

# Curriculum Vitae

Vadim A. Ermolayev, PhD

**Personal web links:** Homepage: <https://apps.ucu.edu.ua/en/teachers/vadym-ermolayev/>  
DBLP: <https://dblp.uni-trier.de/pid/90/6206.html>  
ResearchGate: [https://www.researchgate.net/profile/Vadim\\_Ermolayev/](https://www.researchgate.net/profile/Vadim_Ermolayev/)  
Scopus: <https://www.scopus.com/authid/detail.uri?authorId=13104107100>  
Google Scholar Profile: <https://scholar.google.com.ua/citations?hl=en&user=vaOHuLQA AAAJ>  
ORCID: [0000-0002-5159-254X](https://orcid.org/0000-0002-5159-254X)  
LinkedIn Profile: <https://www.linkedin.com/in/vadim-ermolayev/>



**Current Affiliation:** Prof., Department of Computer Science and Information Technologies, Faculty of Applied Sciences, [Ukrainian Catholic University](https://www.uclv.ua/), Lviv, Ukraine

**Professional Societies:** Member of [ACM](https://www.acm.org/), Member of [ELLIS Society](https://www.ellis-society.org/), Member of UAITP

**Recognition:** Honoris Causa Professor of [Kherson State University](https://www.khersonstateuniversity.com/) (2019)

**Vadim Ermolayev** is the professor of Semantic technologies at the Department of Computer Science and Information Technologies (CSIT) of the Faculty of Applied Sciences ([AppS](https://apps.ucu.edu.ua/)) at Ukrainian Catholic University ([UCU](https://www.uclv.ua/)). He is also the director of the [PhD Program in Intelligent Systems](https://apps.ucu.edu.ua/en/programs/phd-program-in-intelligent-systems/) at AppS UCU.

Vadim has received his Ph.D in Computer Science (Mathematical Modelling) from Zaporizhzhia State University (Ukraine) in 1994. From 1997, he worked as an Associate Professor at the Department of Mathematical Modelling and IT of Zaporizhzhia State University (later, renamed to Zaporizhzhia National University - ZNU). Since 2022, he is a Professor of Semantic Technologies at the Department of Computer Science and Information Technologies of Ukrainian Catholic University (UCU) in Lviv (Ukraine). Vadim is also the Director of the Ph.D Programme in Intelligent Systems at the Faculty of Applied Sciences of UCU.

From April 1987, he has been affiliated with ZNU at various positions: a researcher, senior researcher, director of University Computing Centre, Associate Professor. From September 2000 to July 2003, he served also as the deputy president of the University responsible for IT, networking, and computing. In 1997-2001, he was the member of Technical Committee of Ukrainian National Research and Education Network (URAN). Starting from 2015, he was affiliated, as a faculty member, with the Dept. of Computer Science at ZNU.

Vadim is a lifetime member of the Association for Computing Machinery (ACM), ELLIS Society. and Ukrainian Society of Information Technology Professionals (UAITP).

Since 1991, Vadim took and is taking part as a researcher, senior researcher, principal researcher, and project manager in several research and RTD projects funded by European Commission (FP6 and FP7), European Training Foundation, Ukrainian Ministry of Education and Science, German Federal Ministry of Education and Research (BMBF), European Industrial Companies, International Renaissance Foundation, ZNU. Vadim was the founder of the Intelligent Systems research group (<https://www.researchgate.net/lab/Intelligent-Systems-Vadim-Ermolayev/>) at ZNU.

Vadim's research interests and expertise span across Knowledge Discovery, Text Mining, Knowledge Engineering, Semantic Technologies, Intelligent Software Systems, Distributed Artificial Intelligence. A particular research topic that Vadim focuses on throughout his research career is capturing the dynamics and adaptability of real world in intelligent software artifacts.

Since 1994, Vadim teaches undergraduate and graduate courses, at B.Sci and M.Sci levels, in Algorithms and Data Structures, Databases and Information Systems, Knowledge Engineering, the Semantic Web and Web Services, Logic Programming and Artificial Intelligence, Ontology Learning from Texts, Academic Writing. He advised over 50 successfully accomplished M.Sci and Ph.D theses. He has also been the member of about 20 PhD Committees.

Throughout his academic carrier, Vadim has served, as a visiting researcher or visiting professor, at several European universities in Austria, Germany, Finland, France, Spain, UK, and Ukraine. During these visits, he gave courses at B.Sci or M.Sci levels or took part in collaborative research in frame of European projects.

Vadim has published over 100 papers as research monographs, journal articles, book chapters, conference, and workshop contributions. He also co-edited journal special issues, conference or workshop proceedings volumes, technical manuals, and textbooks. He serves as a member of Editorial Advisory Boards, Editorial Boards of international journals and book series, program committee member of many international conferences and workshops, including ISWC, ESWC, the Web Conference, ER. He is one the founders of the ICTERI conference series (<http://icteri.org/>). He served as a program chair for different conferences and workshops, including WIMS, ICTERI, DEIS, CIAO, DEXA events.

Vadim possesses working experience in industrial and public R&D and consulting. He worked at various branches of industry as a full-time employee, a sub-contractor, or a research consultant. He also served to EC as an independent expert in FP6, FP7, and H2020.

### Selected Career Highlights

- 1984 – ongoing: **35+ years of experience in research and development** at various positions in Academia and Industry
- 2001 – ongoing: **20+ years of experience in research and development** in International R&D projects
- 1993 – ongoing: **30+ years of experience in teaching** as assistant professor, associate professor, professor, visiting professor
- 1992 – 2003: **10+ years of experience in medium- and top-level University management** (Managing Director of University Computing Centre, Deputy President for IT, networking and computing)
- 2002-ongoing: **20+ years of experience at the European Commission as an independent expert** in FP6, FP7, H2020 – project reviews, proposals evaluation, serving as a rapporteur, call rapporteur
- 2005-ongoing: **15+ years of experience in research and development consulting** for several National and European companies and organizations

### Education

- 1991-1994: Dept. of Applied Mathematics Zaporizhzhia State Univ., Zaporizhzhia, Ukraine: **Ph.D. (Mathematical Modeling)**. Dissertation Thesis: Active Meta-Data Repository System for Adaptable Data Base Application Design
- 1981-1984: Inst. of Math. & Mechanics, Dnepropetrovsk State Univ., Dnepropetrovsk, Ukraine: **M.Sci. (Applied Mathematics)** cum laude

### Employment History

- **09.2022 – ongoing**: Department of Computer Science and Information Technologies, Faculty of Applied Sciences, Ukrainian Catholic University, Lviv, Ukraine – **Professor**
- **07.2003 – 08.2022**: Department of Computer Science (formerly – Information Technologies), Zaporizhzhia State University, Zaporizhzhia, Ukraine – **Associate Professor**
- **09.2004 – 06.2005**: Department of Programming and Information Technologies, Humanitarian University “Zaporizhzhia Institute of State and Municipal Governance”, Zaporizhzhia, Ukraine – **Professor** (part-time)
- **09.2000 – 07.2003**: Zaporizhzhia State University, Zaporizhzhia, Ukraine – **Deputy President (IT, Networking, Computing)**
- **04.1987 – 09.2000**: Zaporizhzhia State University, Zaporizhzhia, Ukraine – **Senior Research Engineer, Head of Laboratory, Director of Computing Centre**

- **11.1995 – 05.1996:** Swiss Academy of Engineering and Charmilles Technologies SA, Geneva, Switzerland – **Post-Doc Researcher** (funded by Branco Weiss Foundation, Switzerland)
- **08.1984-12.1986:** Radio Communications Research Institute, Zaporizhzhia, Ukraine – **Research Engineer, Senior Research Engineer**

## Visiting Positions

- **01-02.2016:** Karlsruher Institut für Technologie, Germany – **Visiting Researcher**
- **11.2015:** Universidad Politecnica de Madrid, Spain – **Visiting Researcher**
- **02.2015:** University of Huddersfield, UK – **Visiting Researcher**
- **08.2005:** [15th Jyvaskyla Summer School](#), [Univ. of Jyvaskyla](#), Finland – **Visiting Professor**
- **01.2003–02.2003:** [Dept. of Business Informatics and Application Systems](#), [Inst of Informatics](#), [Univ. of Klagenfurt](#), Austria – **Visiting Professor**
- **03.2001–04.2001:** [Division of Mathematics and Computer Science](#), Vrije University, Amsterdam, the Netherlands – **Visiting Researcher**
- **08.1994 – 03.1995:** [Swiss Academy of Engineering](#) (Branco Weiss Foundation) / [Charmilles Technologies SA](#), Geneva, Switzerland – **Visiting Scholar**
- **01.1987 – 04.1987:** Dnepropetrovsk all-Union Pipe Research Institute, Dnepropetrovsk, Ukraine – **Visiting Senior Research Engineer**

## STATEMENT OF CAREER GOALS

My career goal is to increase knowledge, skills, and welfare in society through research and development that facilitates the advancement of computer science and, in particular, Semantic Technologies, Ontology Engineering, Knowledge Discovery, Distributed Artificial Intelligence, and Intelligent Information Systems. Taking part in research in these areas brings me a lot of intellectual satisfaction. It is rewarding because my field of research investigates intriguing and often challenging problems that often have significant real world impact. Therefore, I am always keenly interested in how the results of research and development find their way to and response at industries. This work involves both the development of theory and empirical methods, including conceptual modeling, ontology engineering, algorithm design, machine learning, as well as implementation of intelligent software systems.

