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Born March 8, 1981; Klagenfurt; Austria
Austrian citizenship

Current position

since Dec. 2018 *Associate Professor* (tenured),
Institute for Complex Networks,
Department of Information Systems & Operations Management,
Vienna University of Economics and Business (WU Vienna),
<https://complex.wu.ac.at/>

Areas of specialisation

Software-language engineering (e.g., [DjDSL](#), [Next Scripting Framework](#)), empirical software engineering (e.g. [HybridAIR](#), [HybridLUX](#)), feature-oriented software development ([FOSD'21 Meeting](#)), software patterns (e.g. [MiniPLoP@ECSA'14 workshop](#)), middleware engineering

Technology Enhanced Learning (TEL, eLearning) in the course of two research projects under the 5th and 6th EU Framework Programmes:

2005-2008 *iCamp* (FP6/IST), technical coordinator for Work Package 3, *Information Systems Interoperability*

2004/2005 *ELENA* (FP5/IST), technical project contributor

Education

2018 *Habilitation and venia docendi* for “Wirtschaftsinformatik”, Vienna University of Economics and Business Administration

2009 *Doctor rerum socialium oeconomicarumque*, Vienna University of Economics and Business Administration

- 2004-2008 Doctoral studies, Vienna University of Economics and Business Administration
- 2004 *Magister rerum socialium oeconomicarumque* (Master equivalent) in the discipline International Business Administration, Vienna University of Economics and Business Administration
- 2002-2003 Study visit at the University Paris XII -- Val de Marne, Paris, France
- 1999-2004 Magister studies (Master equivalent) in the discipline International Business Administration, Vienna University of Economics and Business Administration Specialisations in Information Systems (*Wirtschaftsinformatik*), Development Economics, and International Management
- 1999 University-Entrance Diploma (*Matura*) with distinction, Bundesgymnasium Klagenfurt-Viktring

Professional experiences

- Nov. 2018 - External IT consultant, tpa
- Jul. 2019
- Apr. 2017 - External IT consultant, sIT
- Nov. 2017
- Apr. 2015 - Postdoc researcher (tenure track), Institute for Information Systems and New Media, WU Vienna
- present
- Jan. 2009 - Postdoc researcher (non-tenure-track), Institute for Information Systems and New Media, WU Vienna
- Mar. 2015
- Oct. 2008 - Scientific project assistant, *iCamp* (FP6/IST), <http://www.icamp.eu/>, Institute for Information Systems and New Media, WU Vienna
- Dec. 2008
- Oct. 2004 - Research assistant, Institute for Information Systems and New Media, WU Vienna
- Oct. 2008
- 2003-2004 IT-trainer for various course formats on behalf of the Austrian public employment services, i.e. the Arbeitsmarktservice (AMS) and the *bfi* vocational training institute.
- 2000-2002 Senior Developer for Unisys Austria plc; Focus areas: Development of a decision-support and controlling system (a pilot project on .NET in cooperation with Microsoft Austria); application development based on Hyper-G/Hyperwave Information Server; mobile application development (WAP/WML)
- Sept./ Oct. 1999 Member of staff; [scope1: information vs. meaning](#) – A conference on information systems and the future of knowledge

Publications & talks

Authored books

- [B1] Sobernig, Stefan (2020a). *Variable Domain-specific Software Languages with DjDSL – Design and Implementation*. Springer. DOI: [10.1007/978-3-030-42152-6](https://doi.org/10.1007/978-3-030-42152-6).

Refereed articles in journals

- [J8] Poreba, Florian and Stefan Sobernig (2024). “Interruptibility of Software Developers and Its Prediction Using Psycho-Physiological Sensors: A Replication”. In: *Empirical Software Engineering*. Submitted.
- [J7] Leßenich, Olaf and Stefan Sobernig (2023). “Usefulness and usability of heuristic walkthroughs for evaluating domain-specific developer tools in industry: Evidence from four field simulations”. In: *Information and Software Technology* 160. DOI: <https://doi.org/10.1016/j.infsof.2023.107220>.
- [J6] Hoisl, Bernhard, Stefan Sobernig, and Mark Strembeck (July 2017). “Reusable and generic design decisions for developing UML-based domain-specific languages”. In: *Information and Software Technology* 92. Scimago SJR (5-yrs avg.): 1.03, WU Publication Award (June 2018), pp. 49–74. DOI: [10.1016/j.infsof.2017.07.008](https://doi.org/10.1016/j.infsof.2017.07.008).
- [J5] Sobernig, Stefan, Sven Apel, Sergiy S. Kolesnikov, and Norbert Siegmund (Aug. 2016). “Quantifying structural attributes of system decompositions in 28 feature-oriented software product lines: An exploratory study”. In: *Empirical Software Engineering* 21.4. Scimago SJR (5-yrs avg.): 0.83, pp. 1670–1705. DOI: [10.1007/s10664-014-9336-6](https://doi.org/10.1007/s10664-014-9336-6).
- [J4] Sobernig, Stefan, Bernhard Hoisl, and Mark Strembeck (Mar. 2016). “Extracting reusable design decisions for UML-based domain-specific languages: A multi-method study”. In: *Journal of Systems and Software* 113. Scimago SJR (5-yrs avg.): 0.85, WU journal rank (2009): A, pp. 140–172. DOI: [10.1016/j.jss.2015.11.037](https://doi.org/10.1016/j.jss.2015.11.037).
- [J3] Hoisl, Bernhard, Stefan Sobernig, and Mark Strembeck (May 2014c). “Modeling and enforcing secure object flows in process-driven SOAs: an integrated model-driven approach”. In: *Software and Systems Modeling* 13.2. Scimago SJR (5-yrs avg.): 0.62, pp. 513–548. DOI: [10.1007/s10270-012-0263-y](https://doi.org/10.1007/s10270-012-0263-y).
- [J2] Neumann, Gustaf, Stefan Sobernig, and Michael Aram (Feb. 2014). “Evolutionary Business Information Systems: Perspectives and challenges of an emerging class of information systems”. In: *Business & Information Systems Engineering* 6.1, pp. 33–38. DOI: [10.1007/s12599-013-0305-1](https://doi.org/10.1007/s12599-013-0305-1).
- [J1] Assche, F. van, E. Duval, D. Massart, D. Olmedilla, B. Simon, S. Sobernig, S. Ternier, and F. Wild (Apr. 2006). “Spinning Interoperable Applications for Teaching & Learning using the Simple Query Interface”. In: *Journal of Educational Technology & Society* 9.2, pp. 51–67. URL: http://www.ifets.info/journals/9_2/5.pdf.

