

Prof. Dr.-Ing. Milan Gnjatović

Department of Information Technology
University of Criminal Investigation and Police Studies, Belgrade
www.gnjatovic.info
(CV updated May 2022)

Academic Employment

University of Criminal Investigation and Police Studies, Belgrade: Associate Professor (2020–)

School of Engineering and Architecture, SRH University Heidelberg, Germany: Visiting Professor (2018–)

Faculty of Technical Sciences, University of Novi Sad, Serbia: Visiting Professor (2020–), Associate Professor (2019–2020) and Assistant Professor (2014–2019)

Faculty of Computer Science, Megatrend University, Belgrade, Serbia: Visiting Professor (2017–) and Associate Professor (2014–2016)

School of Electrical and Computer Engineering of Applied Studies, Belgrade, Serbia: Professor (2015–2017)

Faculty of Technical Sciences, University of Novi Sad, Serbia: Research Associate (2010–2014)

Department of Knowledge Processing and Language Engineering, Otto-von-Guericke University Magdeburg, Germany: Research Assistant (2006–2009)

Education

Dr.-ing. Computer Science, Otto-von-Guericke University Magdeburg, Germany (2009)

M.Sc. Computer Science, Otto-von-Guericke University Magdeburg, Germany (2005)

External Professional Service

Program Committee, Special session on social and biometric data for applications in human machine interactions: models and algorithms (SOBIOAPPS), in conjunction with the 7th IEEE Cyber Science and Technology Congress (CyberSciTech 2022), Calabria, Italy (2022),

Organizing Committee, XII International Scientific Conference "Archibald Reiss Days", Belgrade, Serbia (2022),

International Organizing Committee, the 13th International Conference on "Cognitive Infocommunications" (2022),

Independent Expert for the Dutch Research Council (2021),

Program Committee, the 2nd IEEE International Conference on Human-Machine Systems, Magdeburg, Germany (2021),

International Organizing Committee and Session Chair, the 12th International Conference on "Cognitive Infocommunications" (2021),

Technical Program Committee, the 1st IEEE International Conference on Human-Machine Systems, the special track on "Behaving cognitive systems: believable, autonomous, adaptive, context aware (BEINGS) track", Rome, Italy (2020),

Technical Program Committee, the 11th Int'l Workshop on Spoken Dialog System Technology, Madrid, Spain (2020),

Technical Program Committee, INTERSPEECH 2019, the special track on "Dynamics of Emotional Speech Exchanges in Multimodal Communication", Graz, Austria (2019),

Session Chair, the 10th International Conference on "Cognitive Infocommunications", Naples, Italy (2019),

International Advisory Board and Session Chair, the 8th International Conference on "Cognitive Infocommunications", Debrecen, Hungary (2017),

Program Committee, int'l conference "Business Information Security", Belgrade, Serbia (2017–),

Independent External Expert for the European Cooperation in Science and Technology Association (2015–2016),

Topic Group "Natural Interaction with Social Robots" of euRobotics AISBL (2014–),

"The Centre for Vibro-Acoustic Systems and Signal Processing", Faculty of Technical Sciences, Novi Sad (2014–2020),

Session Chair, int'l conference "Speech and Computer — SPECOM", Novi Sad, Serbia (2014),

Program Committee, conference "Digital Speech and Image Processing", Serbia (2012–),

Int'l Scientific Committee "ICT COST Action 2102 – Cross-Modal Analysis of Verbal and Non-verbal Communication" (in the framework of the European Cooperation in Science and Technology) (2010–2011),

Reviewer for Computers in Human Behavior (Elsevier), Cognitive Computation (Springer), Intelligent Service Robotics (Springer), Pattern Analysis and Applications (Springer), Entropy (MDPI), Sensors (MDPI), Information (MDPI), Mathematics (MDPI), Cryptography (MDPI), Micromachines (MDPI), Intelligent Decision Technologies (IOS Press), International Journal on Artificial Intelligence Tools (World Scientific), and a dozen of international conferences.

