

Curriculum Vitae

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Education

- 1968-1972 Volksschule (Primary School) in Kaisersdorf.
- 1972-1976 Bundesrealgymnasium (Middle School I) in Oberpullendorf.
- 1976-1981 Bundeshandelsakademie (Middle School II) in Oberpullendorf.
- 19.6.1981 “Reifeprüfung” at the Bundeshandelsakademie in Oberpullendorf.
Final grade: “mit ausgezeichnetem Erfolg”.
- 1981-1984 Studies: *Business Informatics* at the University of Vienna
and the Technical University of Vienna
Final grade: “mit Auszeichnung bestanden”.
Graduation degree: Magister rer.soc.oec.
- 1987-1990 PhD student: *Social and Economical Sciences*, University of
Vienna
Thesis: “Modelling and Performance Analysis of Parallel Systems
with PRM-Nets.” (Awarded with the *Heinz Zemanek-Preis
1992* for outstanding contributions in Computer Sciences.)
Final grade: “mit Auszeichnung bestanden”.
- 1995 *venia docendi* in “Informatik” (Computer Science)
from the University of Vienna.

Professional Career

- 1986-1999 Research Assistant and Assistant Professor
Institut für Informatik und Informationssysteme,
(Advanced Computer Engineering), University of Vienna.
- Feb 1991 Dipartimento di Informatica (Visiting Researcher), Università
degli Studi di Torino, Turin, Italy.
- Aug 1993 Dipartimento di Informatica (Visiting Researcher), Università
degli Studi di Torino, Turin, Italy.
- May-Sep 1994 Computer Science Department (Visiting Researcher), University
of Maryland at College Park, College Park, U.S.A.
- Jan-Feb 1995 Computer Science Department (Visiting Researcher), University
of Oregon, Eugene, U.S.A.
- 1998 Dipartimento di Informatica e Science dell’Informazione (Visiting
Professor), Università di Genova, Genova, Italy.
- 2002 Computer Science Department (ERASMUS Guest Teacher),
Technical University of Budapest, Budapest, Hungary.

- 2000 – Full Professor in Computer Science
Head of Department
Institut für Pervasive Computing
Johannes Kepler Universität Linz
A-4040 Linz, Austria
- 2001 – Research Institute for Pervasive Computing (RIPE)
(Founder and Head)
Softwarepark Hagenberg Linz
A-4444, Hagenberg, Austria
- 2006 – Research Studio for Pervasive Computing Applications (PCA)
(Founder and Head)
Research Studios Austria
Aubrunnerweg 1, A-4040 Linz, Austria, and
Thurngasse 99, A-1090 Vienna, Austria
- 2007 – Member of the "Wissenschaftskommission beim BMLV", Bundesministerium
für Landesverteidigung, Roßauer Lände 1, A-1090 Vienna,
Austria.
- 2007 – Member of IFIP TC 10 (International Federation for Information
Processing, TC10 - Computer Systems Technology).

Areas of Current Research (recent activities enlisted first):

- Pervasive Computing (Mobile and Ubiquitous Computing)
- Networked Embedded Systems
- Cooperative Systems
- Wireless Sensor/Actuator Systems
- Coordination Models, Calculi, and Languages
- Software Architecture, Distributed Software Systems
- Parallel and Distributed Discrete Event Simulation

Areas of Former Research

- Distributed Interactive Simulation
- CAPSE (Computer Aided Parallel Software Engineering)
- Performance Modeling/Analysis of Parallel Systems
- Queuing Network Modelling, Petri Nets, Stochastic Processes
- Parallel Programming / Visual Programming
- Neural Network Simulation
- Computer Algebra, Symbolic Computation
- Computer Supported Teaching, e-Learning

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1 Research

1.1 Research Area Overview

Networked Embedded Systems and Architectures:

Pervasive, mobile, ubiquitous and wearable computing; autonomic computing and wireless embedded systems; wireless multisensor platforms; context aware and adaptive systems; information appliances; ambient intelligence.

Cooperative Embedded Systems:

Coordination models, languages and formal methods; ad-hoc interaction; self-organization and self-management; cooperative sensing, opportunistic sensing; goal-oriented cooperative systems; ensembles of digital artefacts”, networks of things”.

Development of Distributed and Embedded Systems Software:

Distributed software and algorithms (specification, correctness, termination, complexity analysis), programming paradigms (OO distributed software models), component technologies/frameworks, embedded and real-time software, service oriented architectures, multiagent (software) systems.

Awareness, Attention, Interaction:

Context awareness, group/workspace awareness; peripheral displays, ambient information systems; embedded interaction, tangible interfaces; implicit interaction, activity and mobility recognition; auditory, vibrotactile and olfactory interfaces.

Quality of Service Management and Performance Analysis:

Qualitative and quantitative process models (stochastic process models, nets, stochastic process algebra, recurrence models, time series models, self similarity), QoS management systems, adaptive multimedia systems, network traffic modelling, user interaction modeling, proactive performance tuning.

Parallel and Distributed (Interactive) Simulation:

Parallel/distributed discrete event simulation (generating models, experimental design, verification, validation, and confidence analysis), distributed interactive simulation, web-based simulation, agent-based simulation, OO simulation, real-time simulation, simulation-aided multi-user environments.

Pervasive Computing Applications:

Energy efficiency and power saving; cooperative (fragmented) display systems; peripheral displays and media facades; see-through systems; stick-on computers and smart labels”; wearable computing systems; ambient intelligence systems; flexible adaptive context-aware systems.

1.2 Reviewed EU FP7 Research Projects in Progress

OPPORTUNITY

(Activity and Context Recognition with Opportunistic Sensor Configurations)

Funding: FP7-ICT-2007-C, FET open

Partners: ETH Zurich, UoPassau, IDIAP

Requested Grant: (*disclosed*)

Status: contract negotiation in progress since Sept. 10, 2008.

Start: *expected for February 1, 2009.*

OPPORTUNITY picks up on the very essential methodological underpinnings of any Ambient Intelligence (AmI) scenario: recognizing (and understanding) context and activity. Methodologies are missing to design context-aware systems: (1) working over long periods of time despite changes in sensing infrastructure (sensor failures, degradation); (2) providing the freedom to users to change wearable device placement; (3) that can be deployed without user-specific training. This limits the real-world deployment of AmI systems. We develop opportunistic systems that recognize complex activities/contexts despite the absence of static assumptions about sensor availability and characteristics. They are based on goal-oriented sensor assemblies spontaneously arising and self-organizing to achieve a common activity/context recognition goal. They are embodied and situated, relying on self-supervised learning to achieve autonomous operation. They makes best use of the available resources, and keep working despite-or improves thanks to-changes in the sensing environment. Changes include e.g. placement, modality, sensor parameters and can occur at runtime. Four groups contribute to this goal. They develop: (1) intermediate features that reduce the impact of sensor parameter variability and isolate the recognition chain from sensor specificities; (2) classifier and classifier fusion methods suited for opportunistic systems, capable of incorporating new knowledge online, monitoring their own performance, and dynamically selecting most appropriate information sources; (3) unsupervised dynamic adaptation and autonomous evolution principles to cope with short term changes and long term trends in sensor infrastructure, (4) goal-oriented cooperative sensor ensembles to opportunistically collect data about the user and his environment in a scalable way. The methods are demonstrated in complex opportunistic activity recognition scenarios, and on robust opportunistic EEG-based BCI systems.

SOCIONICAL

(Socio-Technical Ambient Intelligence Systems)

Funding: FP7 ICT Call-3, FET proactive / Goal 8.4: Science of complex systems for socially intelligent ICT

Partners: UoPassau (Coordinator), JKU, Beacontech, LSE, ETH Wearable Computing Lab, Vrije Universiteit Amsterdam, AGH University of Science and Technology, Science Krakow, UoWürzburg, Fraunhofer FIT, Open University, SICE, Professional Fire Fighters of Rome, SmartCare

Large scale IP: requested grant: (*disclosed*)

Status: contract negotiation in progress since Sept. 17, 2008.

Start: *expected for February 1, 2009.*

SOCIONICAL will develop Complexity Science based modelling, prediction and simulation methods for large scale socio-technical systems. We focus on the specific example of Ambient Intelligence (AmI) based smart environments. A key component of such environments is the ability to monitor user actions and to adjust its configuration and functionality accordingly. Thus, the system reacts to human behaviour while at the same influencing it. This creates a feedback loop and leads to a tight entanglement between the human and the technical system. At the same time there is dynamic, heterogeneous human-human, human-technology, and technology-technology communication leading to ad-hoc coupling between components and different feedback loops. The project will study global properties and emergent phenomena that arise in AmI based socio-technical systems from such local feedback loops and their coupling on two concrete scenarios: transportation and emergency/disaster. SOCIONICAL takes a parallel, multi faceted research approach. Thus, we will investigate analytical methods, complex networks based representations, and agent based models. The advances in modelling and prediction will be verified by large scale, distributed simulation driven by real life data. We will develop a methodology by which a small number of instrumented users can be realistically integrated in a large scale simulation as additional 'agents', experiencing the system and driving it. A separate WP is devoted to the integration of different approaches into a coherent framework. Another ensures generalization. To take into account all technological, psychological and social dimensions and realistic diversity of behaviours we have assembled a multi disciplinary consortium with separate WPs for technology analysis and the modelling of human technology interactions. SOCIONICAL has a WP devoted to the development and dissemination of guidelines and recommendation for businesses and policy makers.

PANORAMA

(Pervasive Adaptation Network for the Organisation of the Research Agenda and the Management of Activities)

Funding: FP7 ICT, FET proactive / Goal 8.3: Pervasive Adaptation

Partners: Napier University, Groupe Des Ecoles Des Telecommunications, Universita di Modena e Reggio Emilia, Universita di Roma La Sapienza

Coordinated Action CA : requested grant: (*disclosed*)

Status: started February 1, 2008, *in progress*

The goal of PANORAMA is to bring together the wide range of researchers in the Pervasive Adaptation field to build a new community of researchers in the Pervasive Adaptation field who can work together on common goals, so ensuring that the research carried out by members of that community is integrated, coordinated and informed. In pursuing this goal the main objectives are: (i) to construct and maintain the research agenda (roadmap), (ii) to disseminate ideas internally - bringing research areas closer together. (iii) to ensure a close cooperation between research institutions and industry and commerce. (iv) to coordinate research activities both within the European Commission and between the European Commission and national and other international research programmes. (v) to disseminate the work of the European Commission within Pervasive Adaptation to the general public using appropriate language and mechanisms.

EASE

(Eternally Adaptive Service Ecosystems)

Funding: FP7 ICT Call-3, FET proactive / Goal 8.3: ICT Forever Yours

Partners: Uo Modena (Coordinator), JKU, Birkbeck College, University College Dublin, Uo Bologna, Katholieke Universiteit Leuven, CREATE-NET, Freie Universität Berlin, Whitestein Technologies AG

Large scale IP: requested grant: (*disclosed*)

Status: full proposal submitted, short listed, invitation for hearing on June 17, 2008

The objective of EASE is the development of a highly-innovative framework for the decentralized deployment and execution of long-lived and adaptive services for future and emerging network scenarios. The framework will be grounded on a foundational re-thinking of current service models and of associated infrastructures and algorithms. In particular, getting inspiration from natural ecosystems, the project will demonstrate and experiment the possibility of modelling and deploying services as autonomous individuals in an ecosystem of other services, data sources, and pervasive devices, and of enforcing adaptivity and eternity as inherent properties of the ecosystem, rather than as peculiar characteristics of its individuals.

ALTERNATIVES

(Pervasive ICT for Alternative and Sustainable Energy Use)

Funding: FP7-PEOPLE-ITN-2008; Marie Curie Initial Training Networks

Partners: Lancaster University (UK), University of Duisburg-Essen (DE), SAP AG (DE/UK), Interactive Institute (SE), Risoe National Laboratory (DK)

Requested grant: (*disclosed*)

Status: submitted September 2, 2008; in review

The aim of ALTERNATIVES is to train early stage researchers (PhD fellows) in the context of a pressing societal challenge - the sustainability of energy systems - and in an interdisciplinary programme bridging social science, design, computer science, business processes, and energy economics. The research ambition of the network is to study and develop alternatives to state of the art paradigms of energy supply and consumption that leverage and advance pervasive information and communication technologies. The research and training will be conducted with three foci: on the consumer and design for energy-awareness and behaviour change; electronic appliances and development of networked embedded intelligence; and the electricity supply chain and a paradigm shift from infrastructure-driven to interactive and service-oriented.

1.3 Refereed National Research Projects in Progress

DISPLAYS

(Pervasive Display Systems)

Funding: FFG Call: Research Studios Austria

IPC Role: Project Leader

Partners: EPAMEDIA, CocaCola Österreich, Enterprise Sports Promotion, Geodan Salzburg, OÖ. Theater und Orchester GmbH

Project Cost:(*disclosed*)

Status: accepted, July 22, 2008, contract negotiation in progress since Aug. 23, 2008.

Start: *expected for December 1, 2008.*

The objective of the proposed Research Studio Pervasive Display Systems (DISPLAYS) is the development of a highly-innovative framework for the networked, decentralized operation of heterogeneous, long-lived and adaptive DISPLAY services. The framework will be grounded on a foundational re-thinking of the linkage among physical display systems and current display technologies (CRT, LCD, PDP, OLED, projection based, LCos or DLP) together with the associated infrastructures (IP networks, wireless communication, BT, UMTS, WiFi), and the presentation logic coming from display service models, content management systems, and online data repositories (WWW). Understanding networks of physical displays as information ecosystems, constituted by situation-aware, cooperative ensembles of interaction entities among humans and their environment, DISPLAYS will (i) define an innovative model for display services, content components and userinteractions, (ii) studying and experimenting display ecosystem architectures to enforce various forms of spatial selforganization, self-composition, and self-management for display data and services, and

(iii) implementing an innovative infrastructure for the deployment and execution of display services, and for the management, trading, delivery and displaying of content.

Power Saver

Funding: FFG Call: Neue Energien 2020, Projekt Nr. 818898

IPC Role: Project Leader

Partner: Energie AG

Project Cost:(*disclosed*)

Status: accepted, September 19, 2008; invitation for negotiation Start: *expected for January 1, 2009.*

The PowerSaver research project proposes a power management solution based on sensors for activity and context recognition, in order to avoid standby losses of electronic equipment, machines and appliances. It builds on an automatic (or implicit) switching of stand-by modes of these devices, based on the recognized or anticipated situation (rather than forcing users to explicitly switch among those modes). Clearly, such a solution is highly reliant to a reliable and robust recognition of user activities (like walking, standing, sitting, lying; working, reading, cooking; editing or "in conversation", etc.), and user situations (or contexts) like "at his desk" or "in a meeting", etc. We have developed the architecture of such a solution, together with the methods and algorithms involved in context recognition and activity tracking. As a cooperation among one of the largest power authorities and network operators in Austria, Energie AG, and the Institut für Pervasive Computing (University of Linz), this project will develop an activity based implicit energy management solution, and install and validate it in a testbed of about 12.000 newly installed Energie AG smart meters. Activity and context recognition methods based on technical sensors (accelerometers, gyroscopes, acoustic sensors, etc.) in different embeddings (body worn, integrated in artefacts or into the environment) will be studied and empirically validated in two case studies ("office" and "home").

Pervasive Computing

(Forschungsschwerpunkt Fachbereich Informatik, Johannes Kepler Universität Linz)

IPC Role: Project Leader

Project Consortium: Institut für Pervasive Computing (lead), Fachbereich Informatik, Johannes Kepler Universität Linz

Grant:(*disclosed*)

Funding: BMBWK, UMF 2002, (2002 –)

Today a variety of terms - like Ubiquitous Computing, Pervasive Computing, Invisible Computing, Ambient Intelligence, Sentient

Computing, Post-PC Computing, etc. - refer to new challenges and paradigms for the interaction among users and mobile and embedded computing devices. Fertilized by a vast quantitative growth of the Internet over the past years and a growing availability of wireless communication technologies in the wide, local and personal area, a ubiquitous use of embedded information technologies is evolving. Most of the services delivered through those new technologies are services adapted to context, particularly to the person, the time and the place of their use. The aim for seamless service provision to anyone (personalized services), at any place (location based services) and at any time (time dependent services) has brought the issues of software framework design and middleware to a new discussion: it is expected that context-aware services will evolve, enabled by wireless ad-hoc networked, autonomous special purpose computing devices (i.e. "smart appliances"), providing largely invisible support for tasks performed by users. It is further expected that services with explicit user input and output will be replaced by a computing landscape sensing the physical world via a huge variety of electrical, magnetic, optical, acoustic, chemical etc. sensors, and controlling it via a manifold of actuators in such a way that it becomes merged with the virtual world. Applications and services will have to be greatly based on the notion of context and knowledge, will have to cope with highly dynamic environments and changing resources, and will need to evolve towards a more implicit and proactive interaction with users. The research work will be based on the concept of ubiquitous, ambient information technology which adds the concepts of awareness and smartness to the any time any place paradigm of mobile computing. This research effort aims to achieve excellence in the topical area of Pervasive computing on an international scale, involving all computer science departments present at the Johannes Kepler University. Research activities will include the concept and design of mobile and pervasive system architecture, development methodologies for coordination and interaction oriented applications, context sensitive applications, information appliances, smart systems, natural interfaces, and qualitative system evaluation.

RIPE - Research Institute for Pervasive Computing

(Innovations-Transferplattform Pervasive Computing)

Role: Director

Project Consortium: Institut für Pervasive Computing, JKU Linz

Funding: Upper Austrian Government, (2003 –)

Pervasive Computing technologies are expected to replace the traditional personnel computers in many application domains not fully foreseen yet. For the IT oriented industry of the Upper Austria a unique chance may arise to gain international technological lead in this innovative sector. The Research Institute for Pervasive Computing, enabled and funded by

the Upper Austrian Government, will act as an applied research center involving the Institute for Praktische Informatik and the IT related Upper Austrian industry. The mechanism of a transfer platform for innovative Pervasive Computing applications in the proven surrounding of the Softwareparkes Hagenberg will enable the inquired and envisioned technical-industrial co-operations from an economic and organizational point of view.

PCA - Research Studio for Pervasive Computing Applications

Role: Studio Director

Partner: Research Studios Austria Forschungsgesellschaft, Salzburg

Funding: BMWA, BMWF, (2005 –)

Pervasive computing denotes the combining of distributed, embedded and interactive systems with the principles and methods of communication, collaboration and coordination. Pervasive computing pertains to the next generation of innovative information technologies. Through the miniaturization and embedding of microelectronics into diverse objects, these technologies merge with everyday work environments and are indiscernibly integrated into basic commodities, thus making living spaces which respond intelligently to humans a reality. Within this Research Studio we study the ubiquity, permeation and cross-linking of computer technology throughout all areas of daily life: Living, Business, Transportation, Health, or Work. The targeted interaction of a multitude of tiny, embedded, spontaneously linked, wirelessly communicating components results in pervasive computing applications which react to their environment or to the user in an indiscernible but omnipresent manner, without the need for active prompting on the part of the user: context awareness, sensor networks, mobile user appliances, ubiquitous interfaces, autonomous systems, immersive systems, etc. PCA is one unit of the Research Studios program started in 2001 with support by the BMWA and BMWF. It aims at a network of flexible and market-oriented research and development units spanning all of Austria. Currently, some five individual Studios are established close to clients and competencies. The kind of research and development conducted within Research Studios is based on a process of rapid prototyping, in order to iteratively optimize results, to develop them flexibly in line with the needs of the market, and to shorten the time span between an initial idea, its conceptualization and its development into usable applications. PCA has an operative unit collocated with the University of Linz, Institut für Pervasive Computing, and a second operative unit in Vienna (Thurngasse). The latter, with the newly granted DISPLAYS project, is subject to substantial growth before the end of 2008.

Real-time Notification Services

(A generic architecture for Notification Services)

Role: Project Leader

Project Consortium: Institut für Pervasive Computing, JKU Linz, connect Austria (ONE), Telering, T-Mobile

Funding: Industrial Cooperation, (since 2000)

We have developed a framework for SMS-Services handling all sorts of SMS based interactions among cellular network operators and their subscribers. The system has been successful in practice over almost 10 years, e.g. for real time delivery of race results at international sport events (Vienna City Marathon, real,- Berlin Marathon, Hamburg-Marathon, Grazer Altstadt-kriterium) and in marketing and promotion events (e.g. Eskimo, Nescafe, etc.).