Refereed proceedings

Conferences

- [C29] Leßenich, Olaf and Stefan Sobernig (2024). “Usefulness and usability of heuristic walkthroughs for evaluating domain-specific developer tools in industry: Evidence from four field simulations”. In: *Proc. Fachtagung des GI-Fachbereichs Softwaretechnik (SE’2024)*. Vol. P-343. LNI. Gesellschaft für Informatik e.V., pp. 35–36. DOI: [10.18420/SW2024_5](https://doi.org/10.18420/SW2024_5).
- [C28] Ivanova, Rositsa V, Stefan Sobernig, and Mark Strembeck (2022). “Does geographical location have an impact on data samples extracted from Twitter?”. In: *Proc. of the 9th International Conference on Social Networks Analysis, Management and Security (SNAMS 2022)*. IEEE, pp. 1–8. DOI: [10.1109/SNAMS58071.2022.10062544](https://doi.org/10.1109/SNAMS58071.2022.10062544).
- [C27] Sobernig, Stefan (2021a). “Object Parsing Expressions for Unplanned, Unmodified, and Incremental Grammar Reuse”. In: *Post-Conference Proc. of the 16th International Conference on Software Technologies (ICSOFT’21)*. Ed. by Hans-Georg Fill, Marten van Sinderen, and Leszek A. Maciaszek. Vol. 1622. CCIS. Springer, pp. 24–40. DOI: [10.1007/978-3-031-11513-4_2](https://doi.org/10.1007/978-3-031-11513-4_2).
- [C26] — (July 2021b). “Object Parsing Grammars with Composition”. In: *Proc. Proceedings of the 16th International Conference on Software Technologies (ICSOFT’21)*. SciTePress, pp. 373–385. Pre-published.
- [C25] Sobernig, Stefan and Olaf Leßenich (Feb. 2021). “v1e: A Kernel for Domain-specific Textual Variability Modelling Languages”. In: *Proc. 15th International Working Conference on Variability Modelling of Software-Intensive Systems (VaMoS’21)*. ACM, 4:1–4:7. DOI: [10.1145/3442391.3442396](https://doi.org/10.1145/3442391.3442396).
- [C24] Sobernig, Stefan, Michael Maurer, and Mark Strembeck (Apr. 2020). “RAMLFlask: Managing artifact coupling for Web APIs”. In: *Proc. 35th ACM/SIGAPP Symposium on Applied Computing (SAC’20)*. ACM, pp. 2214–2217. DOI: [10.1145/3341105.3374116](https://doi.org/10.1145/3341105.3374116).
- [C23] Sobernig, Stefan (Feb. 2020b). “Tailor Made: Situational Method Engineering for Empirical SE Research”. In: *Proc. Fachtagung des GI-Fachbereichs Softwaretechnik (SE’20)*. Vol. P-300. LNI. Gesellschaft für Informatik e.V., pp. 155–156. DOI: [10.18420/SE2020_48](https://doi.org/10.18420/SE2020_48).
- [C22] Siegmund, Norbert, Stefan Sobernig, and Sven Apel (Sept. 2017). “Attributed Variability Models: Outside the Comfort Zone”. In: *Proc. of the 11th European Software Engineering Conference and the ACM SIGSOFT International Symposium on the Foundations of Software Engineering (ESEC/FSE)*. Acceptance rate (full papers): 24% (72/295). ACM, pp. 268–278. DOI: [10.1145/3106237.3106251](https://doi.org/10.1145/3106237.3106251). URL: <http://nm.wu.ac.at/research/publications/b1070.pdf>.
- [C21] Sobernig, Stefan and Uwe Zdun (Apr. 2016). “Distilling Architectural Design Decisions and their Relationships using Frequent Item-Sets”. In: *Proc. of the 13th Working IEEE/IFIP Conference on Software Architecture (WICSA 2016)*. Acceptance rate (full papers): 20.1% (30/149). IEEE Computer Society, pp. 61–70. DOI: [10.1109/WICSA.2016.9](https://doi.org/10.1109/WICSA.2016.9).

