

**CURRICULUM VITAE OF VANGALUR (VASU) ALAGAR**  
**PROFESSOR EMERITUS**  
**COMPUTER SCIENCE AND SOFTWARE ENGINEERING**  
**CONCORDIA UNIVERSITY, MONTREAL**  
**July 2013**

**CONTACT INFORMATION**

Department of Computer Science and  
Software Engineering  
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**EDUCATIONAL BACKGROUND**

Ph.D. 1975 Computer Science, McGill University, Montreal, Canada  
M.A. 1971 Mathematics, State University of New York at Stony Brook, New York  
MSC 1961 Mathematics, Madras University, Madras, India  
B.A. 1959 Mathematics, Madras University, Madras, India

**PROFESSIONAL HISTORY**

2008-2011 Visiting Scholar  
Several Universities in China

2008 Visiting Scientist  
Institute of Software, Wuhan University, China

2005 Visiting Scientist  
Institute of Software, Chinese Academy of Sciences, Beijing, PRC

2004 Visiting Scientist  
Tata Consultancy Services, Trivandrum, India

2003 Delivering Lectures & Courses  
Computer Security, Software Architectures,  
Real-time Reactive Software Development, China

2000-2002 Visiting Professor  
Department of Computer Engineering,  
Santa Clara University, Santa Clara, CA

1996-97 Visiting Scientist  
Tata Institute of Fundamental Research,  
Computer Science Division, Faculty of Physics,

1991-95 Chair, Department of Computer Science  
Concordia University

1990-91 Graduate Program Director  
Department of Computer Science, Concordia University

1987-2001 Professor  
Department of Computer Science, Concordia University  
Bombay, India

- 1986 Visiting Scientist  
Vikram Sarabhai Space Center, Trivandrum, India
- 1979-80 Graduate Program Director  
Department of Computer Science, Concordia University
- 1978-87 Associate Professor  
Department of Computer Science, Concordia University
- 1975-78 Assistant Professor  
Department of Computer Science, Concordia University
- 1974-75 Lecturer  
School of Computer Science, McGill University
- 1971-74 IBM Fellow, NRC Research Fellow  
McGill University
- 1970-71 Research Assistant, Instructor  
State University of New York, Stony Brook, N.Y.
- 1962-70 Lecturer  
Vivekananda College, Madras University, India
- 1961-62 Lecturer  
Faculty of Engineering, Annamalai University, India

### ACADEMIC HONOURS AND RECOGNITIONS

- Ranked first with Distinction at Madras University (both B.A. and MSC Mathematics).
- One of the short listed candidates for Rhodes Scholarship from India.
- Top Scorer at S.U.N.Y Mathematics (Ph.D level) Examination.

### ADMINISTRATIVE EXPERIENCE

- 1991-1995 Chair, Department of Computer Science
- 1999-2000 Chair, Department Personnel Committee
- 1997- Member, Department Personnel Committee, and Graduate Program Committee
- 1991-1995 Faculty Council, Department Personnel Committee, Academic Planning & Priorities Committee (Faculty and Department)
- 1992-1993 Faculty Representative on the Search Committee for the Dean, Faculty of Engineering and Computer Science
- 1984-85, 1987-89 Chair, Department Personnel Committee
- 1984-85, 1987-89 Faculty Search Committee
- 1989-1991 Board of Graduate Studies
- 1979-1980, 1990-1991 Graduate Program Director
- 1980-1984 Curriculum Committee, Honors Committee Chair
- 1975-1980 Undergraduate Advisory Committee, Computer Science Committee, Faculty of Engineering

**COURSES TAUGHT (CONCORDIA UNIVERSITY - 1975-2001)**Undergraduate Courses

Software Engineering I (COMP 354)

Software Engineering II (COMP 454)

Introduction to Programming (COMP 248 - Permanent Course Coordinator)

Files and Databases (COMP 353)

Data Structures and Algorithms (COMP 352)

Analysis of Algorithms (COMP 465)

Introduction to Theoretical Computer Science (COMP 335)