Refereed Journal Articles

M21a

1. Srđan Barzut, Milan Milosavljević, Saša Adamović, Muzafer Saračević, Nemanja Maček, Milan Gnjatović (2021) A Novel Fingerprint Biometric Cryptosystem Based on Convolutional Neural Networks, in Mathematics, Vol. 9, No. 7, 730.
2. Saša Adamović, Vladislav Mišković, Nemanja Maček, Milan Milosavljević, Marko Šarac, Muzafer Saračević, Milan Gnjatović (2020) An efficient novel approach for iris recognition based on stylometric features and machine learning techniques, in Future Generation Computer Systems Vol. 107, pp. 144-157.
3. Milan Gnjatović, Vlado Delić (2014) Cognitively-inspired representational approach to meaning in machine dialogue, Knowledge-Based Systems, Vol. 71, pp. 25–33.
4. Milan Gnjatović, Dietmar Rösner (2010) Inducing Genuine Emotions in Simulated Speech-Based Human-Machine Interaction: The NIMITEK Corpus, IEEE Transactions on Affective Computing, Vol. 1, No. 2, pp. 132–144, July–Dec. 2010 (five-year IF impact factor).

M21

1. Milan Gnjatović, Marko Janev, Vlado Delić (2012) Focus Tree: Modeling Attentional Information in Task-Oriented Human-Machine Interaction, Applied Intelligence, Vol. 37, No. 3, pp. 305-320, Springer US.
2. Branislav Popović, Marko Janev, Darko Pekar, Nikša Jakovljević, Milan Gnjatović, Milan Sečujski, Vlado Delić (2012) A Novel Split-and-Merge Algorithm for Hierarchical Clustering of Gaussian Mixture Models, Applied Intelligence, Vol. 37, No. 3, pp. 377–389, Springer US.

M22

1. Milan Gnjatović, Ivan Košanin, Nemanja Maček, Dušan Joksimović (2022) Clustering of Road Traffic Accidents as a Gestalt Problem, in *Applied Sciences*, Vol. 12, No. 9, 4543.
2. Milan Gnjatović, Nemanja Maček, Saša Adamović (2020) Putting Humans Back in the Loop: A Study in Human-Machine Cooperative Learning, in *Acta Polytechnica Hungarica*, Vol. 17, No. 2, pp. 191-210.
3. Nemanja Maček, Saša Adamović, Milan Milosavljević, Miloš Jovanović, Milan Gnjatović, Branimir Trenkić (2019) Mobile Banking Authentication Based on Cryptographically Secured Iris Biometrics, in *Acta Polytechnica Hungarica*, Vol. 16, No. 1, pp. 45–62.
4. Jovica Tasevski, Milan Gnjatović, Branislav Borovac (2018) Assessing the Children's Receptivity to the Robot MARKO, *Acta Polytechnica Hungarica*, Joint Special Issue on TP Model Transformation and Cognitive Infocommunications, Vol. 15, No. 5, pp. 47–66.
5. Milan Gnjatović (2014) Therapist-Centered Design of a Robot's Dialogue Behavior, *Cognitive Computation*, Vol. 6, No. 4, pp. 775–788.
6. Vlado Delić, Milana Bojanić, Milan Gnjatović, Milan Sečujski, Slobodan T. Jovičić (2012) Discrimination Capability of Prosodic and Spectral Features for Emotional Speech Recognition, *Elektronika ir Elektrotehnika*, Vol. 18, No. 9, pp. 51–54.
7. Ivan Jokić, Stevan Jokić, Zoran Perić, Milan Gnjatović, Vlado Delić (2012) Influence of the Number of Principal Components used to the Automatic Speaker Recognition Accuracy, *Elektronika ir Elektrotehnika*, Vol. 18, No. 7, pp. 83–86.

M23

1. Srđan Savić, Milan Gnjatović, Darko Stefanović, Bojan Lalić, Nemanja Maček (2019) Automatic Domain Modelling for Human-Robot Interaction, in *Intelligent Service Robotics*, Vol. 13, pp. 99–111.
2. Dragiša Mišković, Milan Gnjatović, Perica Štrbac, Branimir Trenkić, Nikša Jakovljević, Vlado Delić (2017) Hybrid Methodological Approach to Context-Dependent Speech Recognition, *International Journal of Advanced Robotic Systems*, Vol. 14, No. 1.

M24

1. Vlado Delić, Milan Gnjatović, Nikša Jakovljević, Branislav Popović, Ivan Jokić, Milana Bojanić (2014) User-Awareness and Adaptation in Conversational Agents, *Facta Universitatis, Series: Electronics and Energetics* Vol. 27, No 3. pp. 375–387.

M52

1. Slaviša Ilić, Milan Gnjatović, Brankica Popović, Nemanja Maček (2022) A Pilot Comparative Analysis of the Cuckoo and Drakvuf Sandboxes: An End-User Perspective, in *Military Technical Courier*, Vol. 70, No. 2, pp. 372–392.