MobiLearn

(Media informatics any-time any-where)

IPC Role: Project Leader

Project Consortium: Institut für Pervasive Computing, JKU Linz, Universität Klagenfurt, CS departments at the Universität Linz, Technische Universität Wien, and Universität Wien

Grant:(*disclosed*)

Funding: BMBWK, Neue Medien in der Lehre, (2002 –)

Technological advances in information and communication systems like the convergence of wireless communication and mobile and handheld computers have challenged higher education worldwide to adopt the opportunities of networked knowledge acquisition and delivery — both from a methodological and a technological viewpoint. Among the recent technology trends, particularly the confluence of wireless communication standards (like WiFi WLANs, providing data rates up to 11 and 54 Mbit/s) and a broad availability of small and miniaturized learning devices like notebook, handheld and pocket computers gives rise for a new landscape of learning as a networked, situated, contextual and life-long activity. In this landscape, learning is not confined to pre-specified times, places, learners or learning situations, but happens whenever (“any-time”), wherever (“any-place”), whoever (“personalized”) and in which situation ever (“situative”) there is demand to acquire knowledge, to gain insight and understanding, to share ideas or to address and solve a problem. Whole new views of learning and teaching processes are to be developed and supported, relating learning models, learning methods, didactics, team organization and situational behavior models with those new technologies. The project MobiLearn aims at the development of concepts, methods and tools implementing “Mobile Learning Technologies”, and to experiment with and gain experience from a mobile learning scenario to be created and established in the

Austrian university-level education system. A mobile learning framework will be developed in the context of Media Informatics as a reference, aiming at a modular and compositional system of computer science content frames, provided for plug-and-play use and situative access from arbitrary mobile learning devices — anytime, anywhere. As such, the framework will represent a methodologically and didactically well designed mobile learning platform, ready for immediate reuse in other content domains like medicine, engineering, humanities, economics, social science, etc. It will — above university-level education — serve as a reference implementation for the evolving contextual life-long learning systems. Wireless access technologies like WiFi WLANs are weaving into everyday environments like buildings and spaces on a property, city or regional scale, thus representing the communication infrastructure of the future mobile learning systems. The “Wireless Campus” project at the University of Linz and related initiatives at the University of Klagenfurt, the Technical University of Vienna and the University of Vienna are indicators for this development and will serve as the communication platform for this project.

Wireless Campus

(Establishing wireless networking infrastructure at the university campus)

IPC Role: Project Leader

Project Consortium: Institut für Pervasive Computing, JKU Linz, Johannes Kepler Universität Linz

Grant:(*disclosed*)

Funding: BMBWK, (2002 –)

After successful funding acquisition in 2001, IPC proposed, planned and implemented a wireless communication infrastructure covering the whole University of Linz campus area, based on a IEEE802.11b WLAN. Besides the deployment of more than 220 WLAN access points, a Virtual Private Network data concentrator and an LDAP based authentication system, a software solution is provided to support research, teaching and management agenda on campus based on location (IEEE802.11b, Bluetooth) and identification (IrDA, optical markers) technologies. A context sensitive tag resolution system (RFID) is used to provide situation dependent mobile-learning services, and a team-awareness system is built on top of a multi-resolution, 3D campus model (“Campus Space”).

1.4 International R&D Projects in Progress

SPECTACLES

(Autonomous Wearable Displays)

Role: Project Leader

Partners: University of Salzburg, SILHOUETTE AG

Grant:(*disclosed*)

Funding: FFG in the FIKT-IT Program, Industrial Cooperation, (2005 –)

Wearable see-through displays overlaying the user's real view with computer-generated display output have gained as a potentially effective means for a variety of mixed reality applications (e.g. in medicine, industrial maintenance, mobile information systems or even tourism and sports). Such multimedia, wearable see-through spectacle systems allow to create a visual perception of the real world visually merged with a virtual world by annotating real life objects with computer-generated data to real world objects. The user is enabled to access any kind of information, unobtrusively adapted to his current situation, while not having to give up paying attention to his environment or conducting his tasks. As research issues and development challenges we address (i) a flexible toolkit for different application domains, (ii) a component-oriented design for design-time and run-time adaptation, to (iii) support different media classes, with (iv) custom hardware component integration. The project SPECTACLES attempts for a modular, autonomous, lightweight, wirelessly communicating wearable display device, that can be integrated into the physical structure of an eyeglasses frame. A modular and reconfigurable system design approach is followed both in hardware and in software, supporting a plug-and-play configuration of SPSs (Special Purpose Spectacles") that meet the individual requirements of a specific use case scenario. An SPS as an autonomous, wearable display system is enabled to communicate with its environment wirelessly (technologies like GPRS, BT and WiFi are being addressed), sense different environmental parameters, and display different kinds of media (video, audio, image, text). Besides the output facilities, the computational platform of SPECTACLES is designed to be flexible enough to allow integration of additional input devices like cameras, accelerometers and other sensor units that can act as a means for natural human-computer-interaction and as a source for recognizing the user's context and focus of attention.

FACT

(Flexible Autonomic Context Technologies)

IPC Role: Project Leader

Project Consortium: Institut für Pervasive Computing, JKU Linz, Siemens AG Munich, CT SE2

Funding: Industrial Cooperation, (2007 –)

Grant:(*disclosed*)

Continues Peer-to-Peer Coordination and Context Framework for Mobile Devices"with an extended research program

This project aims at the development of systems that are able to

manage themselves and adapt to their environment. IT components are embedded in everyday objects and enabled to communicate with each other.

1.5 Finished Funded National and International Research Projects

BEYOND THE HORIZON

IPC Role: Leader TC 1: Pervasive Computing and Communications

Project: ERCIM Contract No. 006622 with the Commission of the European Communities (1st January 2005). Anticipating Future and Emerging Information Society Technologies, in the field of the IST Sixth Framework Programme

Funding: Commission of the EC, ERCIM, (2005-2007)

Results: <http://www.ercim.org/publication/policy/BTH-booklet.pdf>

CRUISE

(CReating Ubiquitous Intelligent Sensing Environments)

IPC Role: Partner in Network of Excellence

Funding: Commission of the EC, FP6, IST, (2006-2007)

Results: www.ist-cruise.eu

Digital Graffiti

IPC Role: Project Partner

Project Consortium: Institut für Pervasive Computing, JKU Linz, Dept. of Software Engineering JKU Linz, Future Lab of the Ars Electronica Center in Linz, Siemens Munich

Funding: Industrial Cooperation, (2005-2007)

Peer-to-Peer Coordination

IPC Role: Project Leader

Project Consortium: Institut für Pervasive Computing, JKU Linz, Siemens AG Munich, CT SE2

Funding: Industrial Cooperation, (2001-2007)

Now continued (extended research program) as project FACT (2007 –)

Context Framework for Mobile Devices

IPC Role: Project Leader

Project Consortium: Institut für Pervasive Computing, JKU Linz, Siemens AG Munich, CT SE2

Funding: Industrial Cooperation, (2001-2007)

Now continued (extended research program) as project FACT (2007 –)

JKU Learning Networks

(ICT support for situated context aware learning in mobile teams)

IPC Role: Project Leader

Project Consortium: Institut für Pervasive Computing, JKU Linz, Johannes Kepler Universität Linz

Funding: eLearning Offensive JKU, (2003-2005)

VRIO - Virtual Reality I/O

(Speech recognition unit for natural interaction with immersive and pervasive multi-user cooperative environments)

IPC Role: Co-Project Leader

Project Consortium: ARGE Institut für Praktische Informatik (Prof. Ferscha) and Institut für Technische Informatik (Prof. Volkert) Johannes Kepler Universität Linz, IBM Upper Austria

Funding: Industry, (2002-2003)

INSTAR

(Information and navigation through augmented reality)

IPC Role: Project Partner

Project Consortium: Institut für Pervasive Computing, JKU Linz, Dept. of Software Engineering JKU Linz, Future Lab of the Ars Electronica Center in Linz, Siemens Munich

Funding: Industrial Cooperation, (2001-2003)

WebWall

(N:N communication via shared public displays)

IPC Role: Project Leader

Project Consortium: Institut für Pervasive Computing, JKU Linz, connect Austria

Funding: Industrial Cooperation, (2001-2002)

FIT-IT Advisory Group Embedded Systems

(Recommendation for a national scientific advance research programme)

Role: Project Leader

Project Consortium: Prof. Ferscha (Group Leader), Team of Experts from Academia and Industry

Funding: BMVIT (2001-2002)

ACCELERATOR Gmunden

Concept and Feasibility Study for a center for IT Leadership

Role: Project Leader

Project Consortium: Inst. f. Praktische Informatik, JKU Linz, Land Oberösterreich, Gemeinde Gmunden

Funding: Government, (2000-2002)

Mobile Internet Services

Web Based Community Information Systems

Role: Project Leader

Project Consortium: Inst. f. Praktische Informatik, JKU Linz, Enterprise Sport Promotion

Funding: Industry, (2000)

Web Concept Vienna City Marathon

Web Based Community Information Systems

Role: Project Leader

Project Consortium: Inst. f. Angewandte Informatik und Informationssysteme - Advanced Computer Engineering Dept. (Univ. Vienna), Enterprise Sport Promotion

Funding: Industry, (1999)

BISANTE

Broadband Integrated Satellite Network Traffic Evaluation

Role: Co-Worker

Project Consortium: Inst. f. Informatik und Wirtschaftsinformatik - Dept. of Distributed Systems (Univ. Vienna), Thomson CSF (France) - Coordinator, INT (France) University of Surrey (UK), Netway (Austria), SOLINET (Germany)

Funding: EU ESPRIT IV, (1998-2000)

User Modelling and Traffic Evaluation for Quality of Service Management in B-ISDN networks

COOPERATE

Distributed Multiuser Cooperative Work Environments (Reference Project)

Role: Project Leader

Project Consortium: Inst. f. Angewandte Informatik und Informationssysteme - Advanced Computer Engineering Dept. (Univ. Vienna), Univ. Linz (Prof. J. Volkert, Prof. M. Mühlhäuser), Univ. Salzburg (Prof. P. Zinterhof), Industrial Partners

Funding: BMWV, (1998-1999)

Virtual Enterprise.

Enabling technologies for a generic, multipurpose virtual enterprise server.

Role: Project Leader

Project Consortium: Inst. f. Angewandte Informatik und

Informationssysteme - Advanced Computer Engineering Dept. (Univ. Vienna)

Funding: ÖNB, (1998-1999)

Network Computing (TEMPUS)

Role: Project Partner

Project Consortium: Inst. f. Angewandte Informatik und Informationssysteme - Advanced Computer Engineering Dept. (Univ. Vienna), EU Consortium

Funding: EU Tempus (1998-1999)

Establish Network Technologies and develop related case studies: Ethernet, Token Ring, ATM, Internet Protocols. Run-time support for Web-based collaboration.

Distributed Simulation of Multiagent Systems

Role: Project Leader (Univ. Vienna)

Project Consortium: Inst. f. Angewandte Informatik und Informationssysteme - Advanced Computer Engineering Dept. (Univ. Vienna), University of Exeter (Prof. St. Turner)

Funding: British Council, (1998-1999)

VRÖIG

Initiative “Virtuelle Realität” für die Österreichische Informationsgesellschaft

Role: Primary Investigator

Project Consortium: Inst. f. Angewandte Informatik und Informationssysteme - Advanced Computer Engineering Dept. (Univ. Vienna), Univ. Linz, Univ. Salzburg, BMWV

Funding: BMWV, (1997-1998)

Evaluation of Economical, Cultural, Social and Political Impacts of Virtual Reality Technology on the Austrian Information Society

Parallel Simulation of Very Large Office Workflow Models

Project Consortium: Inst. f. Angewandte Informatik und Informationssysteme - Advanced Computer Engineering Dept. (Univ. Vienna)

Role: Project Leader

Funding: Jubiläumsfondprojekt Nr. 5069, Oesterreichische Nationalbank, (1995-1996)

Simulation of workflow models of *complex* business organizations with more than 10^6 objects of work, 10^3 agents and 10^2 organizational units.

Parallel Simulation Techniques

Role: Project Leader (Univ. Vienna)

Project Consortium: Inst. f. Angewandte Informatik und Informationssysteme - Advanced Computer Engineering Dept. (Univ. Vienna), University of Exeter (Prof. St. Turner)

Funding: BMWF/British Council Academic Research Collaboration, (1994-1996)

Development and implementation of simulation model partitioning techniques for parallel execution (Meiko CS-2)

Performance Analysis of Parallel Systems and their Workload

(Central European Initiative (CEI-): Work Package 3:)

Role: Work Package Leader

Project Consortium: Inst. f. Angewandte Informatik und Informationssysteme - Advanced Computer Engineering Dept. (Univ. Vienna), University of Pavia (Prof. M. Calzarossa), Polytechnico di Milano (Prof. G. Serazzi), Universität Wien (Prof. H. Zima)

Funding: Research Project BMWF GZ. 308.926/1-IV/3/93, (1993-1995)

Development of Workload Modelling Methods for Parallel Systems

Tools for Performance Oriented Parallel Program Development

Discrete Event Simulation for Performance Prediction

Visualization of Parallel Program Structures

Parallel Visual Programming

(Central European Initiative (CEI-): Work Package 6:)

Role: Work Package Leader

Project Consortium: Inst. f. Angewandte Informatik und Informationssysteme - Advanced Computer Engineering Dept. (Univ. Vienna)

Funding: Research Project BMWF GZ. 308.926/1-IV/3/93, (1993-1995)

Parallel Visual Programming: Requirements Analysis

Development of Visual Programming Tools.

MONIT

Measurement and Monitoring of Parallel Processing Systems

Role: Primary Investigator

Project Consortium: Inst. f. Statistik und Informatik, Abt. f. Angewandte Informatik (Univ. Vienna), Slovak Academy of Sciences Bratislava

Funding: BMWF, (1992-1994)

Event Driven Software Monitoring of Parallel Programs executing on Distributed Memory Machines.

PAPS

Performance Analysis of Parallel Systems

Role: Primary Investigator

Project Consortium: Inst. f. Angewandte Informatik und Informationssysteme - Advanced Computer Engineering Dept. (Univ. Vienna)

Funding: FWF Research Grant No. S5303-PHY, (1991-1996) (Austrian Center for Parallel Computation)

Tools for Performance Oriented Parallel Program Development.

Distributed Simulation on High Performance Parallel Computer Architectures

Role: Project Leader (Univ. Vienna)

Project Consortium: Inst. f. Angewandte Informatik und Informationssysteme - Advanced Computer Engineering Dept. (Univ. Vienna), Universita di Genoa (Prof. G. Chiola)

Funding: Scientific-Technical Cooperation Austria-Italy, (1994-1995)

Distributed Discrete Event Simulation of Timed Petri Nets (CM-5)

MATCH

Modelling and Analysis of Time Constrained and Hierarchical Systems

Role: Project Partner

Project Consortium: Inst. f. Angewandte Informatik und Informationssysteme - Advanced Computer Engineering Dept. (Univ. Vienna), Eindhoven University of Technology (K. van Hee), Universität Hamburg (R. Valk), Universite Pierre et Marie Curie, Paris (C. Girault), Universita degli Studi di Torino (G. Balbo, G. Chiola), Universidad de Zaragoza (M. Silva)

Funding: EU - Human Capital and Mobility, (1993-1998)

Applicability of parallel and distributed discrete event simulation techniques to timed Petri net models.

Workflow modelling using high level nets.

Tools for the rapid prototyping of parallel and distributed applications.

Responsible for the Chapter “*Discrete Event Simulation*” in the common book on performance evaluation.

CAPSE

Computer Aided Parallel Software Engineering

Role: Primary Investigator

Project Consortium: Inst. f. Angewandte Informatik und Informationssysteme - Advanced Computer Engineering Dept. (Univ. Vienna), Inst. f. Graphische Datenverarbeitung und Parallele Systeme (Univ. of Linz)

Funding: Research Project BMWF GZ. 613.562/1-II/6/93, (1993-1995)

Tools supporting performance oriented parallel program development with focus on model based performance prediction.

Distributed Simulation of Petri Nets

Role: Primary Investigator

Project Consortium: Inst. f. Statistik und Informatik, Abt. f. Angewandte Informatik (Univ. Vienna)

Funding: Research Project BMWF GZ. 613.525/2-26/90, (Austrian Center for Parallel Computation) Initialförderung, (1990-1992)

Design and implementation of a distributed simulation engine for Petri nets on distributed (Intel iPSC/860, Transputer) and shared memory (Sequent Balance) machines.

(Simulationsmodell, Implementierungsunterstützung, Einbindung in existierende Tools)

Computer Aided Instruction

Role: Primary Investigator

Project Consortium: Inst. f. Statistik und Informatik, Abt. f. Angewandte Informatik (Univ. Vienna)

Funding: Research Project BMWF GZ. 52.979/1-6/86, (1986-1988)

Development of courseware in the authoring system AUTOOL

Development of supplementary teaching material

1.6 Publications

1.6.1 Books and Editorial Work

10. Mühlhäuser, Max; Ferscha, Alois; Aitenbichler, Erwin (Eds.) *Constructing Ambient Intelligence*. AmI 2007 Workshops Darmstadt, Germany, November 7-10, 2007, Revised Papers Series: Communications in Computer and Information Science , Vol. 11 2008, XI, 470 p. ISBN: 978-3-540-85378-7, 2008.
9. Ferscha, Alois (Ed.) *Mobile Learning*. Special Issue of E-Learning, Studien Verlag, Innsbruck-Wien-Bozen, (e-learning-zeitschrift.at). Vol. 2, No. 4, 2007.
8. Alois Ferscha, Stephan Olariu, Tom Pfeifer (Eds.): Special issue on wireless sensor networks and applications. *Computer Communications* 28(13): 1481-1483, 2005.
7. A. Ferscha and F. Mattern, (Eds.) *Pervasive Computing*. Second International Conference, PERVASIVE 2004, Vienna Austria, April 21-23, 2004, Lecture Notes in Computer Science, Springer, LNCS 3001, Berlin, 2004.
6. A. Ferscha, H. Hoertner, and G. Kotsis, (Eds.). *Advances in Pervasive Computing*, Vol. 175 of OCG Schriftenreihe. Austrian Computer Society, 2004. ISBN 3-85403-175-0.
5. G. Kotsis, A. Ferscha, W. Schreiner, and I.K. Ibrahim, (Eds.). *Proceedings of the International Conference on Advances in Mobile Multimedia (MoMM 2003)*, Vol. 171 of OCG Schriftenreihe. Austrian Computer Society, 2003. ISBN 3-85403-171-8.
4. Kirstie L. Bellman, Christopher Landauer, Robert Tolksdorf, Alois Ferscha: *Report On Major Themes and Issues Arising from the Workshop. Web Infrastructures and Coordination Architectures for Collaborative Applications*, in *Proceedings of the Workshop on Enabling Technologies and Infrastructures for Collaborative Enterprises, WET-ICE 2002*, pp. 225-229, IEEE, 2002.
3. A. Ferscha, M. Malony: *Performance Data Mining: Automated Diagnosis, Adaptation and Optimization*. *Journal of Future Generation Computing Systems*, North Holland, Vol. 18, Issue 1, 2001., pp. 127-130, 2001.
2. G. Kotsis, W. Deiters, A. Ferscha: *Introduction to the Workshop on Pervasive Computing and Information Logistics*. within *Proceedings of the GI/OCG-Jahrestagung 2001*, K. Bauknecht, W. Brauer, T. Mück (Eds.), OCG, September 2001, Vienna, Austria.
1. A. Ferscha: *Modellierung und Leistungsanalyse paralleler Systeme mit dem PRM-Netz Modell*. (PhD Dissertation) OCG Schriftenreihe, Band 65, R. Oldenbourg, Wien, 1995.

1.6.2 Refereed Publications

(CiteSeer 450, h-Index 16, m-Index 0.9411, according to Google Scholar 2008, selected publications are accessible at <http://www.pervasive-computing.at>)

140. A. Riener, A. Ferscha *Effect of Proactive Braking on Traffic Flow and Road Throughput*. 13th IEEE/ACM International Symposium on Distributed Simulation and Real Time Applications (DS-RT 2009), October 25-28, Singapore, IEEE Computer Society Press, 2009.
139. A. Ferscha, K. Zia *On the Efficiency of LifeBelt based Crowd Evacuation*. 13th IEEE/ACM International Symposium on Distributed Simulation and Real Time Applications (DS-RT 2009), October 25-28, Singapore, IEEE Computer Society Press, 2009.
138. K. Zia, A. Ferscha *A Simulation Study of Exit Choice based on Effective Throughput of an Exit Area in a Multi-Exit Evacuation Situation*. 13th IEEE/ACM International Symposium on Distributed Simulation and Real Time Applications (DS-RT 2009), October 25-28, Singapore, IEEE Computer Society Press, 2009.
137. A. Riener, M. Straub, A. Ferscha *Time-lag as Limiting Factor for Indoor Walking Navigation*. 4th European Conference on Smart Sensing and Context (EuroSSC), University of Surrey, Guildford, United Kingdom, Springer LNCS, pp. 14, 2009.
136. A. Riener, M. Aly, A. Ferscha *Heart on the road: HRV analysis for monitoring a driver's affective state*. 1st International Conference on Automotive User Interfaces and Interactive Vehicular Applications (AutomotiveUI 2009), September 21-22, Essen, Germany, ACM Digital Library, ISBN: 978-1-60558-571, 2009.
135. J. Doppler, G. Holl, A. Ferscha, M. Franz, C. Klein, M. dos Santos Rocha, A. Zeidler *Variability in foot-worn sensor placement for activity recognition*. Proceedings of the 13th International Symposium on Wearable Computers (ISWC'09), Sept 4-7 2009, Linz, Austria, IEEE Computer Society Press, 2009.
134. B. Dong, B. Wally, A. Ferscha *Tokenized Interaction Architecture*. Proceedings of the 2nd International Workshop on Pervasive Advertising (in Conjunction with Informatik 2009), Lübeck, Germany, 2009.
133. B. Wally, A. Ferscha, M. Lenger *Presence Sensing Billboards*. Proceedings of the 2nd International Workshop on Pervasive Advertising (in Conjunction with Informatik 2009), Lübeck, Germany, 2009.
132. A. Ferscha, W. Swoboda, C. Wimberger *En passant Coupon Collection*. Proceedings of the 2nd International Workshop on Pervasive Advertising (in Conjunction with Informatik 2009), Lübeck, Germany, 2009.