Discrete Mathematics (COMP 238)

Honors Seminar (COMP 490)

Undergraduate Projects (COMP 491, COMP 492)

Graduate Courses

System Requirements Specification (COMP 648)

Software Verification and Testing (COMP 748)

Data Security and Cryptography (COMP 752)

Advanced Analysis of Algorithms (COMP 765)

**COURSES TAUGHT (SANTA CLARA UNIVERSITY - 2001-2003)**Graduate Courses

System Requirements Specification (COEN 395)

Software Verification and Testing (COEN 295)

Network Security I (COEN 250)

Network Security II (COEN 350)

**SHORT COURSES AND TUTORIALS**

- 2011 Multi-Agent Systems  
Xi'An Jiaotong-Liverpool University
- 2010 Software Design, Development, and Management  
Xi'An Jiaotong-Liverpool University
- 2009 Formal Methods  
Qingdao Technological University
- 2008 Software Quality Assurance - Testing & Verification  
International Institute of Software, Wuhan University, Wuhan, PRC
- 2002 Information Security  
International Institute of Software, Wuhan University, Wuhan, PRC

**BOOKS PUBLISHED**

1. V.S. Alagar, K. Periyasamy, *Specification of Software Systems*, Second Edition, 2011. Springer-Verlag, London.  
(<http://www.springer.com/computer/swe/book/alagar>)
2. V.S. Alagar, K. Periyasamy, *Specification of Software Systems*, Springer-Verlag, Graduate Texts in Computer Science Series, (Eds.) David Gries and Fred Schneider, New York, 1998.  
(<http://books.google.ca/books/about/Specification/alagar>)

3. V.S. Alagar, *Fundamentals of Computing Theory and Practice*, (1989), Prentice-Hall, New Jersey, USA.
4. V.S. Alagar, *An Introduction to Software Engineering*, [Lecture Notes]; Published by Indian Space Research Organization, Vikram Sarabhai Space Center, Trivandrum, India, November 1987.

## CURRICULUM AND PROGRAM DEVELOPMENT

- 2002 Developer of *Information Assurance* programs (Master and Certificate)  
Santa Clara University, Santa Clara, CA, U.S.A.
- 2001 External Evaluator for Master of Software Engineering Program  
University of Wisconsin, La Crosse, WI, U.S.A.

## PROFESSIONAL MEMBERSHIPS

IEEE.

## PROFESSIONAL ACTIVITIES

- 2013 Invited Speaker, International Conference on Context-aware Systems and Applications, Phu Quoc, Vietnam
- 2010 Invited Speaker, International Conference on Formal Concept Analysis (ICFCA'2010), Agadir, Morocco, March 15-18, 2010.
- 2009 Invited Speaker, International Conference on Information, Electronics, and Computer Science (ICIECS'09), November 14-15, 2009, Qingdao, PRC.
- 2007- Program Committee for DMS International Conference Series
- 2006 Program Committee Member for SNPD International Conference
- 2005- Program Committee Member for CIS International Conference
- 1995 - 2002 Program Chair (1995) and Committee Member for AMAST series of Conferences
- 1992-1995 Chair, International Conferences and Workshops
- 1996, 1997 Program Committee Member for 4 International Conferences
- 1994, 1997 Guest Editor, Theoretical Computer Science Journal  
(March 1997, September 1994)

## EXTERNAL RESEARCH FUNDING

Receiving NSERC (Natural Sciences and Engineering Research Council) Discovery grant award since 1976. Received NSERC Industry collaboration research grant two times, each spanning for 2 years One of 43 researchers at Concordia recognized by NSERC in 2003 for receiving NSERC grant continuously for 25 years. Grants held during the last 10 years are listed below.

