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FLQ3V0 - FIELDS SILAS

This book assesses the state of the art of agent-based approaches as a software engineering paradigm. The 15 revised full papers presented together with an invited article were carefully selected from 43 submissions during two rounds of reviewing and improvement for the 4th International Workshop on Agent-Oriented Software Engineering, AOSE 2003, held in Melbourne, Australia, in July during AAMAS 2003. The papers address all current issues in the field of software agents and multi-agent systems relevant for software engineering; they are organized in topical sections on - modeling agents and multi-agent systems -methodologies and tools - patterns, architectures, and reuse - roles and organizations.

The ?fth edition of the European Conference on Model-Driven Architecture Foundations and Applications (ECMDA-FA 2009) was dedicated to furthering the state of knowledge and fostering the industrialization of Model-Driven - chitecture (MDA) and Model-Driven Engineering (MDE). MDA is an initiative proposed by the Object Management Group for platform-generic systems - velopment; MDA is one of a class of approaches under the umbrella of MDE. MDE and MDA promote the use of models in the speci?cation, design, analysis, synthesis, deployment, and evolution of complex software systems. It is a pleasure to be able to introduce the proceedings of ECMDA-FA 2009. ECMDA-FA 2009 addressed various MDA areas including model transfor- tions, modelling language issues, modelling of behavior and time, traceability and scalability, model-basedembedded systems engineering,and the application of model-driven development to IT and networking systems. ECMDA-FA 2009 focused on engaging key European and international - searchers and practitioners in a dialogue which will result in a stronger, more e?cientindustry,producingmorereliablesoftwareonthebasisofstate-of-the-art research results. ECMDA-FA is a forum for exchanging information, discussing the latest results and arguing about future developments of MDA and MDE. Particularly, it is one of the few venues that engages both leading academic researchers and industry practitioners, with the intent of creating synergies.

A man may imagine he understands something, but still not understand anything in the way that he ought to. (Paul of Tarsus, 1 Corinthians 8:2) Calling this a 'practical theory' may require some explanation. Theory and practice are often thought of as two di?erent worlds, governed bydi?erentideals,principles, andlaws.DavidLorgeParnas, forinstance,who hascontributedmuchtoourtheoreticalunderstandingofsoftwareengineering and also to sound use of theory in the practice of it, likes to point out that 'theoretically' is synonymous to 'not really'. In applied mathematics the goal is to discover useful connections between these two worlds. My thesis is that in software engineering this two-world view is inadequate, and a more intimate interplay is required between theory and practice. That is, both theoretical and practical components should be integrated into a practical theory. It should beclearfrom theabovethattheintended readership of this book is not theoreticians. They would probably have di?culties in appreciating a book on theory where the presentation does not proceed in a logical sequence from basic de?nitions to theorems and mathematical proofs, followed by - plication examples. In fact, all this would not constitute what I understand by a practical theory in this context. A detailed and practical book and eBook walk-through showing how to apply UML to real world development projects

Databases and information systems are now indispensable for the day-to-day functioning of businesses and society. This book presents 25 selected papers from those delivered at the 12th International Baltic Conference on Databases and Information Systems 2016 (DB&IS 2016), held in Riga, Latvia, in July 2016. Since it began in 1994, this biennial conference has become an international forum for researchers and developers in the field of databases, information systems and related areas, and the papers collected here cover a wide spectrum of topics related to the development of information systems and data processing. These include: the development of ontology applications; tools, technologies and languages for model-driven development; decision support systems and data mining; natural language processing and building linguistic components of information systems; advanced systems and technologies related to information systems, databases and information technologies in teaching and learning. The book will be of interest to all those whose work involves the design, application and use of databases and information systems.

