

Roxane Koitz-Hristov

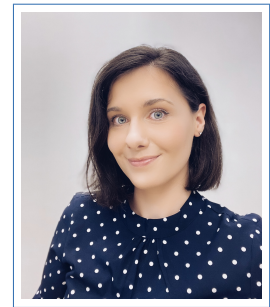
Curriculum Vitae

Muenzgrabenstraße 137/I
A-8010 Graz

☎ +43 (316) 873 5748

✉ rkoitz-hristov@tugraz.at

 www.linkedin.com/in/koitz



Profile

Passionate educator and Senior Lecturer in Computer Science. Recognized for award-winning teaching and contributions to curriculum development, both at TU Graz and internationally (ACM IT2027). Research interests include model-based diagnosis, AI, and computer science education.

Personal Information

Name Roxane Koitz-Hristov
Academic Degree MSc, MSc, PhD
Place of Birth Graz, Austria
Citizenship Austria

Relevant Work Experience

2019-present

Senior Lecturer at the Institute for Artificial Intelligence and Software Engineering (previously Institute for Software Technology),
Graz University of Technology, Graz, Austria.

- Research
 - Research fields: **Model-based Diagnosis, Artificial Intelligence, Software Engineering, Computer Science Education**
 - Involvement in different research projects such as FLIMBD (Analysis of Flight Data Using Model Based Driven Diagnostics), ALFA (Artificial Intelligence for Smart Diagnosis in Building Automation).
- University Service
 - Mid-level Staff Member of the working group Curricular Committee for Field of Studies "Computer Science and Digital Education" (since 2025)
 - Mid-level Staff Member of the working group Curricular Committee for Field of Studies "Computational Social Systems" (since 2025)
 - Mid-level Staff Substitute Member of the Senate of TU Graz (2025 to 2028)
- Professional Service
 - **Task force member of ACM/IEEE-CS IT2027 Curricula:** Curriculum Guidelines for Baccalaureate Degree Programs in Information Technology
- Teaching at Graz University of Technology, Campus02 /FH Joanneum
 - Receiver of the **FH Joanneum Teaching Award 2019**
 - Nominated for the Ars Docendi State Prize for Excellent Teaching 2020 (Ars Docendi Staatspreis für exzellente Lehre 2020)
 - Receiver of the **FH Joanneum Teaching Award 2022**
 - fnma certified OER Practitioner (since 2024)
- Parental Leave:
 - February 2020 - April 2021
 - December 2022 - January 2024

2018-2019

Project Assistant at the Institute for Software Technology,

Graz University of Technology, Graz, Austria.

- Research fields: Model-based Diagnosis, Artificial Intelligence
- Teaching at Graz University of Technology and Campus02/FH Joanneum

2015-2018

University Assistant at the Institute for Software Technology,

Graz University of Technology, Graz, Austria.

- Research fields: Model-based Diagnosis, Artificial Intelligence
- Involvement in different research projects such as AMOR (Applied Model-Based Reasoning), EXPERT.
- Organisation of the HRSM cooperation project Lehrverbund Sued (LVIS)
- Teaching at Graz University of Technology

2014-2015

Project Assistant at the Institute for Software Technology,

Graz University of Technology, Graz, Austria.

- Project AMOR (Applied Model-Based Reasoning)
- Funded by The Austrian Research Promotion Agency (FFG)

Teaching Experience

Current Teaching

2025-2025

Automata Theory (Practical 2), *Graz University of Technology, Graz, Austria.*

- Co-Lecturer: WS 2025

2018-2024

Principles of Informatics (Lecture 2), *Campus02 (and FH Joanneum till 2023), Graz, Austria.*

- Lecturer: WS 2018/2019, 2019/2020, 2021/2022, 2022/2023, 2024/2025

2018-2024

Principles of Operating Systems (Lecture/Practical 3), *Campus02 (and FH Joanneum till 2023), Graz, Austria.*

- Lecturer: WS 2018/2019, 2019/2020, 2021/2022, 2022/2023, 2024/2025

2021-2024

Network Technologies (Lecture/Practical 3), *Campus02 (and FH Joanneum till 2023), Graz, Austria.*

- Lecturer: WS 2021/2022, 2022/2023, 2024/2025

2019-2025

Data Structures and Algorithms (Lecture/Practical 3), *Campus02 (and FH Joanneum till 2023), Graz, Austria.*

- Lecturer: SS 2019, 2021, 2022, 2024, 2025

2019-2025

Webtechnologies and Usability (Lecture/Practical 3), *Campus02 (and FH Joanneum till 2023), Graz, Austria.*

- Lecturer: SS 2019, 2021, 2022, 2024, 2025

Past Teaching

2023-2024

Foundations of Computer Science (Lecture 2/ Practical 2), *Graz University of Technology, Graz, Austria.*

- Co-Lecturer: WS 2024/2025

2020

Machine Learning Basics (Online Course),

LinkedInLearning, Graz, Austria.