- [C20] Haendler, Thorsten, Stefan Sobernig, and Mark Strembeck (Feb. 2016b). “Deriving Tailored UML Interaction Models from Scenario-Based Runtime Tests”. In: *Post-Conference Proc. of the 10th International Conference on Software Engineering and Applications (ICSOFT-EA 2015)*. Vol. 586. CCIS. Revised Selected Papers. Springer, pp. 326–348. DOI: [10.1007/978-3-319-30142-6_18](https://doi.org/10.1007/978-3-319-30142-6_18).
- [C19] Hoisl, Bernhard and Stefan Sobernig (Jan. 2016). “Open-Source Development Tools for Domain-Specific Modeling: Results from a Systematic Literature Review”. In: *Proc. of the 49th Hawaii International Conference on System Sciences (HICSS 2016)*. IEEE Computer Society, pp. 5001–5010. DOI: [10.1109/HICSS.2016.620](https://doi.org/10.1109/HICSS.2016.620).
- [C18] Haendler, Thorsten, Stefan Sobernig, and Mark Strembeck (2015). “An Approach for the Semi-automated Derivation of UML Interaction Models from Scenario-based Runtime Tests”. In: *Proc. of the 10th International Conference on Software Engineering and Applications (ICSOFT-EA 2015)*. Acceptance rate (full papers): 11% (10/92). SciTePress, pp. 229–240. DOI: [10.5220/0005519302290240](https://doi.org/10.5220/0005519302290240).
- [C17] Hoisl, Bernhard, Stefan Sobernig, and Mark Strembeck (2014a). “Comparing Three Notations for Defining Scenario-based Model Tests: A Controlled Experiment”. In: *Proc. of the 9th International Conference on the Quality of Information and Communications Technology (QUATIC’14)*. Acceptance rate (full papers, main track): 17% (12/72). IEEE Computer Society, pp. 95–104. DOI: [10.1109/QUATIC.2014.19](https://doi.org/10.1109/QUATIC.2014.19).
- [C16] — (2014b). “Natural-Language Scenario Descriptions for Testing Core Language Models of Domain-specific Languages”. In: *Proc. of the 2nd International Conference on Model-Driven Engineering and Software Development (ModelSward’14)*. SciTePress, pp. 356–367. DOI: [10.5220/0004713703560367](https://doi.org/10.5220/0004713703560367).
- [C15] — (2013). “Higher-order Rewriting of Model-to-Text Templates for Integrating Domain-specific Modeling Languages”. In: *Proc. of the 1st International Conference on Model-Driven Engineering and Software Development (ModelSward’13)*. Acceptance rate (full papers): 11% (8/76). SciTePress, pp. 49–61. DOI: [10.5220/0004321100490061](https://doi.org/10.5220/0004321100490061).
- [C14] Schefer-Wenzl, Sigrid, Stefan Sobernig, and Mark Strembeck (2013). “Evaluating a UML-based Modeling Framework for Process-related Security Properties: A Qualitative Multi-Method Study”. In: *Proc. of the 21st European Conference on Information Systems (ECIS’13)*. ECIS 2013 Completed Research Paper 134. Acceptance rate (full papers): 30% (247/813). AIS Electronic Library. URL: http://aisel.aisnet.org/ecis2013_cr/134.
- [C13] Sobernig, Stefan, Bernhard Hoisl, and Mark Strembeck (2013). “Requirements-driven Testing of Domain-specific Core Language Models using Scenarios”. In: *Proc. of the 13th International Conference on Quality Software (QSIC’13)*. Acceptance rate (full papers): 24% (19/78). IEEE, pp. 163–172. DOI: [10.1109/QSIC.2013.56](https://doi.org/10.1109/QSIC.2013.56).

- [C12] Sobernig, Stefan, Mark Strembeck, and Andreas Beck (2013). “Developing a Domain-Specific Language for Scheduling in the European Energy Sector”. In: *Proc. of the 6th International Language on Software Language Engineering (SLE’13)*. Vol. 8225. LNCS. Acceptance rate (full papers): 33% (17/51). Springer, pp. 19–35. DOI: [10.1007/978-3-319-02654-1_2](https://doi.org/10.1007/978-3-319-02654-1_2).
- [C11] Hoisl, Bernhard, Mark Strembeck, and Stefan Sobernig (Nov. 2012). “Towards a Systematic Integration of MOF/UML-based Domain-specific Modeling Languages”. In: *Proceedings of the 16th IASTED International Conference Software Engineering and Application (SEA’12)*. ACTA Press, pp. 337–344. DOI: [10.2316/P.2012.790-045](https://doi.org/10.2316/P.2012.790-045).
- [C10] Lytra, Ioanna, Stefan Sobernig, and Uwe Zdun (Aug. 2012a). “Architectural Decision Making for Service-Based Platform Integration: A Qualitative Multi-Method Study”. In: *Proc. of the Joint 10th Working IEEE/IFIP Conference on Software Architecture & 6th European Conference on Software Architecture (WICSA’12, ECSA’12)*. Acceptance rate (full papers): 20,8% (20/96). IEEE, pp. 111–120. DOI: [10.1109/WICSA-ECSA.212.19](https://doi.org/10.1109/WICSA-ECSA.212.19). URL: <http://nm.wu-wien.ac.at/research/publications/b954.pdf>.
- [C9] Lytra, Ioanna, Stefan Sobernig, Huy Tran, and Uwe Zdun (Mar. 2012). “A Pattern Language for Service-based Platform Integration and Adaptation”. In: *Proceedings of 17th Annual European Conference on Pattern Languages of Programming (EuroPLOP 2012)*. Ed. by Andreas Fiesser and Christian Kohls. Hillside. URL: <http://nm.wu-wien.ac.at/research/publications/b956.pdf>.
- [C8] Sobernig, Stefan, Patrick Gaubatz, Mark Strembeck, and Uwe Zdun (Oct. 2011). “Comparing Complexity of API Designs: An Exploratory Experiment on DSL-based Framework Integration”. In: *Proc. of the 10th International Conference on Generative Programming and Component Engineering (GPCE’11)*. Acceptance rate (full papers): 33% (18/55). ACM, pp. 157–166. DOI: [10.1145/2047862.2047890](https://doi.org/10.1145/2047862.2047890). URL: <http://nm.wu-wien.ac.at/research/publications/b880.pdf>.
- [C7] Oberortner, Ernst, Stefan Sobernig, Uwe Zdun, and Schahram Dustdar (July 2011). “Monitoring of Performance-related QoS Properties in Service-oriented Systems: A Pattern-based Architectural Decision Model”. In: *Proceedings of the 16th European Conference on Pattern Languages of Programs (EuroPLOP)*. Ed. by Paris Avgeriou and Andreas Fiesser. ACM, pp. D3/1–D3/38. URL: <http://nm.wu-wien.ac.at/research/publications/b957.pdf>.
- [C6] Sobernig, Stefan and Uwe Zdun (Sept. 2010a). “Evaluating Java Runtime Reflection for Implementing Cross-Language Method Invocations”. In: *Proceedings of the 8th International Conference on the Principles and Practice of Programming in Java (PPPJ 2010)*. Ed. by Andreas Krall and Hanspeter Mössenböck. Acceptance rate (full papers): 38% (55/145). ACM, pp. 139–147. DOI: [10.1145/1852761.1852781](https://doi.org/10.1145/1852761.1852781). URL: <http://nm.wu-wien.ac.at/research/publications/b842.pdf>.