- 2010-2015 NSERC Discovery Grant  
*A Framework for the Development of a Family of Trustworthy Systems*
- 2005 - 2009 NSERC Discovery Grant  
*A Framework for the Development of Secure Safety-critical Systems*
- 2001-2005 NSERC Operating Grant  
*Hybrid Systems: Development and Analysis*
- 1997-2001 NSERC Operating Grant  
*TROMER: Timed Object Reactive Models Extended for Reuse*

## RESEARCH TRAINING OF HIGHLY QUALIFIED PROFESSIONALS

### A. POSTDOCS

1. Dr. Asish Mukhopadhyay, Now a *Full Professor, University of Windsor*.  
(<http://cs.uwindsor.ca/asishm/>)
2. Dr. N. Srinivasan.  
(<http://www.ams.org/mathscinet/search/publications.html?pg1=INDI&s1=202907>)

### B. Ph.D. STUDENTS

1. N. Ibrahim, Specification, Composition, and Provision of Trustworthy Context-dependent Services, June 2012. Now *Assistant Professor Of Computer Science at ASU*  
(<http://ca.linkedin.com/pub/naseem-ibrahim/43/93/588>)
2. M. Mohammad, A Formal Component-Based Software Engineering Approach for Developing Trustworthy Systems, April 2009. Now a *Software Architect at C.T. Consultants Inc.* and an Adjunct Assistant Professor, Concordia University.  
([http://users.encs.concordia.ca/ms\\_moham/](http://users.encs.concordia.ca/ms_moham/))
3. K. Wan, Lucx: Lucid Enriched with Context, January 2006. Now an *Assistant Professor, Xi'an Jiaotong-Liverpool University, China*.  
(<http://www.xjtlu.edu.cn/en/faculty/academic-subject-staff/item/83-wan-kaiyu.html>)
4. O. Ormandjieva, Quality Measurement for Real-Time Reactive Systems, April 2002. Now an *Associate Professor, Concordia University*.  
(<http://users.encs.concordia.ca/ormandj/>)
5. M. Zheng, Automated Generation of Test Suites from Formal Specification of Real-Time Reactive Systems, April 2002. Now an *Associate Professor, University of Wisconsin, La Crosse*.  
(<http://www.cs.uwlax.edu/zheng/>)
6. D. Muthaiyen, Real-Time Reactive Systems Development - A Formal Approach Based on UML and PVS, January 2000. Now a *Technologist, Bay Area, San Francisco*.
7. R. Achuthan, A Formal Model for Object-Oriented Development of Reactive Systems, 1995. Now a *Senior Engineer, Cisco, Denver*.  
(<http://www.zoominfo.com/p/Ramesh-Achuthan/1874397655>)
8. K. Periyasamy, Robotic Agents and Assembly Process: A Formal Specification Case Study, 1991. Now a *Full Professor, University of Wisconsin, La Crosse*.  
(<http://www.cs.uwlax.edu/kasi/>)
9. P.S. Nair, Optimization of Logic Queries in Datalog Programs, 1989. Now a *Full Professor, Creighton University*.  
(<http://www.premnair.net/index.html>)
10. G. Ramanathan, A Functional Model for Specification and Analysis of Distributed Real-Time Systems: Formalism and Applications, 1988.
11. P. Grogono, Environments for High-Level Program Development, 1985. Now a *Full Professor, Concordia University*.  
(<http://users.encs.concordia.ca/grogono/>)

### C. M.Sc. STUDENTS

1. Alaa Alsaig (In Progress)
2. Ammar Alsaig (In Progress)
3. A. Ghaemi, From Domain Models to Components - A Formal Transformation Approach Towards Dependable Software Development, April 2011.
4. S. A. Hnaide, A Framework for Developing Context-aware Systems, April 2011.
5. Z. Yun, A Visual Modeling Tool for the Development of Trustworthy Component-based Systems, April 2009.