131. A. Ferscha, K. Zia *LifeBelt: Silent Directional Guidance for Crowd Evacuation*. Proceedings of the 13th International Symposium on Wearable Computers (ISWC'09), Sept 4-7 2009, Linz, Austria, IEEE Computer Society Press, 2009.
130. A. Ferscha, S. Vogl, B. Emsenhuber, R. Spindelbalker *SPECTACLES - Autonomous Wearable Displays*. Adjunct Proceedings of 13th International Symposium on Wearable Computers (ISWC'09), OCG Schriftenreihe, 2009.
129. A. Ferscha, W. Swoboda, C. Wimberger *En passant Pick-up of Digital Give-Aways*. Adjunct Proceedings of 13th International Symposium on Wearable Computers (ISWC'09), OCG Schriftenreihe, 2009.
128. M. Straub, A. Riener, A. Ferscha *Distance Encoding in Vibro-tactile Guidance Cues*. 6th Annual International Conference on Mobile and Ubiquitous Systems: Computing, Networking and Services (MobiQuitous 2009), IEEE XPlore, July 13-16 2009, Toronto, Ontario, Canada, ISBN: 978-963-9799-59-2, pp. 2, 2009.
127. D. Roggen, K. Förster, A. Calatroni, T. Holleczeck, Y. Fang, G. Troester, P. Lukowicz, G. Pirkl, D. Bannach, K. Kunze, A. Ferscha, C. Holzmann, A. Riener, R. Chavarriaga, J. Millán *OPPORTUNITY: Towards opportunistic activity and context recognition systems*. Proceedings of the 3rd IEEE WoWMoM Workshop on Autonomic and Opportunistic Communications (AOC 2009), IEEE CS Press, Kos, Greece, 2009.
126. A. Ferscha *Implicit Interaction*. The Universal Access Handbook (Human Factors and Ergonomics), CRC Press, Editors: Constantine Stephanidis, ISBN: 978-0-805862-805, 2009.
125. B. Emsenhuber, A. Ferscha *Olfactory Interaction Zones*. Video Paper at the the Seventh International Conference on Pervasive Computing, Pervasive 2009: Adjunct Proceedings, 2009.
124. D. Roggen, K. Förster, A. Calatroni, A. Bulling, T. Holleczeck, G. Troester, P. Lukowicz, G. Pirkl, D. Bannach, A. Ferscha, A. Riener, C. Holzmann, R. Chavarriaga, J. Millán *OPPORTUNITY: activity and context awareness in opportunistic open-ended sensor environments*. Poster at the 1st European Future Emerging Technologies Conference (FET 2009), Prague, Czech Republic, 2009.
123. A. Ferscha, A. Riener *Pervasive Adaptation in Car Crowds*. First International Workshop on User-Centric Pervasive Adaptation (UCPA) at MOBILWARE 2009, Berlin, Germany, Springer Berlin, Heidelberg, Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering (LNICST), pp. 6, 2009.
122. B. Wally, A. Ferscha *Staged Façades: Peripheral Displays in the Public*. International Journal of Ambient Computing and Intelligence, Vol. 1, No. 2, pp. 20-30, 2009.

121. A. Riener, A. Ferscha *Reconfiguration of Vibro-tactile Feedback in Vehicles*. Proceedings of the 2nd International Conferences on Advances in Computer-Human Interactions, accepted for publication, IEEE CS Press, February 1-7, 2009, Cancun, Mexico, 2009.
120. K. Zhia, A. Ferscha *Spatial Self-Organization in Networks of Things*. Proceedings of the 3rd International Workshop on Self-Organizing Systems (IWSOS 2008), accepted for publication, Springer Verlag, LNCS, December 10-12, 2008, Vienna, Austria, 2008.
119. D. Zachhuber, J. Doppler, A. Ferscha, C. Klein, and J. Mitic. *Simulating The Potential Savings Of Implicit Energy Management On A City Scale*. Proceedings of the 12th IEEE International Symposium on Distributed Simulation and Real Time Applications, accepted for publication, IEEE, October 27 - 29, 2008 Vancouver, British Columbia, Canada, October 2008.
118. A. Riener, A. Ferscha *Simulation Driven Experiment Control in Driver Assistance Assessment*. Proceedings of the 12th IEEE International Symposium on Distributed Simulation and Real Time Applications, accepted for publication, IEEE, October 27 - 29, 2008 Vancouver, British Columbia, Canada, October 2008.
117. A. Riener, A. Ferscha *Raising awareness about space via vibro-tactile notifications*. 3rd European IEEE Conference on Smart Sensing and Context (EuroSSC'08), accepted for publication, Springer-Verlag Berlin, Heidelberg, Lecture Notes in Computer Science (LNCS), October 29-31 2008, Zurich, Switzerland, pp. 10, October 2008.
116. B. Wally, A. Ferscha *Ambient Façades*. In: William R. Hazlewood, Lorcan Coyle, Zachary Pousman and Youn-kyung Lim (eds.): Proc. of 2nd Workshop on Ambient Information Systems. Colocated with Ubicomp 2008, Seoul, South Korea, September 21, 2008, CEUR Workshop Proceedings, ISSN 1613-0073, online CEUR-WS.org/Vol-402/. pp 36–42, September 2008.
115. A. Ferscha, B. Emsenhuber, A. Riener, C. Holzmann, M. Hechinger, D. Hochreiter, M. Franz, A. Zeidler, M. dos Santos Rocha, C. Klein *Vibro-Tactile Space-Awareness*. Proceedings of the 10th International Conference on Ubiquitous Computing (UbiComp 2008), video paper, September 2008.
114. C. Holzmann, A. Ferscha, M. Hechinger, A. Zeidler, M. dos Santos Rocha, M. Franz *Using Spatial Abstractions in Industrial Environments*. Proceedings of the 4th International Conference on Wireless and Mobile Communications (ICWMC 2008), IEEE CS Press, Athens, Greece, ISBN: 978-0-7695-3274-5, pp. 108-117, July 2008.
113. A. Riener, A. Ferscha *Supporting Implicit Human-to-Vehicle Interaction: Driver Identification from Sitting Postures*. The First Annual

- International Symposium on Vehicular Computing Systems (ISVCS 2008), ACM Digital Library, July 22-24, 2008, Trinity College Dublin, Ireland, July 2008.
112. C. Holzmann, M. Hechinger, A. Ferscha *Relation-Centric Development of Spatially-Aware Applications*. Proceedings of the 17th IEEE International Workshops on Enabling Technologies: Infrastructures for Collaborative Enterprises (WETICE 2008), IEEE CS Press, Rome, Italy, June 2008.
 111. A. Riener, A. Ferscha, M. Matscheko *Intelligent Vehicle Handling: Steering and Body Postures while Cornering*. 21st International Conference on Architecture of Computing Systems (ARCS 2008), System Architecture and Adaptivity, Springer-Verlag Berlin Heidelberg, Editors: Brinkschulte, U.; Ungerer, T.; Hochberger, C.; Spallek, R.G, Lecture Notes in Computer Science, Vol. 4934, ISBN: 978-3-540-78152-3, pp. 14, February 2008.
 110. A. Ferscha, S. Vogl, B. Emsenhuber, B. Wally *Physical Shortcuts for Media Remote Controls*. Adjunct Proceedings of the 2nd International Conference on Intelligent Technologies for Interactive Entertainment (INTETAIN 2008), ICST, pp. 8, January 2008.
 109. A. Ferscha, A. Riener, M. Hechinger, R. Mayrhofer, M. dos Santos Rocha, A. Zeidler, M. Franz *Peer-it: Stick-on solutions for networks of things*. Elsevier B.V., Editors: Sajal K Das, Marco Contri, Behrzoos Shirazi, Pervasive and Mobile Computing Journal, No. 3, Vol. 4, ISSN: 1574-1192, pp. 448-479, June 2008.
 108. A. Ferscha (Ed.) *Mobile Learning. There must be innovation in the learning process - not just technological advances*. Special Issue of E-Learning, Studien Verlag, Vol. 2, No. 4, pp. 1-4, 2007.
 107. A. Ferscha *A Matter of Taste*. Proceedings of the 2nd European Conference on Ambient Intelligence (AmI 2007), Springer LNCS, Darmstadt, Germany, November 2007.
 106. A. Ferscha *Pervasive Computing: connected>>aware>>smart*
In: Mattern, Friedemann (Hrsg.) *Die Informatisierung des Alltags*, Springer-Verlag Berlin Heidelberg, 2007
ISBN: 978-3-540-71454-5, pp. 3-10, May 2007.
 105. A. Ferscha *Spatial Awareness of Digital Artefacts*. Proceedings of the 11th IEEE International Symposium on Distributed Simulation and Real-Time Applications, IEEE Computer Society, Editors: Roberts, D.J. (General Chair); Theodoropoulos G.K.; El Saddik, A. (Program Co-Chairs), ISBN: 0-7695-3011-7, ISSN: 1550-6525, pp. 3-4, October 2007.
 104. A. Riener, A. Ferscha *Driver Activity Recognition from Sitting Postures*. Mensch und Computer 2007, Workshop Automotive User Interfaces, Weimar, Germany, Verlag der Bauhaus-Universität Weimar, Editors: Thilo Paul-Stueve, ISBN: 978-3-86068-319-4, pp. 55-63, September 2007.

103. A. Ferscha, B. Emsenhuber, S. Gusenbauer, B. Wally *PowerSaver: Pocket-Worn Activity Tracker for Energy Management*. Adjunct Proceedings of the 9th International Conference on Ubiquitous Computing (UBICOMP 2007), Editors: J.E. Badram et.al. Eds, Innsbruck, Austria, ISBN: 978-3-00-022600-7, pp. 321-324, September 2007.
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101. A. Ferscha *Informative Art Display Metaphors*. Proceedings of the 4th International Conference on Universal Access in Human-Computer Interaction (UAHCI 2007), Springer LNCS, Beijing, China, Vol. 4555, ISBN: 978-3-540-73280-8, pp. 82-92, July 2007.
100. C. Holzmann, A. Ferscha *Towards Collective Spatial Awareness Using Binary Relations*. Proceedings of the 3rd International Conference on Autonomic and Autonomous Systems (ICAS 2007), IEEE CS Press, Athens, Greece, ISBN: 0-7695-2859-5, pp. 36, June 2007.
99. C. Holzmann, A. Ferscha *Tangible Interaction in Collaborative Environments*. Proceedings of the 16th IEEE International Workshops on Enabling Technologies: Infrastructures for Collaborative Enterprises (WETICE 2007), IEEE CS Press, Paris, France, ISBN: 0-7695-2879-1, pp. 409-411, June 2007.
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97. A. Ferscha, B. Emsenhuber, St. Gusenbauer, B. Wally, C. Klein, Ch. Kuhmünch, and J. Mitic *PowerSaver: Pocket-Worn Activity Tracker for Energy Management*. Adjunct Proceedings of the 9th International Conference on Ubiquitous Computing, UbiComp 2007, Innsbruck, Austria, September 16-19, 2007, 4 pages, 2007.
96. A. Ferscha, S. Resmerita *Gestural interaction in the pervasive computing landscape*. Springer-Verlag Wien, e & i Elektrotechnik und Informationstechnik, No. 1-2, Vol. 124, pp. 17-25, February 2007.
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Intelligence, Springer LNCS, Königswinter, Germany, Vol. 4397, ISBN: 3-540-71024-8, pp. 14-27, September 2006.

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84. A. Ferscha, S. Vogl, W. Beer *Context Sensing, Aggregation, Representation and Exploitation in Wireless Networks*. Scalable Computing: Practice and Experience, SWPS, Parallel and Distributed Computing, No. 2, Vol. 6, ISSN: 1895-1767, pp. 77-81, June 2005.
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1. A. Ferscha, E. Hotop, H. Schaffer, W. Schenk. *Java Tutorial*. online course material

1.6.5 Refereed ACPC Reports

5. A. Ferscha, G. Chiola: *Performance Comparable Implementation Design of Synchronisation Protocols for Distributed Simulation*. Technical Report Series of the Austrian Center for Parallel Computation, ACPC/TR 93-21, December 1993.
4. A. Ferscha, G. Chiola: *A Logical Process Simulation Engine with Probabilistic Optimism*. Technical Report Series of the Austrian Center for Parallel Computation, ACPC/TR 93-20, December 1993.
3. A. Ferscha, G. Chiola: *A Distributed Discrete Event Simulation Framework for Timed Petri Net Models*. Technical Report Series of the Austrian Center for Parallel Computation, ACPC/TR 93-19, December 1993.
2. A. Ferscha, G. Kotsis: *Eliminating Routing Overheads in Neural Network Simulations Using Chordal Ring Interconnection Topologies*. Technical Report Series of the Austrian Center for Parallel Computation, ACPC/TR 91-8, February 1991.

1. A. Ferscha: *PRM-Net Modules for Parallel Programming Paradigms*. Technical Report Series of the Austrian Center for Parallel Computation, ACPC/TR 91-9, February 1991.

1.6.6 Technical Reports

23. A. Ferscha, S. Vogl: *Projektendbericht: SPECTACLES*. Internal Report, Johannes Kepler University Linz, 2008.
22. A. Ferscha: *Projektendbericht: VRIO*. Internal Report, Johannes Kepler University Linz, 2003.
21. A. Ferscha: *Projektendbericht: ACCELERATOR Gmunden - Concept and Feasibility Study for a center for IT Leadership*. Internal Report, Johannes Kepler University Linz, 2002.
20. A. Ferscha: *Projektendbericht: COOPERATE - Distributed Multiuser Cooperative Work Environments*. Internal Report, University of Vienna, 1999.
19. A. Ferscha, G. Kotsis: *Projektendbericht: Web-Konzept Vienna City Marathon*. Internal Report, University of Vienna, 1999.
18. A. Ferscha, J. Johnson: *N-MAP: An Environment for a Performance Oriented Development Process of Efficient Parallel Programs*. Software Demonstrations Book. CEI-PACT Final Workshop. Federal Ministry of Science, Transport and the Arts, Minoritenplatz 5, September 6, 1996, Vienna, Austria.
17. A. Ferscha, J. Johnson, G. Kotsis, M. Richter: *Parallel Simulation of Complex Workflow Models*. Jubiläumsfondsprojekt Nr. 5069, Oesterreichische Nationalbank, Final Report, June 1996.
16. A. Ferscha, J. Johnson: *Sensitivity of Workload Models in the Domain of Performance Prediction*. CEI-PACT Project Deliverable D6H-5, Research Grant BMWF GZ 308.926, November 1995.
15. A. Ferscha, B. Gruber, R. Tschopp: *Workload Model Generator*. CEI-PACT Project Deliverable D6H-3, Research Grant BMWF GZ 308.926, June 1995.

14. A. Ferscha, B. Gruber: *Validation of Prototype*. CEI-PACT Project Deliverable D6H-4, Research Grant BMWF GZ 308.926, June 1995.
13. A. Ferscha, J. Johnson: *Implementation of Workload Characterization Tools: The N-MAP Environment*. CEI-PACT Project Deliverable D3H-3, Research Grant BMWF GZ 308.926, June 1995.
12. A. Ferscha, J. Johnson: *Evaluation of Accuracy/Cost-Tradeoffs in the N-MAP Environment*. CEI-PACT Project Deliverable D3H-4, Research Grant BMWF GZ 308.926, June 1995.
11. A. Ferscha, A. Malony: *Scenario Management in the N-MAP Environment*. Supplementary CEI-PACT Project Deliverable D3H-6, Research Grant BMWF GZ 308.926, April 1995.
10. A. Ferscha, B. Gruber: *Prototype Graphical Communication Pattern Editor*. CEI-PACT Project Deliverable D6H-2, Research Grant BMWF GZ 308.926, February 1995.
9. O. Caprotti, A. Ferscha, H. Hong: *Reachability Test in Petri Nets by Gröbner Bases*. Research Institute for Symbolic Computation, Johannes Kepler Universität, A-4020 Linz, AUSTRIA, January 1995.
8. A. Ferscha, J. Johnson: *Application of Workload Characterization Methodology within the N-MAP environment*. CEI-PACT Project Deliverable D3H-2, Research Grant BMWF GZ 308.926, August 1994.
7. A. Ferscha, B. Gruber, J. Johnson, G. Pigel: *Requirements Analysis for the graphical specification of SPMD programs*. CEI-PACT Project Deliverable D6H-1, Research Grant BMWF GZ 308.926, March 1994.
6. A. Ferscha, J. Johnson, G. Kotsis: *Systematic Approach for Workload Characterization of Parallel Programs*. CEI-PACT Project Deliverable D3H-1, Research Grant BMWF GZ 308.926, March 1994.
5. A. Ferscha, G. Haring: *Parallel Petri Net Simulation*. Endbericht zum Forschungsauftrag BMWF, GZ 613.525/2-26/90, Dezember 1992.
4. A. Ferscha, W. Müllner: *Arbeitsschwerpunkt Parallelverarbeitung*. Positionspapier, Institut für Statistik und Informatik, Univ. Wien, März

1988.

3. A. Ferscha: *The PRM-Net Model - An Integrated Performance Model for Parallel Systems*. Technical Report Series of the Institut für Statistik und Informatik, TR-ISI/ANGINF-56, October 1988.
2. A. Ferscha: *Modelling a Class of Multiprocessor Systems with High Level Nets*. 2nd Workshop on Computer Performance Evaluation, May 30 - June 1, 1988, Milano, Italy (unpublished).
1. A. Ferscha: *Allgemeines zum Computerunterstützten Unterricht*. In: G. Haring und N. Tanzer: "Einsatz des Computerunterstützten Unterrichts in der Universitären Ausbildung im Bereich Informatik. Fallstudie." Endbericht zum Forschungsauftrag des BMfWF, Wien, 1987.

1.6.7 Theses

3. A. Ferscha: *Parallel and Distributed Processing: Contributions of Performance Analysis to Application Development*. Habilitationsschrift. Sozial- und Wirtschaftswissenschaftliche Fakultät der Universität Wien, Wien 1995.
2. A. Ferscha: *Modellierung und Leistungsanalyse paralleler Systeme mit dem PRM-Netz Modell*. Dissertation. Institut für Statistik und Informatik, Universität Wien, Wien 1990.
1. A. Ferscha: *Symbolisches Differenzieren und Simplifizieren mit LOGO*. Diplomarbeit. Institut für Statistik und Informatik, Universität Wien, Wien 1984.

1.7 Awards

- Heinz-Zemanek Award 1992 for the PhD Thesis "Modelling and Performance Analysis of Parallel Systems with PRM-Nets."
(The Heinz-Zemanek Award is awarded biennially by the Austrian Computer Society (OCG) four outstanding contributions in computer science.)

1.8 Presentations

1. *A Matrix-Approach for Proving Inequalities*
EUROCAL '87, International Conference on Symbolic and Algebraic Computation, Karl-Marx University Leipzig, June 2-5, 1987, Leipzig, GDR.
2. *Computerunterstützter Unterricht*
Bundswirtschaftskammer, January 15, 1987, Vienna, Austria.
3. *Classroom Oriented versus CAI-supported Teaching/Learning in University Education: A Case Study with Experimental Results*
Symposium on Computerized Information Systems in University Education (Alps-Adria Rectorial Conference), University of Zagreb, October 22-23, 1987, Zagreb, Yugoslavia.
4. *Modelling a Class of Multiprocessor Systems with High Level Nets*
2nd Workshop on Computer Performance Evaluation, University of Milano, May 30 - June 1, 1988, Milano, Italy.
5. *Der Arbeitsschwerpunkt Parallelverarbeitung am Institut für Statistik und Informatik*
University of Linz, February 1 1988, Linz, Austria.
6. *International Conference on Applications of Transputers: A Summary*
Impuls Computer Systeme GesmbH
September 9 1989, Vienna. Austria.
7. *Modelling Mappings of Parallel Programs onto Parallel Architectures with the PRM-Net Model*
IFIP-WG 10.3 Concurrent Systems Working Conference on Decentralized Systems, Ecole Normale Superieure, December 11-13, 1989, Lyon, France.
8. *Algorithmically provable variations of $ab' + a'b < aa' + bb'$. ($0 \leq a < b$, $0 \leq a' < b'$)*
Statistisches Seminar, University of Vienna, December 18 1989, Vienna, Austria.
9. *Neuronale Netzwerksimulation auf Transputer-Workstations*
Impuls-Seminar Parallelverarbeitung mit Transputern auf Apollo, Berthold & Stempel GesmbH, April 24 1990, Vienna, Austria.
10. *A Parallel Boltzmann Machine Simulator for Distributed Memory Multiprocessor Systems*
INNC 90 PARIS, International Neural Network Conference, Palais de

Congres,
July 9-13 1990, Paris, France.