A particular research topic that thrills me throughout my research career is capturing the dynamics and adaptability of real world in intelligent software or knowledge representation artifacts.

I always tried my best in seeking for the research questions that may have impact in the future. Of course, being the member of the research community always helped a lot in shaping out the research agenda. Therefore, I readily accept community professional services like industrial consulting, reviewing, taking part in the organization of scientific events, providing expertise to international funding bodies. I also enjoy sharing my excitement with research and emerging ideas with the members of my research group and my students through mentoring their research and teaching undergraduate and graduate courses. This kind of generous collaboration stimulates me a lot. My interaction with colleges and students gives me a sense of passing a legacy on to the next generation of researchers and practitioners.

## Research

### Evolution of Research Interests (bottom-up)

Area of Interest	Research Projects
NL texts mining, terms recognition, knowledge discovery in texts, ontology learning, deep learning, scientific knowledge graphs	OntoElect, CapTTict
Semantics in Big Data and Linked Data, knowledge graphs	SemData

Area of Interest	Research Projects
Informal processes, context switching and collaboration, performance modeling and management, business intelligence, Social Web	PSI, PRODUKTIV+, ACTIVE IP
Knowledge engineering, knowledge management, logics and reasoning	SemData, PSI, PRODUKTIV+, RACING, UnIT-Net
Software agents and multi-agent systems, simulation, negotiation, collaboration	PSI, PRODUKTIV+, RACING
Semantic Web and Semantic Web Services, Web 2.0	UnIT-Net, RACING
Business Process Dynamics	PSI, RACING
Evolution and adaptability in intelligent information systems	UnIT-Net, RACING

### International Research and Innovation Projects

**2024 – 2027: CapTTict** - Enhancing capacities for technology transfer, company building and innovations in the field of ICT

**Funded by:** InterReg Programme. Danube Region. **Co-funded by:** European commission

**2008 – 2011: ACTIVE** – Enabling the Knowledge Powered Enterprise (<http://www.active-project.eu/>)

**Funded by:** EU Framework Program 7, **Instrument:** Integrating Project (IP)

**2005 – 2008: PRODUKTIV+**: Reference System for Measuring Design Productivity of Nanoelectronic Systems (<http://www.edacentrum.de/produktivplus/>)

**Funded by:** German Federal Ministry of Education and Research (BMBF)

**2004 – 2010: PSI**: Performance Simulation Initiative (<http://ermolayev.com/ISRG/ISRG-projects-PSI.htm>)

**Funded by:** Cadence Design Systems, GmbH

**2003 – 2005: UnIT-Net**: IT in University Management Network (<http://www.unit-net.org.ua/>)

**Funded by:** TEMPUS/TACIS (ETF, <http://www.etf.eu.int/>)

### International (Research) Exchange Projects

**2013 - 2017: SemData**, funded under the International Research Staff Exchange Scheme ([IRSES](http://www.irses.eu/)) of the EU Marie Curie Actions, FP7

### European Thematic Networks

**1998 - 2005** AGENTLINK, AGENTLINK II and AGENTLINK III – Europe’s Network of Excellence for Agent-Based Computing (<http://www.agentlink.org/>) SIG on Intelligent Information Agents (I2A) (<http://www.dbgroup.unimo.it/I2A/>)

**2001 - 2004** ONTOWEB - Ontology-based information exchange for knowledge management and electronic commerce (<http://www.ontoweb.org/>) SIG on Contents Standards ([http://zeus.ics.forth.gr/forth/ics/isl/projects/ontoweb/content\\_standards.html](http://zeus.ics.forth.gr/forth/ics/isl/projects/ontoweb/content_standards.html))

**2002 - 2003** AgentCities – WG for Service Coordination for Emergency Response Applications (<http://www.agentcities.org/Activities/WG/Rescue/>)

### Industrial Consulting

- **Group BWT, LLC**, Zaporizhzhia - Ukraine (research and development, 2018-2022)
- **MINRES Technologies GmbH**, Munich – Germany (research and development, 2011-2019)
- **Cadence Design Systems GmbH**, Munich, Germany (research and development, 2004-2010)
- **Charmilles Technologies SA**, Geneva, Switzerland (software development, 1995-1996)

### Publications

**DBLP:** <https://dblp.uni-trier.de/pid/90/6206.html?view=by-year>

Indexed publications – 82

**SCOPUS:** <https://www.scopus.com/authid/detail.uri?authorId=13104107100>

Indexed publications – 92; citations – 364; H-index – 10

**ResearchGate:** [https://www.researchgate.net/profile/Vadim\\_Ermolayev](https://www.researchgate.net/profile/Vadim_Ermolayev)

Research Interest Score – 694.4; indexed publications – 119; publication reads – 42K+; citations – 602; H-index – 13

**Google Scholar:** <https://scholar.google.com.ua/citations?hl=en&user=vaOHuLQAAAAJ>

Indexed publications – 138; citations – 962; H-index – 15

## COMMUNITY SERVICES:

### Editorship and Reviews for Journals and Book Series

- **Editor** of the [Open Journal of Semantic Web \(OJSW\)](#) - an open access online journal published by [Research Online Publishing](#)
- **Associate Editor** of the Journal of [Information technologies in Education \(ITE\)](#) - published by [Kherson State University](#)
- Member of the **Editorial Review Board** for the [International Journal of Web Services Research \(JWSR\)](#) - a [journal](#) published by [Idea Group Publishers](#)
- Member of the international **Editorial Advisory Board** of the Advances in Web Services Research (AWSR) Book Series, [Idea Group Publishers](#)
- Member of the **Editorial Board** of the [Journal of Service Science, Management, Engineering and Technology \(JSSMET\)](#) - [Idea Group Publishers](#)
- **Reviewer** for CNCS(Springer-Nature), IS(Elsevier), Computer (IEEE), Intelligent Systems (IEEE), Internet Computing (IEEE), IJ-AI (IAES), IJAIT(World Scientific), IJAOSE(Inderscience), IJCAT(Inderscience), IJMISO(Inderscience), IJWBC(Inderscience), IJWSR(IGI Global), KAIS(Springer-Nature), OJSW(RonPub), SWJ(IOS Press), THIS (ACM), TKDE(IEEE), WWWJ (O'Reilly)

### Conference/Workshop Organization

- **Steering Committee member** of the **ICTERI** (ICT in Education, Research, and Industrial Applications) conference series (<https://icteri.org>)
- **Program (Co-)Chair** of **ICTERI** 2024, 2023, 2021, 2019, 2018, 2017, 2016, 2015, 2013, 2012, 2011
- **Tutorials chair** of the 11<sup>th</sup> Int Conf on **ICT in Education, Research, and Industrial Applications (ICTERI 2015)**, Lviv, Ukraine, May. 14 - 16, 2015
- **Program Co-chair** (with Nick Bassiliades) of the 4<sup>th</sup> Int Conf on **Web Intelligence, Mining and Semantics (WIMS 2014)**, Thessaloniki, Greece, June 2-4, 2014
- **Workshops Co-chair** (with M. Grobelnik) 3<sup>d</sup> Int Conf on **Web Intelligence, Mining and Semantics (WIMS 2013)**, Madrid, Spain, June 12 - 14, 2013
- **Organizer** (with C. Badica and V. Terziyan) 1<sup>st</sup> Int W-shop on **Dynamics and Evolution in Intelligent Systems (DEIS 2012)**, Kherson, Ukraine, Jun. 8, 2012
- **Co-chair** (with J.M. Gomez-Perez, P. Haase, P. Warren) 2<sup>nd</sup> Int W-shop on **Context, Information And Ontologies (CIAO 2010)** at **EKAUW 2010**, Lisbon, Portugal, Oct. 11 - 15, 2010
- **Co-organizer** (with W.-E. Matzke): Special Session on **Performance in Industrial Holonic Systems (PiHoIS)** at 3<sup>d</sup> Int Conf on [Industrial Applications of Holonic and Multi-Agent Systems](#) Sept. 3-5, 2007, Regensburg, Germany in conjunction with [DEXA 2007](#)