M53

1. Ivan Jokić, Stevan Jokić, Milan Gnjatović, Milan Sečujski, Vlado Delić (2011) The Impact of Telephone Channels on the Accuracy of Automatic Speaker Recognition, *TELFOR Journal*, vol. 3, no 2, pp. 100–104.

Books, Chapters and Conference Papers

Books

1. Milan Gnjatović (2021) *Concepts of Functional and Imperative Programming*, University of Criminal Investigation and Police Studies in Belgrade (textbook, in Serbian).
2. Milan Gnjatović, Darko Stefanović (2021) *Selected Topics in Safety and Security of Information Systems*, second edition, Faculty of Technical Sciences, University of Novi Sad (textbook, in Serbian).

3. Milan Gnjatović, Darko Stefanović (2018) Selected Topics in Safety and Security of Information Systems, first edition, Faculty of Technical Sciences, University of Novi Sad (textbook, in Serbian).
4. Milan Gnjatović (2017) Introduction to Web Information Retrieval, School of Electrical and Computer Engineering of Applied Studies, Belgrade (textbook, in Serbian).
5. Milan Gnjatović (2009) Adaptive Dialogue Management in Human-Machine Interaction, Verlag Dr. Hut, Munich, Doctoral dissertation.

Book Chapters

1. Nikola Vukobrat, Saša Adamović, Nemanja Maček, Muzafer Saračević, Milan Gnjatović (2021) Crypt-analysis and Security Evaluation Using Artificial Neural Networks, in Integration of WSNs into Internet of Things: A Security Perspective, Series: Internet of Everything's (IoE): Security and Privacy Paradigm, CRC Press, Taylor & Francis Group, USA, pp. 65–80.
2. Milan Gnjatović (2019) Conversational Agents and Negative Lessons from Behaviourism, in Innovations in Big Data Mining and Embedded Knowledge, Springer series in Intelligent System Reference Library, Springer, pp. 259–274, Invited chapter.
3. Milan Gnjatović, Branislav Borovac (2016) Toward Conscious-Like Conversational Agents, In: Toward Robotic Socially Believable Behaving Systems, Volume II — Modeling Social Signals, A. Esposito, L.C. Jain (eds.), volume 106 of the series Intelligent Systems Reference Library, Springer, pp. 23–45, Invited chapter.
4. Branislav Borovac, Milan Gnjatović, Srđan Savić, Mirko Raković, Milutin Nikolić (2016) Human-like Robot MARKO in the Rehabilitation of Children with Cerebral Palsy, New Trends in Medical and Service Robots. Assistive, Surgical and Educational Robotics, Vol. 38 of the series Mechanisms and Machine Science, Springer International Publishing, pp. 191–203.
5. Branko Karan, Špela Golubović, Milan Gnjatović (2014) Markerless Vision-Based Skeleton Tracking in Therapy of Gross Motor Skill Disorders in Children, New Trends in Medical and Service Robots, Mechanisms and Machine Science, vol. 20, pp. 79–93, Springer International Publishing.
6. Vlado Delić, Milan Sečujski, Nikša Jakovljević, Milan Gnjatović, Igor Stanković (2013) Challenges of Natural Language Communication with Machines. Chapter 19 in DAAAM International Scientific Book 2013, pp. 371–388, B. Katalinić, Z. Tekić (Eds.), Published by DAAAM International, Vienna, Austria.
This chapter is also published as:
7. Vlado Delić, Milan Sečujski, Nikša Jakovljević, Milan Gnjatović, Igor Stanković (2013) Challenges of Natural Language Communication with Machines. Chapter VIII in Industrial Engineering — Challenges for the Future, pp. 153–169, D. Zelenović & B. Katalinić (Eds.), published by Faculty of Technical Sciences (Novi Sad, Serbia), DAAAM International (Vienna, Austria) and Fraunhofer IAO (Stuttgart, Germany).
8. Milan Gnjatović, Vlado Delić (2012) Attention and linguistic encoding of motion events in human-machine interaction, Selected papers from SinFonIJa 3 (The 3rd International Conference of Syntax, Phonology and Language Analysis), Novi Sad, S. Halupka-Rešetar, M. Marković, T. Milićev, N. Milićević, (Eds.) Cambridge Scholar Publishing, pp. 237–257.