6. N. Ibrahim, Design-time analysis for Trustworthy component-based Systems, October 2008.
7. M.S. Mohammad, Visualization Animation of Real-Time Reactive Systems Animation, September 2004.
8. S. Jian, Scenario-Based Requirements Analysis Modeling and Design Evaluation for Real-Time Reactive Systems, September 2004.
9. S.H. Liu, Simulated Validation of Real-Time Reactive System with Parameterized Events, May 2003.
10. M. Haydar, Parameterized Events For Designing Real-Time Reactive Systems, February 2001.
11. D. Zhang, Implementation and Conformance Testing of Real-Time Reactive Systems in TROM-LAB Environment, January 2001.
12. L. Zhang Implementing Real-Time Reactive Systems From Object-Oriented Design Specifications, August 2000.
13. V. Srinivasan, Graphical User Interface for TROMLAB Environment, December 1999.
14. G. Haidar, Reasoning System for Real-Time Reactive Systems, December 1999.
15. F. Pompeo, A Verification Assistant for TROMLAB Environment, September 1999.
16. O. Popistas, Rose-GRC Translator: Mapping UML visual models onto formal specifications, April 1999.
17. R. Nagarajan, VISTA: A Visual Interface for Software Reuse in TROMLAB Environment, April 1999.
18. J. Konnankotil, WEB-Quizzer - A Case Study on Client-Server Programming with Java, (Project), April 1999.
19. D. Muthiyayen, Animation and Formal Verification of Real-Time Reactive Systems in an Object-Oriented Environment, 1996.
20. S. Narayanan, Formal Methods for the Reuse of Micro-Architectures and Design Patterns, 1996.
21. H. Tao, Static Analyzer - A design tool for TROM, 1996.
22. A. Protopsaltou, Constructing Black-Box Test Suites for Systems Specified in Larch/C++, 1996.
23. A. Celer, Role of Formal Specifications in Black-Box Testing of Object-Oriented Software, 1995.
24. I. Umansky, Completeness of Larch/C++ Specifications for Black-Box Reuse, 1995.
25. Lou Youchen, VDM/C++: A Design and Implementation Framework, 1994.
26. D. Kourkopoulos, A Formal Method for Partially Tolerating Incompleteness in Specifications: A Proposal, 1993.
27. P. Colagrosso, Formal Specification of C++ Class Interfaces for Software Reuse, 1993.
28. Gao Junming, GAP: A Tool for Transforming VDM Specifications into Object-Oriented Design, 1992.
29. Geetha Ramanathan, Algorithmic Motion Planning in Robotics, 1985.
30. Susan Harford, Comparative Study of Two Inference Control Techniques, 1984.
31. C.N. Salamis, Security of Software Packages and Communication Networks, 1983.
32. R. Jesuraj, Data Security: An Application of Linear Algebra, 1982.
33. Asim Roy, Exact Solutions and Canonical Forms: An Application of Modular Arithmetic, 1982.
34. D.M. Glaser, Partitioning a Database to Provide Security Against Statistical Inference, 1982.
35. B.C.G. Blanchard, Effective Methods for Statistical Database Security, 1981.
36. P. Grogono, Aspects of Programming Language Design, 1980.
37. C.L. Soochan, Heuristics for Constructing Near Optimal Tries for Partial Match Retrieval, 1980.
38. D.K. Probst, Sequential and Parallel Algorithms for Computing Integer Powers of Sparse Polynomials, 1977.

**PUBLICATIONS****2013**

1. Kaiyu Wan and Vangalur Alagar. Integrating Context-awareness and Trustworthiness in IoT Descriptions. To appear in the 2013 IEEE International Conference and Symposium on Internet of Things, Beijing, August 20-23, 2013.
2. Naseem Ibrahim, Vangalur Alagar and Mubarak Mohammad. Publishing and Discovering Context-dependent Services. *Human-centric Computing and Information Sciences* 2013, 3:1.
3. Kaiyu Wan, Vasu Alagar, Bai Wei. Intelligent Graphical User Interface for Managing Resource Knowledge in Cyber Physical Systems. KSEM 2013, Dalian, China, August 2013, (to appear) LNCS 8041.
4. Kaiyu Wan, Vangalur Alagar, A Resource-centric Architecture for Service-oriented Cyber Physical System, the 8th International Conference on Grid and Pervasive Computing, (May 9-11, Korea), Park et al. (Eds.): GPC 2013, LNCS 7861, pp. 686693, 2013.
5. Kaiyu Wan, Vangalur Alagar, Modeling Resource-centric Services in Cyber Physical Systems, International Multiconference of Engineers and Computer Scientists 2013 (IMECS 2013), Hong Kong, 13-15 March, 2013.