11. *Asynchronous Parallel Boltzmann Machines for Combinatorial Optimization: Parallel Simulation and Convergence*
OPERATIONS RESEARCH 1990, International Conference on Operations Research, Wirtschaftsuniversität Wien,
August 28-31 1990, Vienna, Austria.
12. *Petri Net Based Modeling of Parallel Programs Executing on Distributed Memory Multiprocessor Systems*
Joint Seminar on Formal Techniques in Programming Technology,
Technical University of Budapest,
September 3-5 1990, Göd/Budapest, Hungary.
13. *An Integrated Petri-net-Based Performance Model to Support the Development Process of Parallel Application Software*
1st Scientific ACPC Meeting, Henndorf am Wallersee,
October 4-6 1990, Austria.
14. *Performance Oriented Parallel Program Design*
ACPC Kolloquium, University of Vienna,
January 17 1991, Vienna, Austria.
15. *Developing a Product for the Software Market in a Software Engineering Course*
Joint Austrian-Hungarian Workshop on Education & Research in Software Engineering, University of Vienna,
February 20-22 1991, Vienna, Austria.
16. *A Parallel Simulation Algorithm for Neural Network Models with Stochastic Unit Behaviour*
2nd Scientific ACPC Meeting, Schlosshotel Wilhelminenberg,
March 8-9 1991, Vienna, Austria.
17. *Performance Evaluation Methods and Tools for a Parallel Program Development Environment*
Dipartimento di Informatica, Università' di Torino,
March 20, 1991, Torino, Italy.
18. *A Nonalgorithmic Approach for Solving the TSP Problem*
Dipartimento di Informatica, Università' di Torino,
March 21, 1991, Torino, Italy.
19. *Predictable Templates of CSP-like Programs*
Dipartimento di Scienze della Informazione, Università' di Milano,
June 24, 1991, Milano, Italy.
20. *Performance Oriented Parallel Program Design in the CAPSE Environment*

- Minnowbrook Workshop on Software Engineering for Parallel Computing,
Syracuse University, Blue Mountain Lake,
July 19, 1991, New York, USA.
21. *Performance Modeling of Parallel Processing Systems*
Parallel Computing Curriculum Development Workshop, Colgate
University, Hamilton,
July 19-24, 1991, New York, USA.
 22. *Computer Aided Parallel Software Engineering*
Dept. of Computer Science, Oregon State University,
July 26, 1991, Corvallis, Oregon, USA.
 23. *Parallel Algorithm Templates to Support Performance Prediction*
L. Snyder, Dept. of Computer Science, University of Washington,
July 29, 1991, Seattle, Washington, USA.
 24. *Performance Engineering and Parallel Program Design*
Dept. of Computer Science, University of Illinois at Urbana-Champaign,
August 1, 1991, Champaign, Illinois, USA.
 25. *Petri Net Models of Parallel Algorithms*
Z. Segall, Dept. of Electrical and Computer Engineering, Carnegie Mellon
University,
August 2, 1991, Pittsburgh, PA, USA.
 26. *Neuronale Netzwerke*
Ringvorlesung: “Anwendungen und Auswirkungen der Informatik”,
Universität Wien, Institut für Theoretische Physik,
November 21, 1991, Vienna, Austria.
 27. *Kombinatorische Optimierung mit Boltzmann-Maschinen*
Konversatorium aus Operations Research: “Neuronale Netze: Theorie und
Anwendungen”, Technische Universität Wien, Institut für Ökonometrie,
Operations Research und Systemtheorie,
November 29, 1991, Vienna, Austria.
 28. *Parallel and Distributed Simulation of Timed Transition Petri Nets*
3rd Scientific ACPC Meeting.
March 27, 1992, Schloss Weinberg, Austria.
 29. *Performance Models of Parallel Systems*
Technische Universität Wien, Institut für Operations Research und
Systemtheorie,
January 15, 1992, Vienna, Austria.
 30. *Optimum Interconnection Topologies for the Compute-Aggregate-
Broadcast Operation on a Transputer Network.*
TRANSPUTERS '92, Advanced Research and Industrial Applications.
May 21, 1992, Arc-et-Senans, France.

31. *Modellierung und Leistungsanalyse paralleler Systeme mit dem PRM-Netz Modell*
(Anlässlich der Verleihung des Heinz Zemanek-Preises 1992)
Festsaal des Bundesministeriums für Wissenschaft und Forschung,
June 12, 1992, Vienna, Austria.
32. *Performance Analysis: Methods and Applicability in Parallel Programming*
4th Scientific ACPC Meeting.
October 3, 1992, Traunstein, Austria.
33. *A Transputer Implementation of Optimistic Distributed Simulation Strategies for Timed Petri Nets*
1st Austrian-Hungarian Workshop on Transputer Applications,
October 10, 1992, Sopron, Hungary.
34. *Exploiting Timed Petri Net Properties for Distributed Simulation Partitioning*
26th Hawaiian Int. Conference on System Sciences,
January 5-8, 1993, Maui, USA.
35. *Optimizing Distributed Simulation Engines*
5th Scientific ACPC Meeting, Schlosshotel Wilhelminenberg,
March 19-21, 1993, Vienna, Austria.
36. *Performance Oriented Development of Parallel Programs in a Computer Aided Parallel Software Engineering Environment*
IMPACT TEMPUS JEP's and Hungarian Transputer User Group
Workshop on Parallel Processing in Education,
March 25-27, 1993, Univ. Miskolc, Hungary.
37. *Project Studies in Parallel Processing at the Univ. of Vienna*
IMPACT TEMPUS JEP's and Hungarian Transputer User Group
Workshop on Parallel Processing in Education,
March 25-27, 1993, Univ. Miskolc, Hungary.
38. *Distributed Simulation of Timed Petri Nets: Exploiting the Net Structure to obtain Efficiency.*
14th Int. Conf. on Application and Theory of Petri Nets,
June 21-25, 1993, Chicago, Illinois.
39. *Self Adaptive Logical Processes: the Probabilistic Distributed Simulation Protocol*
27th Annual Simulation Symposium,
April 11-15, 1994, LaJolla, California.
40. *Accelerating the Evaluation of Parallel Program Performance Models using Distributed Simulation*
7th International Conference on Modelling Techniques and Tools for
Computer Performance Evaluation,
May 3-6, 1994, Vienna, Austria.

41. *Distributed Discrete Event Simulation of Petri Nets: From Classical Conservative/Optimistic to Probabilistic Strategies*
Department of Computer Science, University of Maryland,
June 6, 1994, College Park, USA.
42. *Performance Oriented Development of SPMD Programs Based on Task Structure Specifications*
CONPAR 94 – VAPP VI Conference,
September 6–8, 1994, Linz, Austria.
43. *Qualitative and Quantitative Analysis of Business Workflows using Generalized Stochastic Petri Net*
CON’94: Workflow Management – Challenges, Paradigms and Products,
October 19–21, 1994, Linz, Austria.
44. *Parallel and Distributed Discrete Event Simulation*
ACPC Workshop Keutschach,
November 11, 1994, Carinthia, Austria.
45. *Concurrent Execution of Timed Petri Nets*
State-of-the-Art Review
1994 Winter Simulation Conference,
December 11–14, 1994, Florida, USA.
46. *Performance Analysis of Parallel Systems*
Half-day Tutorial, 28-HICSS, Hawaiian International Conference on Systems and Sciences
January 3–6, 1995, Maui, USA.
47. *N-MAP: A Virtual Processor Discrete Event Simulation Tool for Performance Prediction in the CAPSE Environment*
28-HICSS, Hawaiian International Conference on Systems and Sciences
January 3–6, 1995, Maui, USA.
48. *Performance Comparable Design of Synchronization Protocols for Distributed Simulation*
MASCOTS’95 Conference,
January 18–20, 1995, Durham, USA.
49. *Distributed Discrete Event Simulation: Probabilistic Strategies*
Department of Computer and Information Science, University of Oregon,
February 3, 1995, Eugene, Oregon, USA.
50. *Simulation for Performance Analysis of Concurrent Systems*
MATCH Meeting, Institut Blaise Pascal, Laboratoire MASI,
March 8, 1995, Paris, France.
51. *Probabilistic Adaptive Direct Optimism Control in Time Warp*
9th Workshop on Parallel and Distributed Simulation (PADS’95),
June 14–16, 1995, Lake Placid, New York, USA.

52. *Adaptive Model Parallelism Exploitation in Parallel Discrete Event Simulation*
European Simulation Conference, EUROSIM'95,
September 11–15, 1995, Vienna, Austria.
53. *Parallel and Distributed Processing: Contributions of Performance Analysis to Application Development*
Habilitationsskolloquium, University of Vienna,
October 18, 1995, Vienna, Austria.
54. *Distributed Virtual Reality Environments*
AMADEUS Meeting, University of Linz,
January 19–20, 1996, Katsdorf, Austria.
55. *Qualitative and Quantitative Analysis of Business Process Models*
Westfälische Wilhelms-Universität, (invited presentation),
May 14, Münster, Germany.
56. *Performance Prototyping of Parallel Applications in N-MAP*
IEEE Second Int. Conference on Algorithms and Architectures for Parallel Processing,
June 11–13, 1996, Singapore.
57. *Massively Parallel Simulation of Business Process Models*
1996 European Simulation Multiconference,
June 2–6, 1996, Budapest, Hungary.
58. *Distributed Simulation: From Classical to Adaptive Strategies*
Institut für Informatik, University of Leipzig, (invited presentation),
July 8, Leipzig, Germany.
59. *An Environment for a Performance Oriented, Visual Development Process of Efficient Parallel Programs*
CEI-PACT Final Workshop. Federal Ministry of Science, Transport and the Arts, Minoritenplatz 5,
September 6, 1996, Vienna, Austria.
60. *A Testbed for Parallel Simulation Performance Prediction*
Winter Simulation Conference 1996 (WSC'96),
December 8–11, 1996, Coronado, California, USA.
61. *Coordination in Distributed Software Technology*
Institut für Computerwissenschaften und Systemanalyse, University of Salzburg, (invited presentation),
April 4, Salzburg, Austria.
62. *Parallel and Distributed Simulation of Timed Petri Nets*
International Workshop on Petri Nets and Performance Models (PNPM'97),
Tutorial, June 2, 1997, Saint-Malo, France.

63. *Time Warp Simulation of Timed Petri Nets: Sensitivity of Adaptive Methods*
International Workshop on Petri Nets and Performance Models (PNPM'97),
June 3–6, 1997, Saint-Malo, France.
64. *N-MAP – an Environment for a Performance Oriented Development Process of Parallel Programs*
9th International Conference on Modelling Techniques and Tools for Computer Performance Evaluation (TOOLS'97),
June 3–6, 1997, Saint-Malo, France.
65. *Early Performance Prediction of Parallel Simulation Protocols*
1st World Congress on Systems Simulation (WCSS'97),
September 1–3, 1997, Singapore.
66. *Decision Support for Industrial Parallel Simulation Projects*
Gintic Institute of Manufacturing Technology, Nanyang University Singapore, (invited presentation),
September 4, 1997, Singapore.
67. *Java Based Conservative Distributed Simulation*
WSC'97 Winter Simulation Conference,
December 7–10, 1997, Atlanta, USA.
68. *Simulation of Discrete Event Systems*
Dipartimento di Informatica e Scienze dell'Informazione, Università di Genova,
June 10, 1998, Genova, Italy.
69. *What is Parallel and Distributed Simulation?*
Dipartimento di Informatica e Scienze dell'Informazione, Università di Genova,
June 11, 1998, Genova, Italy.
70. *Synchronous Parallel Simulation Schemes*
Dipartimento di Informatica e Scienze dell'Informazione, Università di Genova,
June 12, 1998, Genova, Italy.
71. *Asynchronous Parallel Simulation Schemes*
Dipartimento di Informatica e Scienze dell'Informazione, Università di Genova,
June 15, 1998, Genova, Italy.
72. *Parallel Simulation Performance and Implementation Issues*
Dipartimento di Informatica e Scienze dell'Informazione, Università di Genova,
June 16, 1998, Genova, Italy.

73. *Distributed Simulation on the WWW*
 Dipartimento di Informatica e Scienze dell'Informazione, Università di Genova,
 June 17, 1998, Genova, Italy.
74. *Distributed Simulation: Webward – Ho!*
 2nd IASTED European Parallel and Distributed Systems Conference
 Euro-PDS'98. (**invited conference keynote**)
 July 1-3, 1998, Baden, Austria.
75. *Pro-active Performance Management of Distributed Applications*
 6th International Symposium on Modeling Analysis and Simulation of
 Computer and Telecommunication Systems (MASCOTS'98),
 July 19–24, 1998, Montreal, Canada.
76. *Coordination in Distributed Interactive Simulation*
 DIS-RT'98, (Keynote presentation),
 July 19–20, 1998, Montreal, Canada.
77. *N-MAP*
 DAPSYS98 - Workshop on Distributed and Parallel Systems,
 September 28–30, 1998, Budapest, Hungary.
78. *Cooperative Work in the Information Society*
 COOPERATE Presentation Day, (invited presentation),
 October 7, 1998, Vienna, Austria.
79. *Perspectives in Distributed Computing Research*
 Kunglia Tekniska Högskolan, (invited interview),
 November 23, 1998, Stockholm, Sweden.
80. *Pro-active Performance Tuning in Distributed Simulation*
 Kunglia Tekniska Högskolan, (invited lecture),
 November 24, 1998, Stockholm, Sweden.
81. *Distributed Cooperation Environments*
 Future Generation Internet for Architects, Technical University of Vienna,
 (invited presentation),
 December 18, 1998, Vienna, Austria.
82. *Cooperative Work*
 Siemens Forum, (invited presentation),
 January 26, 1999, Baden, Austria.
83. *Shock Resistant Time Warp*
 13th Workshop on Parallel and Distributed Simulation (PADS'99),
 May 1–4, 1999, Atlanta, Georgia.
84. *Virtual Teams - Perspektiven kooperativer Teamarbeit*
 4. GIT Fachtagung - Arbeitsplätze der Zukunft,
 June 16, 1999, Vienna, Austria

85. *Distributed Interaction in Virtual Spaces*
3rd International Workshop on Distributed Interactive Simulation and Real-Time Applications, (**invited conference keynote**)
July 19-20, 1999, Montreal, Canada.
86. *Workspace Awareness in Mobile Virtual Teams*
9th International Workshops on Enabling Technologies: Infrastructures for Collaborative Enterprises (WETICE 2000), Gaithersburg,
June 14-16, 2000, Maryland, USA.
87. *Software Architectures for Pervasive Computing*
Invited talk, Software Competence Center,
June 2000, Hagenberg, Austria
88. *Research Overview: Institute of Applied Computer Science*
die Erste Bank, (invited presentation)
August 10, 2000, Vienna, Austria
89. *Pervasive Computing: The Post-PC Aera in Computer Science*
OCG Generalversammlung,
2001, Vienna. Austria
90. *Everything Smart - Everything Connected*
die Erste Bank, (invited presentation)
July 4, 2001, Vienna, Austria
91. *Internet und Oberösterreich. Zur Vernetzung aller Dinge*
INTERNET zwischen Mythos und Realität, Arbeiterkammer und AEC
Linz,
September 19, 2001, Linz, Austria
92. *Pervasive Computing - The Invisible Revolution*
ETM Eisenstadt, (invited presentation)
September 2000, Eisenstadt, Austria
93. *Coordination*
Software Competence Center Hagenberg, (invited presentation),
September 2000, Hagenberg, Austria
94. *Awareness in Virtual Spaces*
Frauen in die Technik,
February 12, 2001, Linz, Austria
95. *Der vernetzte Mensch - der vernetzte Alltag: Vision oder schon bald Realität*
IBM Circle, (invited presentation),
June 26, 2001, Linz, Austria
96. *Everything Smart - Everything Connected*
Informationstag 2001 - Mobile Computing, (invited lecture)
June 29, 2001, Regensburg, Germany

97. *IT-Spezialisten für den Wettbewerbsfaktor Europa*
1. Informatik-Cocktail, OCG,
September 18, 2001, Vienna, Austria
98. *Zur Vernetzung aller Dinge*
Forum Internet. Zwischen Mythos und Realität,
September 19, 2001, AEC Linz, Austria
99. *Location Awareness in Community Wireless LANs*
Workshop on Pervasive Computing and Information Logistics,
GI-OCG Jahrestagung Informatik,
September 27, 2001, Vienna, Austria.
100. *Towards a Context-Aware Embedded Internet*
Informationstagung Mikroelektronik, (key note address),
October 11, 2001, Vienna, Austria.
101. *Die Bedeutung von Computer Know-How für Wirtschaft und Gesellschaft*
ECDL Advanced Gala, OCG,
October 18, 2001, Siemens Forum Vienna, Austria.
102. *Pervasive Computing - Exzellenzschwerpunkt an der TNF*
Technisch-Naturwissenschaftliche Fakultät der Johannes Kepler
Universität Linz,
November 21, 2001, Linz, Austria
103. *Everything Smart - Everything Connected*
One Future Line, Epstein Lounge
February 26, 2002, Vienna, Austria
104. *Connected!*
One Management Group Meeting,
March 14, 2002, Vienna, Austria
105. *Pervasive Computing*
Fachbereich Informatik,
March 28, 2002, Linz, Austria
106. *Accelerator Gmunden: Zentrum für IT-Leadership*
Akademikerbund, (invited presentation)
April 8, 2002, Technologiezentrum Gmunden, Austria
107. *Vernetzte Welt*
Fit für die Zukunft, 24 April 2002, Laakirchen, Austria
108. *WebWall - An Architecture for Public Display WWW Services*
WWW2002 Alternate Paper Track: Middleware and Applications,
May 7-11, 2002, Honolulu, Hawaii, USA.
109. *Everything Smart - Everything Connected. Pervasive Computing and Embedded Systems*

F(orschung)I(nnovation)T(echnologie) - IT Kick-Off,
May 22, 2002, Techgate Vienna, Austria

110. *Accelerator Gmunden*
Technologietage Oberösterreich,
June 14, 2002, Technologiezentrum Salzkammergut, Austria
111. *Contextware: Bridging Physical and Virtual Worlds*
Reliable Software Technologies - Ada-Europe 2002, (invited talk),
June 17-21, 2002, Vienna, Austria.
112. *Pervasive Computing*
July 15, 2002, EADS, Austria
113. *Pervasive Web Access via Public Communication Walls*
Pervasive Computing Conference,
August 26-29, 2002, Zurich, Switzerland.
(Best Paper and Best Presentation Award)
114. *Faszination Informatik. vom absichtslosen Erkenntnisgewinn zum "Smart Gadget"*
Johannes Kepler Universität Linz,
September 27, 2002, Austria
115. *Coordination Models for Ubiquitous Computing*
Ubiquitous Computing Seminar Fribourg, (invited lecture)
October 10, 2002, Fribourg, Switzerland
116. *Vernetzt und unsichtbar: Was kommt nach dem PC?*
OCG Informatik Akademie,
November 5-6, 2002, Vienna, Austria.
117. *Wireless Learning Networks*
Grundlagenkonferenz e-Learning, OCG
November 7, 2002, Vienna, Austria
118. *Connected >> Aware >> Smart*
Connect Austria Shareholder Meeting (invited presentation)
November 14, 2002, Kaprun, Austria
119. *e-Living. Die nächste Generation der Informationstechnologie*
Tagung "e-living", AT21 Gala, OCG, (**invited keynote address**)
November 27, 2002, Vienna, Austria
120. *Connected >> Aware >> Smart*
Fit für die Zukunft,
November 28, 2002, Wels, Austria
121. *webwall Coordination*
Presentation day connect Austria,
November 14, 2002, Kaprun, Austria.

122. *The DIGITAL AURA*
Hello Austria, Hello Vienna, (interview)
December 23, 2002, Vienna, Austria
123. *Digital Aura - Towards Ad-Hoc Interaction in Context*
Österreichisches Forschungsinstitut für Artificial Intelligence, (invited talk),
December 3, 2002, Vienna, Austria
124. *Beyond Communication*
ONE Buchpräsentation,
December 11, 2002, Vienna, Austria
125. *Contextware*
The Computer Science Colloquium at ETH Zürich, IFW A36,
January 20, 2003, Zürich, Switzerland
126. *Connected >> Aware >> Smart. Die Zukunft der Kommunikation*
Die Zukunft der Kommunikation, Diskussionsabend, Ars Electronica Center,
February 16, 2003, Linz, Austria.
127. *From Mobile to Pervasive Computing*
Master of Business Engineering, Business Model of the Information Age,
Universität St. Gallen,
March 5, 2003, Ebnat-Kappel, Switzerland.
128. *Digital Aura: A Model for Spontaneous Interaction*
Tag der offenen Labore, Universität Linz
April 20, 2003, University of Linz, Austria.
129. *Awareness in Mobile Learning Teams*
NOTEBOOK-SYMPIOSIUM, Donau-Universität Krems
April 11, 2003, Krems, Austria.
130. *(Mobil-)Kommunikation: Technologien und Anwendungen*
M-Lab Associate Program, University St. Gallen
April 15, 2003, St. Gallen, Switzerland.
131. *Pervasive Computing*
tec - tomorrow's experts in computing, broadcast at Upper Austrian Data Highway,
April 30, 2003, Linz, Austria
132. *Pervasive Cooperative Systems*
Hearing
May 17, 2003, University of Vienna, Austria.
133. *VRIO – Virtual Reality In-/Output*
IBM Upper Austria
May 6, 2003, Linz, Austria.

134. *Pervasive Computing*
 Tag der offenen Tür der Linzer Informatik
 June 5, 2003, University of Linz, Austria.
135. *Coordination in Pervasive Computing Environments*
 12th IEEE International Workshops on Enabling Technologies (WETICE 2003), Infrastructure for Collaborative Enterprises (WETICE-2003),
 (invited conference keynote)
 June 9, 2003, University of Linz, Austria.
136. *Tutorial: Pervasive Computing*
 Euro-Par 2003 International Conference on Parallel and Distributed Computing, August 26 - 29, 2003 in Klagenfurt/Austria
 August 26, 2003, University of Klagenfurt, Austria.
137. *Wireless Campus der Universität Linz – Von der Vision zur Realität*
 SYMPOSIUM MOBILE LEARNING 2003
 September 22, 2003, University of Linz, Austria.
138. *Embedded Interactive Systems: Back to the Real World*
 Informationstagung Mikroelektronik 2003
 October 2, 2003, Vienna, Austria.
139. *Back to the Real World*
 2. Engelberger Wissenschaftsdialog. Academia Engelberg 2003, (invited keynote presentation)
 October 15, 2003, Engelberg, Switzerland.
140. *Smarte Interaktion zwischen Menschen und Dingen.*
 Scientific Award BMW Group 2003, Klausurtagung vom 26. bis 28. November 2003, Podiumsrunde Technology.
 November 28, 2003, Schloß Elmau, Germany.
141. *e-future : Personal Computing >> Pervasive Computing*
 AT21 Tagung, Graz, (invited keynote address)
 December 4, 2003, Graz, Austria.
142. *Automated Diagnosis of Distributed Simulation Performance*
 Performance Evaluation – Stories and Perspectives. Symposium zu Ehren von Prof. Günter Haring 60. Geburtstag. (invited presentation)
 December 5, 2003, University of Vienna, Austria.
143. *Digital Aura*
 Colloquium of the Kepler Society
 December 10, 2003, University of Linz, Austria.
144. *Mobilkommunikationsdienste: Die nächste Generation*
 ONE startet Kooperation mit der Universität Linz.
 December 15, 2003, Linz, Austria.