2019

Code Quality (Advanced Software Quality Assurance for Technical Management),

Graz University of Technology, Graz, Austria.

- Co-Lecturer: WS 2019

2018

Modelling Technical Systems (Lecture 2/ Practical 1),

Graz University of Technology, Graz, Austria.

- Co-Lecturer: SS 2018

2018

The Twin Peaks Model: Software Architecture and Lifecycle (Value-Network Sued - IT enabled Eco Systems),

Graz University of Technology, Graz, Austria.

- Co-Lecturer: SS 2018

2018

Data as a Service: Technologies and Architectures (Value-Network Sued - IT enabled Eco Systems),

Graz University of Technology, Graz, Austria.

- Co-Lecturer: SS 2018

2016-2018

Compiler Construction (Design practical 1),

Graz University of Technology, Graz, Austria.

- Lecturer: SS 2018

- Co-Lecturer: SS 2016, 2017

2018

Compiler Construction (Lecture 2),

Graz University of Technology, Graz, Austria.

- Lecturer: SS 2018

2015-2018

Software Maintenance (Lecture/Practical 3),

Graz University of Technology, Graz, Austria.

- Lecturer: WS 2018/2019

- Co-Lecturer: WS 2015/2016, 2016/2017, 2017/2018

2018-2022

(Co-)Supervised Theses,

Graz University of Technology, Graz, Austria.

- Johannes Lüftenegger - Master's Thesis (completed 2018): Development and Evaluation of a User Interface Concept for an Industrial Wind Turbine Diagnosis Application
- Lukas Stracke - Bachelor's Thesis (completed 2019): Code Similarity Detection with Program Dependency Graphs
- Markus Doler - Bachelor's Thesis (completed 2019): Comparison of Divide-And-Conquer Strategies in the Context of Explanation Generation
- Franz Mandl - Bachelor's Thesis (completed 2020): Visualization of the Flow Propagation Algorithm for Educational Purposes
- Hannes Unterweger - Bachelor's Thesis (completed 2020): Empirical Evaluation of Tools for Program Analysis
- Trummer Viktoria - Bachelor's Thesis (completed 2020): Hardware in the loop
- Julia Le - Bachelor's Thesis (completed 2020): Visualisation of the Program Dependence Graph and the Minimal Hitting Set
- Alexandra Taupe - Bachelor's Thesis (completed 2020): Comparison of Slicing Techniques Beyond the Usual Suspects
- Franz Mandl - Master's Thesis (completed 2022): Creating a Web Application to Visualize Compiler Optimizations
- Lukas Stracke - Bachelor's Thesis (completed 2022): Test Suite Reduction with Checked Coverage (*Winner of the OCG Award 2023 for Master's Thesis in the Field of Software Engineering*)

Research Projects

2024-2027

ALFA - Artificial Intelligence for Smart Diagnosis in Building Automation, Senior Researcher, Funded by Austrian Research Promotion Agency (FFG).

The ALFA project aims to enhance fault diagnosis in building automation by integrating model-based diagnosis (MBD) and machine learning (ML) techniques to improve heat pump efficiency, reduce energy loss and CO2 emissions, and extend system lifetimes, while addressing data scarcity through simulations and ensuring interpretability via Explainable AI (XAI).

2019-2020

FLIMBD - Analysis of Flight Data Using Model Based Driven Diagnostics, Senior Researcher, Funded by European Space Agency, European Space Operations Centre (ESOC), ESA.

This ESA project aimed to enhance spacecraft fault analysis by integrating existing discipline models, such as thermal mathematical models, with flight data to improve anomaly root cause analysis, mission predictions, and spacecraft behavior assessment.

2015-2017

EXPERT, *Junior Researcher*, Funded by Styrian Business Promotion Agency m.b.H..
The project focused on developing technology and processes for remote diagnosis and condition-based maintenance of wind turbines to optimize maintenance, extend turbine lifespan, and reduce wind energy costs sustainably.