**2012**

6. Mubarak Muhammad and Vangalur Alagar. A Component-based Development Process for Trustworthy Systems. *JOURNAL OF SOFTWARE: EVOLUTION AND PROCESS*, 2012; 24:815-835. (Published online 8 June 2010 in Wiley Online Library (wileyonlinelibrary.com). DOI: 10.1002/smr.472) 83
7. Kaiyu Wan, Vangalur Alagar and Naseem Ibrahim. An Extended Service-oriented Architecture for Consumer-centric E-Commerce. *International Journal of Information and Communication Technology Research*, Vol.2 No.12, December 2012.
8. Naseem Ibrahim, Vangalur Alagar and Mubarak Mohammad. A Formal Approach to Modeling Context-dependent Trustworthy Services. *Springer Service-oriented and Applications Journal*. (under revision). October 2012.
9. Kaiyu Wan, Vangalur Alagar, Context-aware Security Solutions for Cyber Physical Systems, International Conference on Context-Aware Systems and Applications, November 26-27, 2012 Ho Chi Minh City, Vietnam.
10. Kaiyu Wan, Vangalur Alagar, A Context-aware Multi-agent Systems Architecture for Adaptation of Autonomic Systems, the 7th International Conference on Intelligent Information Processing, Guilin, China, October 12-15, 2012.
11. Kaiyu Wan, Vangalur Alagar, Resource Modeling for Cyber Physical Systems. The 2012 International Conference on Systems and Informatics, May 19-21 2012, Yantai, China.

**2011**

12. Naseem Ibrahim, Vangalur Alagar and Mubarak Mohammad. Adaptable Discovery and Ranking of Context-dependent Services. In *Proceedings of the 2011 IEEE Asia-Pacific Services Computing Conference (IEEE APSCC 2011)*. Jeju Korea, December 2011.
13. Naseem Ibrahim, Vangalur Alagar and Mubarak Mohammad. Managing and Delivering Trustworthy Context-dependent Services. In *Proceedings of the 8th IEEE International Conference on e-Business Engineering (ICEBE)*. IEEE: Beijing China, October 2011.

14. Naseem Ibrahim, Mubarak Mohammad and Vangalur Alagar. An Architecture for Managing and Delivering Trustworthy Context-dependent Services. In Proceedings of the 8th International Conference on Service Computing (SCC2011). Washington DC, USA, July 2011.
15. Naseem Ibrahim, Vangalur Alagar and Mubarak Mohammad. Specification and Verification of Context-dependent Services. In Proceedings of the 7th International Workshop on Automated Specification and Verification of Web Systems (WWV2011). Reykjavik, Iceland, June 2011. Also appears in EPTCS 2011, Vol. 61, Eds: Laura Kovacs, Rosario Pugliese, and Francesco Tiezzi.
16. **Kaiyu Wan**, Vangalur Alagar, Dependable Context-sensitive Services in Cyber Physical Systems. The 3rd IEEE International Symposium on UbiSafe Computing (IEEE UbiSafe 2011), Nov 11-18 2011, Changsha, China.

## 2010

17. Kaiyu Wan, Vasu Alagar, Context-aware Service-oriented Architecture for Power Distribution Systems, In the Proceedings of IWISA 2010 Conference, October 22-24, Qinhuangdao, China.
18. Vasu Alagar, Mubarak Muhammad, Kaiyu Wan, The Role of Concept, Context, and Component for Dependable Software Development. 8th International Conference on Formal Concept Analysis, ICFCA 2010 - Agadir, Morocco, March 15-18, 2010, Lecture Notes in Artificial Intelligence (LNAI) 5986, Eds: L. Kwuida and B. Sertkaya, Springer-Verlag, pp. 34-50.
19. Mubarak Muhammad and Vangalur Alagar. A Component-based Development Process for Trustworthy Systems. *Journal of Software Maintenance and Evolution: Research and Practice*, DOI:10.102/smr.472, John-Wiley & Sons, Ltd., UK.
20. Mubarak Muhammad and Vangalur Alagar. A Formal Approach for the Specification and Verification of Trustworthy Component-based Systems. *Journal of Systems and Software*, 84(1):77-104.