Conference Papers

1. Milan Gnjatović, Duško Sivčević, Nemanja Maček, Dušan Joksimović, Vojkan Nikolić, Aleksandar Miljković (2021) Lemmatization as a Cognitive Decision Task: Similarity-Based Lemmatization of Serbian with a Minimal Vocabulary, in Proc. of the 12th IEEE International Conference on Cognitive Infocommunications (CogInfoCom), Online on MaxWhere 3D Web, pp. 49–52.
2. Milan Gnjatović, Vojkan Nikolić, Dušan Joksimović, Dejan Vidojević, Nemanja Maček, Zlatogor Minchev, Mitko Bogdanoski (2021) Yet Another Classification: An Overview of COVID-19-Related Research in the Field of Natural Language Processing, in Proc. of the First International Scientific Conference Covid-19 and Challenges of the Business World, Belgrade, pp. 97–106.

3. Vojkan Nikolić, Milan Gnjatović, Dušan Joksimović, Dejan Vidojević, Srdjan Nogo, Slobodan Nedeljković, Duško Sivčević (2021) How Far are We from Automatic COVID-19 Diagnostic Analysis?, in Proc. of the First International Scientific Conference Covid-19 and Challenges of the Business World, Belgrade, pp. 107–112.
4. Aleksandar Miljković, Aleksa Maksimović, Milan Gnjatović, Slobodan Nedeljković, Duško Sivčević, Slaviša Đukanović, Milan Gligorijević, Vojkan Nikolić (2021) Media Representation and Mobility Trends under COVID-19 Pandemic Conditions: A Pilot Research, in Proc. of the First International Scientific Conference Covid-19 and Challenges of the Business World, Belgrade, pp. 89–96.
5. Milan Gnjatović, Nemanja Maček (2020) An Entropy Minimization Approach to Dialogue Segmentation, in Proc. of the 11th IEEE International Conference on Cognitive Infocommunications (CogInfoCom), Online on MaxWhere 3D Web, pp. 27–32.
6. Milan Gnjatović, Vojkan Nikolić, Dušan Joksimović, Nemanja Maček, Nebojša Budimirović (2020) An approach to human activity clustering using inertial measurement data, in Proc. of the Archibald Reiss Days 2020, vol. 10, pp. 547–555.
7. Milan Gnjatović, Nemanja Maček, Saša Adamović (2019) A Non-Connectionist Two-Stage Approach to Digit Recognition in the Presence of Noise, in Proc. of the 10th IEEE International Conference on Cognitive Infocommunications (CogInfoCom), Naples, Italy.
8. Milan Gnjatović, Jovica Tasevski, Branislav Borovac, Nemanja Maček (2018) An Entropy-Based Approach to Automatic Detection of Critical Changes in Human-Machine Interaction, in Proc. of the 9th IEEE International Conference on Cognitive Infocommunications (CogInfoCom), pp. 175–178, Budapest, Hungary.
9. Srđan Savić, Milan Gnjatović, Dragiša Mišković, Branislav Borovac (2018) Representational Learning in Conversational Agents, in Proc. of the 4th International Conference on Electrical, Electronic and Computing Engineering (IcETRAN 2018), Palić, Serbia, June 2018.
10. Vlado Delić, Branislav Borovac, Milan Gnjatović, Jovica Tasevski, Dragiša Mišković, Darko Pekar, Milan Sečujski (2018) Toward More Expressive Speech Communication in Human-Robot Interaction, in Proc. of the 3rd International Conference on Interactive Collaborative Robotics (ICR 2018), pp. 44–51, Leipzig, Germany.
11. Nemanja Maček, Igor Franc, Milan Gnjatović, Branimir Trenkić, Mitko Bogdanoski, Aca Aleksić (2018) Biometric cryptosystems — approaches to biometric key-binding and key-generation, in Proc. of the 10th International Conference on Business Information Security (BISEC 2018), Belgrade, October 2018.
12. Nemanja Maček, Igor Franc, Milan Gnjatović, Branimir Trenkić, Zlatogor Minchev (2018) Security evaluation of cancelable biometrics, in Proc. of the 10th International Conference on Business Information Security (BISEC 2018), Belgrade, October 2018.
13. Nemanja Maček, Igor Franc, Milan Gnjatović, Branimir Trenkić, Mitko Bogdanoski, Aca Aleksić (2018) Can support vectors detect exploits?, in Proc. of the 10th International Conference on Business Information Security (BISEC 2018), Belgrade, October 2018.
14. Branislav Borovac, Mirko Raković, Milan Gnjatović, Milutin Nikolić, Vlado Delić, Marko Penčić, Srđan Savić, Jovica Tasevski, Dragiša Mišković, Aleksandra Mikov, Rastislava Krasnik (2018) Development and Testing of Humanoid Robot MARKO – An Assistant in Therapy for Children, XIV International SAUM Conference on Systems, Automatic Control and Measurements, Niš, Serbia.
15. Milan Gnjatović, Jovica Tasevski, Dragiša Mišković, Srđan Savić, Branislav Borovac, Aleksandra Mikov, Rastislava Krasnik (2017) Pilot Corpus of Child-Robot Interaction in Therapeutic Settings, in Proc. of the 8th IEEE International Conference on Cognitive Infocommunications (CogInfoCom), Debrecen, Hungary, September 2017, pp. 253–7.
16. Srđan Savić, Milan Gnjatović, Dragiša Mišković, Jovica Tasevski, Nemanja Maček (2017) Cognitively-Inspired Symbolic Framework for Knowledge Representation, in Proc. of the 8th IEEE International Conference on Cognitive Infocommunications (CogInfoCom), Debrecen, Hungary, September 2017, pp. 315–320.