145. *Contextware*
MiNEMA Workshop, Trinity College
January 29, 2004, Dublin, Northern Ireland.
146. *Communication Paradigms for 2020*
FET consultation meeting: Pervasive Computing - Self Organising
Networks
March 3-4, 2004, Brussels, Belgium.
147. *Spontaneous Interaction*
Wireless Sensor Networks and Applications, Schloss Dagstuhl,
March 17, 2004, Dagstuhl, Germany.
148. *Pervasive 2004*
Second International Conference on Pervasive Computing, PERVASIVE
2004. (**conference opening address**)
April 21, 2004, Vienna, Austria.
149. *Proposal for a Research Studio: Pervasive Computing*
Studioleiterworkshop Research Studios Austria, Kramergasse 1, 1010
Wien
April 23, 2004, Vienna, Austria.
150. *Pervasive Computing builds Everywhere Interfaces*
WORKSHOP everywhere interfaces, one Smart Space
April 26, 2004, Vienna, Austria.
151. *The Interface is Everywhere*
ONE Business Circle, one Smart Space
April 27, 2004, Vienna, Austria.
152. *Space Warp*
Principles of Advanced and Distributed Simulation, PADS 2004
Workshop, (**invited conference keynote**)
May 17, 2004, Kufstein, Austria.
153. *New Technologies in Health Care: Cure or Pain?*
37. Jahrestagung der Österreichischen Gesellschaft für Gastroenterologie
und Hepatologie. (**invited conference keynote**)
May 27, 2004, Linz, Austria.
154. *Miniaturisierte Eingebettete Systeme: Potentiale und Gefahren*
NOVA Expertengespräch, Wissenschaftskommission beim BMLV
Bundesministerium für Landesverteidigung.
June 1, 2004, Vienna, Austrian
155. *Pervasive Computing: Vom "Gesamtkunstwerk" zum
"Gesamtcomputer"*
Prämierungsveranstaltung L@rnie Award 2004 Wirtschaftskammer
Österreich, (**invited keynote address**)
June 30, 2004, Vienna, Austria.

156. *SPECTACLES: Wearable Multimedia*
Silhouette International
Juli 21, 2004, Linz, Austria.
157. *Ubiquitous Display Environments*
Workshop on Ubiquitous Display Environments, In conjunction with
UBICOMP 2004
September 7, 2004, Nottingham, England.
158. *Contextware: Implementing the Pervasive Computing Landscape*
JAOO Conference 2004, (**invited conference keynote**)
September 22, 2004, Aarhus, Denmark.
159. *Learning Anytime – Learning Anywhere*
Campus Innovation Hamburg, Multimedia Kontor Hamburg. (**invited
presentation**)
October 10, 2004, Hamburg, Germany.
160. *Towards a Context-Aware Embedded Internet*
Informationstagung Mikroelektronik an Technische Universität Wien,
October 11, 2004, Vienna, Austria.
161. *Die Bedeutung von Computer Know-How für Wirtschaft und Gesellschaft*
ECDL Advanced Gala Siemens Forum,
October 18, 2004, Vienna, Austria.
162. *Selfmanagement im Kontext Pervasive Computing*
Symposium des Feldafinger Kreises 2005, (**invited presentation**)
January 17, 2005, Bad Honnef, Germany.
163. *Das Netz der Dinge*
Rotary Club Linz Landhaus,
March 16, 2005, Linz, Austria.
164. *Interaktion im Kontext: Dinge werden einander gewahr*
Symposium, Der Computer im 21. Jahrhundert Die Informatisierung des
Alltags. Perspektiven, Technologien, Wirkung. (**invited presentation**)
March 21, 2005, Zürich, Switzerland.
165. *Context*
ESF Forward Look NanoSciences and the long term evolution of
Information Technologies (NSIT), (**invited keynote**)
April 5, 2005, Paris, France.
166. *Informatik: Vom absichtslosen Erkenntnisgewinn zum Smart Gadget*
Festveranstaltung – 30 Jahre Oesterreichische Computer Gesellschaft -
OCG, am 13. April 2005, im Dachfoyer der Wiener Hofburg, 1010 Wien.
(**invited keynote address**)
April 13, 2005, Vienna, Austria.

167. *Erfolge mit und durch Embedded Systems*
 Embedded Systems - Zukunftsfelder für KMU, Innovative Lösungen und
 Wirkung integrierter Systeme und mögliche Förderung
 May 31, 2005, Karlsruhe, Germany.
168. *Contextware: Implementing the Pervasive Computing Landscape*
 NEXUS Ringvorlesung, University of Stuttgart.

 June 9, 2005, Stuttgart, Germany.
169. *Pervasive Computing and Communications – Challenges BEYOND-THE-
 HORIZON International Workshop*
 27-28 July, 2005, University of Vienna, Austria.
170. *Laudatio*
 (Anlässlich der sub auspiciis Promotion von Rene Mayrhofer)
 Repräsentationsräume Johannes Kepler Universität Linz,
 November 29, 2005, Linz, Austria.
171. *Vernetzte Dinge werden einander gewahr!*
 8. Jahrestagung des Forums für Wirtschaftsethik und Wirtschaftskultur,
 Mensch-Maschine-Hybride,
 December 2, 2005, Stuttgart, Germany.
172. *Das Internet der Dinge*
 Multikonferenz Wirtschaftsinformatik 2006. (**invited conference
 keynote**)
 February 20, 2006, Passau, Germany.
173. *Total vernetzt! Was nun?*
 (Anlässlich des Festkolloquium zum 60. Geburtstages von Prof. Dr. Axel
 Lehmann)
 Universität der Bundeswehr München, Universitäts- Casino,
 May 5, 2006, Munich, Germany.
174. *Aesthetic Awareness Displays*
 The 4th International Conference on Pervasive Computing (Pervasive
 2006)
 May 5, 2006, Dublin, Ireland.
175. *Soft Surface Displays: Exploiting Reflection and Dispersion of Liquids*
 The 4th International Conference on Pervasive Computing (Pervasive
 2006), Workshop on pervasive display infrastructures, interfaces and
 applications,
 May 7, 2006, Dublin, Ireland.
176. *Digital Lifestyle – Hype oder Hoffnung*
 19. IT Salon Pour Elle im Moulin Rouge, (**invited panelist**)
 May 15, 2006, Vienna, Austria.

177. *Pervasive Computing and Communications – Findings in the Beyond-The-Horizon TG1*
 15th IST Mobile and Wireless Communications Summit, (**invited keynote**)
 June 4-8, 2006, Myconos, Greece.
178. *Human Computer Confluence*
 9th ERCIM Workshop User Interfaces For All, Universal Access in Ambient Intelligence Environments, (**invited conference keynote**)
 September 27-28, 2006, Königswinter (Bonn), Germany.
179. *Context Aware Systems*
 9th ACM/IEEE International Symposium on Modeling, Analysis and Simulation of Wireless and Mobile Systems, (**invited conference keynote**)
 October 2-6, 2006, Torremolinos, Malaga, Spain.
180. *Every objects in the Pervasive Computing Landscape*
 The 8th International Symposium on Distributed Objects and Applications (DOA), (**invited conference keynote**)
 October 30, 2006, Montpellier, France.
181. *Total vernetzt! Was nun?*
 (Anlässlich der Jahresveranstaltung VfS Hamburg)
 In der Handelskammer Hamburg, (**invited presentation**)
 November 29, 2006, Hamburg, Germany.
182. *Spatial Abstraction*
 OOP 2007 Business Advantage through Software Technology,
 January 25, 2007, Germany.
183. *Telekom Austria Cube*
 Presentation of The Remote Control of the Future”
 January 26, 2007, Telekom Austria, Vienna, Austria.
184. *Digitale Artefakte*
 Informationselektronik für die Praxis Johannes Kepler Universität Linz & Danube Integrated Circuit Engineering mbH & Co KG (DICE)
 January 29, 2007, Linz , Austria.
185. *Digital Artefacts*
 (Eingeladener Kolloquiumsvortrag, Fakultät für Informatik und Mathematik, Universität Passau,
 January 30, 2007, Passau, Germany.
186. *Shaping the Pervasive Computing Landscape: Ensembles of Digital Artefacts*
 FP7: FET Proactive Initiative: PERVASIVE ADAPTATION. (**invited keynote**)
 February 28, 2007, Brussels, Belgium.

187. *Das Technikstudium aus der Sicht von Frauen und Männer*
TEquality – Technik Gender Equality Ergebnisse des Forschungsprojektes
an der Johannes Kepler Universität Linz,
March 6, 2007, Linz, Austria.
188. *Pervasive Computing/Gaming Interaktion zwischen digitaler und realer Welt*
DICOM 2007. (**invited conference keynote**)
March 15, 2007, Baden bei Wien, Austria.
189. *Der Computer ist überall!*
ORF Kinderuni
March 24, 2007, University of Linz, Austria.
190. *Digital Artefacts*
10th International Conference on Business Information Systems (BIS
2007). (**invited conference keynote**)
April 25, 2007, Poznan, Poland.
191. *Self-Managing Digital Artefacts*
4th International Workshop on Managing Ubiquitous Communications
and Services. Part of IM 2007 (MUCS 2007), (**invited keynote**)
May 25, 2007, Munich, Germany.
192. *Pervasive Computing – Technology for People*
Smart Thinking, one Smart Space
June 14, 2007, Vienna, Austria.
193. *Goal Oriented Digital Artefacts*
Kolloquiumsvortrag im Rahmen des Graduiertenkollegs ‘‘MuSAMA’’,
Institut für Informatik, Universität Rostock,
June 21, 2007, Rostock, Germany.
194. *International Master on Pervasive Computing*
Introducing the Pervasive Computing Master Curriculum
June 26, 2007, University of Linz, Austria.
195. *Everywhere Interfaces*
12th International Conference on Human-Computer Interaction (HCI
2007)
July 24, 2007, Beijing, China.
196. *Informative Art Display Metaphors*
12th International Conference on Human-Computer Interaction (HCI
2007)
July 25, 2007, Beijing, China.
197. *Am Beginn, und am Ende (!) des Second Life steht das First Life!*
Alpbacher Technologiegespräche 2007. (**invited presentation**)
August 24, 2008, Alpbach, Tyrol, Austria.

198. *PowerSaver Pocket-Worn Activity for Energy Management*
9th International Conference on Ubiquitous Computing (UbiComp 2007),
September 16-19, 2007, Innsbruck, Austria.
199. *Spatial Awareness of Digital Artefacts*
IEEE International Symposium on Distributed Simulation and Real-Time
Applications (DS-RT 2007). (**invited conference keynote**)
October 22, 2007, Chania, Crete Island, Greece.
200. *Spatial Awareness of Digital Artefacts*
IEEE International Symposium on Distributed Simulation and Real-Time
Applications (DS-RT 2007). (**invited conference keynote**)
October 22, 2007, Chania, Crete Island, Greece.
201. *A Matter of Taste*
The European Conference on Ambient Intelligence (AmI-07),
November 7-10, 2007, Darmstadt, Germany.
202. *Das intelligente Haus: Mehr Sicherheit, mehr Komfort, weniger Energie*
Jubiläumsveranstaltung 150 Jahre Wärmepumpe, Toskana
Kongresszentrum, (**invited keynote address**)
November 15, 2007, Gmunden, Austria.
203. *Implicit Interaction, Embedded Interaction*
HCI Technology Trendfocus, Siemens CT IC 7, Siemens AG.
December 7, 2007, Munich, Germany.
204. *Pervasive Learning: Innovating the Learning Process - Not Just Adding
Technological Advances!*
LEARNTEC 16. internationaler Kongress und Fachmesse für Bildungs-
und Informationstechnologie. (**invited presentation**)
January 29, 2008, Karlsruhe, Germany.
205. *Space Abstractions for Digital Artefacts*
The IASTED International Conference on Parallel and Distributed
Computing and Networks (PDCN 2008). (**invited conference keynote**)
February 13, 2008, Innsbruck, Tyrol, Austria.
206. *Implicit Interaction Research: A Survey*,
Institute of Operating Systems and Computer Networks, University
Braunschweig,
February 25, 2008, Braunschweig, Germany.
207. *Pervasive Display Landscapes*
Project FET 4th Call "Display Ecologies"
March 13, 2008, Braunschweig, Germany.
208. *Pervasive Computing Lösungen für den Vienna City Marathon*
Galaabend 25 Jahre Vienna City Marathon, Rathaus Wien
April 4, 2008, Wien, Austria.

209. *Pervasive e-Learning*
eLearning Cluster - Frühjahrstagung 2008
April 2, 2008, Innsbruck, Austria.
210. *From RFID to Smart Label*
(Anlässlich der Veranstaltung RFID - Kleine Funkchips auf Reisen!)
Wissensturm Linz,
April 17, 2008, Linz, Austria.
211. *Goal Oriented Cooperative Sensing*
ETH Zürich
May 09, 2008, Zürich, Schweiz.
212. *The PANORAMA Research Agenda*
Interlink Opening Workshop, Third Interlink-Workshop on Ambient
Computing and Communication Environments, Keio University, Tokyo
June 18-20, 2008, Tokyo, Japan.
213. *Ambient Facades*
Workshop on Ambient Information Systems (AIS08) within the Tenth
International Conference on Ubiquitous Computing (UBICOMP 2008)
September 21, 2008, Seoul, South Korea.
214. *Vibro-tactile Space Awareness*
10th International Conference on Ubiquitous Computing (UBICOMP
2008)
September 22, 2008, Seoul, South Korea.
215. *Wie viel Aufmerksamkeit braucht Information?*
Lange Nacht der Forschung Oberösterreich, Johannes Kepler University
Linz
September 26, 2008, Linz, Austria.
216. *Man kann nicht nicht interagieren*
Lange Nacht der Forschung Oberösterreich, Johannes Kepler University
Linz
September 26, 2008, Linz, Austria.
217. *Smart Labels*
French European Union Presidency Conference, Internet of Things -
Internet of the Future. (**invited presentation**)
October 7, 2008, Nice, France.
218. *Pervasive Learning*
LEARNTEC Forum Austria 2008. (**invited presentation**)
October 10, 2008, Wien, Austria.
219. *Wer Was Wo? Was vernetzte Dinge sonst noch wissen sollten: Vom
Personen- und Ortsbezug zum Bedeutungszusammenhang*
Tagung Online zur Natur - Wohin geht die HandyReise?

Zukunftsweisende Informationstechnologien für Natur und Tourismus.
Linz, Promenade 39, Redoutensäle (**invited presentation**)
November 18, 2008, Linz, Austria.

220. *Spatial Zones of Influence*
6th International Conference on Advances in Mobile Computing and
Multimedia. (**invited conference keynote**)
November 24, 2008, Linz, Austria.
221. *Spatial Awareness of Digital Artefacts*
5th International Symposium on LBS and TeleCartography. (**invited
conference keynote**)
November 26, 2008, Salzburg, Austria.

1.9 Membership in Scientific Boards and Committees

- International Conference on Pervasive Computing (PERVASIVE),
(Steering Committee)
- International Conference on Ubiquitous Computing (UBICOMP),
(interimistic Steering Committee)
- Pervasive and Mobile Computing Journal (PMC, Elsevier) (Editorial
Board)
- Transactions of the Society for Computer Simulation (Editorial Board)
- Parallel and Distributed Simulation (Head of the Steering Committee)
- Software Technology Track, HICSS-31, 1998 (Steering Committee
Member)

1.10 Programme Committee Chair Positions

DS-RT 2008, Technical Program Committee Chair, 12-th IEEE International
Symposium on Distributed Simulation and Real Time Applications,
October 27-29, 2008, Vancouver, BC, Canada

AmI-07, Workshop-CoChair, European Conference on Ambient Intelligence,
November 7-10, 2007, Darmstadt, Germany

WETICE 2007, Workshop CoChair, 2nd International Workshop on TT-
angible Interaction in Collaborative Environments”(TICE), at the 16th
International IEEE Workshops on Enabling Technologies (WETICE-
2007), June 18-20, 2007, Paris, France

EURO-PAR 2006, Topic Chair, August/September 29-01, 2006, Dresden,
Germany

Pervasive 2006, Steering Committee Member, May 7-10, 2006, Dublin, Ireland

Ubicomp 2004: Workshop Co-Chair, Workshop on Ubiquitous Display Environments, September 7, 2004, Nottingham, England

Pervasive 2004, Technical Program Committee Chair, International Conference on Pervasive Computing, April 2004, Vienna Austria

MoMM 2003, International Workshop on Mobile Multimedia Services and Applications, September 2003, Perth, Australia

Euro-Par 2003, Local Chair, International Conference on Parallel and Distributed Computing, 26th - 29th August 2003 in Klagenfurt, Austria, Topic 15: Mobile and Ubiquitous Computing,

WWW 2002, Track Co-Chair, Mobility and Wireless Access, The Eleventh International World Wide Web Conference, Sheraton Waikiki Hotel, Honolulu, USA, 2002

WWW 2001, Deputy Vice Chair Applications Track, The Eleventh International World Wide Web Conference, Hong Kong , May 1-5 2001

Informatik 2001, Workshop Co-Chair PERVASIVE COMPUTING, GI-OCG Jahrestagung, Vienna, September 26-28 2001

WETICE 2000, Workshop Co-Chair Web Based Infrastructures and Architectures, 9th International Workshops on Enabling Technologies: Infrastructures for Collaborative Enterprises, Gaithersburg, Maryland, USA, June 14-16, 2000

HICSS-32, Minitrack-Coordinator on Distributed Cooperative Work Environments, 32nd Hawaiian International Conference on System Sciences, USA, January 1999

MASCOTS'99, Technical Program Committee Chair, 7th International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems, Maryland, USA, October 24-28, 1999

PADS'98, Technical Program Committee Chair, 12th Int. WS on Parallel and Distributed Simulation, (IEEE, ACM, SCS), Alberta, Banff, Canada, June 10-13, 1998

IPDS'98, IEEE International Computer Performance & Dependability Symposium, Durham, North Carolina, USA, September 7-9, 1998 (Tutorial Chair)

Workshop on Performance Data Mining, Vienna, Austria, 1997

HICSS-29, Minitrack-Coordinator "Parallel and Distributed Simulation", 29th Hawaiian International Conference on System Sciences, USA, January 1996

1.11 Conference Organization and General Chair Positions

ISWC 09, General Chair, 13th International Symposium on Wearable Computers, September 4-8, 2009, Linz, Austria

TICE 2007, General Co-Chair, 2nd International IEEE Workshop on Tangible Interaction in Collaborative Environments (TICE) at WETICE, June 18-20, 2007, Paris, France

UDE, General Co-Chair, Workshop on Ubiquitous Display Environments at UbiComp 2004, Sixth International Conference on Ubiquitous Computing, September 7-10, 2004, Nottingham, England.