## 2009

21. Vasu Alagar, Mubarak Mohammad, and Kaiyu Wan. Dependable Development of Service-oriented Systems. Invited Talk & Paper. The 2009 International Conference on Information, Electronics, And Computer Science (ICIECS'09), November 21-22, 2009, Qingdao, PRC.
22. Kaiyu Wan and Vasu Alagar. A Context-Aware Trust Model for Service-Oriented Multi-Agent Systems. G. Feuerlicht and W. Lamersdorf (Eds.): *ICSOC 2008, LNCS 5472*, (2009), pp. 221-236.
23. Kaiyu Wan, Mubarak Mohammad, and Vasu Alagar. A Formal Model of Business Application Integration from Web Services (Position Paper). *SOFSEM 2009 Proceedings, LNCS 5404*, (2009), pp. 656-667.

## 2008

24. M. Zheng, V.S. Alagar, O. Ormandjieva. Automated Generation of Test Suites from Formal Specifications of Real-time Reactive Systems, Special Issue on Model-Based Software Testing of the *Journal of Systems and Software*, Vol. 81, No.2, 286-304.
25. Kaiyu Wan, Vasu Alagar, and Z.Y. Yang. Ad Hoc Networks of Mutually Trustworthy Agent Societies. *International Journal of Computer and Information Sciences*, Vol. 9, No. 1, 2008.
26. Olga Ormandjieva, Vasu Alagar, Kaiyu Wan. Early quality monitoring in the development of real-time reactive systems. *The Journal of Systems and Software*, Vol. 81, (2008), 1738-1755.



27. Kaiyu Wan and Vasu Alagar. An Intensional Functional Model of Trust. Proceedings of the IFIPTM2008: Joint iTrust and PST conferences on Privacy, Trust, and Security, June 18-20, Trondheim, Norway, LNCS Eds) Y. Karabulut, J. Mitchell, P. Herrmann, C. D. Jensen, 69-86.
28. Vasu Alagar and KaiYu Wan. Context Based Enforcement of Authorization for Privacy and Security. in Identity Management. Presented in the First IFIP WG 11.6 Working Conference on Policies & Research in Identity Management (IDMAN 2007), RSM Erasmus University, Rotterdam, The Netherlands, October 11-12, 2007. Also appears in "Policies and Research in Identity Management", LNCS-IFIP Publications (2008), (Eds) E. D. Leeuw, S. Fischer Hubner, J. C. Tseng, J. Borking, 25-38.
29. Mubarak Mohammad and Vasu Alagar. Dependable Development of Service Oriented Systems (short paper), In ISAS 2008, Tokyo, Japan, May 2008.
30. Mubarak Mohammad and Vasu Alagar. TADL- An Architecture Description Language for Trustworthy Component-Based Systems, Second European Software Architecture Conference (ECSA 2008), In Proceedings Second European Software Architecture Conference (ECSA 2008), (Eds.): P. Morrisson, D. Balasubramanian, K. Falkner, LNCS 5292, pp. 290-297.

