur W. Toga, editor. Brain Mapping: An Encyclopedic Reference. Academic Press: Elsevier; 2015. pp. 667-674.
3. Kasabov, N. (2014). Understanding Nature Through the Symbiosis of Information Science, Bioinformatics and Neuroinformatics. In Springer Handbook of Bio-/Neuroinformatics.
4. Kasabov, N. (2014). Brain, Gene, and Quantum Inspired Computational Intelligence. In N. Kasabov (Ed.), Springer Handbook of Bio-/Neuroinformatics. Springer.
5. Georgieva, P., Silva, F., Milanova, M., & Kasabov, N. (2014). EEG Signal Processing for Brain-Computer Interfaces. In N. Kasabov (Ed.), Springer Handbook for Bio-/Neuroinformatics. Springer.
6. Schliebs, S., & Kasabov, N. (2014). Computational Modeling with Spiking Neural Networks. In N. Kasabov (Ed.), Springer Handbook of Bio-/Neuroinformatics.
7. Tegginmath, S., Pears, R., & Kasabov, N. (2014). Ontologies and Machine Learning Systems. Springer. In N. Kasabov (Ed.), Springer Handbook of Bio-/Neuroinformatics.
8. Liang, L., Krishnamurthi, R., Kasabov, N., & Feigin, V. (2014). Information methods for predicting risk and outcome of stroke. In N. Kasabov (Ed.), Springer Handbook of Bio-/Neuroinformatics.
9. Hu, Y., Kasabov, N., & Liang, W. (2014). Personalised Information Modelling Technologies for Personalised Medicine. In N. Kasabov (Ed.), Springer Handbook of Bio- and Neuroinformatics (pp. 1-32). Springer.
10. Kasabov, N. (2013). The Evolution of the Evolving Neuro-Fuzzy Systems: From Expert Systems to Spiking-, Neurogenetic-, and Quantum Inspired. In R. Seising, E. Trillas, C. Moraga, & S. Termini (Eds.), On Fuzziness A Homage to Lotfi A Zadeh (Vol. 298, pp. 271-280). Springer.
11. Kasabov, N., Evolving Spiking Neural Networks and Neurogenetic Systems for Spatio- and Spectro-Temporal Data Modelling and Pattern Recognition, Springer-Verlag Berlin Heidelberg 2012, J. Liu et al. (Eds.): IEEE WCCI 2012, LNCS 7311, pp. 234–260
12. Widiputra, H., Pears, R., and Kasabov, N., Dynamic learning of multiple time series in a non-stationary environment, In: Sayed-Mouchaweh, Moamar; Lughofer, Edwin (Eds.), Learning in Non Stationary Environments: Methods and Applications, ISBN 978-1-4419-8019-9, Springer, 2012.
13. S.Soltic, N.Kasabov (2011) A Biologically Inspired Evolving Spiking Neural Model with Rank-Order Population Coding and a Taste Recognition System Case Study, Chapter 7 in : Turgay Temel (Ed) System and Circuit Design for Biologically-Inspired Intelligent Learning, IGI Global, 136-155, ISBN13: 9781609600181, 2011
14. Haza Nuzly Abdull Hamed, Nikola K. Kasabov and Siti Mariyam Shamsuddin., Quantum-Inspired Particle Swarm Optimization for Feature Selection and Parameter Optimization in Evolving Spiking Neural Networks for Classification Tasks, Evolutionary Algorithms, Eisuke Kita (Ed.),pp 133-148, ISBN:

978-953-307-171-8, InTech, 2011
15. Harya Widiputra, Russel Pears, Nikola Kasabov, Kalman Filter to Estimate Dynamic and Important Patterns of Interaction between Multiple Variables, in: Joaquín M. Gomez (ed) Kalman Filtering, Nova Science-New York, pp. 289-320, ISBN: 978-1-61761-462-0, 2011
16. S Ozawa, S Pang and N Kasabov, On-line Feature Extraction for Evolving Intelligent Systems, in: P.Angelov, D.Filev, and N.Kasabov (eds) Evolving intelligent systems, IEEE Press and Wiley, 2010, (7) 151-172.
17. Wysoski SG, Benuskova L, Kasabov N, Brain-Like Evolving Spiking Neural Networks for Multimodal Information Processing. In Brain-Inspired Information Technology. Editors: Hanazawa A, Miki T, Horio K. 266: 15-27. Springer 2010.
18. Shimo N, Pang S, Horio K, Kasabov N, Tamukoh H, Koga T, Sonoh S, Isogai H, Yamakawa T, Effective and Adaptive Learning Based on Diversive/Specific Curiosity. In Brain-Inspired Information Technology. Editors: Hanazawa A, Miki T, Horio K. 266: 171-175. Springer 2010.