- [C5] Sobernig, Stefan and Uwe Zdun (July 2010b). “Inversion-of-Control Layer”. In: *Proc. of 15th Annual European Conference on Pattern Languages of Programming (EuroPLOP’10)*. ACM. DOI: [10.1145/2328909.2328935](https://doi.org/10.1145/2328909.2328935). URL: <http://nm.wu-wien.ac.at/research/publications/b847.pdf>.
- [C4] Sobernig, Stefan (Mar. 2010b). “Feature Interaction Networks”. In: *Proceedings of the 25th Symposium On Applied Computing (SAC 2010), Software Engineering Track*. Acceptance rate (full papers): 33% (2369/7126). ACM, pp. 2360–2364. DOI: [10.1145/1774088.1774574](https://doi.org/10.1145/1774088.1774574). URL: <http://nm.wu-wien.ac.at/research/publications/b838.pdf>.
- [C3] Sobernig, Stefan and Uwe Zdun (Mar. 2009). “Invocation Assembly Lines: Patterns of Invocation and Message Processing in Object Remoting Middleware”. In: *Proceedings of 14th Annual European Conference on Pattern Languages of Programming (EuroPLOP 2009)*. Ed. by Allan Kelly and Michael Weiss. Irsee, Germany, July 8-12, 2009: CEUR-WS.org (Vol-566). URL: http://ceur-ws.org/Vol-566/f3%5C_invocation%5C_assembly%5C_line.pdf.
- [C2] Wild, Fridolin and Stefan Sobernig (Sept. 2007). “Learning Tools in Higher Education: Products, Characteristics, Procurement”. In: *2nd European Conference on Technology Enhanced Learning, CEUR-WS Proceedings, Vol. 280*. Ed. by Martin Wolpers, Ralf Klamma, and Erik Duval. Crete, Greece: Sun SITE Central Europe. URL: <http://ftp.informatik.rwth-aachen.de/Publications/CEUR-WS/Vol-280/p12.pdf>.
- [C1] Simon, B. et al. (July 2006). “Building Blocks for a Smart Space for Learning”. In: *Proceedings of the 6th IEEE International Conference on Advanced Learning Technologies*. Ed. by R. Koper and Kinshuk. IEEE, pp. 309–313. DOI: [10.1109/ICALT.2006.1652431](https://doi.org/10.1109/ICALT.2006.1652431). URL: http://www.l3s.de/~olmedilla/pub/2006/2006_ICALT_Elena.pdf.

Workshops and shorts

- [W14] Ivanova, Rositsa V, Ema Kusen, and Stefan Sobernig (2023). “Examining the Intra-Location Differences Among Twitter Samples”. In: *Proc. of the 8th International Conference on Complexity, Future Information Systems and Risk (COMPLEXIS 2023)*. INSTICC. SciTePress, pp. 94–101. DOI: [10.5220/0011990600003485](https://doi.org/10.5220/0011990600003485).
- [W13] Haendler, Thorsten, Stefan Sobernig, and Mark Strembeck (May 2017). “Towards Triaging Code-Smell Candidates via Runtime Scenarios and Method-Call Dependencies”. In: *Proc. of the XP’17 Workshops*. ACM, 8:1–8:9. DOI: [10.1145/3120459.3120468](https://doi.org/10.1145/3120459.3120468).
- [W12] — (2016a). “Deriving UML-based Specifications of Inter-component Interactions from Runtime Tests”. In: *Proc. of the 31st Annual ACM Symposium on Applied Computing (SAC)*. ACM, pp. 1573–1575. DOI: [10.1145/2851613.2851981](https://doi.org/10.1145/2851613.2851981).