2014-2017

AMOR - Applied Model-Based Diagnosis, *Junior Researcher*, Funded by Austrian Research Promotion Agency (FFG).

The AMOR project provided a methodology and framework for abductive model-based diagnosis in the industrial domain of wind turbines, focusing on failure detection and localization.

Education

2014-2018

Ph.D. Computer Science (passed with distinction), *Graz University of Technology*, Graz, Austria.

Ph.D. Thesis: From Theory to Practice: Abductive Model-based Diagnosis and its Industrial Application

Supervisor: Franz Wotawa, Graz University of Technology, Graz, Austria

External Reviewer: Johan de Kleer, Palo Alto Research Center, Palo Alto, U.S.A.

2013-2016

Master of Science in Computer Science (passed with distinction), *Graz University of Technology*, Graz, Austria.

Master's Thesis: Formula Composition and Manipulation in Educational Programming Languages for Children and Teenagers

2011-2012

Exchange Student in Computer Science - International Student Exchange Program,

Western Illinois University, Macomb, Illinois, USA.

2010-2013

Master of Science in Software Development and Business Management (passed with distinction), *Graz University of Technology*, Graz, Austria.

Master's Thesis: Acceptance of Location Based Services in the Retail Environment

2006-2010

Bachelor of Science in Software Development and Business Management, *Graz University of Technology*, Graz, Austria.

Bachelor's Thesis: Virtual Tutoring System for the Cost Estimation of Software Projects

Additional Experiences

Conference Organisation Experience

2019

Editor IEA/AIE 2019 Proceedings, *Advances in Artificial Intelligence: From Theory to Practice: 32nd International Conference on Industrial, Engineering and Other Applications of Applied Intelligent Systems*, Graz, Austria.

2018-2019

Publication Chair IEA/AIE 2019, *32nd International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems*, Graz, Austria.

2018-2019

Co-Chair on Special Track on Immersive and Engaging Educational Experiences, *5th Annual International Conference of the Immersive Learning Research Network*, London, UK.

2018-2019

Special Tracks Co-Chair iLRN 2019, *5th Annual International Conference of the Immersive Learning Research Network*, London, UK.

2017

Local Support DX2017, *28th Edition of the International Workshop on Diagnosis 2018*, Brescia, Italy.

2015

Publications Co-Chair iLRN 2015 Conference, *1st Immersive Learning Research Network Conference*, Prague, Czech Republic.

2015

Local Support ICST2015, *8th International Conference on Software Testing, Verification and Validation*, Graz, Austria.

2014

Publicity and Public Relations Chair EiED 2014, *4th European Immersive Education Summit*, Vienna, Austria.

2014

Local Support DX2014, *25th Edition of the International Workshop on Diagnosis 2014*, Graz, Austria.

Selected Program Committee and Reviewer Activities

2024-2025

Reviewer Technical Symposium on Computer Science Education (SIGCSE TS), *Technical Symposium on Computer Science Education*.

2024

Reviewer Journal of Artificial Intelligence Research (JAIR), *Journal of Artificial Intelligence Research (JAIR)*.

2019-2022

PC Member/Reviewer International Joint Conference on Artificial Intelligence, *International Joint Conference on Artificial Intelligence*.

- IJCAI-2019
- IJCAI-2020
- IJCAI-2022

2019-2022

PC Member International Workshop on Principles of Diagnosis, *International Workshop on Principles of Diagnosis*.

- DX-2018
- DX-2019
- DX-2021
- DX-2022

2020-2022

PC Member International Symposium on Methodologies for Intelligent Systems, *International Symposium on Methodologies for Intelligent Systems*.

- ISMIS-2020
- ISMIS-2022

2015-2020

PC Member International Conference of the Immersive Learning Research Network, *International Conference of the Immersive Learning Research Network*.

- iLRN-2015
- iLRN-2019
- iLRN-2020

2020

PC Member European Conference on Artificial Intelligence 2020, *24th European Conference on Artificial Intelligence*.

2018

Reviewer Annals of Mathematics and Artificial Intelligence, *Annals of Mathematics and Artificial Intelligence*.

2017

Reviewer Fault Diagnosis of Hybrid Dynamic and Complex Systems, *Fault Diagnosis of Hybrid Dynamic and Complex Systems*.

2017

PC Member International Conference on Industrial, Engineering and Other Applications of Applied Intelligent Systems, *International Conference on Industrial, Engineering and Other Applications of Applied Intelligent Systems*.