This book constitutes the refereed proceedings of the 11th International Conference on Model Driven Engineering Languages and Systems, MoDELS 2008, held in Toulouse, France, during September 28-October 3, 2008. The 58 revised full papers presented were carefully reviewed and selected from 271 submissions. The book also contains three keynote speeches and contributions to workshops, symposia, tutorials and panels at the conference. The papers are organized in topical sections on Model Transformation: Foundations; Requirements Modeling; Domain-Specific Modeling; Model Transformation: Techniques, Composition and Analysis of Behavioral Models; Model Comprehension; Model Management; Behavioral Conformance and Refinement; Metamodeling and Modularity; Constraints; Model Analysis; Service-Oriented Architectures; Adaptive and Autonomic Systems; Empirical Studies; Evolution and Reverse Engineering; Modeling Language Semantics; Dependability Analysis and Testing; Aspect-Oriented Modeling; Structural Modeling;and Embedded Systems. Covers UML 2.0.

This book constitutes the refereed proceedings of the 5th International Workshop on System Analysis and Modelling, SAM 2006, held in Kaiserslautern, Germany in May/June 2006. The 14 revised full papers cover language profiles, evolution of development languages, model-driven development, and language implementation.

The book, presenting the proceedings of the 2018 Future Technologies Conference (FTC 2018), is a remarkable collection of chapters covering a wide range of topics, including, but not limited to computing, electronics, artificial intelligence, robotics, security and communications and their real-world applications. The conference attracted a total of 503 submissions from pioneering researchers, scientists, industrial engineers, and students from all over the world. After a double-blind peer review process, 173 submissions (including 6 poster papers) have been selected to be included in these proceedings. FTC 2018 successfully brought together technology geniuses in one venue to not only present breakthrough research in future technologies but to also promote practicality and applications and an intra- and inter-field exchange of ideas. In the future, computing technologies will play a very important role in the convergence of computing, communication, and all other computational sciences and applications. And as a result it will also influence the future of science, engineering, industry, business, law, politics, culture, and medicine. Providing state-of-the-art intelligent methods and techniques for solving real-world problems, as well as a vision of the future research, this book is a

valuable resource for all those interested in this area.

This book constitutes the thoroughly refereed papers of the workshops held at the 9th International Conference on New Trends in Model and Data Engineering, MEDI 2019, in Toulouse, France, in October 2019. The 12 full and the three short workshop papers presented together with one invited paper were carefully reviewed and selected from 35 submissions. The papers are organized according to the 3 workshops: Workshop on Modeling, Verification and Testing of Dependable Critical systems, DETECT 2019, Workshop on Data Science for Social Good in Africa, DSSGA 2019, and Workshop on Security and Privacy in Models and Data, TRIDENT 2019.

With the increasingly complex and ubiquitous data available through modern technology, digital information is being utilized daily by academics and professionals of all disciplines and career paths. Information Seeking Behavior and Technology Adoption: Theories and Trends brings together the many theories and meta-theories that make information science relevant across different disciplines. Highlighting theories that had their base in the early days of text-based information and expanding to the digitization of the Internet, this book is an essential reference source for those involved in the education and training of the next-generation of information science professionals, as well as those who are currently working on the design and development of our current information products, systems, and services.

Understand Gang of Four, architectural, functional, and reactive design patterns and how to implement them on modern Java platforms, such as Java 12 and beyond Key FeaturesLearn OOP, functional, and reactive patterns for creating readable and maintainable codeExplore architectural patterns and practices for building scalable and reliable applicationsTackle all kinds of performance-related issues and streamline development using design patternsBook Description Java design patterns are reusable and proven solutions to software design problems. This book covers over 60 battle-tested design patterns used by developers to create functional, reusable, and flexible software. Hands-On Design Patterns with Java starts with an introduction to the Unified Modeling Language (UML), and delves into class and object diagrams with the help of detailed examples. You'll study concepts and approaches to object-oriented programming (OOP) and OOP design patterns to build robust applications. As you advance, you'll explore the categories of GOF design patterns, such as behavioral, creational, and structural, that help you improve code readability and enable large-scale reuse of software. You'll also discover how to work effectively with microservices and serverless architectures by using cloud design patterns, each of which is thoroughly explained and accompanied by real-world programming solutions. By the end of the book, you'll be able to speed up your software development process using the right design patterns, and you'll be comfortable working on scalable and maintainable projects of any size. What you will learnUnderstand the significance of design patterns for software engineeringVisualize software design with UML diagramsStrengthen your understanding of OOP to create reusable software systemsDiscover GOF design patterns to develop scalable applicationsExamine programming challenges and the design patterns that solve themExplore architectural patterns for microservices and cloud developmentWho this book is for If you are a developer who wants to learn how to write clear, concise, and effective code for building production-ready applications, this book is for you. Familiarity with the fundamentals of Java is assumed.