## 2007

31. Mubarak Mohammad and Vasu Alagar. A Framework for the Component-Based Development of Trustworthy Systems. Technical Report, Department of Computer Science, Concordia University, Montreal, Canada. .
32. Kaiyu Wan, Vasu Alagar, Zong Yuan Yang. A Context-based Analysis of Intrusion Detection for Policy Violation. IEEE Proceedings of the 2007 International Conference on Computational Intelligence and Security (CIS 2007), December 15 - 19, 2007, Harbin, PRC.
33. Vasu Alagar and Mubarak Mohammad. A Component Model for Trustworthy Real-Time Reactive Systems Development. In the Proceedings of the 4th International Workshop on Formal Aspects of Component Systems (FACS'07), September 19 - 21, 2007. Sophia-Antipolis, France.
34. Kaiyu Wan, Vasu Alagar, Zong Yuan Yang. A Black-Box Testing Method for Multi-Agent Systems, Proceedings of the 13th International Conference on Distributed Multimedia Systems, September 06 - 08, 2007, Red Wood City, San Francisco Bay, U.S.A.
35. Vasu Alagar and Mubarak Mohammad. Specification and Verification of Trustworthy Component-Based Real-Time Reactive Systems. In the Proceedings of the Specification and Verification of Component-Based Systems Workshop (SAVCBS'07), September 03 - 04, 2007, Dubrovnik, Croatia. (ACM Portal [http://portal.acm.org/citation.cfm?id=1292316.1292327 & coll=GUIDE & dl=](http://portal.acm.org/citation.cfm?id=1292316.1292327&coll=GUIDE&dl=))
36. Kaiyu Wan, Vasu Alagar, Zong Yuan Yang. Trustable Ad Hoc Networks of Agent Societies, Proceedings of 8th ACIS International Conference on Software Engineering, Artificial Intelligence, Networking, and Parallel/Distributed Computing (SNPD2007), July 30 - August 01, 2007, Qingdao, PRC.

## 2006

37. Kaiyu Wan, Vasu Alagar. Security Contexts for Autonomic Systems. Proceedings of 2006 International Conference on Computational Intelligence and Security (CIS2006), November 03-06, 2006, Guangzhou, PRC, page 1523-1527. Revised paper appears in Lecture Notes in Computer Science 4456 Springer 2007, (Eds.) Yuping Wang, Yiu-ming Cheung, Hailin Liu.
38. Kaiyu Wan, Vasu Alagar. A Component-Based Architecture for Multi-Agent Systems, The 2006 International Conference on ACM-WEB-IEEE on Intelligent Agent Technology, IEEE Press, December 17-20, 2006, Hongkong, PRC, page 452-459.

39. Vasu Alagar, KaiYu Wan. A Context Theory for Context-Aware Multi Agent Systems. *Mathematical Aspects of Computer and Information Sciences (MACIS2006)*, July 24-26, 2006, Beijing, PRC.
40. K. Wan, V.S. Alagar. Context-Aware Mobile Tour Guide. In the *Proceedings of International Multi-Conference on Computing in the Global Information Technology*, IEEE Press. August 1-3, 2006, Bucharest, Romania.

## 2005

41. K. Wan, V.S. Alagar, J. Paquet. An Architecture for Developing Context-aware Systems. *Proceedings of the 2nd International Workshop on Modeling and Retrieval of Context (MRC) 2005*, Edinburgh, Scotland, July 31-August 1, 2005, LNCS Springer-Verlag, Vol. 3946, pp. 48-62.
42. K. Wan, V.S. Alagar. An Intensional Programming Approach to Multi-agent Coordination in a Distributed Network of Agents. *Proceedings of the 3rd International Workshop on Declarative Agent Languages and Technologies (DALT) 2005*, Utrecht, The Netherlands, July 25, 2005. Page 148-164, LNCS Springer-Verlag, Vol. 3904, pp. 205-222.
43. K. Wan, V.S. Alagar, J. Paquet. A Context Theory for Intensional Programming. *Proceedings of Context Representation and Reasoning (CRR-05)*, Satellite Workshop of The Fifth International and Interdisciplinary Conference on Modeling and Using Context (CONTEXT-05), Paris, France, July 05, 2005. CEUR Workshop Proceedings, ISSN 1613-0073, online CEUR-WS.org/Vol-136.
44. K. Wan, V.S. Alagar, J. Paquet. Lucx: Lucid Enriched with Contexts. *Proceedings of the 2005 International Conference on Programming Languages and Compilers (PLC05)*, Los Vegas, U.S.A., June 27-30, 2005, Page 48-54. CSREA Press, ISBN 1-932415-75-0.
45. V.S. Alagar, O. Ormandjieva, K. Wan, M. Zheng. Ensuring Service Availability in Mobile Ad-Hoc Networks, *Proceedings of the AMT Conference*, Takamatsu, Japan, May 2005, Page 133-136.
46. Mubarak Sami, Olga Ormandjieva, Vasu Alagar. A Visualizing Tool for Reactive Systems Simulation, *Proceedings of Automation, Control, and Information Technology (ACIT) 2005*, Novosibirsk, Russia, July 2005, page 65-70.
47. Mubarak Sami, Olga Ormandjieva, Vasu Alagar. A Visualization Tool for Safety Critical Systems. In *Proceedings of the 2005 International Conference on Modeling, Simulation and Visualization Methods*, Las Vegas, 2005.