17. Milan Gnjatović, Dragiša Mišković, Srđan Savić, Branislav Borovac, Nemanja Maček, Branimir Trenkić (2017) A Novel Modular Architecture for Conversational Robotic Agents, in Proc. of the 4th International Conference on Electrical, Electronic and Computing Engineering (IcETRAN 2017), Kladovo, Serbia, June 2017.
18. Marko Penčić, Maja Čavić, Srđan Savić, Milan Gnjatović, Branislav Borovac, Zhenli Lu (2017) Social Humanoid Robot SARA: Development and Dilemmas, in Proc. of the 4th International Conference on Electrical, Electronic and Computing Engineering (IcETRAN 2017), Kladovo, Serbia, June 2017.
19. Milan Gnjatović, Nemanja Maček, Zlatogor Minchev (2017) Methodological Pitfalls of Automatic Speech Recognition, in Proc. of the 9th International Conference on Business Information Security (BISEC'2017), Belgrade, October 2017, pp. 54-57.
20. Nemanja Maček, Milan Milosavljević, Igor Franc, Mitko Bogdanoski, Milan Gnjatović, Branimir Trenkić (2017) Secure Modular Authentication Systems Based on Conventional XOR Biometrics, in Proc. of the 9th International Conference on Business Information Security (BISEC'2017), Belgrade, October 2017, pp. 27-32.
21. Nemanja Maček, Milan Milosavljević, Igor Franc, Zlatogor Minchev, Milan Gnjatović, Branimir Trenkić (2017) Secure Mobile Banking Biometric Authentication, in Proc. of the 9th International Conference on Business Information Security (BISEC'2017), Belgrade, October 2017, pp. 41-43.
22. Igor Franc, Nemanja Maček, Milan Gnjatović, Branimir Trenkić, Mitko Bogdanoski, Dragan Đokić (2017) Secure Machine Learning Classifiers with Input Hashing Re-Weight Strategy, in Proc. of the 9th International Conference on Business Information Security (BISEC'2017), Belgrade, October 2017, pp. 82-85.
23. Dragiša Mišković, Milan Gnjatović, Nikša Jakovljević, Vlado Delić (2017) Realization of the Audio Library of the University of Novi Sad (in Serbian), in Proc. of the 11th Conference Digital Speech and Image Processing, November 2017, Novi Sad, Serbia.
24. Milan Gnjatović, Dragiša Mišković (2015) Beyond Statistical Approaches to Context-Dependent Speech Recognition, In Proc. of the Third International Acoustics and Audio Engineering Conference, TAK-TONS 2015, Novi Sad, Serbia, pp. 40-41.
25. Milan Gnjatović (2014) Changing Concepts of Machine Dialogue Management, in Proc. of the 5th IEEE International Conference on Cognitive Infocommunications (CogInfoCom 2014), Vietri sul Mare, Italy, pp. 367–372.
26. Milan Gnjatović, Vlado Delić (2014) End-User Design of Emotion-Adaptive Dialogue Strategies for Therapeutic Purposes, Recent Advances of Neural Network Models and Applications. Smart Innovation, Systems and Technologies, vol. 26, pp. 371–378, Springer International Publishing.
27. Jovica Tasevski, Dragiša Mišković, Milan Gnjatović, Branislav Borovac (2014) Application of Human-Machine Interaction Model for Facial Expression of Humanoid Robot MARKO, Zbornik radova sa 10. konferencije Digitalna obrada govora i slike, DOGS 2014, pp. 35-38, Novi Sad, Serbia.
28. Branislav Borovac, Vlado Delić, Milan Gnjatović, Branko Karan, Mirko Raković, Marko Penčić, Srđan Savić, Milutin Nikolić, Jovica Tasevski, Dragiša Mišković (2014) Humanoid Robot MARKO - An Assistant in Therapy for Children, Proceedings of the 10th International Symposium – Research and Design for Industry, pp. 1-6, Faculty of Mechanical Engineering, Belgrade, Serbia.
29. Milan Gnjatović (2013) The Child, the Therapist, and the Robot: Adaptive Dialogue Management in Three-Party Interaction, COST Workshop on Social Robotics, The Future Concept and Reality of Social Robotics: Challenges, Perception and Applications — The Role of Social Robotics in Current and Future Society, 10–13 June 2013, Brussels. Invited talk.
30. Milan Gnjatović, Vlado Delić (2013) Electrophysiologically-Inspired Evaluation of Dialogue Act Complexity, in Proc. of the 4th IEEE International Conference on Cognitive Infocommunications (CogInfoCom 2013), Budapest, Hungary, pp. 167–172.
31. Milan Gnjatović, Jovica Tasevski, Dragiša Mišković, Milutin Nikolić, Branislav Borovac, Vlado Delić (2013) Linguistic Encoding of Motion Events in Robotic System, Proc. of the 6. PSU-UNS International Conference on Engineering and Technology — ICET, Novi Sad, 5 pages, no pagination. Best Paper Award.