Dagstuhl-Seminar on Wireless Sensor Networks and Applications, March 14-19 2004, Schloss Dagstuhl, Wadern, Germany

Symposium Mobile Learning, General Chair, September 23, 2003, Johannes Kepler University of Linz, Linz, Austria

PADS'97, Int. Workshop on Parallel and Distributed Simulation, (IEEE, ACM, SCS), June 10-13, 1997, Lockenhaus/Vienna, Austria

1.12 Selected Memberships in Technical Program Committees

PERVASVIE 2009, Seventh International Conference on Pervasive Computing, May 11-14, 2009, Nara, Japan

Wi09, 9. Internationale Tagung Wirtschaftsinformatik, February 25-27, 2009, University Vienna, Vienna, Austria

AmI 08, European Conference on Ambient Intelligence, November 19-22, 2008, Nürnberg, Germany

EuroSSC 2008, 3rd IEEE European Conference on Smart Sensing and Context, October 29-31, 2008, Zurich, Switzerland

ISWC 2008, IEEE International Symposium on Wearable Computers, September/October 28-01, 2008, Pittsburg, Pennsylvania, USA

International Conference for Industry and Academia, Internet of Things 2008, March 26-28, 2008, Zurich, Switzerland

PERVASIVE 2008, Sixth International Conference on Pervasive Computing, May 19-22, 2008, Sydney, Australia

Percom 2008, IEEE International Conference on Pervasive Computing and Communications, March 17-21, 2008, Hong Kong, China

ARCS 2008, Architecture of Computing Systems, February 25-28, 2008 Dresden, Germany

INTETAIN 2008, 2nd International Conference on INtelligent TEchnologies for interactive entertainment, January 08-10, 2008, Playa del Carmen, Cancun, Mexico

UCS 2007, 4th International Symposium on Ubiquitous Computing Systems, November 26-29, 2007, Tokyo, Japan

PerSys '07, 2nd International Workshop on Pervasive Systems, November 26-27, 2007, Vilamoura, Algarve, Portugal

ICUCT/IWUCT 2007, International Conference on Ubiquitous Convergence Technology, November 20-22, 2007, Beijing, China

EuroSSC 2007, 2nd European Conference on Smart Sensing and Context, October 23-25, 2007, Lancaster, UK

DS-RT 2007, 11th IEEE International Symposium on distributed Simulation and Real-Time Applications, October 22-26, 2007, Chania, Crete Island, Greece

10th ACM/IEEE International Symposium on Modeling, Analysis and Simulation of Wireless and Mobile Systems and the 5th ACM International Workshop on Mobility Management and Wireless Access (ACM/IEEE MSWiM and MobiWac), October 22-26, 2007, Chania, Crete Island, Greece

ISWC07, 11th International Symposium on Wearable Computers, October 11-13, 2007, Hyatt Harborside, Boston, MA, USA

Ubilog '07 Workshop für Kontextbewusste und Ubiquitäre Anwendungen im Logistiksektor Workshop im Rahmen der INFORMATIK 2007, September 27, 2007, Bremen, Germany

AutoUI workshop at Mensch und Computer 2007, September 3-4, 2007, an der Bauhaus-Universität Weimar, Germany

PERVASIVE 2007, Fifth International Conference on Pervasive Computing 2007, May 13-15, 2007, Toronto, Ontario, Canada

ARCS07, Architecture of Computing Sytems Conference 2007, March 12-15, 2007 in Zurich, Switzerland

TEI'07, First International Conference on Tangible and Embedded Interaction, February 15-17, 2007, Baton Rouge, Louisiana, USA

ICSNC 2006, International Conference on Systems and Networks Communications, October/November 29-03, 2006, Tahiti, French Polynesia

ISWC 06, Tenth International Symposium on Wearable Computers, October 11-14, 2006, Montreux, Switzerland

MEIS'06, Mobile and Embedded Interactive Systems, Workshop at Informatik 2006, October 6, 2006, Munich, Germany

DS-RT 2006, 10-th IEEE/ACM(*) International Symposium on Distributed Simulation and Real Time Applications, October 2 - 4, 2006, Torremolinos, Malaga, Spain

ACM/IEEE MSWiM 2006, 9-th ACM/IEEE International Symposium on Modeling, Analysis and Simulation of Wireless and Mobile Systems, October 2-6, 2006, Torremolinos, Malaga, Spain

MobiWac 2006, 4-th ACM International Workshop on Mobility Management and Wireless Access, October 2-6, 2006, Torremolinos, Malaga, Spain

ARCS 2006 Conference, March 13-16, 2006, Frankfurt, Germany

MSWiM 2005, Eighth International Symposium on Modeling, Analysis and Simulation of Wireless and Mobile Systems, October 10-13, 2005, Montreal, Canada

UBICOMP 2005, The Seventh International Conference on Ubiquitous Computing, September 11-14, 2005, Tokyo, Japan

IEE International Workshop on Intelligent Environments, June 28-29 2005, University of Essex, Colchester, UK

ICMB2005, Fourth International Conference on Mobile Business, July 11-13, 2005, Sydney, Australia

MobiWac 2005 IEEE International Workshop on Mobility Management and Wireless Access, June 13-16, 2005, Maui, Hawaii, USA

PERVASIVE 2005, Third International Conference on Pervasive Computing, May 8-13, 2005, Munich, Germany

www2005, 14th International World Wide Web Conference, March 10-14 2005, Chiba, Japan

ARCS05, 18th International Conference on Architecture of Computing Systems - System Aspects in Organic and Pervasive Computing , March 14 -17, 2005, Hall in Tirol/Innsbruck, Austria

UBICOMP 2004, The Sixth International Conference on Ubiquitous Computing, September 7-10, 2004, Nottingham, England

m-business 2003, International Conference on Mobile Business, Vienna, Austria, 23/24 June 2003

PERVASIVE 2004, Third International Conference on Pervasive Computing, April 18-23, 2004, Linz / Vienna, Austria

MASCOTS 2003, IEEE/ACM International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems, Orlando (FL), USA, 12 - 15 October 2003

MSWiM 2003, ACM Int. WS on Modeling, Analysis and Simulation of Wireless and Mobile Systems, September 19, 2003, San Diego, CA, USA., in conjunction with ACM MobiCOM 2003, San Diego, CA, USA, September 14 -19, 2003

PNPM 2003, International Workshop on Petri Nets and Performance Models, Urbana, Illinois, USA, September 2-5, 2003

UBICOMP 2003, The Fifth International Conference on Ubiquitous Computing, Seattle, Washington, October 12-15 2003

WWW/Internet 2003 IADIS International Conference, Algarve, Portugal, 5-8 November 2003

Annual Simulation Symposium, San Diego Marriott-Mission Valley Hotel, San Diego, California, April 14-18, 2002

DAPSYS 2002, Int. Workshop on Distributed and Parallel Systems, Linz, Austria, September 29 - October 2 2002

DS-RT 2002, International Workshop on Distributed Interactive Simulation and Real-Time Applications

EURASIA-ICT 2002, EurAsian Conference on Advances in Information and Communication Technology, Tehran, Iran, October 29-31, 2002

MASCOTS 2002, IEEE/ACM International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems, 12-16 October 2002, Fort Worth, Texas

MSWiM 2002, ACM Int. WS on Modeling, Analysis and Simulation of Wireless and Mobile Systems, September 28th, 2002, In conjunction with ACM MobiCom 2002, Atlanta, September 23-28th, 2002

PADS 2002, Workshop on Parallel and Distributed Simulation, Washington, DC (USA), May 12-15 2002

Annual Simulation Symposium, (SCS, in coop. with IEEE, ACM), Seattle, Washington, April 22-26, 2001

DS-RT 2001, International Workshop on Distributed Interactive Simulation and Real-Time Applications

MASCOTS 2001, IEEE/ACM International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems, August 15-18, 2001, Cincinnati, Ohio, USA

MSWiM 2001, ACM Int. WS on Modeling, Analysis and Simulation of Wireless and Mobile Systems, Rome, Italy, July 2001

- PNPM 2001, International Workshop on Petri Nets and Performance Models, September 11-14, 2001, RWTH Aachen, Germany
- PADS 2001, Workshop on Parallel and Distributed Simulation, May 15-18, 2001, Lake Arrowhead, California, USA
- WEBSIM 2001, International Conference on Web-Based Modeling & Simulation, within 2001 SCS Western MultiConference on Computer Simulation, January 7-11, 2001, Phoenix, Arizona, USA
- WETICE 2001, 3rd International Workshop on Web-based infrastructures and coordination architectures for collaborative enterprises at the 10th IEEE WETICE Workshops on Enabling Technologies: Infrastructures for Collaborative Enterprises, Cambridge, Massachusetts, USA, June 20-22 2001
- Annual Simulation Symposium, (SCS, in coop. with IEEE, ACM), Washington D.C., USA, April 16-20, 2000
- DS - RT 2000, IEEE International Workshop on Distributed Simulation and Real Time Applications, San Fransisco, California, USA, August 24-26, 2000
- MASCOTS 2000, International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems, San Francisco, California, USA, August 29 - September 01, 2000
- MSWiM 2000, ACM Int. WS on Modeling, Analysis and Simulation of Wireless and Mobile Systems, Boston, Massachusetts, USA, August 11, 2000, In conjunction with MobiCom 2000 International Conference on Mobile Computing and Networking, Boston, Massachusetts, USA, August 6-11, 2000
- PADS 2000, ACM/IEEE/SCS Workshop on Parallel and Distributed Simulation, 28-31 May 2000, Bologna, Italy
- WWW 2000, International World Wide Web Conference, May 15-19, 2000, Amsterdam, The Netherlands
- ACPC 99, 4th Int. Conf. of the Austrian Center for Parallel Computation, Salzburg, Austria, Sept 1999.
- Annual Simulation Symposium, (SCS, in coop. with IEEE, ACM), Hyatt Islandia, San Diego, California, April 11-15, 1999.
- DS-RT 99, 3rd International Workshop on Distributed Interactive Simulation and Real-Time Applications, Washington DC, USA, October 22-24, 1999.
- ESM 99, European Simulation Multiconference, Warsaw, Poland, June 1-4, 1999, (IEEE Poland)

- HICSS32 32nd Hawaii International Conference on System Sciences, Minitrack: Parallel & Distributed Simulation, Maui, Hawaii, January 5-8, 1999.
- MASCOTS'99, International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems, San Francisco, California, USA, 29 August - 1 September 2000
- PADS'99, Int. WS on Parallel and Distributed Simulation, (IEEE, ACM, SCS), Atlanta, Georgia, USA, May, 1999.
- Software for Communication Technologies, Castle of Hagenberg, Austria, April 19 - 20, 1999.
- WEBSIM 1998, International Conference on Web-Based Modeling & Simulation, San Diego, USA, Jan 1998.
- MASCOTS'98, International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems, Montreal, Canada, July 29-24, 1998
- DS-RT'98, IEEE International Workshop on Distributed Interactive Simulation and Real Time Applications, Montreal, Canada, July 19-20, 1998.
- PNPM97, Petri Nets and Performance Models 1997, (IEEE, ACM), Saint Malo, France, June 1997.
- WCSS'97, World Congress on System Simulation, Singapore, September 1-3, 1997.
- Euro-PDS'97, European Conf. on Parallel and Distributed Systems, Barcelona, Spain, June 9-11, 1997.
- SIGMETRICS 96, International Conference on Measurement and Modeling of Computer Systems, (ACM), Philadelphia, USA, May 23-26 1996.
- ACPC 96, Int. Conf. of the Austrian Center for Parallel Computation, Klagenfurt, Austria, September 1996.
- Annual Simulation Symposium, (IEEE, ACM, SCS), New Orleans, Louisiana, USA, April 8-11 1996.
- PERFORMANCE'96, International Conference on Performance Theory, Measurement and Evaluation of Computer and Communication Systems, IFIP WG7, Lausanne, Switzerland, October 7-11 1996.
- Annual Simulation Symposium, (IEEE, ACM, SCS), Phoenix, Arizona, USA, April 1995. (also Publicity Chair).
- 15ICDCS, IEEE International Conference on Distributed Computing Systems, Vancouver, Canada, May 1995.

Tools'94, International Conference on Modelling Techniques and Tools for Computer Performance Evaluation, Vienna, Austria, May 1994.

1.13 Refereeing

Refereeing for International Journals

(— Reviewing engagement 2003-2008 is not included here yet, see www.pervasive.jku.at for an updated version of this CV document—)

- *ACM Transactions on Modeling and Computer Simulation*, ACM Press.
- *IEEE Internet Computing*, The IEEE Computer Society Press.
- *IEEE Transactions on Computers*, The IEEE Computer Society Press.
- *IEEE Transactions on Software Engineering*, The IEEE Computer Society Press.
- *International Journal for Software Engineering and Knowledge Engineering*.
- *International Journal in Computer Simulation*, SCS.
- *International Journal on SCIENTIFIC PROGRAMMING*, J. Wiley & Sons.
- *Journal of Computer and Software Engineering*, Kluwer.
- *Journal of Information Science and Engineering*.
- *Journal of Parallel and Distributed Computing*, Elsevier.
- *Journal of Parallel and Distributed Systems and Networks*, IASTED.
- *Parallel Computing*, North Holland.
- *SCS Transactions on Simulation*, SCS. (Associate Editor)
- *Software Engineering Journal*, IEE and BCS.

Refereeing for Conferences

(— Reviewing engagement 2003-2008 is not included here yet, see www.pervasive.jku.at for an updated version of this CV document—)

- 6th ACM Int. WS on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM 2003), Sep 2003, San Diego, CA, USA., in conjunction with ACM MobiCOM 2003, San Diego, CA, USA, September 14 -19, 2003
- 2nd International Conference on Mobile Business (m-business 2003), Vienna, Austria, 23/24 June 2003
- 5th International Conference on Ubiquitous Computing (UbiComp 2003), Seattle, Washington, Oct 2003

- 11th IEEE/ACM International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems, MASCOTS 2002, Oct 2003, Orlando (FL), USA
- 10th International Workshop on Petri Nets and Performance Models PNPM 2003, Urbana, Illinois, USA, September 2-5, 2003
- 16th ACM/IEEE/SCS Workshop on Parallel and Distributed Simulation (PADS 2002), Washington, DC (USA), May 2002
- 5th ACM Int. WS on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM 2002), Sep 2002, In conjunction with ACM MobiCom 2002, Atlanta, September 23-28th, 2002
- 35th Annual Simulation Symposium, (SCS, in coop. with IEEE, ACM), San Diego, California, Apr 2002
- 1st EurAsian Conference on Advances in Information and Communication Technology (EURASIA-ICT 2002), Tehran, Iran, Oct 2002
- 10th IEEE/ACM International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems, MASCOTS 2002, Oct 2002, Fort Worth, Texas
- International Workshop on Distributed and Parallel Systems, (DAPSYS 2002), Linz, Austria, Oct 2002
- 6th International Workshop on Distributed Interactive Simulation and Real-Time Applications (DS-RT 2002)
- 11th International World Wide Web Conference (WWW 2002), Honolulu, USA, May 2002
- Winter Simulation Conference (WSC 2002)
- 15th ACM/IEEE/SCS Workshop on Parallel and Distributed Simulation (PADS 2001), Lake Arrowhead, California, USA, May 2001
- 4th ACM Int. WS on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM 2001), Rome, Italy, Jul 2001
- 34th Annual Simulation Symposium, (SCS, in coop. with IEEE, ACM), Seattle, Washington, Apr 2001
- International Conference on Web-Based Modeling & Simulation (WEBSIM 2001), within 2001 SCS Western MultiConference on Computer Simulation, January 7-11, 2001, Phoenix, Arizona, USA
- 9th IEEE/ACM International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems, MASCOTS 2001, Aug 2001, Cincinnati, Ohio, USA
- 10th IEEE WETICE Workshops on Enabling Technologies: Infrastructures for Collaborative Enterprises (WETICE 2001), Cambridge, Massachusetts, USA, June 20-22 2001
- 5th International Workshop on Distributed Interactive Simulation and Real-Time Applications (DS-RT 2001)

- 9th International Workshop on Petri Nets and Performance Models PNPM 2001, RWTH Aachen, Germany, September 11-14, 2001
- 10th International World Wide Web Conference (WWW 2001), Hong Kong , May 2001
- OOPSLA 2001
- 14th ACM/IEEE/SCS Workshop on Parallel and Distributed Simulation (PADS 2000), Bologna, Italy, May 2000
- 3rd ACM Int. WS on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM 2000), Boston, Massachusetts, USA, August 2001
- 33rd Annual Simulation Symposium, (SCS, in coop. with IEEE, ACM), Washington D.C., USA, Apr 2000
- 8th IEEE/ACM International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems, MASCOTS 2000, Aug 2000, San Francisco, California, USA
- 4th International Workshop on Distributed Interactive Simulation and Real-Time Applications (DS-RT 2000), San Fransisco, California, USA, Aug 2000
- 9th International World Wide Web Conference (WWW 2000), Amsterdam, The Netherlands, May 2002
- 13th ACM/IEEE/SCS Workshop on Parallel and Distributed Simulation (PADS'99), Atlanta, Georgia, USA, May 1999
- 32nd Annual Simulation Symposium, (SCS, in coop. with IEEE, ACM), Hyatt Islandia, San Diego, California, Apr 1999
- Communication Networks and Distributed Systems Modeling and Simulation Conference 1999, CNDS'99, San Francisco, California, Jan 17-20, 1999
- European Simulation Multiconference (ESM 99), IEEE Poland, Warsaw, Poland, Jun 1999
- 32nd Hawaiian International Conference on System Sciences (HICSS-32), USA, Jan 1999
- 4th International Conference of the Austrian Center for Parallel Computation, Salzburg, Austria, Sep 1999
- 7th IEEE/ACM International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems, MASCOTS'99, Montreal, USA, Jul 1999
- 3rd International Workshop on Distributed Interactive Simulation and Real-Time Applications (DS-RT 99), Washington DC, USA, Oct 1999
- Software for Communication Technologies, Castle of Hagenberg, Austria, Apr 1999

- 12th ACM/IEEE/SCS Workshop on Parallel and Distributed Simulation (PADS'98), Alberta, Banff, Canada, Jun 1998
- International Conference on Web-Based Modeling & Simulation (WEBSIM 1998), San Diego, USA, Jan 1998
- 6th IEEE/ACM International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems, MASCOTS'98, Montreal, USA, Jul 1998
- 2nd International Workshop on Distributed Interactive Simulation and Real Time Applications (DS-RT'98), Montreal, Canada, Jul 1998
- 8th International Workshop on Petri Nets and Performance Models PNPM'98, Zaragoza, Spain, June 1998
- 11th ACM/IEEE/SCS Workshop on Parallel and Distributed Simulation (PADS'97), Burg Lockenhaus, Austria, Jun 1997
- 1st European Conf. on Parallel and Distributed Systems (Euro-PDS'97), Jun 1997 Barcelona, Spain
- 7th International Workshop on Petri Nets and Performance Models PNPM'97, Saint Malo, France, June 1997
- Messung, Modellierung und Bewertung von Rechen- und Kommunikationssystemen (MMB'97), Freiberg/Sachsen, Germany, Sep 1997
- 1st World Congress on System Simulation (WCSS'97), Singapore, September 1–3, 1997
- 10th ACM/IEEE/SCS Workshop on Parallel and Distributed Simulation (PADS'96), Philadelphia, PA, USA, May 1996
- 29th Annual Simulation Symposium, (SCS, in coop. with IEEE, ACM), New Orleans, Louisiana, USA, Apr 1996
- 29th Hawaiian International Conference on System Sciences (HICSS-29), USA, Jan 1996
- 2nd International Conference on Algorithms and Architectures for Parallel Processing (ICA3PP-96), IEEE, Singapore, June 11-13, 1996.
- International Conference on Measurement and Modeling of Computer Systems (SIGMETRICS 96), ACM, Philadelphia, USA, May 1996.
- International Conference on Performance Theory, Measurement and Evaluation of Computer and Communication Systems (PERFORMANCE 96), Lausanne, Switzerland, October 1996
- 3rd International Conference of the Austrian Center for Parallel Computation, Klagenfurt, Austria, Sep 1996
- 9th ACM/IEEE/SCS Workshop on Parallel and Distributed Simulation (PADS'95), Lake Placid, USA, Jul 1995

- 28th Annual Simulation Symposium, (SCS, in coop. with IEEE, ACM), Arizona, USA, Apr 1995
- 28th Hawaiian International Conference on System Sciences (HICSS-28), USA, Jan 1995
- 15th IEEE International Conference on Distributed Computing Systems (15ICDCS), Vancouver, Canada, May 1995
- 6th International Workshop on Petri Nets and Performance Models PNPM'95, Durham, USA, Sep 1995
- 8th ACM/IEEE/SCS Workshop on Parallel and Distributed Simulation (PADS'94), Edinburgh, Scotland, Jul 1994
- International Conference on Applications in Parallel and Distributed Computing, IFIP WG 10.3, Caracas, Venezuela, April 1994
- 7th International Conference on Modelling Techniques and Tools for Comp. Perf. Eval., Vienna, Austria, May 1994
- 15th International Conference on Theory and Applications of Petri Nets, Zaragoza, Spain, Jun 1994
- 8th International Parallel Processing Symposium, Cancun, Mexico, Apr 1994
- 2nd IEEE/ACM International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems, MASCOTS'94, Durham, USA, Feb 1994
- 26th Hawaiian International Conference on System Sciences (HICSS-26), USA, Jan 1993
- 2nd International Conference of the Austrian Center for Parallel Computation, Gmunden, Austria, 1993
- 5th International Conference on Modelling Techniques and Tools for Comp. Perf. Eval., Turin, Italy, Feb 1991
- 1st International Conference of the Austrian Center for Parallel Computation, Salzburg, Austria, 1991
- Joint International Conference on Measurement and Modeling of Computer Systems (SIGMETRICS 89 and PERFORMANCE '89), Berkeley, USA, Mai 1989

1.14 Applications for Academic Positions

- | | |
|------|---|
| 1997 | Ranked on the short list (pos. 2) for a Professor Position (C3) “Parallele und Komplexe Systeme” (Univ. Leipzig) |
| 1998 | Ranked top on the short list for a Professor Position in Computer Science (KTH Stockholm) |
| 1998 | Ranked on the short list (pos. 2) for a Professor Position (o.Univ.Prof.) “Praktische Informatik und Softwaretechnologie”, (Universität Salzburg) |
| 1999 | Ranked top on the short list for a Full Professor Position (o.Univ.Prof.) “Systemarchitektur und Verteilte Systeme”, (Universität Salzburg) |
| 2004 | Ranked top on the short list for a Full Professor Position (Univ.Prof.) “Informatik (Kooperative Systeme)”, (Universität Wien) |

1.15 Membership in Scientific Organisations

- Member of the Austrian Center for Parallel Computation (ACPC)
- Member of the Austrian Computer Society (OCG)
- Member of the ACM
- Member of the GI
- Member of the IEEE

2 Teaching

2.1 Master Studies “Pervasive Computing” (2007 –) (University of Linz)

The design of miniaturised systems, which are invisibly integrated in their environment and are connected in a spontaneous and wireless way require special computer science methods. The master study Pervasive Computing therefore deals with a combination of technologies (e.g., sensors, actuators, wireless communication, miniaturized memories and processors), paradigms (e.g., context-aware and adaptive systems, autonomous and self-organizing systems, organic and bio-inspired systems) and methods (e.g., for interaction, coordination, computational perception, reasoning and learning, artificial intelligence, virtual reality, semantic interoperability, system reliability, security and user friendliness). The educational goals are decision and evaluation skills as well as skills for designing and developing pervasive computing systems such as “information appliances”, “wearable systems” or “ambient intelligence systems”.