Other Experiences

2013

Catrobat Project - UX Coordinator, *Catrobat Projekt*, Graz, Austria.

2013

Volunteer at UX Day Graz 2013, *UX Day Graz 2013* Graz University of Technology, Graz, Austria.

2009

Volunteer at RoboCup 2009, *RoboCup 2009* Graz University of Technology, Graz, Austria.

2008-2013

Student Union Computer Science and Software Development and Business Management (BIS), Member.

Professional Development

2015-2025

Teaching.

- **Graz University of Technology, Graz, Austria**
 - 2024 Teaching Expert Workshop
 - 2024 Visualization in Teaching (Visualisierung in der Lehre)
 - 2022 Digitization in Teaching: How Technology Can Enrich Your Teaching (Digitalisierung in der Lehre: Wie Technologie Ihre Lehre bereichern kann)
 - 2021 Professional Assessment of Student Performances (Kompetent Prüfen)
 - 2021 Conduct Oral Examination Interviews (Mündliche Prüfungsgespräche durchführen)
 - 2021 Didactic Impulses for Teachers in Natural and Engineering Sciences (Didaktische Impulse für Lehrende in Natur- und Ingenieurwissenschaften)
 - 2018 Teach, Present and Publish: English for Academic Purposes
 - 2017 Motivational Teaching: Fundamentals and Tools (Motivierende Lehre: Grundlagen und Tools)
 - 2017 Teaching at TU Graz (Lehre an der TU Graz)
 - 2016 Didactics 3: Teaching Behaviour in Academic Education (Didaktik 3: Lehrverhalten im akademischen Bildungsbereich)
 - 2015 Didactics 2: Teaching in Academic Education (Didaktik 2: Durchführen von Lehrveranstaltungen im akademischen Bildungsbereich)
 - 2015 Didactics 1: Fundamentals of Teaching and Learning in Academic Education (Didaktik 1: Grundlagen des Lehrens und Lernens im akademischen Bildungsbereich)
 - 2015 Teaching in English - Introduction
- **iMoox, Austria**
 - 2024 Using and creating OER (Teaching Expert Workshop)
- **Didaktik Werkstatt, Austria**
 - 2025 Developing and Enriching Teaching with AI Tools
 - 2025 Competency-Oriented and Fair Assessment
 - 2025 Contributing to a Sustainable Future through Problem- and Challenge-Based Learning

2017-2021

Leadership and Management.

- **Graz University of Technology, Graz, Austria**
 - 2021 Management Development Programm
 - 2018 Leadership and Management in Practice (Leadership und Management in der Praxis)
 - 2017 Psychology of Leadership and Motivating: Basics (Psychologie des Führens und Motivierens: Grundlagen)
 - 2017 Leadership and Delegation (Führen und Delegieren)

2014-2019

Research and Miscellaneous.

- **Graz University of Technology, Graz, Austria**
 - 2019 Sketchnotes - Visual Notes (Sketchnotes – visuelle Notizen)
 - 2017 Introduction to Business Planning for Scientists (Einführung in die Businessplanung für Wissenschaftlerinnen und Wissenschaftler)
 - 2016 Rhetoric for Conversations and Meetings: Argumentation, Conversation Techniques, Moderation (Rhetorik für Gespräche und Meetings: Argumentation, Gesprächstechniken, Moderation)
 - 2015 More Effective Scientific Writing in English
 - 2014 Effective Scientific Writing in English
 - 2014 Academic Writing

Languages

German – Native Tongue

English – Full Professional Proficiency

2011-2012

Studied a year abroad in the United States of America, Western Illinois University, Macomb, Illinois, United States of America.

2010

TOEFL iBT (118/120 points), ETS, Graz, Austria.

Test of English as a Foreign Language

French – Elementary Proficiency

2004

DELFL (Diplôme d'Études en Langue Française) B1 certificate (68/100 Punkte), Institut Culturel Franco-Autrichien, Graz, Austria.