19. Kasabov N, Integrative Probabilistic Evolving Spiking Neural Networks Utilising Quantum Inspired Evolutionary Algorithm: A Computational Framework. In Advances in Machine Learning II. Editors: Koronacki J, Ras ZW, Wierzchon ST, Kacprzyk J. 263: 415-425. Springer 2010
20. Kasabov, N. (2009). Soft computing methods for global, local and personalized modeling and applications in bioinformatics. In Soft ComputingBased Modeling in Intel. Systems (Vol. 196, pp. 1-18). doi:10.1007/978-3-642-00448-3.
21. Nikola Kasabov, Qun Song, Lubica Benuskoval, Paulo Gottgtroy, Vishal Jain, Anju Verma, Ilkka Havukkala, Elaine Rush, Russel Pears, Alex Tjahjana, Yingjie Hu, Stephen MacDonell, Integrating Local and Personalised Modelling with Global Ontology Knowledge Bases for Biomedical and Bioinformatics Decision Support, Chapter 4, 93-116 In: Smolin et al (eds) Computational Intelligence in Biomedicine and Bioinformatics, Springer, 2008
22. Pang, S., Havukkala, I., Hu, Yingjie, Kasabov, N.: Bootstrapping Consistency Method for Optimal Gene Selection from Microarray Gene Expression Data for Classification Problems. Chapter 4, In: Zhang, Y.-Q., Rajapakse, J.C. (eds.): Machine Learning for Bioinformatics. John Wiley & Sons, Inc., New Jersey (2008)
23. N Kasabov, V Jain, L Benuskova, P Gottgtroy and F Joseph, Integration of Brain-Gene Ontology and Simulation Systems for Learning, Modelling and Discovery, In: Computational Intelligence in Medical Informatics, Series: Studies in Computational Intelligence, Vol. 85, 221-234. Eds; Arpad Kelemen, Ajith Abraham, Yulan Liang, ISBN: 978-3-540-75766-5, 2008
24. Kasabov, N., Song, Q., & Ma, T. M. (2008). Fuzzy-neuro systems for local and personalized modelling. In Forging New Frontiers: Fuzzy Pioneers II (Vol. 218, pp. 175-197). Berlin / Heidelberg: Springer. doi:10.1007/978-3-540-73185-6_8
25. Pang, S., & Kasabov, N. (2008). SVMT-rule: Association rule mining over SVM classification trees. In Rule Extraction from Support Vector Machines (Vol. 80, pp. 135-162). doi:10.1007/978-3-540-75390-2_6
26. Ravi, V., Kumar, P.R, Srinivas, E.R., Kasabov, N.K. A Semi-Online Training Algorithm for Radial Basis Function Neural Networks: Application to Bankruptcy Prediction in Banks, Chapter XV in: V.Ravi (ed) Advances in Banking Technology and Management, Information Science Reference, Hashley-New York, 2007, pp. 243-260
27. N.Kasabov, Brain-, Gene-, and Quantum Inspired Computational Intelligence: Challenges and Opportunities, in: W. Duch and J. Manzduk (eds) Challenges in Computational Intelligence, ISBN: 978-3-540-71983-0, 193-219, Springer 2007.
28. Gottgtroy P., Kasabov N., Macdonell S., Evolving Ontologies for Intelligent Decision Support, Elsevier, Fuzzy Logic And The Semantic Web, Chapter 21, pp 415-439, 2006
29. N.Kasabov, Brain-, Gene-, and Quantum Inspired Computational Intelligence: Challenges and Opportunities, in: Reusch. B (eds) Computational Intelligence, Theory and Applications, ISBN: 978-3-540-34780-4, 521-544, Springer 2006.
30. Kasabov, N., Liang Goh and Mike Sullivan, Integrated Prognostic Profiles: Combining Clinical and Gene Expression Information through Evolving Connectionist Approach, Chapter 10, in: Bajic. V and Tan Tin Wee (eds), Information Processing and Living Systems, Imperial College Press, Singapore, 2005, 695-

706.
31. Kasabov, N. , Zeke Chan, Vishal Jain, Igor Sidorov and Dimiter Dimitrov, Computational Modelling of Gene Regulatory Networks, Ch 8, in: Bajic., V and Tan Tin Wee (eds), Information Processing and Living Systems, Imperial College Press, Singapore, 2005, 673-686.