### Program Committees (2023)

- 42nd Int Conf on **Conceptual Modeling (ER 2023)**, 6-9 November 2023 - Lisbon, Portugal
- 20th **Extended Semantic Web Conference (ESWC 2023)**, May 28 - June 1, 2023, Hersonissos, Crete - Greece
- The **Web Conference (2023)**, April 30 – May 4, 2023, Austin, Texas – USA

## Service for the European Commission

Registered expert in: EU [Sixth Research Framework Program](#), EU [Seventh Research Framework Program](#), [EU Framework Program for Research and Innovation \(Horizon 2020\)](#)

Project reviews, proposal evaluations: reviewer, rapporteur, call rapporteur

## LIST OF SELECTED PUBLICATIONS

The publications are listed in the reversed chronological order. The prefixes in the numbers are introduced to distinguish publication types: B – a book or a book chapter; J – a journal paper; C – a conference paper; W – a workshop paper; I – invited paper or talk; T – a tutorial.

### BOOKS and BOOK CHAPTERS

#### 2019 – 2024

- B1. **Kosa, V., Doboševych, O., Ermolayev, V.:** Terminology Saturation Analysis: Refinements and Applications. In: Akerkar, R. (eds) AI, Data, and Digitalization. SAIDD 2023. Communications in Computer and Information Science, vol 1810. Springer, Cham (2024). DOI: 10.1007/978-3-031-53770-7\_3
- B2. **Kosa, V., Ermolayev, V.:** Terminology Saturation: Detection, Measurement, and Use. Cognitive Science and Technology, Springer Singapore (2022)
- B3. **Kosa, V., Chaves-Fraga, D., Dobrovolskiy, H., Ermolayev, V.:** Optimized term extraction method based on computing merged partial C-values. In: Revised selected papers of ICTERI 2019. Cham, Germany: Springer-Verlag, CCIS vol. 1175, 24–49. (2020)

#### Earlier Publications

- B4. **Kosa, V., Chaves-fragá, D., Naumenko, D., Yuschenko, E., Badenes-Olmedo, C., Ermolayev, V., Birukou, A.:** Cross-Evaluation of Automated Term Extraction Tools by Measuring Terminological Saturation. In: Bassiliades, N. et al. (eds.) Information and Communication Technologies in Education, Research, and Industrial Applications. 13th International Conference, ICTERI 2017, Kyiv, Ukraine, May 15-18, 2017, Revised Selected Paper, CCIS, vol 826, pp. 135-163, 2018
- B5. **Ermolayev, V., Akerkar, R., Terziyan, V., Cochez, M.:** Toward Evolving Knowledge Ecosystems for Big Data Understanding. In: Akerkar, R. (ed.) Big Data Computing, pp. 3--56, Taylor & Francis, 2014
- B6. **Tatarintseva, S., Ermolayev, V., Keller, B., Matzke, W.-E.:** Quantifying Ontology Fitness in OntoElect Using Saturation- and Vote-Based Metrics. In: Ermolayev, V., et al. (Eds.) ICT in Education, Research, and Industrial Applications. Revised Selected Papers of ICTERI 2013, CCIS Vol. 412, pp. 136–162, Springer-Verlag, Berlin-Heidelberg, 2013
- B7. **Davidovsky, M., Ermolayev, V., Tolok, V.:** Evaluation of the Ontology Instance Migration Methodology and Solution in Industrial Settings. In: Ermolayev, V., et al. (Eds.) ICT in Education, Research, and Industrial Applications. Revised Selected Papers of ICTERI 2013, CCIS Vol. 412, pp. 163–189, Springer-Verlag, Berlin-Heidelberg, 2013
- B8. **Ermolayev, V., Akerkar, R., Terziyan, V., Cochez, M.:** Toward Evolving Knowledge Ecosystems for Big Data Understanding. In: Akerkar, R. (ed.) Big Data Computing, pp. 3--56, Taylor & Francis, 2013, ISBN 978-1-46-657837-1
- B9. **Ermolayev, V., Keberle, N., Borue, S.:** Coursework Peer Reviews Increase Students' Motivation and Quality of Learning In: Ermolayev, V., et al. (Eds.) ICT in Education, Research, and Industrial Applications. Revised Selected Papers of ICTERI 2012, CCIS Vol. 347, pp. 177–194, Springer-Verlag, Berlin-Heidelberg, 2013
- B10. **Ermolayev, V., Dengler, F.:** Visualizing Design Project Knowledge on a Collaborative Web 2.0 Platform. In: de Pablos, P. O., Nigro, H. O., Tennyson, R., & Gonzalez Cisaró, S. E. (Eds.). Advancing Information Management through Semantic Web Concepts and Ontologies, 70 - 85, IGI Global, 2012
- B11. **Ermolayev, V., Dengler, F., Fortuna, C., Stajner, T., Bossert, T., Melchior, E.-M.:** Chapter 10: Increasing predictability and sharing tacit knowledge in electronic design. In: Warren, P., Davies, J., Simperl, E. (Eds.) Context and Semantics for Knowledge Management. Technologies for Personal Productivity. 1st Edition, Springer Verlag, Berlin-Heidelberg, 2011, 189-212, ISBN 978-3-642-19509-9
- B12. **Ermolayev, V., Keberle, N., Kononenko, O., Terziyan, V.:** Chapter XI. Proactively Composing Web Services as Tasks by Semantic Web Agents. In: Zang, L.J. (Ed.) Modern Technologies in Web Services Research. IGI Publishing, Hershey New-York., 2006, 217-246, ISBN: 978-1-59904-280-0.
- B13. **Ermolayev, V., Jentzsch, E., Karsayev, O., Keberle, N., Matzke, W.-E., Samoylov, V., Sohnius, R.:** An Agent-Oriented Model of a Dynamic Engineering Design Process. In: Kolp, M., Bresciani, P., Hendersen-Sellers, B., and Winikoff, M. (Eds.): Agent-Oriented Information Systems III. 7th International Bi-Conference Workshop, AOIS 2005, Utrecht, Netherlands, July 26, 2005, and Klagenfurt, Austria, October 27, 2005. Revised Selected Papers, 168-183, 2006, LNCS Vol. 3529

- B14. **Ermolayev, V., Terziyan, V., Kaykova, H.:** SW@Ukraine. Semantic Web Factbook, 2005, Lytras M. (eds), Preliminary edition, AIS SIGSEMIS and OPEN RESEARCH SOCIETY publications, ISSN: 1556-2301, May 2006.
- B15. **V. A. Tolok, V. A. Ermolayev:** IT-Enabled Teaching and Learning in Today's Higher School In V. P. Andruschenko, M. I. Mikhailichenko, V. G. Kremen (Eds.) "Higher Education in Ukraine: Methodological and Socio-Pedagogical Problems of Modernization", Kiev, 2001, 440 p., ISBN 966-000-000-4, 221-247 (Ukrainian)
- B16. **V. A. Ermolayev, V. A. Tolok:** Modelling Distant Learning Activities by Agent Task Coalitions. In: Q. Jin, J. Li, J. Cheng, C. Yu and S. Noguchi (Eds.) Enabling Society with Information Technology, Springer-Verlag, Tokyo, 2002, ISBN 4431703276, 316-326

## JOURNAL/MAGAZINE ARTICLES

2018 – 2024

- J1. **Ermolayev, V.:** OntoElecting Requirements for Domain Ontologies. The Case of Time Domain. Enterprise Modelling and Information Systems Architectures, vol 13, Sp. Issue, 86-109, 2018

