

# Stefan Sobernig

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Born March 8, 1981; Klagenfurt; Austria  
Austrian citizenship

## Current position

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

## Areas of specialisation

Model-driven software-language engineering (e.g. [HybriDLUX project](#)), 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 - Jul. 2019 External IT consultant, tpa
- Apr. 2017 - Nov. 2017 External IT consultant, sIT
- Apr. 2015 - present Postdoc researcher (tenure track), Institute for Information Systems and New Media, WU Vienna
- Jan. 2009 - Mar. 2015 Postdoc researcher (non-tenure-track), Institute for Information Systems and New Media, WU Vienna
- Oct. 2008 - Dec. 2008 Scientific project assistant, *iCamp* (FP6/IST), <http://www.icamp.eu/>, Institute for Information Systems and New Media, WU Vienna
- Oct. 2004 - Oct. 2008 Research assistant, Institute for Information Systems and New Media, WU Vienna
- 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

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

## Refereed articles in journals

1. Leßenich, Olaf and Stefan Sobernig. “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 (2023). DOI: <https://doi.org/10.1016/j.infsof.2023.107220>.
2. Hoisl, Bernhard, Stefan Sobernig, and Mark Strembeck. “Reusable and generic design decisions for developing UML-based domain-specific languages”. In: *Information and Software Technology* 92 (July 2017). 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).
3. Sobernig, Stefan, Sven Apel, Sergiy S. Kolesnikov, and Norbert Siegmund. “Quantifying structural attributes of system decompositions in 28 feature-oriented software product lines: An exploratory study”. In: *Empirical Software Engineering* 21.4 (Aug. 2016). 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).
4. Sobernig, Stefan, Bernhard Hoisl, and Mark Strembeck. “Extracting reusable design decisions for UML-based domain-specific languages: A multi-method study”. In: *Journal of Systems and Software* 113 (Mar. 2016). 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).
5. Hoisl, Bernhard, Stefan Sobernig, and Mark Strembeck. “Modeling and enforcing secure object flows in process-driven SOAs: an integrated model-driven approach”. In: *Software and Systems Modeling* 13.2 (May 2014). 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).
6. Neumann, Gustaf, Stefan Sobernig, and Michael Aram. “Evolutionary Business Information Systems: Perspectives and challenges of an emerging class of information systems”. In: *Business & Information Systems Engineering* 6.1 (Feb. 2014), pp. 33–38. DOI: [10.1007/s12599-013-0305-1](https://doi.org/10.1007/s12599-013-0305-1).
7. Assche, F. van, E. Duval, D. Massart, D. Olmedilla, B. Simon, S. Sobernig, S. Ternier, and F. Wild. “Spinning Interoperable Applications for Teaching & Learning using the Simple Query Interface”. In: *Journal of Educational Technology & Society* 9.2 (Apr. 2006), pp. 51–67. URL: [http://www.ifets.info/journals/9\\_2/5.pdf](http://www.ifets.info/journals/9_2/5.pdf).

## Refereed proceedings

### Conferences

1. Ivanova, Rositsa V, Stefan Sobernig, and Mark Strembeck. “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, 2022, pp. 1–8. DOI: [10.1109/SNAMS58071.2022.10062544](https://doi.org/10.1109/SNAMS58071.2022.10062544).

2. Sobernig, Stefan. “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, 2021, pp. 24–40. DOI: [10.1007/978-3-031-11513-4\\_2](https://doi.org/10.1007/978-3-031-11513-4_2).
3. Sobernig, Stefan. “Object Parsing Grammars with Composition”. In: *Proc. Proceedings of the 16th International Conference on Software Technologies (ICSOFT’21)*. SciTePress, July 2021, pp. 373–385. Pre-published.
4. Sobernig, Stefan and Olaf Leßenich. “vie: 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, Feb. 2021, 4:1–4:7. DOI: [10.1145/3442391.3442396](https://doi.org/10.1145/3442391.3442396).
5. Sobernig, Stefan, Michael Maurer, and Mark Strembeck. “RAMLFlask: Managing artifact coupling for Web APIs”. In: *Proc. 35th ACM/SIGAPP Symposium on Applied Computing (SAC’20)*. ACM, Apr. 2020, pp. 2214–2217. DOI: [10.1145/3341105.3374116](https://doi.org/10.1145/3341105.3374116).
6. Sobernig, Stefan. “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., Feb. 2020, pp. 155–156. DOI: [10.18420/SE2020\\_48](https://doi.org/10.18420/SE2020_48).
7. Siegmund, Norbert, Stefan Sobernig, and Sven Apel. “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, Sept. 2017, 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>.
8. Sobernig, Stefan and Uwe Zdun. “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, Apr. 2016, pp. 61–70. DOI: [10.1109/WICSA.2016.9](https://doi.org/10.1109/WICSA.2016.9).
9. Haendler, Thorsten, Stefan Sobernig, and Mark Strembeck. “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, Feb. 2016, pp. 326–348. DOI: [10.1007/978-3-319-30142-6\\_18](https://doi.org/10.1007/978-3-319-30142-6_18).
10. Hoisl, Bernhard and Stefan Sobernig. “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, Jan. 2016, pp. 5001–5010. DOI: [10.1109/HICSS.2016.620](https://doi.org/10.1109/HICSS.2016.620).