According to the respective research priorities, in fall 2006 I have started to attempt for a first, international Master program focussed on “Pervasive Computing”. The main goal was to set up “research directed teaching” at the University of Linz, while at the same time attract international students (all the offered courses are committed to be presented in English), as well as involve the (internationally) top level researches in part time teaching at the University of Linz. The Master in Pervasive Computing has become a reality already in fall 2007. The curriculum is structured as follows:

- Pervasive Computing Infrastructure
- Pervasive Computing Systems Development
- Unconventional User Interaction
- Machine Learning and Pattern Classification
- Cooperative Systems
- Mixed Reality Systems
- Lab-Work in Pervasive Computing
- Seminar in Pervasive Computing
- Master Thesis

Among the international teachers that have engaged in the education of JKU students in one or the other form are Prof. Paul Lukowicz, University of Passau, Prof. Friedemann Mattern, ETH Zurich, Prof. Hans-Werner Gellersen, Lancaster University, Prof. Gerd Kortuem, Lancaster University, Prof. Albrecht Schmidt, Universität Duisburg-Essen, Prof. Thad Starner, MIT,

Prof. Joe Paradiso, MIT, Prof. Antonio Krüger, Universität des Saarlandes, etc. Among the local teachers are Prof. Gabriele Kotsis (Cooperative Systems, Unconventional User Interfaces), Prof. Jens Volkert (Computer Graphics, Mixed Reality Systems), and Prof. Gerhard Widmer (Artificial Intelligence) and myself. My personal responsibility is:

Lecture *Pervasive Computing Infrastructure* (2 VO + 1 UE, WS):

Goals: The continuously unfolding research field of Pervasive and Ubiquitous Computing will be presented based on the key research issues and contributions, the principle methods of system design and development, the state-of-the art of technology and the potential domains of application.

Contents: Historical roots, vision and paradigms; enabling technologies for identification, positioning, localization and tracking; wireless communication, sensor/actuator systems, system architectures for networked embedded systems; systems software and middleware, system design for context-awareness, coordination, unobtrusiveness and multimodal interaction; ethnographic, social, legal, security and privacy issues.

Practical Track: Students will be involved at all stages of system design and development, earning hands on-experience in exploratory research methods.

Lecture *Pervasive Computing System Development* (2 VO + 1 UE)

Goals: The goal of this course is motivated by the fact that developing pervasive computing systems goes way beyond the development of software for traditional computing systems, demanding e.g. abstractions for computing ensembles, real time, real space, goal orientedness, dependability, correctness, modalities of interaction, explicit and implicit use, usability and trust.

Contents: Design process models for pervasive computing systems; system models for adaptation, emergence, intelligence, ensembles and swarms; location, mobility and awareness models; software development based on programming abstractions for real time, location and space, context (multi-sensors), autonomy, self-management and self-organisation, emergent behaviour.

Practical Track: Students will be involved in focussed systems and software development projects in the application domains of wireless sensor networks; mobile and wearable computing; smart home/office/car/city; transport and logistics, sports and healthcare; learning, entertainment and gaming; etc.

2.2 Special Topics in Pervasive Computing (2001-2006) (University of Linz)

At the University of Linz, a 17 hour/week course programme is offered periodically every year in the context of pervasive computing, containing three courses of lectures, laboratory training as well as project laboratories.

WS	Spezielle Kapitel aus Pervasive Computing: Infrastruktur	1	UE
	Projektpraktikum	10	PR
	Spezielle Kapitel aus Pervasive Computing: Systementwicklung	2	KV
SS	Spezielle Kapitel aus Pervasive Computing: Infrastruktur	2	VO
	Spezielle Kapitel aus Pervasive Computing: Mobile Multimediasysteme	2	VO

2.3 Project Studies “Parallel and Distributed Processing” (University of Vienna)

At the University of Vienna, a 17 hour/week course programme was offered periodically every year in the context of Parallel Processing, containing three courses of lectures, a proseminar and a seminar on advanced topics, laboratory training as well as project laboratories.

The first course *Introduction to Parallel and Distributed Processing* (2 hours/week) held in the winter term, presents basic concepts, methods and techniques in parallel processing. The course covers the following topics: Theoretical Background and Formal Methods, Operational Principles, Parallel Architectures, Communication and Synchronisation and Application Systems, World Wide Web Technology, Internet Computing, Distributed Virtual Reality Systems.

The course *Parallel Programming* (3 hours/week) accompanied by laboratories is ment to impart a deep an practical knowledge on parallel programming techniques and paradigms, and to give the opportunity of a hands-on on real multiprocessors. Special emphasis is given to Internet-programming using CGI/Perl, Java and CORBA.

The third course (summer term), *Performance Analysis of Distributed and Parallel Systems* is devoted to methods and tools for performance modeling, evaluation, measurement, and visualization of parallel programs executing on multiprocessors. Imparting both theoretical background as well as practical experience with computerized tools are the teaching aims of this course. Students develop their own expertise by using performance analysis tools for the evaluation of their performance models. The focus is on Petri net based performance modeling of parallel systems and the use of sophisticated analysis and simulation tools.

The proseminar deals with recent advances in topics related to the lectures, and should establish a working knowledge in distributed parallel processing as well as in Internet computing technology in the first half of the winter term. The second half of the winter term is dedicated to the seminar, where students have to work out concepts on a project of a practical distributed/parallel or World Wide Web application to be implemented in the project laboratories in the summer term. The project laboratories are defined to have a working application as outcome, thus stimulating and motivating students.

Teaching involvement with main responsibility covers:

Lectures

- Introduction to Parallel and Distributed Processing (2 hours/week)
- Developing Parallel and Distributed Software (3 hours/week)
- Performance Analysis of Distributed/Parallel Systems (2 hours/week)

Laboratories

- Introduction to Parallel and Distributed Processing (1 hour/week)
- Developing Parallel and Distributed Software (2 hours/week)
- Performance Analysis of Distributed/Parallel Systems (1 hour/week)
- Distributed Discrete Event Simulation (1 hour/week)

Seminars, Proseminars

- Proseminar: Advanced Topics in Parallel Processing
- Seminar: Selected Problems

In the terminology of the University of Vienna this means:

(Hauptverantwortlich (hv) bzw. mitbetreute (mb) Lehrveranstaltungen)

WS	Parallelverarbeitung: Prinzipien und Methoden (hv)	2	VO
	Parallelverarbeitung: Prinzipien und Methoden (mb)	1	UE
	Entwicklung Paralleler Programme (hv)	3	VO
	Entwicklung Paralleler Programme (hv)	2	UE
	Proseminar: "Neuere Entwicklungen in der Informatik" (hv)	1	PS
	Seminar aus Informatik (hv)	2	SE
SS	Leistungsmodellierung Verteilter/Paralleler Systeme (hv)	2	VO
	Übungen zu: Leistungsmodellierung Verteilter/Paralleler Systeme (mb)	1	UE
	Praktikum parallele Systeme (Ia, Ib) (mb)	2 × 2	PR

2.4 Development of Teaching Material

- Organisation of the Project Studies using the WWW
(Lecture notes in electronic format)
<http://www.ani.univie.ac.at/~ferscha/projstud/>
- Development of AUTOOL Courseware: "Modellierung von Rechnersystemen"
- Lecture Notes to AUTOOL Courseware: "Modellierung von Rechnersystemen"
- Lecture Notes "Einführung in die Informatik" (gem. m. G. Haring)
- Collection of Lab Assignments: "Einführung in die Informatik I und II"

- Development of AUTOOL Courseware: “Einführung in die Informatik I”
- Reference Manual: “Programmierung des MC 68000”
- Reference Manual: “Programmieren in 2-D und 3-D Graphik”
- Lecture Notes: “Programmieren mit C”
- Reference Manual: “Transputer – Inmos Toolset. Using the MTM-Sun Transputerboard”
- Reference Manual: “Getting Started with PVM 3.2”
- Lecture Notes: “Parallelverarbeitung: Prinzipien und Methoden”
- Lecture Notes: “Internet-Computing”
- Lecture Notes: “Entwicklung Paralleler Programme”
- Lecture Notes: “Leistungsmodellierung Paralleler Systeme”
- Lecture Notes: “Softwareentwicklung I”
- Lecture Notes: “Algorithmen und Datenstrukturen II”
- Lecture Notes: “Embedded Systems”
- Lecture Notes: “Telekooperation”
- Lecture Notes: “Pervasive Computing Infrastructure”
- Lecture Notes: “Pervasive Computing System Development”

2.5 Classes Taught

WS 08/09 (JKU Linz)

- 340131 Softwareentwicklung 1, 2st., 3 ECTS, VO
- 340023 Algorithmen und Datenstrukturen 2, 2st., 3 ECTS, VO
- 340008 Pervasive Computing für Lehramt, 3st., 4,5 ECTS, VO
- 340041 Pervasive Computing Infrastructure, 2st., 3 ECTS, VO
- 340013 Pervasive Computing Infrastructure, 1st., 1,5 ECTS, UE
- 340042 Seminar: Pervasive Computing, 2st., 3 ECTS, SE
- 340011 Seminar aus Informatik, 2st., 3 ECTS, SE
- 340015 Projektpraktikum, 10st., 15 ECTS, PR
- 340214 Masterarbeitsseminar WS, 3st., 4,5 ECTS, SE
- 340010 Privatissimum für Dissertanten 1, 3st., 4,5 ECTS, PV

SS 08 (JKU Linz)

- 340018 Embedded and Pervasive Systems, 2st., 3 ECTS, KV
- 340003 Seminar: Pervasive Computing, 2st., 3 ECTS, SE
- 340044 Projektpraktikum, 5st., 7,5 ECTS, PR
- 340045 Praktikum aus Pervasive Computing, 5st., 7,5 ECTS, PR

340217 Masterarbeitsseminar SS, 3st., 9 ECTS, SE

340046 Dissertantenseminar 2, 3st., 4,5 ECTS, SE

WS 07/08 (JKU Linz)

340131 Softwareentwicklung 1, 2st., 3 ECTS, VO

340023 Algorithmen und Datenstrukturen 2, 2st., 3 ECTS, VO

340008 Pervasive Computing für Lehramt, 3st., 4,5 ECTS, VO

340009 Spezielle Kapitel aus Pervasive Computing, 1st., 1,5 ECTS, SE

340034 Telekooperation, 3st., 4,5 ECTS, VO

340041 Spezielle Kapitel aus Pervasive Computing (Infrastructure), 2st., 3 ECTS, VO

340042 Seminar: Pervasive Computing, 2st., 3 ECTS, SE

340015 Projektpraktikum, 10st., 15 ECTS, PR

340214 Masterarbeitsseminar WS, 3st., 4,5 ECTS, SE

340010 Privatissimum für Dissertanten 1, 3st., 4,5 ECTS, PV

SS 07 (JKU Linz)

340018 Embedded Systems, 2st., 3 ECTS, KV

340003 Seminar: Pervasive Computing, 2st., 3 ECTS, SE

340044 Projektpraktikum, 5st., 7,5 ECTS, PR

340045 Praktikum aus Pervasive Computing, 5st., 7,5 ECTS, PR

340217 Masterarbeitsseminar SS, 3st., 4,5 ECTS, SE

340046 Dissertantenseminar 2, 3st., 4,5 ECTS, SE

WS 06/07 (JKU Linz)

340131 Softwareentwicklung 1, 2st., 3 ECTS, VO

340023 Algorithmen und Datenstrukturen 2, 2st., 3 ECTS, VO

340008 Pervasive Computing für Lehramt, 3st., 4,5 ECTS, VO

340009 Spezielle Kapitel aus Pervasive Computing, 1st., 1,5 ECTS, SE

340034 Telekooperation, 3st., 4,5 ECTS, VO

340041 Spezielle Kapitel aus Pervasive Computing (Infrastructure), 2st., 3 ECTS, VO

340042 Seminar: Pervasive Computing, 2st., 3 ECTS, SE

340015 Projektpraktikum, 5st., 7,5 ECTS, PR

340214 Magisterarbeitsseminar 1, 3st., 4,5 ECTS, SE

340010 Privatissimum für Dissertanten 1, 3st., 4,5 ECTS, PV

SS 07 (JKU Linz)

340018 Embedded Systems, 2st., 3 ECTS, KV

340003 Seminar: Pervasive Computing, 2st., 3 ECTS, SE

340044 Projektpraktikum, 5st., 7,5 ECTS, PR

340045 Praktikum aus Pervasive Computing, 5st., 7,5 ECTS, PR

340217 Magisterarbeitsseminar 2, 3st., 4,5 ECTS, SE

340046 Dissertantenseminar 2, 3st., 4,5 ECTS, SE

WS 05/06 (JKU Linz)

340131 Softwareentwicklung 1, 2st., 3 ECTS, VO
340023 Algorithmen und Datenstrukturen 2, 2st., 3 ECTS, V0
340008 Pervasive Computing für Lehramt, 3st., 4,5 ECTS, VO
340009 Spezielle Kapitel aus Pervasive Computing, 1st., 1,5 ECTS, SE
340034 Telekooperation, 3st., 4,5 ECTS, V0
340041 Spezielle Kapitel aus Pervasive Computing (Infrastructure), 2st., 3 ECTS, VO
340042 Seminar: Pervasive Computing (Methodenseminar), 2st., 3 ECTS, SE
340015 Projektpraktikum, 5st., 7,5 ECTS, PR
340000 Projektpraktikum, 10st., 15 ECTS, PR
340214 Magisterarbeitsseminar 1, 3st., 4,5 ECTS, SE
340010 Privatissimum für Dissertanten 1, 3st., 4,5 ECTS, PV

SS 06 (JKU Linz)

340018 Embedded Systems, 2st., 3 ECTS, KV
340003 Seminar: Pervasive Computing (Methodenseminar), 2st., 3 ECTS, SE
340047 Projektpraktikum (Bakkalaureat), 5st., 7,5 ECTS, PR
340045 Praktikum aus Pervasive Computing, 5st., 7,5 ECTS, PR
340217 Magisterarbeitsseminar 2, 3st., 4,5 ECTS, SE
340046 Dissertantenseminar 2, 3st., 4,5 ECTS, SE

WS 04/05 (JKU Linz)

340131 Softwareentwicklung 1, 2st., 3 ECTS, VO
340023 Algorithmen und Datenstrukturen 2, 2st., 3 ECTS, V0
340034 Telekooperation, 3st., 4,5 ECTS, V0
340041 Spezielle Kapitel aus Pervasive Computing (Infrastructure), 2st., 3 ECTS, VO
340039 Spezielle Kapitel aus Pervasive Computing (Systementwicklung), 2st., 3 ECTS, VO
340042 Seminar: Pervasive Computing (Methodenseminar), 2st., 3 ECTS, SE
340214 Magisterarbeitsseminar 1, 3st., 4,5 ECTS, SE
340010 Privatissimum für Dissertanten 1, 3st., 4,5 ECTS, PV

SS 05 (JKU Linz)

340018 Embedded Systems, 2st., 3 ECTS, KV
340003 Seminar: Pervasive Computing (Methodenseminar), 2st., 3 ECTS, SE
340047 Projektpraktikum (Bakkalaureat), 5st., 7,5 ECTS, PR

340217 Magisterarbeitsseminar 2, 3st., 4,5 ECTS, SE
340046 Dissertantenseminar 2, 3st., 4,5 ECTS, SE

WS 04/05 (JKU Linz)

338131 Softwareentwicklung 1, 2st., 3 ECTS, VO
338004 Algorithmen und Datenstrukturen 2, 3st., 3 ECTS, V0
338008 Telekooperation, 3st., 2 ECTS, V0
338040 Spezielle Kapitel aus Pervasive Computing, 2st., 3 ECTS, VO
338041 Spezielle Kapitel aus Pervasive Computing, 1st., 1,5 ECTS, UE
338042 Seminar: Pervasive Computing, 2st., 3 ECTS, SE
338015 Projektpraktikum, 10st., 15 ECTS, PR
338217 Magisterarbeitsseminar 2, 3st., 7,5 ECTS, SE
338010 Privatissimum für Dissertanten 1, 3st., 4,5 ECTS, SE

SS 04 (JKU Linz)

338006 Embedded Systems, 2st., 3 ECTS, KV
338042 Seminar: Pervasive Computing, 2st., 3 ECTS, SE
338217 Magisterarbeitsseminar 2, 3st., 9 ECTS, SE
338001 Dissertantenseminar 1, 3st., 4,5 ECTS, SE

WS 03/04 (JKU Linz)

338131 Softwareentwicklung 1, 2st., 3 ECTS, VO
338004 Algorithmen und Datenstrukturen 2, 3st., 3 ECTS, V0
338008 Telekooperation, 3st., 2 ECTS, V0
338040 Spezielle Kapitel aus Pervasive Computing, 2st., 3 ECTS, VO
338041 Spezielle Kapitel aus Pervasive Computing, 1st., 1,5 ECTS, UE
338042 Seminar: Pervasive Computing, 2st., 3 ECTS, SE
338015 Projektpraktikum, 10st., 15 ECTS, PR
338217 Magisterarbeitsseminar 2, 3st., 7,5 ECTS, SE
338010 Privatissimum für Dissertanten 1, 3st., 4,5 ECTS, SE

SS 03 (JKU Linz)

338006 Embedded Systems, 2st., 3 ECTS, KV
338042 Seminar: Pervasive Computing, 2st., 3 ECTS, SE
352237 Seminar: Telekooperation (Next Generation Team Conferencing),
2st., 3 ECTS, SE
338217 Magisterarbeitsseminar 2, 3st., 9 ECTS, SE
338001 Dissertantenseminar 1, 3st., 4,5 ECTS, SE

WS 02/03 (JKU Linz)

338131 Softwareentwicklung 1, 2st., 3 ECTS, VO
338004 Algorithmen und Datenstrukturen 2, 3st., 3 ECTS, V0
338008 Telekooperation, 3st., 2 ECTS, V0
338040 Spezielle Kapitel aus Pervasive Computing, 2st., 3 ECTS, VO

338041 Spezielle Kapitel aus Pervasive Computing, 1st., 1,5 ECTS, UE
338042 Seminar: Pervasive Computing, 2st., 3 ECTS, SE
338015 Projektpraktikum, 10st., 15 ECTS, PR
338217 Magisterarbeitsseminar 2, 3st., 7,5 ECTS, SE
338010 Privatissimum für Dissertanten 1, 3st., 4,5 ECTS, SE

SS 02 (JKU Linz)

338006 Embedded Systems, 2st., 3 ECTS, KV
338217 Diplomandenseminar 2, 3st., SE
338001 Dissertantenstunde, 3st., 4,5 ECTS, SE

WS 01/02 (JKU Linz)

338004 Algorithmen und Datenstrukturen 2, 3st., 4,5 ECTS, KV
338131 Softwareentwicklung 1, 2st., 3 ECTS, VO
338008 Telekooperation, 3st., 4,5 ECTS, KV
338015 Projektpraktikum, 10st., 15 ECTS, PR
338225 Diplomandenseminar, 3st., SE

SS 01 (University of Vienna)

407 331 Praktikum aus Network Computing “Virtual Teams”, 3st., PR
407 332 Seminar aus Network Computing “Virtual Teams”, 2st., PR

(JKU Linz)

338006 Embedded Systems, 2st., 3 ECTS, KV
338217 Diplomandenseminar 2, 3st., 34 ECTS
338001 Dissertantenstunde, 3st., 4,5 ECTS, SE

WS 00/01 (University of Vienna)

407 267 Network Computing I, 2st., VO
407 268 Network Computing II, 2st., VO
407 269 Übung zu Network Computing I+II, 2st., UE
407 209 Proseminar aus Wirtschaftsinformatik: “Internet-Technologien”,
2st., PS

(JKU Linz)

338004 Algorithmen und Datenstrukturen 2, 3st., 4,5 ECTS, KV
338131 Softwareentwicklung 1, 2st., 3 ECTS, VO
338225 Diplomandenseminar, 3st., SE
338212 Dissertantenstunde, 3st., 4,5 ECTS, SE

SS 00 (University of Vienna)

407 307 Software Engineering II, 2st., VO
407 309 Übung zu Software Engineering II, 2st., UE
407 331 Praktikum aus Network Computing “Virtual Teams”, 3st., PR

407 332 Seminar aus Network Computing “Virtual Teams”, 2st., PR
415 058 Methodenseminar für DissertantInnen, 2st., SE, (gem. m. Koll.)

(MTA SZATKI, Technical University, Budapest)
Distributed Software Engineering, Guest Lecture, 14 Course Units

WS 99/00 (University of Vienna)

407 267 Network Computing I, 2st., VO
407 268 Network Computing II, 2st., VO
407 269 Übung zu Network Computing I+II, 2st., UE
407 209 Proseminar aus Wirtschaftsinformatik: “Internet-Technologien”,
2st., PS
407 068 Konversatorium für Dipl.n, 2st., KO, (gem. m. Koll.)
415 035 Forschungsprivatissimum für DissertantInnen, 2st., SE, (gem. m.
Koll.)