### Earlier Publications

- J2. **Cochez M., Terziyan V., Ermolayev V.** (2017) Large Scale Knowledge Matching with Balanced Efficiency-Effectiveness Using LSH Forest. In: Nguyen N., Kowalczyk R., Pinto A., Cardoso J. (eds) Transactions on Computational Collective Intelligence XXVI, LNCS, vol 10190, pp. 46-66
- J3. **Ermolayev, V.:** The Law of Gravitation for Ontologies and Domains of Discourse. Computer Science Journal of Moldova, 23(2), 209 - 236, 2015
- J4. **Ermolayev, V., Batsakis, S., Keberle, N., Tatarintseva, O., Antoniou, G.:** Ontologies of Time: Review and Trends. Int. J. of Computer Science & Applications. Vol. 11, Issue 3, 57–115, 2014
- J5. **Davidovsky, M., Ermolayev, V., Tolok, V.:** Instance Migration between Ontologies Having Structural Differences. International Journal on Artificial Intelligence Tools. Vol. 20, No. 6 (2011) 1127–1156, DOI: [10.1142/S0218213011000553](https://doi.org/10.1142/S0218213011000553)
- J6. **Ermolayev, V., Jentzsch, E., Dengler, F., Warren, P., Matzke, W.-E.:** ACTIVE Technologies for Knowledge Management in Microelectronic Engineering Design. Newsletter Edacentrum, 2, 2010, 12-15
- J7. **Ermolayev, V., Tatarintseva, O.:** Applied Research and Development in Cooperation with Industry. Information Technologies in Education 5, 2010, 16-26 (in Russian)
- J8. **Keberle, N., Ermolayev, V., Matzke, W.-E.:** Application of Logical Means to Ontology Change Analysis. Control, Navigation, and Communication Systems Journal, (11)3, Nov. 2009, p. 105-110 (in Russian)
- J9. **Warren, P., Kings, N., Thurlow, I., Davies, J., Burger, T., Simperl, E., Ruiz, C., Gomez-Perez, J.M., Ermolayev, V., Ghani, R., Tilly, M., Bosser, T., Imiaz, A.:** Improving Knowledge Worker Productivity – the ACTIVE Integrated Approach. BT Technology Journal, (26)2, April 2009, p. 165-176
- J10. **Ermolayev, V., Spivakovsky, A., Zholtkevych, G., Bulat, A., Keberle, N.:** UnIT-Net IEDI: an Infrastructure for Electronic Data Interchange. Information Technologies in Education 1(1), 2008, 26-42
- J11. **Vladimirov, V., Sohnius, R., Ermolayev, V., Matzke, W.-E.:** Semi-Automated Instance Migration between Evolving Ontologies. Herald of NTU KhPI. Special Issue: System Analysis, Management, and IT. No 7, 2007, 130-144
- J12. **Keberle, N., Ermolayev, V., Vladimirov, V., Dzhurinsky, E.:** Visual Semantic Query Formulation and Execution in UnIT-NET IEDI. "Mathematical Modeling, IT, Automated Control Systems" series of the Herald of Kharkiv National University, No 703, ISSN 0453-8048, p. 95-108
- J13. **Ermolayev, V., Plaksin, S.:** Workflow Management by Multi-Agent Systems. "Mathematical Modeling, IT, Automated Control Systems" series of the Herald of Kharkiv National University, No 629, 2004(Issue 3), ISSN 0453-8048, p. 132-143
- J14. **Ermolayev, V., Keberle, N., Shapar, V., Vladimirov, V.:** Semantically Reinforced Web Services for Wrapping Autonomous Information Resources. "Mathematical Modeling, IT, Automated Control Systems" series of the Herald of Kharkiv National University, No 629, 2004(Issue 3), ISSN 0453-8048, p. 56-69
- J15. **Ermolayev, V., Keberle, N., Kononenko, O., Plaksin, S., Terziyan, V.:** Towards a framework for agent-enabled semantic web service composition. Int. J. of Web Services Research, 1(3), 63-87, Jul.-Sept. 2004
- J16. **Ermolayev, V., Keberle, N., Plaksin, S., Vladimirov, V.:** Ontology-Driven Query Transformation in Agent-based Intelligent Information Retrieval. Herald NTU KhPI, Sp. Issue "System Analysis, Control, and IT", No 1, 2004, 57-72
- J17. **Ermolayev, V. A., Tolok, V. A.** Unified Information Space for Microeconomic Systems Modeling and Control. In: Ju. G. Lysenko (Ed.) Control Models for Market Economy. Special Issue. DonNU, Donetsk, 2002, p. 66-88
- J18. **Ermolayev, V., Tolok, V.** Academic E-editions in the Information Space of Ukraine. Novyj Kolegium. Scientific and Information Journal, ISSN 1562-529X, pp. 38-45
- J19. **Ermolayev, V. A., Keberle, N. G., Malyar, E. N., Plaksin, S. L.** Algebraic Approach to Ontology Translation Lecture Notes of Zaporizhzhia State University, ISBN 966-599-142-6, Vol. 5, No 2, 2002
- J20. **V. A. Ermolayev, S. L. Plaksin** Coordination of Work Placement in Agents' Task Coalitions. Lecture Notes of Zaporizhzhia State University, ISBN 966-599-142-6, Vol. 4, No 1, pp. 30-35, 2001

- J21. **V. A. Ermolayev, N. G. Keberle**, Active Data Dictionary: a Method and a Tool for Data Model Driven Information System Design. Lecture Notes of Zaporizhzhia State University, ISBN 966-599-058-4, Vol. 3, No 2, 2000. pp. 68-78.
- J22. **V. A. Ermolayev, S. U. Borue, V. A. Tolok, N. G. Keberle**, Use of Diakoptics and Finite Automata for Modelling Virtual Information Space Agent Societies. Lecture Notes of Zaporizhzhia State University, ISBN 966-599-058-4, Vol. 3, No 1, 2000, pp.34-44.
- J23. **S. U. Borue, V. A. Ermolayev, V. A. Tolok**: Application of Diakoptical MAS Framework to Planning Process Modelling --in: "Problems of Programming" Scientific Journal №1-2, 2000, ISBN 966-02-1244-5, Special Issue: the Proc. of the 2-nd Intl. Scientific - Practical Conference on Programming (UkrPROG'2000), Kiev, 23-26 May 2000, p. 488-500
- J24. **S. U. Borue, V. A. Ermolayev, V. A. Tolok**: On Diakoptical Approach to Process Modelling in Multifunctional Information Systems. Artificial Intelligence. Scientific Theoretical Journal №2, 1999, ISSN 1561-5359, Special Issue: Proceedings of International Conference Knowledge - Dialog - Solution (KDS'99). Katsiveli, 13-18.09.1999, pp. 211-219
- J25. **Ermolayev, V. A., Pletsky, S. U., Tolok, V. A.**, Architecture of Unified Information Space of a Virtual University. Lecture Notes of Zaporizhzhia State University, ISBN 966-599-058-4, Vol. 1, No 2, 1998, p. 44-53.(Russian)
- J26. **V. A. Ermolayev, N. G. Keberle**, On Possibilities to Enhance Relational Attributes with the Property of Computability. Lecture Notes of Zaporizhzhia State University, ISBN 966-599-058-4, Vol. 1, No 2, 1998, p. 38-44. (Russian)
- J27. **V. A. Ermolayev**, Object Oriented Dynamic Data Modelling and Active Data Dictionaries - Some Crosspoints . Lecture Notes of Zaporizhzhia State University, ISBN 966-599-058-4, Vol. 1, No 2, 1998, p. 53-63.
- J28. **N. G. Keberle, V.A. Ermolayev**, On Boolean Operations upon Relationships Containing Computable Attributes. Lecture Notes of Zaporizhzhia State University, ISBN 966-599-058-4, Vol 1, No 1, 1998, p.40 - 41 (Russian)
- J29. **V. A. Ermolayev, A. S. Kontsur, V. A. Tolok**, On Perspectives of Further Development of University-Wide Computational Infrastructure at ZSU. Lecture Notes of Zaporizhzhia State University, ISBN 966-599-058-4, Vol. 1, No 1, 1998, p. 46-49. (Russian)
- J30. **S. U. Borue, V. A. Ermolayev, A. V. Tolok** On an Integral approach to the design of adaptable mathematical models of complex systems In: Mathematics, Physics. Collection of Scientific Papers Dedicated to the 10-th Anniversary of Zaporizhzhia State Univ., Zaporizhzhia, ZSU, 1995, p. 5-9. (Russian)
- J31. **V. A. Ermolayev, S. G. Kononov**, A Method of Design and Projection of 3-dimentional Objects Having Complex Geometrical Shape. In: Mathematics, Physics. Collection of Scientific Papers Dedicated to the 10-th Anniversary of Zaporizhzhia State Univ., Zaporizhzhia State University, Zaporizhzhia, Ukraine, 1995, pp 35-38. (Russian)