32. Kasabov, N., Z.Chan, Q.Song and D.Greer, Evolving neuro-fuzzy systems with evolutionary parameter self-optimisation, chapter in: Do Adaptive Smart Systems exist? Springer, Series Study in Fuzziness, vol.173, 2005
33. Kasabov N., and L. Benuskova, Theoretical and Computational Models for Neuro-, Genetic-, and Neuro-Genetic Information Processing, in: M. Rieth and W. Sommers (eds) Handbook of Theoretical and Computational Nanotechnology, Vol. X pp 1-38, American Scientific Publisher, 2005
34. Dimitrov, D. S., Igor A. Sidorov and Nikola Kasabov Computational Biology, in: M. Rieth and W. Sommers (eds) Handbook of Theoret. and Computational Nanotechnology, Vol. 1 (1) American Scientific Publisher, Chapter 21, 2004
35. Kasabov, N. and D. Dimitrov, Discovering gene regulatory networks from gene expression data with the use of evolving connectionist systems, chapter in: L.Wang and Rajapakse (eds) Neural Inform. Processing, Vol. 152, Springer Verlag, 2004
36. Kasabov, N. Evolving Connectionist-based Decision Support Systems, in: X.Yu, J.Kacprzyk (eds), Applied Decision Support with Soft Computing, series: Studies in Fuzziness and Soft Computing, vol. 124, Springer (2003).
37. Kasabov, N. Decision support systems and expert systems, in: M. Arbib (ed) Handbook of brain study and neural networks, MIT Press (2003).
38. Kasabov, N. Brain-like functions in evolving connectionist systems for on-line, knowledge-based learning, in: T. Kitamura (ed) What should be Computed to Understand and Model Brain Functions, FLSI Soft Computing Series, Volume 3, World Scientific (2001), 77-113.
39. Kasabov N., and G. Iliev, A methodology and a system for adaptive speech recognition in a noisy environment based on adaptive noise cancellation and evolving fuzzy neural networks, in: Neuro-Fuzzy Pattern Recognition, H. Bunke and A. Kandel, eds., World Scientific 2000, 179-203.
40. Kasabov, N., Evolving and Evolutionary Connectionist Systems for On-Line Learning and Knowledge Engineering in: Peter Sincak, Jan Vascak (eds) Quo Vadis Computational Intelligence? New Trends and Approaches in Computational Intelligence, Physica-Verlag, 2000, 361-369
41. Iliev, G. and Kasabov, N., Dual-Tone Multiple Frequency Detection Using Adaptive Filters and Neural Network Classifiers in: P. Sincak, J. Vascak, V. Kvasnicka, R. Mesiar (eds) The State of the Art in Computational Intelligence, Physica-Verlag, 2000, 302-307
42. Kasabov, N., Erzegovezi, L, Fedrizzi, M, Beber, A, and Deng, D, Hybrid Intelligent Decision Support Systems and Applications for Risk Analysis and Prediction of Evolving Economic Clusters in Europe, in: N. Kasabov (ed) Future directions for intelligent information systems and information sciences, Springer Verlag, 2000, 347-372
43. Kasabov, N., Evolving connectionist systems – the new-Old AI Paradigm, in: N. Kasabov (ed) Future directions for intelligent information systems and information sciences, Springer Verlag, 2000, 3-12
44. Taylor, J., Kasabov, N, Modelling the Emergence of Speech and Language through Evolving Connectionist Systems, in: N. Kasabov (ed) Future directions for intelligent inform. systems and information sciences, Springer Verlag, 2000, 102-126
45. Swope, J.A., Kasabov, N., and Williams, M., Neuro-fuzzy modelling of heart rate signals and applications to diagnostics, in: P.S. Szczepaniak, P.J.G. Lisboa, J. Kacprzyk, (eds), Fuzzy Systems in Medicine, Physica Verlag (2000) 519-542
46. Kasabov, N. and Kozma, R. Multi-scale analysis of time series based on neuro-fuzzy-chaos methodology applied to financial data. in: A. Refenes, A. Burges, and B. Moody, (eds) Comput.Finance 1997, Kluwer Academic (1999).