SS 99 (University of Vienna)

407 307 Software Engineering II, 2st., VO
407 309 Übung zu Software Engineering II, 2st., UE
407 331 Praktikum aus Network Computing “Virtual Teams”, 3st., PR
407 332 Seminar aus Network Computing “Virtual Teams”, 2st., PR
415 058 Methodenseminar f. Diss., 2st., SE, (gem. m. Koll.) “Video-on-
Demand”
407 108 Konversatorium für Dipl., 2st., KO, (gem. m. Koll.)
415 037 Forschungsprivatissimum für DissertantInnen, 2st., SE, (gem. m.
Koll.)

WS 98/99 (University of Vienna)

407 267 Network Computing I, 2st., VO
407 268 Network Computing II, 2st., VO
407 269 Übung zu Network Computing I+II, 2st., UE
407 209 Proseminar aus Wirtschaftsinformatik: “Distance Working”, 2st.,
PS
407 068 Konversatorium für Dipl., 2st., KO, (gem. m. Koll.)
415 035 Forschungsprivatissimum für DissertantInnen, 2st., SE, (gem. m.
Koll.)

SS 98 (University of Vienna)

407 307 Software Engineering II, 2st., VO
407 309 Übung zu Software Engineering II, 2st., UE
407 331 Praktikum aus Network Computing, 3st., PR
407 332 Seminar aus Network Computing, 2st., PR
407 108 Konversatorium für Dipl., 2st., KO, (gem. m. Koll.)
415 037 Forschungsprivatissimum für DissertantInnen, 2st., SE, (gem. m.

Koll.)

WS 97/98 (University of Vienna)

- 407 267 Network Computing I, 2st., VO
- 407 268 Network Computing II, 2st., VO
- 407 269 Übung zu Network Computing I+II, 2st., UE
- 407 209 Proseminar aus Wirtschaftsinformatik: "Internet Impacts", 2st., PS
- 415 058 Methodenseminar f. Diss., 2st., SE, (gem. m. Koll.) "QoS Management"
- 415 068 Literaturseminar f. Diss., 2st., SE, (gem. m. Koll.) "Data Mining"
- 407 068 Konversatorium für Dipl., 2st., KO, (gem. m. Koll.)
- 415 035 Forschungsprivatissimum für DissertantInnen, 2st., SE, (gem. m. Koll.)

SS 97 (University of Vienna)

- 407 064 Leistungsmodellierung verteilter und paralleler Systeme, 2st., VO
- 407 065 Leistungsmodellierung verteilter und paralleler Systeme, 1st., UE
- 407 067 Praktikum Ib, 2st., PR
- 407 132 Proseminar aus Wirtschaftsinformatik: "Internet Commerce", 2st., PS
- 415 038 Methodenseminar für DissertantInnen, 2st., SE, (gem. m. G. Haring)
- 415 037 Forschungsprivatissimum für DissertantInnen, 2st., SE, (gem. m. G. Haring)

WS 96/97 (University of Vienna)

- 407 090 Grundlagen Verteilter und Paralleler Verarbeitung, 2st., VO
- 407 092 Softwareentwicklung für Verteilte und Parallele Systeme, 3st., VO
- 407 094 Seminar aus Informatik: Interactive 3-D Worlds on the WWW, 2st., SE
- 407 095 Proseminar aus Informationsverarbeitung: Internet-Computing, 1st., PS
- 415 035 Forschungsprivatissimum für DissertantInnen, 2st., SE, (gem. m. G. Haring)
- 415 036 Literaturseminar für DissertantInnen, 2st., SE, (gem. m. G. Haring)

SS 96 (University of Vienna)

- 407 064 Leistungsmodellierung paralleler Systeme, 2st., VO

407 065 Übung zur Leistungsmodellierung paralleler Systeme, 1st., UE
407 067 Praktikum Ib, 2st., PR
407 132 Proseminar aus Wirtschaftsinformatik:
“Traditionelle und neuere Internetdienste”, 2st., PS

WS 95/96 (University of Vienna)
407 090 Grundlagen Verteilter und Paralleler Verarbeitung, 2st., VO
407 092 Softwareentwicklung für Verteilte und Parallele Systeme, 3st., VO

SS 95 (University of Vienna)
405 326 Leistungsmodellierung paralleler Systeme, 2st., VO
405 327 Übung zur Leistungsmodellierung paralleler Systeme, 1st., UE
405 329 Praktikum Ib, 2st., PR

WS 94/95 (University of Vienna)
496 539 Parallelverarbeitung: Prinzipien und Methoden, 2st., VO
405 163 Entwicklung Paralleler Programme, 3st., VO

SS 94 (University of Vienna)
405 326 Leistungsmodellierung paralleler Systeme, 2st., VO
405 327 Übung zur Leistungsmodellierung paralleler Systeme, 1st., UE
405 329 Praktikum Ib, 2st., PR

WS 93/94 (University of Vienna)
496 539 Parallelverarbeitung: Prinzipien und Methoden, 2st., VO
405 163 Entwicklung Paralleler Programme, 3st., VO
405 165 Übung zur Entwicklung Paralleler Programme, 2st., UE

WS 86/87 (University of Vienna)
485 935 Übung zur Einführung in die Informatik I, 1st., UE
485 946 Übung zur Einführung in die Informatik I, 1st., UE
485 957 Übung zur Einführung in die Informatik I, 1st., UE
485 968 Übung zur Einführung in die Informatik I, 1st., UE

SS 87 (University of Vienna)
455 158 Übung zur Mathematik II f. VW. und Soz., 1st., UE
455 169 Übung zur Mathematik II f. VW. und Soz., 1st., UE
455 246 Übung zur Einführung in die Informatik II, 1st., UE
455 257 Übung zur Einführung in die Informatik II, 1st., UE

SS 93 (University of Vienna)
405 096 Leistungsmodellierung paralleler Systeme, 2st., VO

495 682 Übung zur Leistungsmodellierung paralleler Systeme, 1st., UE

WS 92/93 (University of Vienna)

496 539 Grundlagen der Parallelverarbeitung, 2st., VO

405 163 Entwicklung Paralleler Programme, 1st., VO

405 165 Übung zur Entwicklung Paralleler Programme, 2st., UE

SS 92 (University of Vienna)

495 626 Übung zur Softwareentwicklung I+II, 2st., UE

495 637 Übung zur Softwareentwicklung I+II, 2st., UE

WS 91/92 (University of Vienna)

406 000 Übung zur Kommerziellen Datenverarbeitung, 2st., UE

406 003 Übung zur Kommerziellen Datenverarbeitung, 2st., UE

SS 91 (University of Vienna)

405 096 Leistungsmodellierung paralleler Systeme, 2st., VO

497 079 Übung zur Softwareentwicklung I+II, 2st., UE

WS 90/91 (University of Vienna)

406 000 Übung zur Kommerziellen Datenverarbeitung, 2st., UE

496 539 Projektstudium: Parallelverarbeitung, 2st., VO

SS 90 (University of Vienna)

495 626 Übung zur Software Entwicklung I und II, 2st., UE

495 637 Übung zur Software Entwicklung I und II, 2st., UE

WS 89/90 (University of Vienna)

406 000 Übung zur Kommerziellen Datenverarbeitung, 2st., UE

486 419 Übung zur Kommerziellen Datenverarbeitung, 2st., UE

SS 89 (University of Vienna)

455 246 Übung zur Einführung in die Informatik II, 1st., UE

455 257 Übung zur Einführung in die Informatik II, 1st., UE

496 870 Übung zur Einführung in die Informatik II, 1st., UE

496 869 Übung zur Einführung in die Informatik II, 1st., UE

WS 88/89 (University of Vienna)

485 935 Übung zur Einführung in die Informatik I, 1st., UE

485 946 Übung zur Einführung in die Informatik I, 1st., UE

496 539 Projektstudium: Parallelverarbeitung, 2st., VO

SS 88 (University of Vienna)

495 626 Übung zur Software Entwicklung I und II, 2st., UE

455 246 Übung zur Einführung in die Informatik II, 1st., UE

455 257 Übung zur Einführung in die Informatik II, 1st., UE

WS 87/88 (University of Vienna)

405 169 Übung zur Statistik I, 1st., UE

485 935 Übung zur Einführung in die Informatik I, 1st., UE

485 946 Übung zur Einführung in die Informatik I, 1st., UE

485 957 Übung zur Einführung in die Informatik I, 1st., UE

2.6 Teaching Assistance

(at the University of Vienna)

WS 96/97 Literaturseminar: 3D Welten im World Wide Web, 2st., SE

WS 95/96 Seminar aus Informatik: Parallel Road Traffic Simulation, 2st., SE

Proseminar aus Informationsverarbeitung: Parallel Systems, 1st., PS

SS 95 Methoden-Seminar: Arbeitsflussmodelle, 2st., SE

WS 94/95 Seminar aus Informatik: Performance Prediction, 2st., SE

Proseminar aus Informationsverarbeitung: Tools for Parallel Program
Development, 1st., PS

SS 94 Methoden-Seminar: Arbeitsflussmodelle, 2st., SE

WS 93/94 Seminar aus Informatik: Parallele Optimierungsmethoden, 2st., SE

Proseminar aus Informationsverarbeitung: Parallelverarbeitung, 1st., PS

WS 92/93 Seminar aus Informatik: Verteilte Simulation von Transitions-
zeiterweiterten

Petri Netzen, 2st., SE

Proseminar aus Informationsverarbeitung: Parallelverarbeitung, 1st., PS

WS 90/91 Seminar aus Informatik: Simulation von Petri Netzen, 2st., SE

Proseminar aus Informationsverarbeitung: Parallelverarbeitung, 1st., PS

SS 90 Seminar: Spezifikation Paralleler Programme (TU), 2st., SE

SS 89 Praktikum Parallelverarbeitung: Neuronale Netzwerke, 2+2st., PR
Übung Entwicklung paralleler Software: Neuronale Netzwerke, 2st., UE

WS 88/89 Seminar aus Informatik: Neuronale Netzwerke, 2st., SE
Proseminar aus Informationsverarbeitung: Parallelverarbeitung, 1st., PS

SS 87 Seminar aus Informatik für Dissertanten: Parallele Algorithmen, 2st., SE
Forschungsseminar: Modellierung von Multiprozessorsystemen, 2st., SE

2.7 Selected Laboratories Supervised (Praktika)

(While at the University of Vienna)

- *Unterrichtslektion zur Einführung in die Informatik*, 10st., Ortner
- *Bibliotheksverwaltung unter dBase III*, 10st., Schmid
- *Implementierung der Gabriel LISP-Benchmarks auf der Apollo 3000 und Leistungsanalyse*, 4st., Trautmannsdorf
- *Graphische Darstellung, Entwurf und Verwaltung von Strickmustervorlagen*, 10st., Ey, Klem
- *Parallele Gauss'sche Elimination am Transputer*, 10st., Plank
- *Parallele LU-Zerlegung am Transputer*, 5st., Kvasnicka
- *Parallele Householder Reduction auf iPSC/860, Sequent Balance*, 10st., Kvasnicka
- *A Web Concept for the Organization of Scientific Conferences*, 10st., Dangl
- *A Web - Database Interface for the Organization of Scientific Conferences*, 10st., Franz

2.8 Selected "Homework Theses" Supervised (Hausarbeiten) since 1996

(While at the University of Vienna)

- *Person Tracking System*, M. Rossa, A. Köck
- *Kontextbasierte mobile Internetdienste*, Markus Tuma
- *Agent Assisted Web-Browsing*, R. Spitzenberger
<http://www.ani.univie.ac.at/~ferscha/hausarb/agents/start.html>
- *Multi-Threading and Client-Server Computing with Java*, M. Richter
<http://www.ani.univie.ac.at/~richter/html/javamain.html>

- *Java Tutorial: The Java Language*, M. Schenk
<http://www.ani.univie.ac.at/~ferscha/projstud/java/vorlesung/>
- *Java Tutorial: Applets*, E. Hotop
<http://www.ani.univie.ac.at/~ferscha/projstud/java/vorlesung/>
- *Java Tutorial: Remote Method Invocation*, H. Schaffer
<http://www.ani.univie.ac.at/~ferscha/projstud/java/vorlesung/>
- *Multi-User Applications on the WWW*, M. Nemec
<http://www.ani.univie.ac.at/~nemec/frameset.html>
- *Distributed Object Technology (CORBA)*, G. Sauprigl
<http://www.ani.univie.ac.at/~sauprigl/CORBA>
- *Multimedia Cooperation Technology*, E. Klauser
<http://www.ani.univie.ac.at/~klauser/mm>
- *Distributed Virtual Multi-User Environments on the WWW*, K. Takacs
<http://www.ani.univie.ac.at/~takacsk/hausarbeit>
- *Coordination Technologies*, St. Tautscher
- *Distributed Interactive Simulation*, A. Geiger
- *Telecooperation*, M. Ender
- *Web-Interfaces to Databases*, Ch. Aigner
- *3D-Interaction in Multiuser Cooperative Environments*, Ch. Löffelhart
- *VRML Walk-through's: City of Vienna – A Case Study* P. Panhuber
- *VRML Video*, A. Stoik
- *Keyframe Extraction and Visualization in VRML*, Hans Gruber
- *Virtual Teams Cooperation Support for Virtual Teams*, Thomas Angerer

2.9 Diploma Theses Supervised (Diplomarbeiten)

(While at the Johannes Kepler University of Linz)

- *Peripheral Displays to support team work – Approach of a Design Framework*, P. Thon, January 2007 (in English), Johannes Kepler University Linz.
- *Head Gestures for Human – Computer Interaction*, Ch. Lichtenberger, July 2006 (in English), Johannes Kepler University Linz.
- *Power Management for Mobile Devices*, Th. Weberndorfer, April 2006 (in English), Johannes Kepler University Linz.

- *Adding Smartness to Mobile Devices. Recognizing Context by Learning from User Habits*, H. Radi, January 2006 (in English), Johannes Kepler University Linz.
- *Context-aware Group-Interaction*, St. Oppl, September 2004 (in English), Johannes Kepler University Linz.
- *Location Sensing for Context-Aware Applications*, Ch. Holzmann, April 2004 (in English), Johannes Kepler University Linz.
- *A Peer-to-Peer Coordination Framework based on JXTA*, M. Hechinger, (in English) 2005, Johannes Kepler University Linz.
- *Tangible Interfaces. Intuitive Interaktion mit eingebetteten Information Appliances*, M. Reichör, 2003 (in English), Johannes Kepler University Linz.
- *Experiencing Augmented Reality via vision-based see through systems*, M. Keller, (in English) 2003, Johannes Kepler University Linz.
- *Access- and Interaction Control for Public Communication Displays*, M. Miesbauer, (in English) July 2003, Johannes Kepler University Linz.
- *Multi-User Interaction in ad-hoc Networks*, M. Armbruckner, (in English), October 2002, Johannes Kepler University Linz.
- *Multi-User Interaction via Public Displays*, J. Blüml, (in English) June 2002, Technical University of Vienna.
- *RFID-Identifikation zur zeitnahen Notifikation in mobilen Anwendungen*, H. Seyringer, February 2002, Johannes Kepler University Linz.
- *Wireless Multiuser Applications. A WebWall Backend Prototype Implementation*, G. Kathan, (in English), October 2001, University of Vienna.
- *Enabling Technologies for the Virtual Enterprise*, B. Dangl, 2000, University of Vienna.
- *SMS basierte Echtzeitnotifikation*, H. Gruber, October 2000, University of Vienna.
- *Handgestenbasierte Windows Desktop Kontrolle*, M. Wieland, March 2000, University of Vienna.
- *Dynamische Errichtung Dreidimensionaler Räume im Internet. Eine Darstellung von Virtual-Reality Systemen, sowie die Implementierung eines 3D Raumplanungstools mit Java und VRML*, Ch. Mayerhofer, February 2000, University of Vienna.
- *Electronic Voting*, Ch. Scheiner, February 2000, University of Vienna.

- *Elektronische Entscheidungssysteme*, E. Klauser, June 1999, University of Vienna.
- *Innovative Applications of Video in Telecooperation*, A. Geiger, (in English), June 1999, University of Vienna.
- *Generierung von VRML-Code zur Darstellung von Wohnraum*, K. Takacs, June 1999, University of Vienna.
- *N-MAP: A tool for Performance Oriented Developmnet of Parallel Programs*, J. Johnson, (in English), October 1996, Technical University of Vienna.
- *Cooperation in Distributed Environments*, Ph. Amann, (in English), October 1996, University of Vienna.
- *Forecast Methods for Adaptive Distributed Simulation*, M. Richter, (in English), October 1996, University of Vienna.
- *The PaNMAP for visual parallel program development*, H. Trzil, (in English), May 1995, University of Vienna.
- *From N-MAP to PatternTool* , R. Tschopp, (in English), May 1995, University of Vienna.
- *Distributed Discrete Event Simulation: Optimistic Protocols with Probabilistic Time Window Adaptation*, J. Lüthi, (in English), Nov. 1994, University of Vienna.
- *Benutzeroberflächen von Graphikeditoren*, P. Sack, 1992, University of Vienna.
- *Optimistic Distributed Discrete Event Simulation*, G. Csertan, (in English), Sept. 1991, University of Vienna.
- *A Message Passing System for a Network of Transputers*, P. Hofer, April 1991, University of Vienna.
- *Eine adaptive Cooling Schedule für die Boltzmann Maschinen Simulation*, M. Natter, April 1991, University of Vienna.
- *Eye-Hand Coordination with Kohonen Feature Maps*, P. Ferrara, Mai 1991, University of Vienna.
- *Interconnection Topologies and Routing for Parallel Processing Systems*, G. Kotsis, (in English), Mai 1991, University of Vienna.
- *Approaches to the Process- to Processor Mapping Problem*, G. Aizi, (in English), September 1991, University of Vienna.
- *Die Behandlung des Mapping-Problems mit Boltzmann Maschinen*, B. Mittermair, Dezember 1991, University of Vienna.

- *Ein Implementierungsvorschlag für ConcurrentSmalltalk auf einem Transputernetzwerk*, J. Schneider, Dezember 1991, University of Vienna.
- *Anpassungsfähige Menüsysteme*, E. Klug, Jänner 1990, University of Vienna.

2.10 PhD Theses Supervised (Dissertationen)

(While at the Johannes Kepler University of Linz)

- *Opportunistic Goal-Oriented Sensing*, C. Balasz, (*in progress*), Johannes Kepler University Linz.
- *DSL box for Force Sensor Array Control*, R. Moge, (*in progress*), Johannes Kepler University Linz.
- *Self-organization in Systems of Smart Labels*, K. Zhia, (*in progress*), Johannes Kepler University Linz.
- *Das olfaktorische Medium. Die Integration olfaktorischer Information in die Mensch-Maschine-Kommunikation anhand dem Szenario Pervasive Computing*, B. Emsenhuber, (*in progress*), Johannes Kepler University Linz.
(Co-Advisor)
- *Sensor-Actuator Supported Implicit Interaction in Driver Assistance Systems*, A. Riener, October 2008, Johannes Kepler University Linz.
- *Spatial Awareness of Autonomous Embedded Systems*, C. Holzmann, September 2008, Johannes Kepler University Linz.
- *Development of a novel context prediction algorithm and analysis of context prediction schemes*, St. Sigg, October 2007, University of Kassel.
(Co-Advisor)
- *Interaktion in Ambient Intelligence – Konzeption eines intuitiven Assistenten zur ganzheitlichen und konfliktfreien Interaktion in adaptiven Umgebungen*, Ali Asghar Nazari Shirehjini, December 2008, TU Darmstadt.
(Co-Advisor)
- *Please Do Not Disturb. Models of User Experience for Considerate Home Products*, M. Vastenburger, September 2007, TU-Delft.
(Co-Advisor)
- *An Architecture for Context Prediction*, R. Mayrhofer, September 2004, Johannes Kepler University Linz.
- *Supporting Context Awareness in Highly Dynamic Network Environments*, W. Beer, April 2004, Johannes Kepler University Linz.
(Co-Advisor)

- *Modulare Simulation elastischer Roboter, Fallstudie ebenes Mehrfachpendel*, P. Ferrara, March 2005, Johannes Kepler University of Linz .
(Co-Advisor)
- *Coordination of Users and Services via Wall Interfaces*, S. Vogl, October 2002, Johannes Kepler University Linz.
- *Semi-Asynchronous Checkpointing for Optimistic Parallel Simulation*, A. Santoro, November 2002, Universita di Roma, Italy.
(External Reviewer)
- *Graph Based Characterisation of Parallel Programs*, M. Braun, January 2000, University of Vienna.
(Co-Advisor)

3 Involvement in the University Organization

3.1 Head of Department

- Head of Department (Institutsvorstand) 2000 – 2002
Institut für Praktische Informatik, Johannes Kepler University Linz
- Head of Department (Institutsvorstand) since 2002
Institut für Pervasive Computing, Johannes Kepler University Linz
- Head of Excellence Initiative Pervasive Computing (Director) since 2002,
Johannes Kepler University Linz
- Head of Department (Director) since 2002
RIPE (Research Institute for Pervasive Computing, Johannes Kepler University Linz, Softwarepark Hagenberg.

3.2 University Committies

- Fakultätskollegium (University of Vienna)
- Personalkommission (University of Vienna)
- Berufungskommissionen (University of Vienna)
- Berufungskommissionen (Johannes Kepler University Linz)
- Institutskonferenz (University of Vienna)
- Institutskonferenz (Johannes Kepler University Linz)
- Fakultätsversammlung (Johannes Kepler University Linz)
- Arbeitsgruppe Strategieentwicklung (Johannes Kepler University Linz)
- Strategiekommission TNF 2005 (Chair) (Johannes Kepler University Linz)
- Strategiekommission TNF 2007 (Chair) (Johannes Kepler University Linz)