## EDITED COLLECTIONS

2018 – 2024

- P1. **Antoniou, G., Ermolayev, V., Kobets, V., Liubchenko, V., Mayr, H. C., Spivakovsky, A., Yakovyna, V., Zholtkevych, G.** (eds.): Information and Communication Technologies in Education, Research, and Industrial Applications. 18th International Conference, ICTERI 2023, Ivano-Frankivsk, Ukraine, September 18–22, 2023, Proceedings. CCIS Vol. 1980. Springer, Cham, 2022, DOI: 10.1007/978-3-031-48325-7
- P2. **Ignatenko, O., Kharchenko, V., Kobets, V., Kravtsov, H., Tarasich, Y., Ermolayev, V., Esteban, D., Yakovyna, V., Spivakovsky, A.** (eds.): ICTERI 2021 Workshops. ITER, MROL, RMSEBT, TheRMIT, UNLP 2021, Kherson, Ukraine, September 28–October 2, 2021, Proceedings. CCIS Vol. 1635. Springer, Cham, 2022, ISBN 978-3-031-14841-5
- P3. **Bollin, A., Ermolayev, V., Mayr, H.C., Nikitchenko, M., Spivakovsky, A., Tkachuk, M.V., Yakovyna, V., Zholtkevych, G.** (eds.): Information and Communication Technologies in Education, Research, and Industrial Applications - 16th International Conference, ICTERI 2020, Kharkiv, Ukraine, October 6-10, 2020, Revised Selected Papers. CCIS Vol. 1308, Springer 2021, ISBN 978-3-030-77591-9
- P4. **Ermolayev, V., Esteban, D., Mayr, H.C., Nikitchenko, M., Bogomolov, S., Zholtkevych, G., Yakovyna, V., Spivakovsky, A.** (eds.): Proceedings of the 17th International Conference on ICT in Education, Research and Industrial Applications. Integration, Harmonization and Knowledge Transfer. Volume I: Main Conference, PhD Symposium, and Posters, Kherson, Ukraine, September 28 - October 2, 2021. CEUR-WS Vol. 3013, CEUR-WS.org 2021
- P5. **Ermolayev, V., Mallet, F., Yakovyna, V., Mayr, H.C., Spivakovsky, A.** (eds.): Information and Communication Technologies in Education, Research, and Industrial Applications. 15th International Conference, ICTERI 2019, Kherson, Ukraine, June 12–15, 2019, Revised Selected Papers. Springer International Publishing, CCIS Vol. 1175, XII, 441 p., 2020
- P6. **Ermolayev, V., Suárez-Figueroa, M.C., Yakovyna, V., Mayr, H.C., Nikitchenko, M., Spivakovsky, A.** (eds.): Information and Communication Technologies in Education, Research, and Industrial Applications. 14th International Conference, ICTERI 2018, Kyiv, Ukraine, May 14-17, 2018, Revised Selected Papers. Springer International Publishing, CCIS Vol. 1007, XIV, 323 p., 2019
- P7. **Ermolayev, V., Mallet, F., Yakovyna, V., Mayr, H.C., Spivakovsky, A.** (eds.): Proceedings of the 15th International Conference on ICT in Education, Research and Industrial Applications.

Integration, Harmonization and Knowledge Transfer. Volume I: Main Conference, Kherson, Ukraine, June 12-15, 2019. CEUR-WS Vol. 2387, CEUR-WS.org 2019

- P8. **Ermolayev, V., Mallet, F., Yakovyna, V., Kharchenko, V., Kobets, V., Kornilowicz, A., Kravtsov, H., Nikitchenko, M., Semerikov, S., Spivakovsky, A.** (eds.): Proceedings of the 15th International Conference on ICT in Education, Research and Industrial Applications. Integration, Harmonization and Knowledge Transfer. Volume II: Workshops, Kherson, Ukraine, June 12-15, 2019. CEUR-WS Vol. 2393, CEUR-WS.org 2019
- P9. **Bassiliades, N. Ermolayev, V., Fill, H.-G., Yakovyna, V., Mayr, H. C., Nikitchenko, M., Zholtkevych, G., Spivakovsky, A.** (eds.): Information and Communication Technologies in Education, Research, and Industrial Applications. 13th International Conference, ICTERI 2017, Kyiv, Ukraine, May 15-18, 2017, Revised Selected Papers, Springer Verlag, Cham, CCIS Vol. 826, 2018, XI, 258 p.
- P10. **Ermolayev, V., Suárez-Figueroa, M.C., Lawrynowicz, A., Palma, R., Yakovyna, V., Mayr, H. C., Nikitchenko, M., Spivakovsky, A.** (eds.): Proceedings of the 14th International Conference on ICT in Education, Research, and Industrial Applications. Integration, Harmonization and Knowledge Transfer. Volume I: Main Conference, Kyiv, Ukraine, May 14-17, 2018. CEUR-WS Vol. 2105, CEUR-WS.org 2018
- P11. **Ermolayev, V., Suárez-Figueroa, M.C., Yakovyna, V., Kharchenko, V., Kobets, V., Kravtsov, H., Peschanenko, V.S., Prytula, Y., Nikitchenko, M., Spivakovsky, A.** (eds.): Proceedings of the 14th International Conference on ICT in Education, Research and Industrial Applications. Integration, Harmonization and Knowledge Transfer. Volume II: Workshops, Kyiv, Ukraine, May 14-17, 2018. CEUR-WS Vol. 2104, CEUR-WS.org 2018

#### Earlier Publications

- P12. **Ermolayev, V., Bassiliades, N., Fill, H.-G., Yakovyna, V., Mayr, H. C., Kharchenko, V., Peschanenko, V.S., Shyshkina, M., Nikitchenko, M., Spivakovsky, A.** (eds.): Proceedings of the 13th International Conference on ICT in Education, Research and Industrial Applications. Integration, Harmonization and Knowledge Transfer, ICTERI 2017, Kyiv, Ukraine, May 15-18, 2017. CEUR-WS Vol. 1844, CEUR-WS.org 2017
- P13. **Ginige, A., Mayr, H. C., Plexousakis, D., Ermolayev, V., Nikitchenko, M., Zholtkevych, G., Spivakovsky, A.** (eds.): Information and Communication Technologies in Education, Research, and Industrial Applications. 13th International Conference, ICTERI 2016, Kyiv, Ukraine, June 21-24, 2016, Revised Selected Papers, Springer Verlag, Cham, CCIS Vol. 783, 2018, XI, 201 p.
- P14. **Ermolayev, V., Spivakovsky, A., Nikitchenko, M., Ginige, A., Mayr, H. C., Plexousakis, D., Zholtkevych, G., Burov, O., Kharchenko, V., Kobets, V.** (eds.): Proceedings of the 12th International Conference on ICT in Education, Research, and Industrial Applications. Integration, Harmonization and Knowledge Transfer, Kyiv, Ukraine, June 21-24, 2016. CEUR-WS Vol. 1614, CEUR-WS.org 2016
- P15. **Batsakis, S., Mayr, H. C., Yakovyna, V., Nikitchenko, M., Zholtkevych, G., Kharchenko, V., Kravtsov, H., Kobets, V. Peschanenko, V.S., Ermolayev, V., Bobalo, Y., Spivakovsky, A.** (eds.): Proceedings of the 11th International Conference on ICT in Education, Research and Industrial Applications: Integration, Harmonization and Knowledge Transfer, Lviv, Ukraine, May 14-16, 2015. CEUR-WS Vol. 1356, CEUR-WS.org 2015
- P16. **Akerkar, R., Bassiliades, N., Davies, J., Ermolayev, V.** (eds.): Proceedings of the 4th International Conference on Web Intelligence, Mining and Semantics (WIMS 14), ACM, 2014
- P17. **Ermolayev, V., Mayr, H.C., Nikitchenko, M., Spivakovsky, A., Zholtkevych, G.** (eds.): Information and Communication Technologies in Education, Research, and Industrial Applications. 10th International Conference, ICTERI 2014, Kherson, Ukraine, June 9-12, 2014, Revised Selected Papers, Springer Verlag, Berlin-Heidelberg, CCIS Vol. 469, 2014, XII, 371 p.
- P18. **Ermolayev, V., Mayr, H.C., Nikitchenko, M., Spivakovsky, A., Zholtkevych, G.** (eds.): Information and Communication Technologies in Education, Research, and Industrial Applications. 9th International Conference, ICTERI 2012, Kherson, Ukraine, June 19-22, 2013, Revised Selected Papers, Springer Verlag, Berlin-Heidelberg, CCIS Vol. 412, 2013, XII, 379 p.
- P19. **Ermolayev, V., Mayr, H.C., Nikitchenko, M., Spivakovsky, A., Zholtkevych, G., Zavileysky, M., Kravtsov, H., Kobets, V. and Peschanenko, V.** (eds.): ICT in Education, Research, and Industrial Applications. Proc. 9th Int. Conf. ICTERI 2013, Kherson, Ukraine, June 19-22, 2013, CEUR-WS.org/Vol-1000, ISSN 1613-0073, urn:nbn:de:0074-1000-9
- P20. **Ermolayev, V., Mayr, H.C., Nikitchenko, M., Spivakovsky, A., Zholtkevych, G.** (eds.): ICT in Education, Research, and Industrial Applications. 8th International Conference, ICTERI 2012, Kherson, Ukraine, June 6-10, 2012, Revised Selected Papers, Springer Verlag, Berlin-Heidelberg, CCIS Vol. 347, 2013, 245 p.
- P21. **Ermolayev, V., Mayr, H.C., Nikitchenko, M., Spivakovsky, A., Zavileysky, M. and Zholtkevych, G.** (eds.): ICT in Education, Research, and Industrial Applications: Integration, Harmonization, and Knowledge Transfer. Proc. 7th Int. Conf. ICTERI 2011, Kherson, Ukraine, May 4-7, 2011, CEUR-WS.org/Vol-716, ISSN 1613-0073, urn:nbn:de:0074-716-8
- P22. **Ermolayev, V., Gomez-Perez, J. M., Haase, P., Warren, P.** (Eds.): Proceedings of the Second Workshop on Context, Information and Ontologies (CIAO 2010). CEUR Workshop Proceedings, vol. 626, CEUR-WS.org, 2010