Digital Communities in a Networked Society: e-Commerce, e-Business and e-Government deals with the accelerating evolution in the computerization of society. This evolution, or should we call it a revolution, is dominantly driven by the Internet, and documented by the novelties introduced, year by year, by Information and Communication Technologies. The book contains recent results of research and development in the areas of: -E-government, -Business models of e-applications, -Innovative structures in the internet, -Auctions and e-payment, -Future aspects of communication, -Internet and the web, -Advanced platforms and grid computing, -Cooperation and integration, -Modeling and construction of e-services.

The ASM 2000 workshop was held in the conference center of the Swiss Federal Institute of Technology (ETH) at Monte Verit a, Canton Ticino, March 19-24, 2000. The ASM formalism was proposed together with the thesis that it is suitable to model arbitrary computer systems on arbitrary abstraction levels. ASMs have been successfully used to analyze and specify various hardware and software systems including numerous computer languages. The aim of the workshop was to bring together domain-experts, using ASMs as a practical speci cation method, and theorists working with ASMs and related methods. In addition the workshop served as a forum on theoretical and practical topics that relate to ASMs in a broad sense. Three tutorials including hands-on experience with tools were organized by U. Gl¨asser and G. del Castillo (on the topic \Specifying Concurrent Systems with ASMs"), H. Russ¨ and N. Shankar (on the topic \A Tutorial Introduction to PVS"), M. Anlau , P.W. Kutter, and A. Pierantonio (on the topic \Developing Domain Speci c Languages"). In response to the organization committee's call for papers, 30 papers were submitted, each of which was independently reviewed by four members of the program committee. This volume presents a selection of 12 of the refereed papers and two reports on industrial ASM application at Siemens AG and Microsoft Research, together with contributions based on the invited talks given by A.

This book constitutes the refereed proceedings of the 6th International Conference on the Unified Modelling Language, UML 2003, held in San Francisco, CA, USA in October 2003. The 25 revised full papers, 4 tool papers, and 1 experience paper presented together with the abstracts of 3 invited talks and summaries on the UML 2003 workshop and tutorials were carefully reviewed and selected from initially 168 submissions. The papers are organized in topical sections on practical model management, time and quality of service, tools, composition and architecture, transformation, Web related issues, testing and validation, improving UML/OCL, consistency, and methodology.

The fourth edition of the European Conference on Model-Driven Architecture – Foundations and Applications (ECMDA-FA 2008) was dedicated to furthering the state of knowledge and fostering the industrialization of the model-driven architecture (MDA) methodology. MDA is an initiative proposed by the - ject Management Group (OMG) for platform-generic software development. It promotes the use of models in the speci?cation, design, analysis, synthesis, - ployment, and evolution of complex software systems. ECMDA-FA 2008 focused on engaging key European and international - searchers and practitioners in a dialogue which will result in a stronger, more e?cientindustry,producingmorereliablesoftwareonthebasisofstate-of-the-art research results. ECMDA-FA is a forum for exchanging information, discussing the latest results and arguing about future developments of MDA. It is a pleasure to be able to introduce the proceedings of ECMDA-FA 2008. ECMDA-FA addresses various MDA areas including model management, e- cutable models, concrete syntaxes, aspects and concerns, validation and te- ing, model-based systems engineering, model-driven development and servi- oriented

architectures, and the application of model-driven development. Therearesomanypeople whode-servewarmthanksandgratitude.The fru- ful collaboration of the Organization, Steering and Program Committee m- bersandthevibrantcommunityledtoasuccessfulconference:ECMDA-FA2008 obtainedex-cellentresultsintermsofsubmissions,programsize,andattendance. The Program Committee accepted, with the help of additional reviewers, research papers and industry papers for ECMDA-FA 2008: We received 87 s- missions. Of these, a total of 31 were accepted including 21 research papers and 10 industry papers. We thank them for the thorough and high-quality selection process.