11. Haendler, Thorsten, Stefan Sobernig, and Mark Strembeck. "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, 2015, pp. 229–240. DOI: [10.5220/0005519302290240](https://doi.org/10.5220/0005519302290240).
12. Hoisl, Bernhard, Stefan Sobernig, and Mark Strembeck. "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, 2014, pp. 95–104. DOI: [10.1109/QUATIC.2014.19](https://doi.org/10.1109/QUATIC.2014.19).
13. Hoisl, Bernhard, Stefan Sobernig, and Mark Strembeck. "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, 2014, pp. 356–367. DOI: [10.5220/0004713703560367](https://doi.org/10.5220/0004713703560367).
14. Hoisl, Bernhard, Stefan Sobernig, and Mark Strembeck. "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, 2013, pp. 49–61. DOI: [10.5220/0004321100490061](https://doi.org/10.5220/0004321100490061).
15. Schefer-Wenzl, Sigrid, Stefan Sobernig, and Mark Strembeck. "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, 2013. URL: [http://aisel.aisnet.org/ecis2013\\_cr/134](http://aisel.aisnet.org/ecis2013_cr/134).
16. Sobernig, Stefan, Bernhard Hoisl, and Mark Strembeck. "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, 2013, pp. 163–172. DOI: [10.1109/QSIC.2013.56](https://doi.org/10.1109/QSIC.2013.56).
17. Sobernig, Stefan, Mark Strembeck, and Andreas Beck. "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, 2013, pp. 19–35. DOI: [10.1007/978-3-319-02654-1\\_2](https://doi.org/10.1007/978-3-319-02654-1_2).
18. Hoisl, Bernhard, Mark Strembeck, and Stefan Sobernig. "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, Nov. 2012, pp. 337–344. DOI: [10.2316/P.2012.790-045](https://doi.org/10.2316/P.2012.790-045).

19. Lytra, Ioanna, Stefan Sobernig, and Uwe Zdun. "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, Aug. 2012, 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>.
20. Lytra, Ioanna, Stefan Sobernig, Huy Tran, and Uwe Zdun. "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, Mar. 2012. URL: <http://nm.wu-wien.ac.at/research/publications/b956.pdf>.
21. Sobernig, Stefan, Patrick Gaubatz, Mark Strembeck, and Uwe Zdun. "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, Oct. 2011, 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>.
22. Oberortner, Ernst, Stefan Sobernig, Uwe Zdun, and Schahram Dustdar. "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, July 2011, pp. D3/1–D3/38. URL: <http://nm.wu-wien.ac.at/research/publications/b957.pdf>.
23. Sobernig, Stefan and Uwe Zdun. "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, Sept. 2010, 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>.
24. Sobernig, Stefan and Uwe Zdun. "Inversion-of-Control Layer". In: *Proc. of 15th Annual European Conference on Pattern Languages of Programming (EuroPLOP'10)*. ACM, July 2010. DOI: [10.1145/2328909.2328935](https://doi.org/10.1145/2328909.2328935). URL: <http://nm.wu-wien.ac.at/research/publications/b847.pdf>.
25. Sobernig, Stefan. "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, Mar. 2010, 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>.
26. Sobernig, Stefan and Uwe Zdun. "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), Mar. 2009. URL: [http://ceur-ws.org/Vol-566/f3%5C\\_invocation%5C\\_assembly%5C\\_line.pdf](http://ceur-ws.org/Vol-566/f3%5C_invocation%5C_assembly%5C_line.pdf).