## REFEREED CONFERENCE PAPERS

2018 – 2024

- C1. **Kosa, V., Ermolayev, V.:** Terminology Saturation Analysis for Machine Learning and Event Detection. In: Proc. Symposium on AI, Data and Digitalization, Sogndal - Norway, May 2023, DOI: 10.13140/RG.2.2.32858.82884
- C2. **Kosa, V., Chaves-Fraga, D., Dobrovolskyi, H., Fedorenko, E., Ermolayev, V.:** Optimizing automated term extraction for terminological saturation measurement. CEUR-WS, vol. 2387, 1–16 (2019)
- C3. **Chugunenko, A., Kosa, V., Popov, R., Chaves-Fraga, D., Ermolayev, V.:** Refining terminological saturation using string similarity measures. CEUR-WS vol. 2105 3–18 (2018)
- C4. **Moiseyenko, S., Ermolayev, V.:** Conceptualizing and Formalizing Requirements for Ontology Engineering. In: Proc. PhD Symposium @ ICTERI 2018, CEUR-WS vol. 2122, 35-44 (2018)
- C5. **Vasileyko, A., Ermolayev, V.:** Evaluating the fitness of a domain ontology to formalized stakeholder requirements. In: Proc. PhD Symposium @ ICTERI 2018, CEUR-WS vol. 2122, 45–55 (2018)

### Earlier Publications

- C6. **Kosa, V., Chugunenko, A., Yuschenko, E., Badenes-Olmedo, C., Ermolayev, V., Birukou, A.:** Semantic saturation in retrospective text document collections. In: Proc. PhD Symposium @ ICTERI 2017, CEUR-WS, vol. 1851, 1–8 (2017)
- C7. **Cochez, M., Terziyan, V.Y., Ermolayev, V.:** Balanced Large Scale Knowledge Matching Using LSH Forest. In Proc. International KEYSTONE Conference 2015, pp. 36-50 (2015)
- C8. **Akerkar, R., Bassiliades, N., Davies, J., Ermolayev, V.:** Research and Applications in Web Intelligence, Mining, and Semantics. In: R. Akerkar et al. (Eds.): Proceedings of the 4th International Conference on Web Intelligence, Mining and Semantics (WIMS 14), ACM, 2014
- C9. **Davidovsky, M., Ermolayev, V., Tolok, V.:** Agent-Based Implementation for the Discovery of Structural Difference in OWL-DL Ontologies. In: H.C. Mayr et al. (Eds.): UNISCON 2012, LNBIP 137, pp. 87–95, 2013
- C10. **Tatarintseva, O., Borue, Yu., Ermolayev, V.:** Validating OntoElect Methodology in Refining ICTERI Scope Ontology. In: H.C. Mayr et al. (Eds.): UNISCON 2012, LNBIP 137, pp. 128–139, 2013
- C11. **Tatarintseva, O., Ermolayev, V.:** Refining an Ontology by Learning Stakeholder Votes from their Texts. Proc. 9th Int Conf. ICTERI 2013, Kherson, Ukraine, June 2013, CEUR-WS vol. 1000, pp. 64-78, ceur-ws.org/vol-1000/
- C12. **Alferov, E., Ermolayev, V.:** Extracting Knowledge Tokens from Text Streams. Proc. 9th Int Conf. ICTERI 2013, Kherson, Ukraine, June 2013, CEUR-WS vol. 1000, pp. 108-116, ceur-ws.org/vol-1000/
- C13. **Davidovsky, M., Ermolayev, V., Tolok, V.:** Application of an Instance Migration Solution to Industrial Ontologies. Proc. 9th Int Conf. ICTERI 2013, Kherson, Ukraine, June 2013, CEUR-WS vol. 1000, pp. 99-107, ceur-ws.org/vol-1000/
- C14. **Ermolayev, V., Davidovsky, M.:** Ontology Alignment and Applications in 90 Minutes. Tutorial Paper. Proc. 9th Int Conf. ICTERI 2013, Kherson, Ukraine, June 2013, CEUR-WS vol. 1000, pp. 295-306, ceur-ws.org/vol-1000/
- C15. **Ermolayev, V., Davidovsky, M.:** Agent-Based Ontology Alignment: Basics, Applications, Theoretical Foundations, and Demonstration. Tutorial Paper. In: Dan Burdescu, D., Akerkar, R., and Badica, C. (eds.) Proc. Int Conf on Web Intelligence, Mining and Semantics (WIMS 2012), Craiova, Romania, 13-15 Jun. 2012, pp. 11-22, ACM, 2012, doi>10.1145/2254129.2254136
- C16. **Ermolayev, V., Keberle, N., Borue, S.:** Motivating Students and Improving Quality of Learning Using Peer-Reviews. In: Ermolayev, V. et al. (eds.) Proc. 8-th Int. Conf. ICTERI 2011, Kherson, Ukraine, June 6-10, 2012, [CEUR-WS.org/Vol-848](http://CEUR-WS.org/Vol-848), ISSN 1613-0073, pp.164-175
- C17. **Tatarintseva, O., Borue, Yu., Ermolayev, V.:** OntoElect Approach for Iterative Ontology Refinement: a Case Study with ICTERI Scope Ontology. In: Proc. 4th International United Information Systems Conference, Yalta, Ukraine, June 1-3, 2012, to appear
- C18. **Davidovsky, M., Ermolayev, V., Tolok, V.:** An Implementation of Agent-Based Ontology Alignment. In: Proc. 4th International United Information Systems Conference, Yalta, Ukraine, June 1-3, 2012, to appear
- C19. **Davidovsky, M., Ermolayev, V., Tolok, V.:** A Survey on Agent-Based Ontology Alignment. In: Proc. Int Conf on Agents and Artificial Intelligence (ICAART 2012), Vilamoura, Algarve, Portugal, 6-8 Feb. 2012, pp. 355-361
- C20. **Tatarintseva, O., Ermolayev, V., Fensel, A.:** Is Your Ontology a Burden or a Gem? - Towards Xtreme Ontology Engineering. In: Ermolayev, V. et al. (eds.) Proc. 7-th Int. Conf. ICTERI 2011, Kherson, Ukraine, May 4-7, 2011, [CEUR-WS.org/Vol-716](http://CEUR-WS.org/Vol-716), ISSN 1613-0073, pp. 65-81, online
- C21. **Davidovsky, M., Ermolayev, V., Jentsch, E., Matzke, W.-E.:** Evaluation of Semi-Automated Ontology Instance Migration. In: M. Essaaidi et al. (Eds.): Intelligent Distributed Computing IV, SCI 315, pp. 179–190, Springer-Verlag Berlin Heidelberg (2010)
- C22. **Ermolayev, V., Dengler, F., Jentsch, E., Matzke, W.-E.:** Articulation and Sharing of Distributed Design Project and Process Knowledge. In: M. Essaaidi et al. (Eds.): Intelligent Distributed Computing IV, SCI 315, pp. 209–216, Springer-Verlag Berlin Heidelberg (2010)
- C23. **Ermolayev, V., Keberle, N., Jentsch, E., Sohnius, R., Matzke, W.-E.:** Modeling Actions in Dynamic Engineering Design Processes. In: J. Yang et al. (Eds.): Proc. 3<sup>d</sup> Int. Conf. UNISCON 2009, Apr. 21 – 24, 2009, Sydney, Australia, LNBIP 20, pp. 127–141, 2009