- [W11] Hoisl, Bernhard and Stefan Sobernig (2015a). “Consistency Rules for UML-based Domain-specific Language Models: A Literature Review”. In: *Joint Proceedings of the 8th International Workshop on Model-based Architecting of Cyber-physical and Embedded Systems and 1st International Workshop on UML Consistency Rules (ACES-MB 2015 & WUCOR 2015)*. CEUR Worksh. Proc. 1508. CEUR-WS.org, pp. 29–36. URL: <http://ceur-ws.org/Vol-1508/paper6.pdf>.
- [W10] — (2015b). “Towards Benchmarking Evolution Support in Model-to-Text Transformation Systems”. In: *Proceedings of the 4th Workshop on the Analysis of Model Transformations (AMT@MoDELS 2015)*. Vol. 1500. CEUR Worksh. Proc. CEUR-WS.org, pp. 16–25. URL: <http://ceur-ws.org/Vol-1500/paper3.pdf>.
- [W9] Langer, Philip, Stefan Sobernig, and Gustaf Neumann (Mar. 2014). “Towards a Foundational Framework for Developing and Testing Inter-organizational Business Processes”. In: *Proc. of the International Workshop on Modeling Inter-organizational Processes (MinoPro’14)*. Accepted for publication.
- [W8] Adelsberger, Stephan, Stefan Sobernig, and Gustaf Neumann (Jan. 2014). “Towards assessing the complexity of object migration in dynamic, feature-oriented software product lines”. In: *Proc. 8th International Workshop on Variability Modelling of Software-intensive Systems (VaMoS’14)*, 17:1–17:8. DOI: [10.1145/2556624.2556645](https://doi.org/10.1145/2556624.2556645).
- [W7] Kolesnikov, Sergiy S., Sven Apel, Norbert Siegmund, Stefan Sobernig, Christian Kästner, and Semah Senkaya (2013). “Predicting quality attributes of software product lines using software and network measures and sampling”. In: *Proc. of the 7th Int. Workshop on Variability Modelling of Software-intensive Systems (VaMoS’13)*. ACM, 6:1–6:5. DOI: [10.1145/2430502.2430511](https://doi.org/10.1145/2430502.2430511).
- [W6] Sobernig, Stefan, Gustaf Neumann, and Stephan Adelsberger (2012). “Supporting Multiple Feature Binding Strategies in NX”. In: *Proc. of the 4th International Workshop on Feature-Oriented Software Development (FOSD’12)*. ACM, pp. 45–53. DOI: [10.1145/2377816.2377823](https://doi.org/10.1145/2377816.2377823). URL: <http://nm.wu-wien.ac.at/research/publications/b935.pdf>.
- [W5] Hoisl, Bernhard, Stefan Sobernig, Sigrud Schefer-Wenzl, Mark Strembeck, and Anne Baumgräß (July 2012). “Design Decisions for UML- and MOF-based Domain-specific Language Models: Some Lessons Learned”. In: *Proc. of the 2nd Workshop on Process-based approaches for Model-Driven Engineering (PMDE’12), Joint Proceedings of the 8th European Conference on Modelling Foundations and Applications (ECMFA’12)*. Technical University of Denmark (DTU), pp. 303–314. URL: <http://wi.wu.ac.at/home/mark/publications/pmde12.pdf>.
- [W4] Hoisl, Bernhard and Stefan Sobernig (2011). “Integrity and Confidentiality Annotations for Service Interfaces in SoaML Models”. In: *Proceedings of the International Workshop on Security Aspects of Process-aware Information Systems (SAPAIS 2011) & of the Sixth International Conference on Availability, Reliability and Security (ARES 2011)*. IEEE, pp. 673–679. DOI: [10.1109/ARES.2011.105](https://doi.org/10.1109/ARES.2011.105). URL: <http://nm.wu-wien.ac.at/research/publications/b906.pdf>.

- [W3] Wild, Fridolin, Steinn E. Sigurdarson, Stefan Sobernig, Christina Stahl, Ahmet Soyulu, Vahur Rebas, Dariusz Górka, Anna Danielewska, and Antonio Tapiador (Sept. 2007). “An Interoperability Infrastructure for Distributed Feed Networks”. In: *Proceedings of the 1st International Workshop on Collaborative Open Environments for Project-Centered Learning*. Ed. by Stefano Ceri, Wolfgang Nejdl, Jan van Bruggen, and Frans Van Assche. Crete, Greece: CEUR WS, Volume 309. URL: <http://ftp.informatik.rwth-aachen.de/Publications/CEUR-WS/Vol-309/paper01.pdf>.
- [W2] Aguirre, S. et al. (May 2005). “Corner Stones of Semantic Interoperability Demonstrated in a Smart Space for Learning”. In: *Proceedings of the 2nd European Semantic Web Conference - Poster and Software Demos*. Ed. by Stefan Decker and Heiner Stuckenschmidt. Heraklion, Greece. URL: http://www.wu-wien.ac.at/usr/wi/bsimon/publikationen/eswc2005_elena_demo-v2005-04-20_final.pdf.
- [W1] Miklós, Z. and S. Sobernig (May 2005). “Query Translation between RDF and XML – A Case Study in the Educational Domain”. In: *WWW Workshop on Interoperability of Web-Based Educational - CEUR-WS 143*. Ed. by D. Olmedilla, N. Saito, and B. Simon. Chiba, Japan: Technical University of Aachen (RWTH), pp. 27–35. URL: <http://sunsite.informatik.rwth-aachen.de/Publications/CEUR-WS/Vol-143/paper04.pdf>.

Miscellaneous

- [M14] Stieglbauer, Gerald, Christian Burghard, Stefan Sobernig, and Robert Korosec (2018). “A Daily Dose of DSL - MDE Micro Injections in Practice”. In: *Proceedings of the 6th International Conference on Model-Driven Engineering and Software Development (MODELSWARD’18)*. SciTePress, pp. 642–651. DOI: [10.5220/0006754406420651](https://doi.org/10.5220/0006754406420651).
- [M13] Harrison, Neil B., Uwe van Heesch, Stefan Sobernig, Peter Sommerlad, Martin Filipczyk, Alexander Fülleborn, Angelika Musil, and Juergen Musil (2015). “Software architecture patterns: Reflection and Advances (Summary of the Mini-PLoP Writers’ Workshop at ECSA’14)”. In: *ACM SIGSOFT Software Engineering Notes* 40.1. Post-workshop report, pp. 30–34. DOI: [10.1145/2693208.2693218](https://doi.org/10.1145/2693208.2693218).
- [M12] Hoisl, Bernhard, Stefan Sobernig, Sigrid Schefer-Wenzl, Mark Strembeck, and Anne Baumgrass (2014). *A Catalog of Reusable Design Decisions for Developing UML/MOF-based Domain-specific Modeling Languages*. Technical Report 2014/03. Vienna: Institute for Information Systems, New Media, WU Vienna University of Economics, and Business. URL: <http://epub.wu.ac.at/4312/>.
- [M11] Sobernig, Stefan, Sven Apel, Sergiy Kolesnikov, and Norbert Siegmund (2014). *Quantifying Structural Attributes of System Decompositions in 28 Feature-oriented Software Product Lines: An Exploratory Study*. Technical Report 2014/01. Vienna: Institute for Information Systems, New Media, WU Vienna University of Economics, and Business. URL: <http://epub.wu.ac.at/4328/>.