## 2004

48. V.S. Alagar, K. Wan. An E-commerce Architecture for Secure Transaction. *IADIS e-Commerce Conference*, Lisbon, December 2004, page 213-220.
49. K. Wan, V.S. Alagar, J. Paquet. Real-Time Reactive Programming in Lucid Enriched With Contexts. *Proceedings of the First International Conference on Theoretical Aspects of Computer Science (ICTAC2004)*, GuiYang, China, September 2004, LNCS Springer-Verlag, Vol. 3407, Page 387-402. ISBN 3-540-25304-1.
50. V.S. Alagar, O. Ormandjieva. Reliability Assessment of E-Commerce Applications In *Proceedings of International Conference on E-Business and Telecommunications Networks (ICETE2004)*, 24-28 August, Setúbal, Portugal, pp. 30-37.
51. V.S. Alagar, O. Ormandjieva, M. Zheng. Simulated Validation of Autonomous Traffic Control Systems, In *Proceedings of IEEE Conference on Intelligent Systems Design and Applications (ISDA2004)*, 26-28 August, Budapest, Hungary, IEEE Computer Society Press, pp. 641-646.

52. V.S. Alagar, J. Paquet, K. Wan. Intensional Programming for Agent Communication. Proceedings of the 2nd International Workshop on Declarative Agent Languages and Technologies (DALT) 2004, New York, U.S.A., June 2004, LNAI Springer-Verlag, Vol. 3476, Page 239-255. ISBN: 3-540-26172-9.
53. V.S. Alagar, O. Ormandjieva, M. Zheng. Performance Modeling and Validation of Web Applications, In Proceedings of 2004 International Conference on Intelligent Agents, Web Technologies and Internet Commerce (IAWTIC2004), 12-14 July, 2004, Gold Coast, Australia, pp. 140-153.
54. V.S. Alagar, J. Holliday. Behavior Extensions to FIPA Architecture and Specifications, In Proceedings of the 2nd International Conference on Active Media Technology (ICAMT), Chongqing, China, May 2004, World Scientific Publishers, pp. 211-218.
55. V.S. Alagar, O. Ormandjieva, S. H. Liu. Scenario-Based Performance Modeling and Validation in Real-Time Reactive Systems, In Proceedings of the Software Measurement European Forum 2004 (SMEF2004), Rome, February 2004.
56. V.S. Alagar, O. Ormandjieva, M. Zheng. Two-tier Agent Architecture for Trusted Communication in Ad-Hoc Mobile Networks, In Proceedings of Winter International Conference on Information and Communication Technologies (WISICT04), 5-8 January, Cancun, Mexico.

### 2003

57. V. S. Alagar, M. Chen, O. Ormandjieva, M. Zheng. Automated Test Generation from Object-Oriented Specifications of Real-Time Reactive Systems. In Proceedings of the 10th Asia-Pacific Software Engineering Conference (APSEC2003), 9-12 December 2003, Chiangmai, Thailand, IEEE Computer Society Press, pp. 306-314.
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