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Liudmila Vasilievna Massel graduated from the Tomsk Polytechnic Institute, Faculty of Automation and Computer Engineering in the specialty "Applied Mathematics" in 1971, Doctor of Technical Sciences (1995). Chief Researcher, Head of the Department "Artificial Intelligence Systems in the Energy Sector" in Melentiev Energy Systems Institute SB RAS. Professor of Institute of Information Technology and Data Analysis in the Irkutsk National Research Technical University. Developer of Courses: "Intelligent Information Systems", "Foundations of Decision Support Systems", "Knowledge Management", "Social Problems of Informatization". Supervisor of 20 post-graduate students successfully defended dissertational works on the specialties "Mathematical modeling, numerical methods and program complexes" and "System analysis, information processing and management". Expert and member of the expert council of the Russian Foundation for Basic Research in the field of "Information and Computing Systems". Member of the program committees of several Russian and International conferences in the field of computer science. Founder and scientific leader of the annual Baikal All-Russian conference "Information and Mathematical Technologies in Science and Management" (since 1993). Organizer and supervisor of the annual International Workshop: "Critical infrastructures: contingency management, intelligent, agent-based, cloud computing and cyber security" (since 2014). Head of a number of projects supported by grants from the RFBR, the Program of the Presidium of the RAS and the Siberian Branch of RAS in the field of intellectual and information resources integration, knowledge management and the creation of intelligent decision support systems in the energy sector of Russia. In the list of scientific works more than 350 articles in the field of intelligent technologies, semantic modeling, situational management, cyber security, the design of information systems and technologies, the development of intelligent decision support systems in the energy sector.

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The main publications in past ten years

1. Massel L.V. Problems of the Smart Grid creation in Russia with a view to information and telecommunication technologies and proposed solutions / The 15 International Workshop on Computer Science and Information Technologies (CSIT'2013). – Ufa: UGATU, 2013. – Vol. 1. - P. 115 – 120.
2. Massel L.V., Arshinsky V.L., Massel A.G. Intelligent computing on the basis of cognitive and event modeling and its application in energy security studies / International Journal of Energy Optimization and Engineering, Special issue on: Mathematical and heuristic modeling and optimization of energy systems. - № 3(1). - January-March 2014.- Pp. 83-91.
3. Massel L. Development and integration of intelligent computing, agent-based computing and cloud computing in Smart Grid // Zbornik radova Konferencije MIT [Mathematic and Information Technologies]-2013. - Beograd: Alfa univerzitet; Kosovska Mitrovica: Drustvo matematicara Kosova I Metolije; Novosibirsk: Institute of Computational Technologies Siberian Branch of the Russian Academy of Sciences. - 2014 (Kraljevo: Grafkolor) - ISBN 978-86-80795-20-1. - Pp. 423-430.

4. Massel L.V., Massel A.G. Contingency management and semantic modeling in energy sector / Proceedings of the Workshop on Computer Science and Information Technologies.- Vol. 1, 2014. - England, Sheffield. - Pp. 158-162.
5. Blokhin A.A., Massel L.V. Analysis of the ability to assess quality of life through cognitive modeling / Proceedings of 16th International Workshop on Computer Science and Information Technologies.- Vol. 2, 2014. - England, Sheffield. – Pp. 16-19.
6. Massel L.V., Massel A.G. Semiotic approach to development of intelligent systems of contingency management in energy sector/ Proceeding of the Workshop on Computer Science and Information Technologies (CSIT'2015), Rome, Italy.- Vol. 1, 2015.- Pp. 137-144.
7. Massel L., Massel A. Cyber security of Russia's energy infrastructure as a component of national security. / Proceeding of the International Conference on Problems of Critical Infrastructures, 6th International Conference on Liberalization and Modernization of Power Systems. Edited by Z.A. Styczynski and N.I. Voropai. – 2015. – Saint Petersburg - Pp. 66-72.
8. Massel L.V., Galperov V.I. The development of multi-agent system state estimation of electric power systems using joiner-networks. / Proceedings of the Workshop on Computer Science and Information Technologies (CSIT'2015), Rome, Italy, Vol. 2, 2015. - 2015.- Pp. 1-6.
9. E. Eremchenko, V. Tikunov, R. Ivanov, L. Massel, J. Strobl. Digital Earth and Evolution of Cartography. Procedia Computer Science. Volume 66, 2015. Pp. 235–238. Published by Elsevier.
10. Massel L., Massel A., Ivanov R. Integration of visual analytics, cognitive graphics and semantic modeling in semiotic intelligent systems for decision support / Proceedings of International Workshop « Contingency management, intelligent, agent-based computing and cyber security in critical infrastructures». Irkutsk: MESI SB RAS, 2016. - Pp. 19-22.
11. L.V. Massel. Fractal Approach to Constructing Ontological Knowledge Space / Published in: 2018 3rd Russian-Pacific Conference on Computer Technology and Applications (RPC) Publisher: IEEE. Pp. 1-5. DOI: 10.1109/RPC.2018.8482138 (Scopus, WoS) <https://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=8469127>
12. L.V. Massel, T.N. Vorozhtsova. Ontological Engineering of Knowledge Space for Situational Management in Russian Energy Sector / Published in: 2018 3rd Russian-Pacific Conference on Computer Technology and Applications (RPC) Publisher: IEEE. Pp. 1-5. <https://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=8469127> DOI: 10.1109/RPC.2018.8482144 (Scopus, WoS)
13. Liudmila Massel, Vladimir Kuzmin. Situation Calculus Application in Tasks of Intelligent Decision-Making Support / Published in: 2018 3rd Russian-Pacific Conference on Computer Technology and Applications (RPC) Publisher: IEEE. Pp. 1-4. <https://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=8469127> DOI: 10.1109/RPC.2018.8482131 (Scopus, WoS)
14. Massel L.V. The Research Convergence of Critical Infrastructures, Quality of Life and Safety/ Proceedings of the Vth International workshop "Critical infrastructures: Contingency management, Intelligent, Agent-based, Cloud computing and Cyber security" (IWCI 2018), 2018.- Pp. 136-141. <https://www.atlantis-press.com/proceedings/iwci-18/doi:10.2991/iwci-18.2018.24>. (WoS)
15. Massel L.V., Kuzmin V.R. Tools for strategic decision support in energy sector based on situation management and semantic modeling / Proceedings of the Vth International workshop "Critical infrastructures: Contingency management, Intelligent, Agent-based, Cloud computing and Cyber security" (IWCI 2018), 2018.- Pp. 129-135. <https://www.atlantis-press.com/proceedings/iwci-18/doi:10.2991/iwci-18.2018.23> (WoS)
16. Liudmila Massel, Aleksey Massel. Intelligent support tools for strategic decision-making on Smart Grid development / International Conference “Green Energy and Smart Grids”