"This set of books represents a detailed compendium of authoritative, research-based entries that define the contemporary state of knowledge on technology"--Provided by publisher.

Learn UML, the Unified Modeling Language, to create diagrams describing the various aspects and uses of your application before you start coding, to ensure that you have everything covered. Millions of programmers in all languages have found UML to be an invaluable asset to their craft. More than 50,000 previous readers have learned UML with Sams Teach Yourself UML in 24 Hours. Expert author Joe Schmuller takes you through 24 step-by-step lessons designed to ensure your understanding of UML diagrams and syntax. This updated edition includes the new features of UML 2.0 designed to make UML an even better modeling tool for modern object-oriented and component-based programming. The CD-ROM includes an electronic version of the book, and Poseidon for UML, Community Edition 2.2, a popular UML modeling tool you can use with the lessons in this book to create UML diagrams immediately.

Since the late 1980s, the CAiSE conferences have provided a forum for the p- sentation and exchange of research results and practical experiences within the ?eld of Information Systems Engineering. CAiSE 2001 was the 13th conference in this series and was held from 4th to 8th June 2001 in the resort of Int- laken located near the three famous Swiss mountains – the Eiger, M˜ onch, and Jungfrau. The ?rst two days consisted of pre-conference workshops and tutorials. The workshop themes included requirements engineering, evaluation of modeling methods, data integration over the Web, agent-oriented information systems, and the design and management of data warehouses. Continuing the tradition of recent CAiSE conferences, there was also a doctoral consortium. The p-conference tutorials were on the themes of e-business models and XML appli- tion development. The main conference program included three invited speakers, two tuto- als, and a panel discussion in addition to presentations of the papers in these proceedings. We also included a special 'practice and experience' session to give presentersanopportunitytoreportonanddiscussexperiencesandinvesti-gations on the use of methods and technologies in practice. Weextendourthankstothemembersofthe-programcommitteeandallother referees without whom such conferences would not be possible. The program committee, whose members came from 20 di?erent countries, selected 27 hi- quality research papers and 3 experience reports from a total of 97 submissions. The topics of these papers span the wide-range of topics relevant to information systems engineering – from requirements and design through to implementation and operation of complex and dynamic systems.

This book constitutes the refereed proceedings of the 12th IFIP WG 6.1 International Conference on Formal Methods for Open Object-Based Distributed Systems, FMOODS 2010, and the 30th IFIP WG 6.1 Formal Techniques for Networked and Distributed Systems, FORTE 2010, held in Amsterdam, The Netherlands, in June 2010. The 13 revised full papers presented together with 6 short papers and the abstract of one invited talk were carefully reviewed and selected from 38 submissions. The papers are organized in topical sections on formal UML modeling; components and architecture; timed process algebra; timed and hybrid automata; program logics and analysis; and reasoning about distributed systems.

This book constitutes the thoroughly refereed post-conference proceedings of the Third International Symposium on Applications of Graph Transformations, AGTIVE 2007, held in Kassel, Germany, in October 2007. The 30 revised full papers presented together with 2 invited papers were carefully selected from numerous submissions during two rounds of reviewing and improvement. The papers are organized in topical sections on graph transformation applications, meta-modeling and domain-specific language, new graph transformation approaches, program transformation applications, dynamic system modeling, model driven software development applications, queries, views, and model transformations, as well as new pattern matching and rewriting concepts. The volume moreover contains 4 papers resulting from the adjacent graph transformation tool contest and concludes with 9 papers summarizing the state of the art of today's available graph transformation environments.

This book constitutes the refereed proceedings of the 31st International Conference on Advanced Information Systems Engineering, CAiSE 2019, held in Rome, Italy, in June 2019. The 41 full papers presented in this volume were carefully reviewed and selected from 206 submissions. The book also contains one invited talk in full paper length. The papers were organized in topical sections named: information system engineering; requirements and modeling; data modeling and analysis; business process modeling and engineering; information system security; and learning and mining in information systems. Abstracts on the CAiSE 2019 tutorials can be found in the back matter of the volume. Concise and easy-to-understand guidelines and standards for creating UML 2.0 diagrams.