- C24. **Ermolayev, V., Keberle, N., Matzke, W.-E.**: An Upper-Level Ontological Model for Engineering Design Performance Domain. In: Li, Q., Spaccapietra, S., and Yu, E. (Eds.) Proc 27<sup>th</sup> Int. Conference on Conceptual Modeling (ER 2008), Barcelona, Spain, Oct. 20-23, LNCS 5231, pp. 98–113, 2008.
- C25. **Ermolayev, V., Keberle, N., Matzke, W.-E., Sohnius, R.**: Fuzzy Time Intervals for Simulating Actions. In: Kaschek, R., Kop, C., Steinberger, C. and Fliedl, G. (Eds.) Information Systems and Business Technologies. Proc. 2<sup>nd</sup> Int. Conf. UNISCON 2008, Apr. 22 – 25, 2008, Klagenfurt, Austria, LNBIP Vol. 5, 429-444
- C26. **Ermolayev, V., Matzke, W.-E.**: Towards Industrial Strength Business Performance Management. In: Marik, V., Colombo, A.W., Vyatkin, V. (Eds.) Proc. 3rd Int. Conf. on Industrial Applications of Holonic and Multi-Agent Systems (HoloMAS 2007), Sept. 3-5, 2007, Regensburg, Germany, pp 387-400
- C27. **Sohnius, R., Ermolayev, V., Jentsch, E., Matzke, W.-E.**: An Approach for Assessing Design Systems: Design System Simulation and Analysis for Performance Assessment. In: Cordoso, J. Cordeiro, J., and Filippe, J. (eds.): Proc. 9th Int Conf on Enterprise Information Systems. Vol. 2: Artificial Intelligence and Decision Support Systems, 12-16 June, 2007, Funchal, Madeira - Portugal, pp 231-236.
- C28. **Keberle, N., Ermolayev, V., Matzke, W.-E.**: Evaluating PSI Ontologies by Mapping to the Common Sense. In: Mayr, H. C, Karagiannis, D. (Eds.): Information Systems Technology and its Applications Proc. 6th Int. Conf. ISTA 2007, May 23-25, Kharkiv, Ukraine, 2007, GI LNI Vol 107 , pp 91-104.
- C29. **Gorodetsky, V., Ermolayev, V., Jentsch, E., Karsayev, O., Konushy, V., Matzke, W.-E.**: Multi-agent Software Tool for Management of Design Processes in Microelectronics. In: Nishida, T., Klusch, M., Sycara, K., Yokoo, M. (Eds.): Proc. IEEE/WIC/ACM Int. Conf. on Intelligent Agent Technology (IAT-06), 20-22 Dec., 2006, Hong Kong, pp. 773-776
- C30. **Sohnius, R., Ermolayev, V., Jentsch, E., Keberle, N., Matzke, W.-E., Samoylov, V.**: Managing Concurrent Engineering Design Processes and Associated Knowledge. In: Ghodous, P., Dieng-Kuntz, R., and Loureiro, G. (Eds.): Leading the Web in Concurrent Engineering. Proc. 13th ISPE Int Conf on Concurrent Engineering: Research and Applications, 18 - 22 Sept., Antibes, French Riviera, IOS Press, Series: Frontiers in AI and Applications, Vol. 143, pp. 198-205, 2006
- C31. **Ermolayev, V., Keberle, N.**: A Generic Ontology of Rational Negotiation. In: Karagiannis, D., Mayr, H.C. (Eds.): Information Systems Technology and its Applications. 5-th Int Conf ISTA'2006, May 30 – 31, Klagenfurt, Austria, LNI, Vol. 84, pp. 51-66, 2006
- C32. **Ermolayev, V., Keberle, N., Matzke, W.-E., Vladimirov, V.**: A Strategy for Automated Meaning Negotiation in Distributed Information Retrieval. In: Y. Gil et al. (Eds.): ISWC 2005 Proc. 4th Int. Semantic Web Conference (ISWC'05), 6-10 November, Galway, Ireland, LNCS 3729, pp. 201 – 215, 2005.
- C33. **Gorodetsky, V., Ermolayev, V., Matzke, W.-E., Jentsch, E., Karsayev, O., Keberle, N., Samoylov, V.**: Agent-Based Framework for Simulation and Support of Dynamic Engineering Design Processes in PSI. In: Pechouček, M., Petta, P., Varga, L. Z. (Eds.) Proc. 4th Int. Central and Eastern European Conf. on Multi-Agent Systems (CEEMAS'05), 15-17 September 2005, Budapest, Hungary, LNAI 3690, pp. 511-520, 2005.
- C34. **Ermolayev, V., Keberle, N., Shapar, V., Vladimirov, V.** (2004): Ontology-Driven Sub-Query Extraction for Distributed Autonomous Information Resources in UnIT-Net IEDI. In: A. Doroshenko, T. Halpin, S. W. Liddle, H. C. Mayr (eds.) Information Systems Technology and its Applications. Proc. 3-d Int. Conf ISTA'2004, July 15-17, 2004, Salt Lake City, Utah, USA, p. 137-150, GI LNI Vol P-48
- C35. **Ermolayev, V., Keberle, N., Plaksin, S.** (2003) Towards Agent-Based Rational Service Composition -- RACING Approach. In: M. Jeckle and L-J. Zang (Eds.) Web Services -- ICWS-Europe 2003. Proc. of the Int. Conf. on Web Services Europe, Sept., 23-25, 2003, Erfurt, Germany, LNCS Vol. 2853, p. 167-182
- C36. **Ermolayev, V., Keberle, N., Plaksin, S., Vladimirov, V.** (2003) Capturing Semantics from Search Phrases: Incremental User Personification and Ontology-Driven Query Transformation In: Proc. 2-nd Int. Conf. on Information Systems Technology and its Applications (ISTA'2003), Kharkiv, Ukraine, June 19-21, 2003, pp. 9-20, ISBN 3-88579-359-8, Series: LNI, German Informatics Society
- C37. **V. A. Ermolayev, S. L. Plaksin** (2002) Cooperation Layers in Agent-Enabled Business Process Management. In: Proc. of The 3-d Intl. Scientific-Practical Conference on Programming (UkrPROG'2002), May, 21-24, 2002, Kiev, Ukraine, p. 354-368
- C38. **N. G. Keberle, V. A. Ermolayev** (2001) An Approach to Dynamic Ontology Modification in Mediator Service-Oriented Information Systems. In: Godlevsky, M., Mayr, H. C. (Eds.) Information Systems Technology and its Applications. Proc. of Intl. Conf. ISTA'2001 June 13-15, 2001, Kharkiv, Ukraine. GI-Edition 'Lecture Notes in Informatics', pp 247-260.
- C39. **Ermolayev, V.**: Dynamic Agent Communities Facilitating to Distant Learning in a Virtual University Information Space. In: Proc. of Intl. Conf. IS2000, Special Session on Virtual Universities and Distance Education, Japan, November 5-8, 2000, pp. 488-495.
- C40. **Ermolayev, V. A., Tolok, V. A.**: The Cyberspace of ZSU in the Information Society of the XXI Century. Proc. of Intl Congress "Information Society in Ukraine", Kiev, Sept. 2000, 10 pp. (Russian)
- C41. **S. U. Borue, V. A. Ermolayev, V. A. Tolok**: Application of Diakoptical MAS Framework to Planning Process Modelling --in: Proc. of the 2-nd Intl. Scientific - Practical Conference on Programming (UkrPROG'2000), Kiev, 23-26 May 2000, p. 488-500
- C42. **V. A. Ermolayev**, Visual Intranet Interfaces and Architecture of Unified Information Space in the Concept of Virtual University at ZSU -- ENCOM'98, Atlanta, June 1998