27. Wild, Fridolin and Stefan Sobernig. "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, Sept. 2007. URL: <http://ftp.informatik.rwth-aachen.de/Publications/CEUR-WS/Vol-280/p12.pdf>.
28. Simon, B. et al. "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, July 2006, 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](http://www.l3s.de/~olmedilla/pub/2006/2006_ICALT_Elena.pdf).

### Workshops and shorts

1. Ivanova, Rositsa V, Ema Kusen, and Stefan Sobernig. "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, 2023, pp. 94–101. DOI: [10.5220/0011990600003485](https://doi.org/10.5220/0011990600003485).
2. Haendler, Thorsten, Stefan Sobernig, and Mark Strembeck. "Towards Triaging Code-Smell Candidates via Runtime Scenarios and Method-Call Dependencies". In: *Proc. of the XP'17 Workshops*. ACM, May 2017, 8:1–8:9. DOI: [10.1145/3120459.3120468](https://doi.org/10.1145/3120459.3120468).
3. Haendler, Thorsten, Stefan Sobernig, and Mark Strembeck. "Deriving UML-based Specifications of Inter-component Interactions from Runtime Tests". In: *Proc. of the 31st Annual ACM Symposium on Applied Computing (SAC)*. ACM, 2016, pp. 1573–1575. DOI: [10.1145/2851613.2851981](https://doi.org/10.1145/2851613.2851981).
4. Hoisl, Bernhard and Stefan Sobernig. "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, 2015, pp. 29–36. URL: <http://ceur-ws.org/Vol-1508/paper6.pdf>.
5. Hoisl, Bernhard and Stefan Sobernig. "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, 2015, pp. 16–25. URL: <http://ceur-ws.org/Vol-1500/paper3.pdf>.
6. Langer, Philip, Stefan Sobernig, and Gustaf Neumann. "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. Mar. 2014.
7. Adelsberger, Stephan, Stefan Sobernig, and Gustaf Neumann. "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)*. Jan. 2014, 17:1–17:8. DOI: [10.1145/2556624.2556645](https://doi.org/10.1145/2556624.2556645).

8. Kolesnikov, Sergiy S., Sven Apel, Norbert Siegmund, Stefan Sobernig, Christian Kästner, and Semah Senkaya. "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, 2013, 6:1–6:5. DOI: [10.1145/2430502.2430511](https://doi.org/10.1145/2430502.2430511).
9. Sobernig, Stefan, Gustaf Neumann, and Stephan Adelsberger. "Supporting Multiple Feature Binding Strategies in NX". In: *Proc. of the 4th International Workshop on Feature-Oriented Software Development (FOSD'12)*. ACM, 2012, 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>.
10. Hoisl, Bernhard, Stefan Sobernig, Sigrid Schefer-Wenzl, Mark Strembeck, and Anne Baumgraß. "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), July 2012, pp. 303–314. URL: <http://wi.wu.ac.at/home/mark/publications/pmde12.pdf>.
11. Hoisl, Bernhard and Stefan Sobernig. "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, 2011, 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>.
12. Wild, Fridolin, Steinn E. Sigurdarson, Stefan Sobernig, Christina Stahl, Ahmet Soyulu, Vahur Rebas, Dariusz Górka, Anna Danielewska, and Antonio Tapiador. "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, Sept. 2007. URL: <http://ftp.informatik.rwth-aachen.de/Publications/CEUR-WS/Vol-309/paper01.pdf>.
13. Aguirre, S. et al. "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, May 2005. URL: [http://www.wu-wien.ac.at/usr/wi/bsimon/publikationen/eswc2005\\_elena\\_demo-v2005-04-20\\_final.pdf](http://www.wu-wien.ac.at/usr/wi/bsimon/publikationen/eswc2005_elena_demo-v2005-04-20_final.pdf).
14. Miklós, Z. and S. Sobernig. "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), May 2005, pp. 27–35. URL: <http://sunsite.informatik.rwth-aachen.de/Publications/CEUR-WS/Vol-143/paper04.pdf>.