Publications

Publications

- [1] R. Koitz-Hristov Peer Code Review Methods: An Experience Report from a Data Structures and Algorithms Course. *Proceedings of the 56th ACM Technical Symposium on Computer Science Education V. 1*, pp. 610-616, ACM, New York, NY, USA (2025). DOI: 10.1145/3641554.3701799.
- [2] R. Koitz-Hristov, F. Mandl, and F. Wotawa VisOpt - Visualization of Compiler Optimizations for Computer Science Education. *Proceedings of the 56th ACM Technical Symposium on Computer Science Education V. 1*, pp. 603-609, ACM, New York, NY, USA (2025). DOI: 10.1145/3641554.3701832.
- [3] S. J. Frühwirth, R. Koitz-Hristov, and F. Wotawa MIN2SMT - A MINION to SMT-LIB2 Compiler. *23rd Workshop on Constraint Modeling and Reformulation (ModRef)*. (2024)
- [4] R. Koitz-Hristov, T. Sterner, L.Stracke, and F. Wotawa. On the suitability of checked coverage and genetic parameter tuning in test suite reduction. *Journal Of Software: Evolution And Process*. pp. e2656 (2024)
- [5] R.Koitz-Hristov Nicht für die Fachhochschule, sondern für das Leben lernen wir: Wie man nachhaltiges kompetenzorientiertes Lernen ermöglichen kann. *Teaching Award (Plus) 2022-2023-Beste Lehre An Der FH JOANNEUM: Beiträge Zur Qualitätskultur In Der Hochschullehre*. pp. 47-54 (2023)
- [6] R. Koitz-Hristov, L.Stracke, and F. Wotawa. Checked coverage for test suite reduction - is it worth the effort? In *IEEE/ACM International Conference on Automation of Software Test, AST@ICSE 2022, Pittsburgh, PA, USA, May 21-22, 2022*, pages 6-16. ACM/IEEE, 2022. **Best Paper Award**
- [7] R.Koitz-Hristov and F. Wotawa. Faster Horn Diagnosis - A Performance Comparison of Abductive Reasoning Algorithms. *Applied Intelligence*, 50(5):1558-1572, May 2020.
- [8] F. Wotawa, G. Friedrich, I. Pill, R. Koitz-Hristov, and M. Ali, editors. *Advances and Trends in Artificial Intelligence. From Theory to Practice - 32nd International Conference on Industrial, Engineering and Other Applications of Applied Intelligent Systems, IEA/AIE 2019, Graz, Austria, July 9-11, 2019, Proceedings*, volume 11606 of *Lecture Notes in Computer Science*. Springer, 2019.
- [9] F. Wotawa, G.d Friedrich, I. Pill, R. Koitz-Hristov, and M. Ali. Current approaches in applied artificial intelligence: The 2019 IEA/AIE conference the IEA/AIE 2019 conference. *AI Mag.*, 40(4):85-87, 2019.
- [10] D. Beck, A.Peña-Ríos, J. Todd Ogle, D. Economou, M. Mentzelopoulos, L. Morgado, C. Eckhardt, J. Pirker, R. Koitz-Hristov, J. Richter, C. Gütl, and M. Gardner, editors. *Immersive Learning Research Network - 5th International Conference, iLRN 2019, London, UK, June 23-27, 2019, Proceedings*, volume 1044 of *Communications in Computer and Information Science*. Springer, 2019.