32. Milan Gnjatović, Jovica Tasevski, Dragiša Mišković (2013) Human-Machine Interaction in the Therapy for Gross Motor Development in Children, Proc. of the 2nd International Conference TAKTONS, Novi Sad, pp. 100–103.
33. Milan Gnjatović, Vlado Delić (2013) Encoding of Spatial Perspectives in Human-Machine Interaction, Proc. of the 15th International Conference “Speech and Computer”, SPECOM 2013, Plzeň, Czech Republic, M. Železny et al. (Eds.), Lecture Notes in Artificial Intelligence, vol. 8113, Springer, pp.116–123.
34. Milana Bojanić, Milan Gnjatović, Milan Sečujski, Vlado Delić (2013) Application of dimensional emotion model in automatic emotional speech recognition, in Proc. of the 11th IEEE International Symposium on Intelligent Systems and Informatics, SISY 2013, Subotica, Serbia, pp. 353–356.
35. Milan Gnjatović, Vlado Delić (2012) A Cognitively-Inspired Method for Meaning Representation in Dialogue Systems, Proc. of the 3rd IEEE International Conference on Cognitive Infocommunications, CogInfoCom 2012, Košice, Slovakia, pp. 383–388.
36. Milan Gnjatović, Nataša Vujnović-Sedlar, Vlado Delić (2012) Linguistic Encoding of Temporal Relations in Robotic System Scenarios, Proc. of the 10th IEEE International Symposium on Intelligent Systems and Informatics, SISY 2012, Subotica, Serbia, pp. 323–328.
37. Milan Gnjatović, Jovica Tasevski, Milutin Nikolić, Dragiša Mišković, Branislav Borovac, Vlado Delić (2012) Adaptive Multimodal Interaction with Industrial Robot, Proc. of the 10th IEEE International Symposium on Intelligent Systems and Informatics, SISY 2012, Subotica, Serbia, pp. 329–333.
38. Endru Kendereši, Mirko Raković, Milutin Nikolić, Milan Gnjatović, Branislav Borovac (2012) Realization of Arms Movements for 3D Robot Model and Synchronization with Real Humanoid Robot, Proc. of the 10th IEEE International Symposium on Intelligent Systems and Informatics, SISY 2012, Subotica, Serbia, pp. 217–220.
39. Milan Gnjatović, Vlado Delić (2012) Toward computational modeling of the comprehension deficit in Broca’s aphasia, Proc. of the 8th Conference on Language Technologies, IS-JT 2012, Ljubljana, Slovenia, pp. 79–84.
40. Milan Gnjatović, Siniša Suzić, Vladimir Morošev, Vlado Delić (2012) A prototype conversational agent embedded in Android-based mobile phones, Proc. of the 20th Telecommunications Forum, TELFOR 2012, Belgrade, Serbia, Telecommunications Society, pp. 1444–1447.
41. Milan Gnjatović (2012) Do Language Corpora Suffice to Develop Conversational Agents?, Zbornik radova sa 9. konferencije Digitalna obrada govora i slike, DOGS 2012, Kovačica, Serbia, pp. 24–27.
42. Vlado Delić, Nataša Vujnović-Sedlar, Dragiša Mišković, Milan Gnjatović, Branislav Borovac, Branko Milosavljević, Zora Konjović (2012) Experiences and perspectives on research at FTN in the field of assistive technologies (in Serbian), in Proc. of the XVIII Conference on Developing Trends, TREND 2012, Kopaonik, Serbia, pp. 277–280.
43. Milan Gnjatović, Darko Pekar, Vlado Delić (2011) Naturalness, adaptation and cooperativeness in spoken dialogue systems, Towards autonomous, adaptive, and context-aware multimodal interfaces: theoretical and practical issues, Lecture Notes in Computer Science, vol. 6456, pp. 298–304, Springer: Heidelberg, Berlin.
44. Milan Gnjatović (2011) Updating the Focus of Spatial Attention in Speech-Based Interaction: A Corpus-Based Investigation, Proc. of the 14th International conference “Speech and Computer”, SPECOM 2011, Kazan, Russia, Moscow State Linguistic University and Kazan (Privolzhsky) Federal University, pp. 441–446.
45. Vlado Delić, Milan Sečujski, Milan Gnjatović, Darko Pekar, Slobodan Jovičić, Zoran Šarić, Zoran Komazec, Branislav Borovac (2011) An Overview of Current Research Activities in the Field of Speech and Language Technologies in Serbia, Proc. of the 14th International conference “Speech and Computer”, SPECOM 2011, Kazan, Russia, Moscow State Linguistic University and Kazan (Privolzhsky) Federal University, pp. 18–26.
46. Milan Gnjatović, Vlado Delić (2011) A Computational Model of Attentional State for Conversational Agents, Proc. of the 1st International Conference TAKTONS, Novi Sad, Serbia, p. 18.