## Miscellaneous

1. Stieglbauer, Gerald, Christian Burghard, Stefan Sobernig, and Robert Korosec. “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, 2018, pp. 642–651. DOI: [10.5220/0006754406420651](https://doi.org/10.5220/0006754406420651).
2. Harrison, Neil B., Uwe van Heesch, Stefan Sobernig, Peter Sommerlad, Martin Filipczyk, Alexander Fülleborn, Angelika Musil, and Juergen Musil. “Software architecture patterns: Reflection and Advances (Summary of the MiniPLoP Writers’ Workshop at ECSA’14)”. In: *ACM SIGSOFT Software Engineering Notes* 40.1 (2015). Post-workshop report, pp. 30–34. DOI: [10.1145/2693208.2693218](https://doi.org/10.1145/2693208.2693218).
3. Hoisl, Bernhard, Stefan Sobernig, Sigrid Schefer-Wenzl, Mark Strembeck, and Anne Baumgrass. *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, 2014. URL: <http://epub.wu.ac.at/4312/>.
4. Sobernig, Stefan, Sven Apel, Sergiy Kolesnikov, and Norbert Siegmund. *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, 2014. URL: <http://epub.wu.ac.at/4328/>.
5. Sobernig, Stefan, Bernhard Hoisl, and Mark Strembeck. *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, 2014. URL: <http://epub.wu.ac.at/4311/>.
6. Sobernig, Stefan and Mark Strembeck. “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, 2014. DOI: [10.1145/2642803.2642818](https://doi.org/10.1145/2642803.2642818).
7. Breu, Ruth et al. “Towards Living Inter-Organizational Processes”. In: *Proc. of the 15th IEEE International Conference on Business Informatics (CBI’13)*. IEEE, 2013.
8. Hoisl, Bernhard, Stefan Sobernig, Sigrid Schefer-Wenzl, Mark Strembeck, and Anne Baumgrass. *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, 2012. URL: <http://epub.wu.ac.at/3578/>.
9. Lytra, Ioanna, Stefan Sobernig, and Uwe Zdun. *Architectural Decision Making for Service-Based Platform Integration: A Qualitative Multi-Method Study*. Technical Report. Vienna: Software Architecture Institute, University of Vienna, June 2012. URL: <http://eprints.cs.univie.ac.at/3478/>.
10. Neumann, Gustaf and Stefan Sobernig. “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, Oct. 2011, pp. 183–216. URL: <http://nm.wu-wien.ac.at/research/publications/b885.pdf>.

11. Neumann, Gustaf and Stefan Sobernig. "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, Oct. 2009, pp. 179–204. URL: <http://nm.wu-wien.ac.at/research/publications/b806.pdf>.
12. Sobernig, Stefan, Fridolin Wild, Bernd Simon, and Barbara Kieslinger. "Adoption of Tools for Technology-Enhanced Learning in Austrian Higher Education". In: *Tagungsband der 13. fnm-austria Tagung*. 2007.
13. Sobernig, Stefan and Fridolin Wild. *Interoperability Framework Draft for the Distributed Open Virtual Learning Environment*. Deliverable 3.1. iCamp Consortium, 2006. URL: [http://www.icamp.eu/wp-content/uploads/2007/05/d31\\_\\_\\_icamp\\_\\_\\_interoperability-framework-draft.pdf](http://www.icamp.eu/wp-content/uploads/2007/05/d31___icamp___interoperability-framework-draft.pdf).
14. Sobernig, Stefan and Fridolin Wild. *Prototype of a Repository Network*. Deliverable 3.2. iCamp Consortium, 2006. URL: [http://www.icamp.eu/wp-content/uploads/2007/05/d32\\_\\_\\_icamp\\_\\_\\_repository-network-prototype.pdf](http://www.icamp.eu/wp-content/uploads/2007/05/d32___icamp___repository-network-prototype.pdf).

## Talks

1. Sobernig, Stefan. *Designing, implementing, and using UVL as a language-kernel extension*. Invited talk given at the FOSD Meeting 2023 (University of Ulm). Mar. 2023.
2. Sobernig, Stefan. *Assessing DSLs in industry: An empirical puzzle*. Invited talk given at the AVL List GmbH Researcher Networking Day, Graz, Austria. Mar. 2016.
3. Sobernig, Stefan, Sven Apel, and Sergiy Kolnesikov. *Can you have it all? On feature decomposition and modular structure in 28 software product lines*. Invited talk given at FOSD Meeting 2013, Dagstuhl. Feb. 2013.
4. Sobernig, Stefan, Sven Apel, and Sergiy Kolnesikov. *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. Mar. 2012. URL: <http://nm.wu-wien.ac.at/research/publications/b958.pdf>.
5. Sobernig, Stefan. *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. Sept. 2010. URL: <http://nm.wu-wien.ac.at/research/publications/b959.pdf>.
6. Neumann, Gustaf and Stefan Sobernig. *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. Feb. 2008. URL: <http://nm.wu-wien.ac.at/research/publications/b717.pdf>.