- [M10] Sobernig, Stefan, Bernhard Hoisl, and Mark Strembeck (2014). *Protocol for a Systematic Literature Review on Design Decisions for UML-based DSMLs*. Technical Report 2014/02. Vienna: Institute for Information Systems, New Media, WU Vienna University of Economics, and Business. URL: <http://epub.wu.ac.at/4311/>.
- [M9] Sobernig, Stefan and Mark Strembeck (2014). “DSL-based Architecting and DSL-based Architectures”. In: *Proc. of the ECSA 2014 Workshops & Tool Demos Track, European Conference on Software Architecture (ECSA’14)*. ACM. DOI: [10.1145/2642803.2642818](https://doi.org/10.1145/2642803.2642818).
- [M8] Breu, Ruth et al. (2013). “Towards Living Inter-Organizational Processes”. In: *Proc. of the 15th IEEE International Conference on Business Informatics (CBI’13)*. IEEE.
- [M7] Hoisl, Bernhard, Stefan Sobernig, Sigrid Schefer-Wenzl, Mark Strembeck, and Anne Baumgrass (2012). *A Catalog of Reusable Design Decisions for Developing UML/MOF-based Domain-Specific Modeling Languages*. Technical Report 2012/01. Vienna: Institute for Information Systems, New Media, WU Vienna University of Economics, and Business. URL: <http://epub.wu.ac.at/3578/>.
- [M6] Lytra, Ioanna, Stefan Sobernig, and Uwe Zdun (June 2012a). *Architectural Decision Making for Service-Based Platform Integration: A Qualitative Multi-Method Study*. Technical Report. Vienna: Software Architecture Institute, University of Vienna. URL: <http://eprints.cs.univie.ac.at/3478/>.
- [M5] Neumann, Gustaf and Stefan Sobernig (Oct. 2011). “An Overview of the Next Scripting Toolkit”. In: *Proceedings of the Eighteenth Annual Tcl/Tk Conference*. Ed. by Andreas Kupries and Ron Fox. Manassas, Virginia: Tcl Association Publications, pp. 183–216. URL: <http://nm.wu-wien.ac.at/research/publications/b885.pdf>.
- [M4] — (Oct. 2009). “XOTcl 2.0 – A Ten-Year Retrospective and Outlook”. In: *Proceedings of the Sixteenth Annual Tcl/Tk Conference*. Ed. by Clif Flynt and Ron Fox. Portland, Oregon: Tcl Association Publications, pp. 179–204. URL: <http://nm.wu-wien.ac.at/research/publications/b806.pdf>.
- [M3] Sobernig, Stefan, Fridolin Wild, Bernd Simon, and Barbara Kieslinger (2007). “Adoption of Tools for Technology-Enhanced Learning in Austrian Higher Education”. In: *Tagungsband der 13. fnm-austria Tagung*.
- [M2] Sobernig, Stefan and Fridolin Wild (2006a). *Interoperability Framework Draft for the Distributed Open Virtual Learning Environment*. Deliverable 3.1. iCamp Consortium. URL: http://www.icamp.eu/wp-content/uploads/2007/05/d31___icamp___interoperability-framework-draft.pdf.
- [M1] — (2006b). *Prototype of a Repository Network*. Deliverable 3.2. iCamp Consortium. URL: http://www.icamp.eu/wp-content/uploads/2007/05/d32___icamp___repository-network-prototype.pdf.

Talks

- [T12] Sobernig, Stefan (Apr. 2024). *Tooling matters! FeatureIDE feature models outside the (Eclipse) box*. Invited talk given at the FOSD Meeting 2024 (Technical University of Eindhoven). URL: <https://set.win.tue.nl/wp-content/uploads/2023/07/fm4-small.pdf>.
- [T11] — (Mar. 2023). *Designing, implementing, and using UVL as a language-kernel extension*. Invited talk given at the FOSD Meeting 2023 (University of Ulm).
- [T10] — (Mar. 2016). *Assessing DSLs in industry: An empirical puzzle*. Invited talk given at the AVL List GmbH Researcher Networking Day, Graz, Austria.
- [T9] Sobernig, Stefan, Sven Apel, and Sergiy Kolnesikov (Feb. 2013). *Can you have it all? On feature decomposition and modular structure in 28 software product lines*. Invited talk given at FOSD Meeting 2013, Dagstuhl.
- [T8] — (Mar. 2012). *Analysing Structural Dependencies in Software Product Lines – Using Distribution and Network Statistics*. Invited talk given at FOSD Meeting 2012, Software Systems Engineering Institute, Technical University of Braunschweig. URL: <http://nm.wu-wien.ac.at/research/publications/b958.pdf>.
- [T7] Sobernig, Stefan (Sept. 2010b). *Feature Interaction Networks – A Gentle Introduction to Analysing Feature Interactions using Polymetric Network Analysis*. Invited talk given at the Chair for Programming, Department of Informatics and Mathematics, University of Passau. URL: <http://nm.wu-wien.ac.at/research/publications/b959.pdf>.
- [T6] Neumann, Gustaf and Stefan Sobernig (Feb. 2008a). *Learning XoWiki: A Tutorial to the XoWiki Toolkit*. Tutorial given at the International OpenACS and DotLRN Conference: International Conference and Workshops on Community Based Environments, Antigua, Guatemala. URL: <http://nm.wu-wien.ac.at/research/publications/b717.pdf>.
- [T5] — (Feb. 2008b). *XOTcl for OpenACS: An Introduction to XOTcl and the basic infrastructure of xotcl-core*. Tutorial given at the International OpenACS and DotLRN Conference: International Conference and Workshops on Community Based Environments, Antigua, Guatemala. URL: <http://nm.wu-wien.ac.at/research/publications/b719.pdf>.
- [T4] Sobernig, Stefan (Feb. 2008a). *A Gentle Introduction to XOTcl SOAP*. Tutorial given at the 6th International OpenACS and DotLRN Conference: International Conference and Workshops on Community Based Environments, Antigua, Guatemala. URL: <http://nm.wu-wien.ac.at/research/publications/b725.pdf>.
- [T3] — (Feb. 2008b). *Supporting Brokerage in Web Application Frameworks*. Talk at the 6th International OpenACS and DotLRN Conference: International Conference and Workshops on Community Based Environments, Antigua, Guatemala. URL: <http://nm.wu-wien.ac.at/research/publications/b724.pdf>.