47. Milan Gnjatović (2011) Contextual Adaptation and Emotional Awareness in Assistive Conversational Agents, Proc. of the 19. Telecommunications Forum, TELFOR 2011, Belgrade, Serbia, pp. 566–573.
48. Milan Gnjatović, Vlado Delić (2010) An Approach to Modeling Attentional Information in Human-Machine Interaction, Proc. of the 3rd International Conference of Syntax, Phonology and Language Analysis, SinFonIJA 3, Faculty of Philosophy, University of Novi Sad, pp. 37–38.
49. Milan Gnjatović (2010) Communication of Propositional Content in Spontaneously Produced Users' Utterances: Insights From A Corpus, Zbornik radova sa 8. konferencije Digitalna obrada govora i slike, DOGS 2010, Iriški venac, Serbia, pp. 57–60.
50. Milan Gnjatović, Milana Bojanić, Branislav Popović, Vlado Delić (2010) An adaptive recovery strategy for handling miscommunication in human-machine interaction, Proc. of the 18. Telecommunications Forum, TELFOR 2010, Belgrade, Serbia, pp. 1121–1124.
51. Milan Gnjatović, Dietmar Rösner (2008) Adaptive Dialogue Management in the NIMITEK Prototype System, Proc. of the 4th IEEE Tutorial and Research Workshop Perception and Interactive Technologies for Speech-Based Systems (PIT'08), Lecture Notes In Artificial Intelligence, vol. 5078, pp. 14–25, Kloster Irsee, Germany.
52. Milan Gnjatović, Dietmar Rösner (2008) The NIMITEK Corpus of Affected Behavior in Human-Machine Interaction, Proc. of the Second International Workshop on EMOTION: Corpora for Research on Emotion and Affect, pp. 5–8, European Language Resources Association, Marrakech, Morocco.
53. Milan Gnjatović, Dietmar Rösner (2008) On the Role of the NIMITEK Corpus in Developing an Emotion Adaptive Spoken Dialogue System, Proc. of the Sixth International Language Resources and Evaluation (LREC'08), European Language Resources Association, Marrakech, Morocco.
54. Milan Gnjatović, Dietmar Rösner (2008) Emotion Adaptive Dialogue Management in Human-Machine Interaction, Proc. of the 19th European Meetings on Cybernetics and Systems Research (EMCSR 2008), pp. 567–572, Austrian Society for Cybernetic Studies, Vienna, Austria.
55. Milan Gnjatović, Manuela Kunze, Xian Zhang, Jörg Frommer, Dietmar Rösner (2008) Linguistic Expression of Emotion in Human-Machine Interaction: The NIMITEK Corpus as a Research Tool, Proc. of the Fourth International Workshop on Human-Computer Conversation, Bellagio, Italy, no pagination.
56. Milan Gnjatović, Dietmar Rösner (2007) A Dialogue Strategy for Supporting the User in Spoken Human-Machine Interaction, Proc. of the XII International Conference "Speech and Computer" (SPECOM'2007), pp. 708–713, Moscow State Linguistic University, Moscow, Russia.
57. Milan Gnjatović, Dietmar Rösner (2007) An Approach to Processing of User's Commands in Human-Machine Interaction, Proc. of the 3rd Language and Technology Conference (LTC'07), pp. 152–156, Adam Mickiewicz University, Poznan, Poland.
58. Milan Gnjatović, Manuela Kunze, Dietmar Rösner (2007) Processing Dialogue-Based Data in the UIMA Framework, Proc. of the UIMA Workshop at the GLDV 2007, Tübingen, Germany, no pagination.
59. Milan Gnjatović, Dietmar Rösner (2007) A More General Model of the Structure of the Exchange in Human-Machine Interaction, Proc. of the CLIN 17 - Computational Linguistics in the Netherlands, pp. 22–23, Centre for Computational Linguistics, University of Leuven, Leuven, Belgium.
60. Milan Gnjatović, Dietmar Rösner (2006) Gathering Corpora of Affected Speech in Human-Machine Interaction: Refinement of the Wizard-of-Oz Technique, Proc. of the International Symposium on Linguistic Patterns in Spontaneous Speech (LPSS 2006), pp. 55–66, Academia Sinica, Taipei, Taiwan.