## REFEREED WORKSHOP PAPERS

2018 – 2024

- W1. **Kosa, V., Ermolayev, V.:** Toward a theoretical framework of terminological saturation for ontology learning from texts. In: Proc. MS-AMLV 2019, CEUR-WS vol. 2566, 40–51 (2020)
- W2. **Moiseyenko, S., Vasileyko, A., Ermolayev, V.:** Building a feature taxonomy of the terms extracted from a text collection. In: Proc. MS-AMLV 2019, CEUR-WS vol. 2566, 59–70 (2020)
- W3. **Ermolayev, V., Suárez-Figueroa, M.C., Molchanovsky, O.:** Architecting Data Science Education. In: Proc. ICTERI Workshops 2018, CEUR-WS vol. 2104, 734-746 (2018)

### Earlier Publications

- W4. **Ermolayev, V., Copylov, A., Keberle, N., Jentsch, E., Matzke, W.-E.** Using Contexts in Ontology Structural Change Analysis.. In: Ermolayev, V., Gomez-Perez, J.-M., Haase, P., Warren, P, (eds.) CIAO 2010, CEUR-WS, vol. 626 (2010)
- W5. **Ermolayev, V., Ruiz, C., Tilly, M., Jentsch, E., Gomez-Perez, G. M., Matzke, W.-E.:** A Context Model for Knowledge Workers. In: Ermolayev, V., Gomez-Perez, J.-M., Haase, P., Warren, P, (eds.) CIAO 2010, CEUR-WS, vol. 626 (2010)
- W6. **Ermolayev, V., Keberle, N., Matzke, W.-E.:** An Ontology of Environments, Events, and Happenings. In: Proc 31<sup>st</sup> IEEE Annual International Computer Software and Applications Conference (COMPSAC 2008), Turku, Finland, Jul. 28 - Aug. 1, 2008, 539-546
- W7. **Keberle, N., Litvinenko, Yu., Gordeyev, Yu., Ermolayev, V.,:** Ontology Evolution Analysis with OWL-MeT. In: Flouris, G., d’Aquin, M. (Eds.): Proc of the Int Workshop on Ontology Dynamics (IWOD’2007) at European Semantic Web Conference (ESWC), June 7, 2007, Innsbruck, Austria, pp 1-12.
- W8. **Ermolayev, V., Jentsch, E., Karsayev, O., Keberle, N., Matzke, W.-E., Samoylov, V.:** Modeling Dynamic Engineering Design Processes in PSI. In: J. Akoka et al. (Eds.): ER Workshops 2005, Proc. Seventh International Bi-Conference Workshop on Agent-Oriented Information Systems (AOIS-2005), Klagenfurt, Austria, October 24-28, Springer LNCS 3770, pp. 119 – 130, 2005.
- W9. **Ermolayev, V. Keberle, N., Tolok, V.** (2002). OIL Ontologies for Collaborative Task Performance in Coalitions of Self-Interested Actors. In: H. Arisawa, Y. Kambayashi, V. Kumar, H.C. Mayr, I. Hunt (Eds.): Conceptual Modeling for New Information Systems Technologies ER 2001 Workshops, HUMACS, DASWIS, ECOMO, and DAMA, Yokohama Japan, November 27-30, 2001. Revised Papers - LNCS vol. 2465, p. 390-402

## INVITED PAPERS/TALKS

- I1. **Ermolayev, V.:** R&D Frontiers in Learning Scientific Knowledge Graphs. Inv. Lecture in honour of the 106th Anniversary of Kherson State University, Nov. 22, 2023
- I2. **Ermolayev, V.:** UCU AppS: Capacity for Building RTD Partnerships. Inv. talk at Digital Theme Research Twinning Conference, Mar. 30, 2023, Liverpool, UK
- I3. **Ermolayev, V.:** Toward a Syndicated Ontology of Time for the Semantic Web. AIFB Oberseminar, Karlsruhe Institute of Technology (DE), 02-Feb-2016
- I4. **Ermolayev, V.:** The Law of Gravitation in Ontology Dynamics (Invited Paper). In: S. Cojocar and C. Gaidric (Eds.): Proceedings of the Workshop on Foundations in Informatics (FOI 2015), pp. 246-267, Acad. of Sciences of Moldova, 2015
- I5. **Ermolayev, V., Matzke, W.-E., Sohnius, R.:** Engineering Design Performance (Extended Abstract). Invited Talk. In: Kaschek, R., Kop, C., Steinberger, C. and Fliedl, G. (Eds.) Information Systems and Business Technologies. Proc. 2nd Int. Conf. UNISCON 2008, Apr. 22 – 25, 2008, Klagenfurt, Austria, LNBIP Vol. 5, 108-110.
- I6. **Ermolayev, V., Spivakovsky, A., Zholtkevych, G.** (2004) UnIT-NET IIIDE : Infrastructure nationale ukrainienne pour l'intraechange de donnees electroniques. Institut Universitaire de Technologie Nice-Cote d'Azur. Universite Nice-Sophia Antipolis. Colloque National de la Recherche Universitaire dans les I. U. T. Actes de Colloque, Tome 1. Sciences et Techniques de l'Ingenieur, Nice, May, 6-7, 2004, p. 113-121.
- I7. **Ermolayev, V. A., Tolok, V. A., Maksishko, N. G.** On Opportunities to IT Research Integration and IT Curriculum Improvement in European Frameworks. In: Proc. of the 5-th Scientific-Methodological Conference “Economical Cybernetics: the Problems of Methodology”, Kiev, Dec. 1999, 14 pp. (Ukrainian)
- I8. **Borue, S. U., Ermolayev, V. A., Tolok, V. A.:** On Diacoptical Approach to Process Modelling in Multifunctional Information Systems. in: Proc.of International Conference Knowledge - Dialog - Solution (KDS'99). Katsiveli, 13-18.09.1999, pp. 211-219, (Russian)

## TUTORIALS

- T1. **Vadim Ermolayev:** Do Not Let Them Trash Your Paper! The Alchemy for Higher Chances to be Accepted. Tutorial at the 15th Int Conf. ICTERI 2019, Kherson, Ukraine, June, 2019
- T2. **Vassilis Christophides, Oscar Corcho, Vasilis Efthymiou, Vadim Ermolayev, Andreas Harth, Luis-Daniel Ibáñez, Natalya Keberle, Kostas Stefanidis and Ilias Tachmazidis:** Improving Quality and Scalability in

Semantic Data Management. Tutorial. Extended Semantic Web Conference (ESWC 2016), Hersonissos, Greece, 29-May-2016

- T3. Vadim Ermolayev and Maxim Davidovsky:** Ontology Alignment and Applications in 90 Minutes. Tutorial at the 9th Int Conf. ICTERI 2013, Kherson, Ukraine, June, 2013
- T4. Vadim Ermolayev and Maxim Davidovsky:** Agent-Based Ontology Alignment: Basics, Applications, Theoretical Foundations, and Demonstration. Tutorial at the 2nd Int. Conf. on Web Intelligence, Mining and Semantics (WIMS 2012), Craiova, Romania, 13-15 June, 2012
- T5. Vadim Ermolayev and Eyck Jentsch:** Modeling and Simulation of Dynamic Engineering Design Processes. Tutorial at the 24<sup>th</sup> Int. Conference on Conceptual Modeling (ER 2005), Klagenfurt, Austria, October 24-28, 2005.
- T6. Vadim Ermolayev:** Basics of Software Agents (based on my course on Agent-Based e-Business Technologies). Taught at Cadence Design Systems GmbH, January, 2004
- T7. Vadim Ermolayev:** Agent-Enabled Business Process Modeling. Taught at Cadence Design Systems GmbH, January, 2004
- T8. Vadim Ermolayev:** Software Agents for Business Process Modelling and Management in Micro-economic Systems. Tutorial at VII Ukrainian National Conference on the Problems of Economical Cybernetics (PEC'2002), Sept. 11-13, 2002.
- T9. Ermolayev, V., Gorodetski, V., Jentsch, E., Matzke, W.-E.:** Modeling and Simulation of Dynamic Engineering Design Processes. Tutorial at ER 2005. In: J. Akoka et al. (Eds.): ER Workshops 2005, Klagenfurt, Austria, October 24-28, Springer LNCS 3770, pp. 470 – 472, 2005.