[T2] Sobernig, Stefan (Nov. 2006). *xorb / xosoap - Remoting for OACS / .LRN*. Tutorial given at the International OpenACS and .LRN Fall Conference, Boston, 2006. URL: <http://nm.wu-wien.ac.at/research/publications/b670.pdf>.

[T1] Sobernig, Stefan and Fridolin Wild (Sept. 2005). *Interoperability in Technology Enhanced Learning*. Tutorial given at the ProLearn Summer School, Istanbul, Turkey, 2005. URL: <http://www.educanext.org/ubp/PUSH/search@srchDetailsLR?lrID=lr-wuw-wild-1126513506924>.

Qualification theses

[Q3] Sobernig, Stefan (Dec. 2018). *Variability design and implementation for domain-specific software languages*. Habilitation thesis. Vienna: Institute of Information Systems, New Media, Vienna University of Economics, and Business.

[Q2] – (Feb. 2009). *Exploring Feature Variability in Object Remoting Middleware*. Doctoral thesis. Vienna: Institute of Information Systems, New Media, Vienna University of Economics, and Business.

[Q1] – (Nov. 2004). *Regulation & Wissen – Die Wirkung Neuer Informations- und Kommunikationstechnologien in Lateinamerika*. Diploma thesis. Abteilung für Außenhandel und Entwicklungsplanung, Wirtschaftsuniversität Wien.

Awards

2023-2026 FFG Key Digital Technologies (Project #FO999902654 [HybriAIR](#), €658 000)

2018-2022 FFG ICT of the Future (Project #867535 [HybriDLUX](#), €573 000)

2017/18 FFG ICT of the Future (Project #855465 [DLUX](#), €141 000)

2014 FFG Innovationsscheck (Project "MyGain", AIM Software GesmbH, €5 000)

2014 WU Board of Trustees Grant for Habilitation Candidates (€17 800)

2012/13 Global Colloquium on Participant-Centered Learning, Harvard Business School

2005 ProLearn Summer School, Istanbul, Turkey

Teaching

2021-present *Digital Network Analytics 1 + 2*, lecture and laboratory course, Specialization, Master Program "Digital Economy", Institute for Complex Networks
2019-present *Algorithmic Thinking and Programming, Introduction into Programming*, lecture and laboratory course, Bachelor major "Information Systems", Institute for Complex Networks

2017-present *Data Processing*, lecture and laboratory course, Specialisation "Data Science", Institute for Complex Networks

- 2020-present *System Development and Operations*, lecture course, Master program "Digital Economy", Institute for Complex Networks
- 2021-present *Distributed Systems*, lecture course, Master program "Digital Economy", Institute for Complex Networks
- 2013-2021 *Distributed Systems*, lecture course, Master program "Information Systems", Institute for Complex Networks
- 2013-2020 *Information Systems Development*, lecture course, Master program "Information Systems", Institute for Information Systems and New Media
- 2012-2022 *Dynamic Programming Techniques*, lecture and laboratory course, Specialization "IS Engineering", Master program "Information Systems", Institute for Information Systems and New Media
- 2009-present *Computer Networks*, lecture, Institute for Information Systems and New Media
- 2015 *Laboratory Software Architectures*, laboratory course, Bachelor program "Computer Science and Business Informatics", Faculty of Computer Science, University of Vienna
- 2007-2008 *Social Software Systems*, proseminar, Institute for Information Systems and New Media in cooperation with IBM Research Almaden, Vienna University of Economics and Business Administration
- 2007 *Social Network Analysis for Collaboration Environments*, lecture, Adaptive Dynamic Online Educational Systems (aDeNu) Group, Universidad Nacional de Educación a Distancia, Madrid, Spain
- 2006-20011 *Advanced Object-Oriented Programming*, Advanced Course I in the specialisation program *New Media*, laboratory course, Institute for Information Systems and New Media, Vienna University of Economics and Business Administration
- 2005-2008 *Seminar New Media*, Institute for Information Systems and New Media, Vienna University of Economics and Business Administration
- 2005-2006 *Computer-Mediated Cooperative Work (CMCW)*, Advanced Course IV in the specialisation program *New Media*, proseminar, Institute for Information Systems and New Media, Vienna University of Economics and Business Administration

Supervised qualification theses

Master theses

- [8] Bimassl, Markus (Sept. 2023). *Bidirectional transformation of natural language requirements to and from UML class models for Model-Driven Development*. Mas-

ter thesis. Institute for Information Systems & New Media, Vienna University of Economics & Business.

- [7] Poreba, Florian (Sept. 2023). *Interruptibility of software developers and its prediction using psycho-physiological sensors: A replication study*. Master thesis. Institute for Information Systems & New Media, Vienna University of Economics & Business.
- [6] Mycinski, Markus (Oct. 2022). *A multi-method approach to distilling reusable ADDs from migration projects towards microservices*. Master thesis. Institute for Information Systems & New Media, Vienna University of Economics & Business.
- [5] Maurer, Michael (Feb. 2018). *Roundtrip Engineering Support for Restful Web APIs*. Master thesis. Institute for Information Systems & New Media, Vienna University of Economics & Business.
- [4] Tahin, Daniel (Sept. 2014). *Design, Implementation, and Evaluation of an NX/Tcl code generator for Eclipse/Accleio*. Master thesis. Institute for Information Systems & New Media, Vienna University of Economics & Business.
- [3] Beck, Andreas (Aug. 2013). *Development of a domain specific language for scheduling in the energy sector*. Master thesis. Institute for Information Systems & New Media, Vienna University of Economics & Business.
- [2] Pfistershammer, Sebastian (2012). *Testen von ASTRA/Webtransactions*. Master thesis. Institute for Information Systems & New Media, Vienna University of Economics & Business.
- [1] Gaubatz, Patrick (2010). *Entwicklung von Embedded-DSLs für XML-basierte Sprachen am Beispiel von SAML*. Master thesis. Institute for Information Systems & New Media, Vienna University of Economics & Business.