This volume contains the ?nal proceedings of the 7th International Andrei Ershov Memorial Conference on Perspectives of System Informatics Akad- gorodok (Novosibirsk, Russia), June 15–19, 2009. PSI is a forum for academic and industrial researchers, developers and users working on topics relating to computer, software and information sciences. The conference serves to bridge the gaps between di?erent communities whose - searchareasarecoveredbybutnotlimitedtofoundationsofprogra-mandsystem development and analysis, programming methodology and software engineering, and information technologies. PSI 2009 was dedicated to the memory of a prominent scientist, academician Andrei Ershov (1931–1988),and to a signi?cant date in the history of computer science in the country, namely, the 50th anniversary of the Programming - partment founded by Andrei Ershov. Initially, the department was a part of the Institute of Mathematics and later, in 1964, it joined the newly established Computing Center of the Siberian Branch of the USSR Academy of Sciences. Andrei Ershov, who was responsible for forming the department, gathered a team of young graduates from leading Soviet universities. The ?rst signi?cant project of the department was aimed at the development of ALPHA system, an optimizing compiler for an extension of Algol 60 implemented on a Soviet c- puterM-20. Later,theresearchersofthedepartmentcreatedtheAlgibr,Epsilon, Sigma, and Alpha-6 programming systems for the BESM-6 computers. The list of their achievements also includes the ?rst Soviet time-sharing system AIST-0, the multi-language system BETA, research projects in arti?cial intelligence and parallel programming, integrated tools for text processing and publishing, and many others.

The five-volume set LNCS 8004--8008 constitutes the refereed proceedings of the 15th International Conference on Human-Computer Interaction, HCII 2013, held in Las Vegas, NV, USA in July 2013. The total of 1666 papers and 303 posters presented at the HCII 2013 conferences was carefully reviewed and selected from 5210 submissions. These papers address the latest research and development efforts and highlight the human aspects of design and use of computing systems. The papers accepted for presentation thoroughly cover the entire field of human-computer interaction, addressing major advances in knowledge and effective use of computers in a variety of application areas. This volume contains papers in the thematic area of human-computer interaction, addressing the following major topics: HCI and human centred design; evaluation methods and techniques; user interface design and development methods and environments; aesthetics and kansei in HCI.

A guide to the application of the theory and practice of computing to develop and maintain software that economically solves real-world problem How to Engineer Software is a practical, how-to guide that explores the concepts and techniques of model-based software engineering using the Unified Modeling Language. The author—a noted expert on the topic—demonstrates how software can be developed and maintained under a true engineering discipline. He describes the relevant software engineering practices that are grounded in Computer Science and Discrete Mathematics. Model-based software engineering uses semantic modeling to reveal as many precise requirements as possible. This approach separates business complexities from technology complexities, and gives developers the most freedom in finding optimal designs and code. The book promotes development scalability through domain partitioning and subdomain partitioning. It also explores software documentation that specifically and intentionally adds value for development and maintenance. This important book: Contains many illustrative examples of model-based software engineering, from semantic model all the way to executable code Explains how to derive verification (acceptance) test cases from a semantic model Describes project estimation, along with alternative software development and maintenance processes Shows how to develop and maintain cost-effective software that solves real--world problems Written for graduate and undergraduate students in software engineering and professionals in the field, How to Engineer Software offers an introduction to applying the theory of computing with practice and judgment in order to economically develop and maintain software.

This volume contains the final versions of the technical papers presented at MoDELS 2005 in Montego Bay, Jamaica, October 2–7, 2005.

This book constitutes the refereed proceedings of the 21st International Conference on Advanced Information Systems Engineering, CAiSE 2009, held in Amsterdam, The Netherlands, on June 8-12, 2009. The 36 papers presented in this book together with 6 keynote papers were carefully reviewed and selected from 230 submissions. The topics covered are model driven engineering, conceptual modeling, quality and data integration, goal-oriented requirements engineering, requirements and architecture, service orientation, Web service orchestration, value-driven modeling, workflow, business process modeling, and requirements engineering.