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17. Massel, L. V. Arshinsky, V. L., Massel, A. G. "Intelligent Computing on the Basis of Cognitive and Event Modeling, and Its Application in Energy Security Research." *Renewable and Alternative Energy: Concepts, Methodologies, Tools, and Applications*, edited by Information Resources Management Association, IGI Global, 2017, pp. 780-787. <http://doi:10.4018/978-1-5225-1671-2.ch024> (Scopus, WoS)
 18. Feoktistov A., Gorsky S., Sidorov I., Kostromin R., Edelev A., Massel L. Orlando tools: Energy research application development through convergence of grid and cloud computing // *Communications in Computer and Information Science*. Vol.965. 2019. P.289-300. ISBN (print): 9783030058067. DOI: 10.1007/978-3-030-05807-4_25. https://link.springer.com/chapter/10.1007%2F978-3-030-05807-4_25 (Scopus)
 19. Lyudmila V. Massel and Alexey G. Massel. Development Of Digital Twins And Digital Shadows Of Energy Objects And Systems Using Scientific Tools For Energy Research // *E3S Web Conf.*, 209 (2020) 02019. DOI: <https://doi.org/10.1051/e3sconf/202020902019>. https://www.e3s-conferences.org/articles/e3sconf/abs/2020/69/e3sconf_energy-212020_02019/e3sconf_energy-212020_02019.html. (Scopus)
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 21. Massel L.V., Vorozhtsova T.N., Pyatkova N.I. Ontological engineering to support strategic decision making in the energy sector / *Design Ontology*. - 2017. - Volume 7. - No. 1 (23) .. - P. 66-76. Massel L.V. Methods and intelligent technologies for the scientific substantiation of strategic decisions on digital transformation of energy / *Energy Policy*, 2018. No. 5. - Pp. 30-42
 22. Massel L. V. Methods and intelligent technologies of scientific substantiation of strategic decisions on the digital transformation of energy / *Energy Policy*, 2018. No. 5. - Pp. 30-42
 23. Zagorulko G.B., Massel. L.V. Development of an intelligent DSS to prevent threats to energy security // *Bulletin of SibSUTI*. 2019. No. 3. C.70-79. <http://vestnik.sibsutis.ru/showpapper.php?act=showpapper&id=882>
 24. Massel L.V., Massel A.G., Pesterev D.V. Knowledge management technology using ontologies, cognitive models and production expert systems. *Izvestia SFedU. Technical science*. No. 4, 2019. Pp. 140-152 http://izv-tn.tti.sfedu.ru/index.php/izv_tn/article/view/176/151
 25. Massel L.V., An G.V., Pesterev D.V. Implementation of logical inference in a production expert system using a Rete-network and a relational database // *Software products and systems*. 2020.Vol. 33. No. 4. Pp. 561-566. DOI: 10.15827 / 0236-235X.132.561-566