Bachelor theses

- [5] Mende, Florian (2022). *Automated Unit Test Generation with Large Language Models*. Bachelor thesis. Institute for Information Systems & New Media, Vienna University of Economics & Business.
- [4] Siedler, Lorenz (2022). *A systematic comparison of machine-learning speech-to-text algorithms applied to support the transcription process*. Bachelor thesis. Institute for Information Systems & New Media, Vienna University of Economics & Business.
- [3] Mad, Lukas (Sept. 2014). *DSLs for web-application development: An empirical evaluation using replication*. Bachelor thesis. Institute for Information Systems & New Media, Vienna University of Economics & Business.
- [2] Maurer, Michael (2013). *Approaches to mobile application development – A systematic review*. Bachelor thesis. Institute for Information Systems & New Media, Vienna University of Economics & Business.

- [1] Scholz, Nicole (2010). *Mixin-based inheritance – A language comparison*. Bachelor thesis. Institute for Information Systems & New Media, Vienna University of Economics & Business.

Services to the profession

- 2023 Reviewer, [Journal of Systems and Software \(JSS\)](#)
Shepherd, [28th European Conference on Pattern Languages of Programs](#)
- 2022 Reviewer, [Business & Information Systems Engineering \(BUISE\)](#)
- 2021 Reviewer, [IEEE Transactions on Software Engineering \(TSE\)](#)
Reviewer, [Information and Software Technology \(IST\)](#)
Reviewer, [Software and Systems Modeling \(SoSyM\)](#)
Reviewer, [IEEE Transactions on Automation Science and Engineering \(T-ASE\)](#)
Reviewer, [Simulation Modelling Practice and Theory \(SIMPAT\)](#)
PC + Shepherd, [26th European Conference on Pattern Languages of Programs](#)
- 2018 Reviewer, [ACM Computing Surveys](#)
Reviewer, [MODELS'18 Educators Symposium](#)
Shepherd, [25th European Conference on Pattern Languages of Programs](#)
PC member, [NIER@ICSE](#)
- 2017 Reviewer, [Science of Computer Programming](#)
Shepherd, [22nd European Conference on Pattern Languages of Programs](#)
- 2016 Reviewer, [Journal of Systems and Software \(JSS\)](#)
Reviewer, [Information and Software Technology \(IST\)](#)
Expert Reviewer, [31st IEEE/ACM International Conference on Automated Software Engineering \(ASE'16\)](#)
- 2015 Reviewer, [Business & Information Systems Engineering](#)
Shepherd, [22th Conference on Pattern Languages of Programs](#)

- Reviewer, [LNCS Transactions on Pattern Languages of Programming](#)
- Reviewer, [The Computer Journal](#)
- Reviewer, [Information and Software Technology \(IST\)](#)
- PC member, [2. Workshop zur Ereignismodellierung und –verarbeitung im Geschäftsprozessmanagement](#)
- 2014 Focus-group participant, [FP7/ICT Integrated Project ARTIST](#)
- Reviewer, [IEEE Software](#)
- Workshop organizer, [International Workshop on DSL Architecting and DSL-based Architectures \(DADA'14\)](#)
- Workshop organizer, [MiniPloP@ECSA'14](#)
- Reviewer, [Information and Software Technology \(IST\)](#)
- Reviewer, [The Computer Journal](#)
- Reviewer, [29th IEEE/ACM International Conference on Automated Software Engineering \(ASE'14\)](#)
- PC member, [6th International Workshop on Feature-Oriented Software Development](#)
- PC member, [3rd International Conference on Model-Driven Engineering and Software Development \(Modelsward'15\)](#)
- Shepherd, [19th European Conference on Pattern Languages of Programs](#)
- PC member, [International Workshop on Modeling Inter-organizational Processes \(MinoPro'14\)](#)
- PC member, [1. Workshop zur Ereignismodellierung und –verarbeitung im Geschäftsprozessmanagement](#)
- 2013 PC member, [2nd International Conference on Model-Driven Engineering and Software Development \(Modelsward'14\)](#)
- Reviewer, [IEEE Software](#)
- PC member, [5th International Workshop on Feature-Oriented Software Development](#)
- Shepherd, [18th European Conference on Pattern Languages of Programs](#)

Reviewer, [9th joint meeting of the European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering](#)

Reviewer, [21st European Conference on Information Systems](#)

2012 Reviewer, [Information and Software Technology](#)

Reviewer, [34th International Conference on Software Engineering](#) (Informal Tool Demonstrations track)

Reviewer, [2012 Aspect-Oriented Software Development Conference](#)

Shepherd, [19th Conference on Pattern Languages of Programs](#)

Shepherd, [17th European Conference on Pattern Languages of Programs](#)

PC member, [4th International Workshop on Feature-Oriented Software Development](#)

Reviewer, [11. Internationale Tagung Wirtschaftsinformatik](#)

2011 PC member, [3rd International Workshop on Feature-Oriented Software Development](#)

PC member, [10th International Conference on Software Composition](#)

Reviewer, [25th European Conference on Object-Oriented Programming](#)

Reviewer, [10. Internationale Tagung Wirtschaftsinformatik](#)

2010-present Reviewer, [LNCS Transactions on Pattern Languages of Programming](#)

Shepherd, [European Conference on Pattern Languages of Programs](#)

2010 Reviewer, [1st Workshop on Engineering SOA and the Web](#)

2007 Workshop organizer, [5th International Conference and Workshops on Community Based Environments](#), Vienna, April, 2007

2006 Workshop/ session chair, [Session 73 Metadata for Learning Resources](#), 6th IEEE International Conference on Advanced Learning Technologies, Kerkrade, Netherlands, 2006

Language proficiency

German: native

English: excellent speaking, writing, reading

French: excellent speaking, writing, reading