7. Neumann, Gustaf and Stefan Sobernig. *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. Feb. 2008. URL: <http://nm.wu-wien.ac.at/research/publications/b719.pdf>.
8. Sobernig, Stefan. *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. Feb. 2008. URL: <http://nm.wu-wien.ac.at/research/publications/b725.pdf>.
9. Sobernig, Stefan. *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. Feb. 2008. URL: <http://nm.wu-wien.ac.at/research/publications/b724.pdf>.
10. Sobernig, Stefan. *xorb / xosoap - Remoting for OACS / .LRN*. Tutorial given at the International OpenACS and .LRN Fall Conference, Boston, 2006. Nov. 2006. URL: <http://nm.wu-wien.ac.at/research/publications/b670.pdf>.
11. Sobernig, Stefan and Fridolin Wild. *Interoperability in Technology Enhanced Learning*. Tutorial given at the ProLearn Summer School, Istanbul, Turkey, 2005. Sept. 2005. URL: <http://www.educanext.org/ubp/PUSH/search@srchDetailsLR?lrID=lr-wuw-wild-1126513506924>.

### Qualification theses

1. Sobernig, Stefan. *Variability design and implementation for domain-specific software languages*. Habilitation thesis. Vienna: Institute of Information Systems, New Media, Vienna University of Economics, and Business, Dec. 2018.
2. Sobernig, Stefan. *Exploring Feature Variability in Object Remoting Middleware*. Doctoral thesis. Vienna: Institute of Information Systems, New Media, Vienna University of Economics, and Business, Feb. 2009.
3. Sobernig, Stefan. *Regulation & Wissen – Die Wirkung Neuer Informations- und Kommunikationstechnologien in Lateinamerika*. Diploma thesis. Abteilung für Außenhandel und Entwicklungsplanung, Wirtschaftsuniversität Wien, Nov. 2004.

### Awards

- 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

- 2019-present *Algorithmic Thinking and Programming, Introduction into Programming*, lecture and laboratory course, Bachelor major "Information Systems", Institute for Information Systems and New Media
- 2017-present *Data Processing*, lecture and laboratory course, Specialisation "Data Science", Institute for Information Systems and New Media
- 2013-present *Distributed Systems*, lecture course, Master program "Information Systems", Institute for Information Systems and New Media
- 2013-present *Information Systems Development*, lecture course, Master program "Information Systems", Institute for Information Systems and New Media
- 2012-present *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
- 2006-2001 *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

1. Mycinski, Markus. *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, Oct. 2022.
2. Maurer, Michael. *Roundtrip Engineering Support for Restful Web APIs*. Master thesis. Institute for Information Systems & New Media, Vienna University of Economics & Business, Feb. 2018.
3. Tahin, Daniel. *Design, Implementation, and Evaluation of an NX/Tcl code generator for Eclipse/Accelio*. Master thesis. Institute for Information Systems & New Media, Vienna University of Economics & Business, Sept. 2014.
4. Beck, Andreas. *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, Aug. 2013.
5. Pfistershammer, Sebastian. *Testen von ASTRA/Webtransactions*. Master thesis. Institute for Information Systems & New Media, Vienna University of Economics & Business, 2012.
6. Gaubatz, Patrick. *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, 2010.

### Bachelor theses

1. Siedler, Lorenz. *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, 2022.
2. Mad, Lukas. *DSLs for web-application development: An empirical evaluation using replication*. Bachelor thesis. Institute for Information Systems & New Media, Vienna University of Economics & Business, Sept. 2014.
3. Maurer, Michael. *Approaches to mobile application development – A systematic review*. Bachelor thesis. Institute for Information Systems & New Media, Vienna University of Economics & Business, 2013.
4. Scholz, Nicole. *Mixin-based inheritance – A language comparison*. Bachelor thesis. Institute for Information Systems & New Media, Vienna University of Economics & Business, 2010.

## 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