- [11] R. Koitz-Hristov and F. Wotawa. Applying algorithm selection to abductive diagnostic reasoning. *Applied Intelligence*, page 1–19, 5 2018.
- [12] R. Koitz-Hristov. *From Theory to Practice: Abductive Model-based Diagnosis and its Industrial Application*. PhD thesis, Graz University of Technology, 2018.
- [13] R. Koitz-Hristov and F. Wotawa. *On the Superiority of Conflict-Driven Search in MUS Enumeration*, In *Proceedings of the International Workshop on Principles of Diagnosis*, 2018.
- [14] F. Wotawa, B. Peischl, and R. Koitz. *Diagnosis as a service*, pages 557–567. In *Digital Marketplaces Unleashed*, Springer Berlin - Heidelberg, 2018.
- [15] R. Koitz, F. Wotawa, J. Lüftenegger, C. Gray, and F. Langmayr. *Wind Turbine Fault Localization: A Practical Application of Model-Based Diagnosis*, pages 17–43. In n: Sayed-Mouchaweh, M. (eds) *Diagnosability, Security and Safety of Hybrid Dynamic and Cyber-Physical Systems*. Springer International Publishing AG, Switzerland, 2018.
- [16] R. Koitz, J. Lüftenegger, and F. Wotawa. *Model-Based Diagnosis in Practice: Interaction Design of an Integrated Diagnosis Application for Industrial Wind Turbines*, pages 440–445. In Benferhat, S., Tabia, K., Ali, M. (eds) *Advances in Artificial Intelligence: From Theory to Practice. IEA/AIE 2017. Lecture Notes in Computer Science()*, vol 10350. Springer International Publishing AG, Switzerland, 2017.
- [17] R. Koitz and F. Wotawa. *Extending The Modeling Framework For Abductive Diagnosis Beyond Horn Clauses* , International Workshop on Principles of Diagnosis, 2017.
- [18] R. Koitz and F. Wotawa. On Structural Properties to Improve FMEA-Based Abductive Diagnosis. In *Proceedings of the Workshop on Knowledge-based Techniques for Problem Solving and Reasoning*, Volume Vol-1648. CEUR WS Proceedings, 7 2016.
- [19] R. Koitz and F. Wotawa. Integration of Failure Assessments into the Diagnostic Process. In *Proceedings of the Annual Conference of the Prognostics and Health Management Society 2016*, pages 124–135, 2016.
- [20] R. Koitz and F. Wotawa. Improving Abductive Diagnosis through Structural Features: A Meta-Approach. In *Proceedings of the International Workshop on Defeasible and Ampliative Reasoning (DARe-16)*, volume Vol-1626. CEUR WS Proceedings, 9 2016.
- [21] R. Koitz and F. Wotawa. Exploiting Structural Metrics in FMEA-Based Abductive Diagnosis. In *Proceedings of the 27th International Workshop on Principles of Diagnosis (DX)*, pages 1–7, 2016.
- [22] R. Koitz. *Formula Composition and Manipulation in Educational Programming Languages for Children and Teenagers*. Master thesis, Graz University of Technology, 2016.
- [23] R. Koitz and F. Wotawa. SAT-Based Abductive Diagnosis. In *Proceedings of the 26th International Workshop on Principles of Diagnosis (DX)*, pages 167–175., 2015.
- [24] R. Koitz and F. Wotawa. On the Feasibility of Abductive Diagnosis for Practical Applications. In *Proceedings of the 9th IFAC Symposium on Fault Detection, Supervision and Safety of Technical Processes*, pages 410–415., 2015.
- [25] R. Koitz and F. Wotawa. From Theory to Practice: Model-Based Diagnosis in Industrial Applications. In *Proceedings of the Annual Conference of the PHM Society (PHM)*, pages 197–205., 2015. **Best Paper Award**

- [26] R. Koitz and F. Wotawa. Finding Explanations: An Empirical Evaluation of Abductive Diagnosis Algorithms. In *Proceedings of the DARE-15 International Workshop on Defeasible and Ampliative Reasoning*, pages 1-7., 2015. International Joint Conference on Artificial Intelligence (IJCAI 2015).
- [27] R. Koitz and F. Wotawa. Diagnosis of Technical Systems. In *Proceedings of the International Joint Conference on Artificial Intelligence 2015*, pages 4375-4376, 2015.
- [28] C. Gray, R. Koitz, S. Psutka, and F. Wotawa. An Abductive Diagnosis and Modeling Concept for Wind Power Plants. In *Proceedings of the 9th IFAC Symposium on Fault Detection, Supervision and Safety of Technical Processes*, pages 1-6., 2015.
- [29] R. Koitz and W. Slany. Empirical Comparison of Visual to Hybrid Formula Manipulation in Educational Programming Languages for Teenagers. In *PLATEAU '14: Proceedings of the 5th Workshop on Evaluation and Usability of Programming Languages and Tools*, pages 21-30, United States, 2014. Association of Computing Machinery.
- [30] C. Gray, R. Koitz, S. Psutka, and F. Wotawa. An Abductive Diagnosis and Modeling Concept for Wind Power Plants. In *International Workshop on Principles of Diagnosis*, pages 404-409., 2014.
- [31] I. Uitz and R. Koitz. Consumer Acceptance of Location Based Services in the Retail Environment. *International Journal of Advanced Computer Science and Applications (IJACSA)*, 2013. U.S ISSN : 2156-5570 (Online), U.S ISSN : 2158-107X (Print).
- [32] R. Koitz and I. Uitz. The Factor Usability on Location Based Services in the Retail Environment. In *Proceedings of the 2013 Summer Global Business Conference*, 2013, pages 244-252., 2013.
- [33] R. Koitz. *Akzeptanz von Location Based Services im Einzelhandel (Acceptance of Location-Based Services in Retail)*. Master thesis, Graz University of Technology, 2013.