Research Projects

"Design of Robots as Assistive Technology for the Treatment of Children with Developmental Disorders", sponsored by the Ministry of Education, Science and Technological Development of the Republic of Serbia. Prof. Gnjatović was leader of the subproject "Multimodal Human-Machine Interaction".

"A platform for the applications of speech technologies on smartphones for the languages of the Danube region — DANSPLAT", sponsored by the intergovernmental network EUREKA.

"Collaborative strategies of heterogeneous robot activity at solving agriculture missions controlled via intuitive human-robot interfaces", sponsored within the framework of the ERA.Net RUS Plus.

"Study of Human-Robot Interaction: Use of Robot as Assistive Technology for Cerebral Palsy Rehabilitation", project between the Faculty of Technical Sciences in Novi Sad and the Changshu Institute of Technology; sponsored within the framework of the bilateral cooperation between the Republic of Serbia and the People's Republic of China.

"Development of Dialogue Systems for Serbian and Other South Slavic Languages", sponsored by the Ministry of Education, Science and Technological Development of the Republic of Serbia.

"Central Audio Library of the University of Novi Sad", sponsored by the Provincial Secretariat for Science and Technological Development of Vojvodina, Serbia.

"Development and Realization of Modern Multi-Finger Anthropomorphic Robotic Hand", sponsored by the Provincial Secretariat for Science and Technological Development of Vojvodina, Serbia.

"Development and Application of Speech and Language Technologies for Serbian and other Languages", sponsored by the Provincial Secretariat for Science and Technological Development of Vojvodina, Serbia.

"Spoken Human-Machine Interaction", sponsored by the Ministry of Science and Technological Development of the Republic of Serbia.

SFB Transregio 62: "A Companion-Technology for Cognitive Technical Systems", sponsored by the German Research Foundation (DFG).

"Neurobiologically inspired, multimodal intention recognition for technical communication systems (NI-MITEK)", sponsored within the framework of the Excellence Program "Neurowissenschaften" of the federal state of Saxony-Anhalt, Germany.

Awards and Scholarships

Awards: Best Paper PSU-UNS 2013 (Gnjatović et al. 2013), Best graduate M.Sc. student in Computer Science of the year 2004/2005, Otto-von-Guericke University Magdeburg

Scholarships: Doctoral scholarship of the state of Saxony-Anhalt, Germany (2006, gratefully declined); German Academic Exchange Service (DAAD) scholarship for further academic study and training in Germany (2004–2005)

PhD Thesis Supervision

Jovica Tasevski, Adaptive Behavioural Strategies in Human-Machine Interaction in the Context of Medical Therapy, PhD, Mechatronics, Robotics and Automation, Faculty of Technical Sciences, University of Novi Sad, 2018.

Srđan Savić, Cognitively Inspired Computational Memory Model with Applications in Robotics, PhD, Mechatronics, Robotics and Automation, Faculty of Technical Sciences, University of Novi Sad, 2018.

Dragiša Mišković, Context-Dependent Speech Recognition in Human-Machine Interaction, PhD, Electrical Engineering, Telecommunications, co-advised by Vlado Delić, Faculty of Technical Sciences, University of Novi Sad, 2017.