47. Kasabov, N., Israel, S., and Woodford, B.J., Methodology and evolving connectionist architecture for image pattern recognition, in: Pal, Ghosh and Kundu (eds) Soft Computing and Image Processing, Heidelberg, Physica-Verlag (Springer Verlag) (1999), 318-336

48. Kasabov, N. Evolving connectionist and fuzzy connectionist systems – theory and applications for adaptive, on-line intelligent systems, in: Neuro-Fuzzy Techniques for Intelligent Information Systems, N. Kasabov and R.Kozma, (eds) Heidelberg, Physica Verlag (1999) 111-146
49. Kasabov, N., Kozma, R., Kilgour, R., Laws, M., Taylor, J., Watts, M., and Gray, A. Hybrid connectionist-based methods and systems for speech data analysis and phoneme-based speech recognition. in: Neuro-Fuzzy Techniques for Intelligent Information Systems, N. Kasabov and R. Kozma, (eds) Heidelberg, Physica Verlag (1999) 241-264
50. Watts, M., and Kasabov, N., Neuro-genetic tools and techniques, in: Neuro-Fuzzy Techniques for Intelligent Information Systems, N. Kasabov and R. Kozma, (eds) Heidelberg, Physica Verlag (1999) 97-110
51. Kasabov, N., Evolving connectionist and fuzzy connectionist systems for on-line adaptive decision making and control, in: Advances in Soft Computing - Engineering Design and Manufacturing, R. Roy, T. Furuhashi and P.K. Chawdhry (eds.) Springer-Verlag, London Limited, 1999 [ISBN 1-85233-062-7] 638 pages
52. Kozma, R. and Kasabov, N., Generic neuro-fuzzy-chaos methodologies and techniques for intelligent time-series analysis. in: Soft Computing in Financial Engineering. R. Ribeiro, R.Yager, H. J. Zimmermann and J. Kacprzyk (eds) Heidelberg, Physica-Verlag (1999)
53. Kasabov, N., Advanced Neuro-Fuzzy Engin. for Building Intelligent Adaptive Inform. Systems. in: Fuzzy Systems Design: Social and Engineering Applications. L.Reznik, V.Dimitrov and J.Kacprzyk (eds) Heidelberg, Physica-Verlag (1998) 249-262
54. Kasabov, N. A framework for intelligent conscious machines and its application to multilingual speech recognition systems, in: Brain-like computing and intelligent information systems. S. Amari and N. Kasabov (eds) Springer Verlag (1998) 106-126
55. Kozma, R. and Kasabov, N., Chaos and fractal analysis of irregular time series embedded into connectionist structure, in: Brain-like computing and intelligent information systems. S. Amari and N. Kasabov (eds) Springer Verlag (1998) 213-237
56. Kasabov, N., Kozma, R. Neuro-fuzzy-chaos engineering for building intelligent adaptive information systems. In: Intelligent Systems: Fuzzy Logic, Neural Networks and Genetic Algorithms. Da Ruan ed., Boston/London/Dordrecht, Kluwer Academic Publishers (1997) 213-237
57. Kasabov, N. and Clarke, G. A template-based implementation of connectionist knowledge based systems for classification and learning, in: Advances in Neural Networks, Vol.3. O. Omidvar (ed) New Jersey, Ablex Publ.Company (1995) 137-156
58. Kasabov, N., Building comprehensive AI and the task of speech recognition, in: Applications of Neural Networks to Telecommunications, 2. J. Alspector, R. Goodman and T. Brown (eds) New Jersey, Laurence Erlbaum (1995) 178-187
59. Kasabov, N., and Nikovski, D. Prognostic expert systems on a hybrid connectionist environment, in: Artificial Intelligence V Methodology, Systems, Applications, B. du Boulay and V.Sgurev (eds) Amsterdam, North Holland (1992) 141-148
60. Kasabov N., Hybrid connectionist rule based systems, in: Artificial Intelligence IV Methodology, Systems, Applications, P. Jorrand and V. Sgurev (eds) Amsterdam, North-Holland (1990) 227- 235
61. Kasabov, N, and Demirev, G., Neural networks and genetic algorithms, in: Izkustven Intelect, I. Popchev and L. Dakovski (eds) Sofia, Technika (1990) 200-210 (in Bulgarian)
62. Stankulova, B., Dakovski, L., Pavlov, R and Kasabov, N. Intelligent tutoring systems, in: Izkustven Intelect, I. Popchev and L. Dakovski (eds), Sofia, Technika (1990) 281-290 (in Bulgarian)

Refereed Journal Articles

1. N.Kasabov, et al, Design methodology and selected applications of evolving spatio- temporal data machines in the NeuCube neuromorphic framework, Neural Networks, http://dx.doi.org/10.1016/j.neunet.2015.09.011.
2. Tao Gao and N. Kasabov, Adaptive Cow Movement Detection using Evolving Spiking Neural Network

Models, Evolving Systems, Springer, 2016.
3. Elisa Capecci, Grace Y. Wang , Nikola Kasabov (2015), Analysis of connectivity in a NeuCube spiking neural network trained on EEG data for the understanding and prediction of functional changes in the brain: A case study on opiate dependence treatment, Neural Networks, vol.68, 62-77, 2015.
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