Appropriate for all basic-to-intermediate level courses in Visual Basic 2008 programming. Created by world-renowned programming instructors Paul and Harvey Deitel, Visual Basic 2008 How to Program, Fourth Edition introduces all facets of the Visual Basic 2008 language hands-on, through hundreds of working programs. This book has been thoroughly updated to reflect the major innovations Microsoft has incorporated in Visual Basic 2008 and .NET 3.5; all discussions and sample code have been carefully audited against the newest Visual Basic language specification. The many new platform features covered in depth in this edition include: LINQ data queries, Windows Presentation Foundation (WPF), ASP.NET Ajax and the Microsoft Ajax Library, Silverlight-based rich Internet application development, and creating Web services with Windows Communication Foundation (WCF). New language features introduced in this edition: object anonymous types, object initializers, implicitly typed local variables and arrays, delegates, lambda expressions, and extension methods. Students begin by getting comfortable with the free Visual Basic Express 2008 IDE and basic VB syntax included on the CD. Next, they build their skills one step at a time, mastering control structures, classes, objects, methods, variables, arrays, and the core techniques of object-oriented programming. With this strong foundation in place, the Deitels introduce more sophisticated techniques, including inheritance, polymorphism, exception handling, strings, GUI's, data structures, generics, and collections. Throughout, the authors show developers how to make the most of Microsoft's Visual Studio tools. A series of appendices provide essential programming reference material on topics ranging from number systems to the Visual Studio Debugger, UML 2 to Unicode and ASCII.

The three-volume set LNCS 12476 - 12478 constitutes the refereed proceedings of the 9th International Symposium on Leveraging Applications of Formal Methods, ISoLA 2020, which was planned to take place during October 20–30, 2020, on Rhodes, Greece. The event itself was postponed to 2021 due to the COVID-19 pandemic. The papers presented were carefully reviewed and selected for inclusion in the proceedings. Each volume focusses on an individual topic with topical section headings within the volume: Part I, Verification Principles: Modularity and (De-)Composition in Verification; X-by-Construction: Correctness meets Probability; 30 Years of Statistical Model Checking; Verification and Validation of Concurrent and Distributed Systems. Part II, Engineering Principles: Automating Software Re-Engineering; Rigorous Engineering of Collective Adaptive Systems. Part III, Applications: Reliable Smart Contracts: State-of-the-art, Applications, Challenges and Future Directions; Automated Verification of Embedded Control Software; Formal methods for DIStributed COmputing in future RAILway systems.

"The accompanying CD-ROM contains a demo version of the Rhapsody UML tool and models of the solutions"--P. [4] of cover.

This revision incorporates the latest.NET features. Intended for beginning to intermediate level Visual Basic programmers, it includes all of the hallmark features of the How to Program series: the Deitels' signature Live-CodeTM Approach, hundreds of programming tips and an extensive set of interesting exercises and substantial projects. - Learn from thousands of lines of code in hundreds of complete working programs - From the basics to ADO.NET database development, XML programming, AS-P.NET, Web Services, security, wireless applications, and much more - Contains hundreds of real--world tips identifying good programming practices, common errors, performance optimization techniques, and debugging/reliability solutions.

With its clear introduction to the Unified Modeling Language (UML) 2.0, this tutorial offers a solid understanding of each topic, covering foundational concepts of object-orientation and an introduction to each of the UML diagram types.

This book constitutes thoroughly revised and selected papers from the 4th International Conference on Model-Driven Engineering and Software Development, MODELSWARD 2016, held in Rome, Italy, in February 2016. The 17 thoroughly revised and extended papers presented in this volume were carefully reviewed and selected from 118 submissions. They are organized in topical sections named: modeling languages, tools and architectures; methodologies, processes and platforms; applications and software development.

Die Entwicklung eingebetteter Systeme wird aufgrund der immer anspruchsvolleren Anwendungen sowie der Verwendung von leistungsfähigeren Hardware-Architekturen (z.B. Multicore-, Hybrid-Systeme) immer komplexer. Modellgetriebene Methoden reduzieren die Komplexität des Systems mittels angemessenen Abstraktionsniveaus. Diese Arbeit stellt die modellgetriebene Entwicklungsmethodik DMOSES (Determi-nistische Modelle für die signalverarbeitenden eingebetteten Systeme) vor. Diese Methodik strebt die Verbesserung der Entwicklung hybrider eingebetteten Systeme (z.B. CPUs und FPGAs) hinsichtlich der Komplexität mittels anpassbarer Abstraktionseben, automatischer Code-generierung und Systemverifikation an. Systeme werden mittels UML-Verhaltensmodelle spezifiziert, deren erweiterte Semantik relevante funktionale und nicht-funktionale Aspekte hybrider eingebetteten Systemen beschreibt. Eine anpassbare Abstraktionsebene wird durch die Integration von automatischer Code-Generierung und optimierbarem Code erreicht. Außerdem werden Sicherheitsanforderungen durch die Integration von Analysetechniken (Formale Verifikation, Ausführungszeit-Analyse und Software-Verträgen) in die Entwicklungsmethodik verifiziert.

The third in a series of international conferences on Integrated Formal Methods, IFM 2002, was held in Turku, Finland, May 15–17, 2002. Turku, situated in the south western corner of the country, is the former capital of Finland. The ? conference was organized jointly by Abo Akademi University and Turku Centre for Computer Science. The theme of IFM 1999 was the integration of state and behavioral based formalisms. For IFM 2000 this was widened to include all aspects pertaining to the integration of formal methods and formal notations. One of the goals of IFM 2002 was to further investigate these themes. Moreover, IFM 2002 explored the relations between formal methods and graphical notations, especially the industrialstandardlanguageforsoftwaredesign,theUni?edModelingLanguage (UML). The themes of IFM 2002 re?ect what we believe is a growing trend in the Formal Methods and Software Engineering research communities. Over the last threedecades,computerscientistshavedevelopedarangeofformalismsfocusing on particular aspects of behavior or analysis, such as sequential program str- tures,concurrentprogramstructures,dataandinformationstructures,temporal reasoning, deductive proof, and model checking. Much e?ort is now being - voted to integrating these methods in order to combine their advantages and ensure they scale up to industrial needs. Graphical notations are now widely used in software engineering and there is growing recognition of the importance ofprovidingthesewiththeformalunderpinningsandformalanalysiscapabilities found in formal methods.

This book constitutes the thoroughly refereed post-conference proceedings of the Second International Conference on Software Language Engineering, SLE 2009, held in Denver, CO, USA, in October 2009. The 15 revised full papers and 6 revised short paper presented together with 2 tool demonstration papers were carefully reviewed and selected from 75 initial submissions. The papers are organized in topical sections on language and model evolution, variability and product lines, parsing, compilation, and demo, modularity in languages, and metamodeling and demo.

INTRODUCTION TO FUZZY LOGIC Learn more about the history, foundations, and applications of fuzzy logic in this comprehensive resource by an academic leader Introduction to Fuzzy Logic delivers a high-level but accessible introduction to the rapidly growing and evolving field of fuzzy logic and its applications. Distinguished engineer, academic, and author James K. Peckol covers a wide variety of practical topics, including the differences between crisp and fuzzy logic, the people and professionals who find fuzzy logic useful, and the advantages of using fuzzy logic. While the book assumes a solid foundation in embedded systems, including basic logic design, and C/C++ programming, it is written in a practical and easy-to-read style that engages the reader and assists in learning and retention. The author includes introductions of threshold and perceptron logic to further enhance the applicability of the material contained within. After introducing readers to the topic with a brief description of the history and development of the field, Introduction to Fuzzy Logic goes on to discuss a wide variety of foundational and advanced topics, like: A review of Boolean algebra, including logic minimization with algebraic means and Karnaugh maps A discussion of crisp sets, including classic set membership, set theory and operations, and basic classical crisp set properties A discussion of fuzzy sets, including the foundations of fuzzy set logic, set membership functions, and fuzzy set properties An analysis of fuzzy inference and approximate reasoning, along with the concepts of containment and entailment and relations between fuzzy subsets Perfect for mid-level and upper-level undergraduate and graduate students in electrical, mechanical, and computer engineering courses, Introduction to Fuzzy Logic covers topics included in many artificial intelligence, computational intelligence, and soft computing courses. Math students and professionals in a wide variety of fields will also significantly benefit from the material covered in this book.