

# CURRICULUM VITAE

Name: ALEXANDRU CICORTAS

Birth date: 09.09.1943, Avram Iancu, Bihor

## **Education:**

1960-1966: High School "EMANUEL GOJDU", Oradea.

1983-1987: Faculty of Mathematics and Computer Science, University "Babes-Bolyai" of Cluj.

1992-1997: PhD student at the West University of Timisoara

PhD thesis: "Distributed Discrete Event Modeling"

## **Professional experience:**

1967-1969: researcher at the Computer Center MECIPT of Polytechnic Institute Timisoara.

1969-1981: programmer, head of service at the Territorial Computing Center Timisoara.

1981-1991: programmer at the Computer Center of IAEM Timisoara.

1991-1999: lecturer at the Department of Computer Systems, Faculty of Mathematics and Informatics, West University of Timisoara

1999-2003: associate professor at the Department of Computing Science, Faculty of Mathematics and Informatics, West University of Timisoara

2003-2010 : professor at the Department of Computing Science Faculty of Mathematics and Informatics, West University of Timisoara

Since 10.2010: external collaborator with the Department of Computing Science Faculty of Mathematics and Informatics, West University of Timisoara.

## **Main interest domains**

Software Engineering, Artificial Intelligence, Information Systems (Business Informatics):

details:

Discrete event modeling, workflow modeling and design, knowledge representation and management, ontology, multi-agent systems, business management, supply chain modeling.

## **Main Courses and Labs at Computer Science Department:**

Modeling and Simulation

Management Informatics

Workflow Technologies

Autonomous Systems with Degradable Components

**Member of committees of supporting PhD theses:**

Alexandru Ioan Cuza, University, Iasi -3  
Babes-Bolyai University, Cluj Napoca - 8  
University of Economic Studies, Bucharest -6  
Polytechnic University, Timisoara -6  
Stefan Cel Mare University, Suceava -1

**Publications:****Papers and articles in international reviews and conferences:**

1. Alexandru Cicortas, Conservative Simulation for Discrete Event Systems, INFORMATICA INTERNATIONAL JOURNAL, Vol.9, Issue 3, Vilnius, LITUANIA,1998, pp. 297-314, 1998.
2. Alexandru Cicortas, Conservative Simulation Tool in Virtual Assembly, Bulletins for Applied & Computing Mathematics BAM-1524/98-LXXXIV-A, PAMM, pp. 133-142, 1998.
3. Alexandru Cicortas, Victoria Iordan, An Application of degradable System Modeling, Bulletins for Applied & Computer Mathematics BAM-1524/98-LXXXIV-A, PAMM, pp. 73-81, 1998.
4. Alexandru Cicortas, Interaction, a Tool in Dynamic System Modeling, Bulletins for Applied & Computer, Mathematics BAM-1618/99(LXXXVII), PAMM, pp. 61-66, 1999.
5. Alexandru Cicortas, Marius Tomescu, Carmen Gyiman, Carmen Burzo, Laura Demsea, Distributed Models of DES with Time and Priority, Bulletins for Applied & Computer Mathematics BAM-1619/99(LXXXVIII), PAMM, pp. 69-72, 1999.
6. Alexandru Cicortas, A Model for Optimistic Simulation of Discrete Event Systems, Bulletins for Applied & Computer Mathematics, BAM-1644/99 (LXXXIX), PAMM, pp. 109-118, 1999.
7. Alexandru Cicortas, Using (max,+) Algebra in Virtual Assembly, Bulletins for Applied & Computer Mathematics, BAM-1645/99 (LXXXIX), PAMM, pp. 119-128, 1999.
8. Alexandru Cicortas, A Model with Neural Networks for Products Assembly, Bulletins for Applied & Computer Mathematics, BAM-1698/99 (XC-B), PAMM, pp. 133-138, 1999.
9. Alexandru Cicortas, Algorithms for Software validation Using Petri Nets, 1-st Workshop "Symbolic and Numeric Algorithms on Scientific Computing" SYNASC, Timisoara, Romania, Analele Universitatii de Vest Timisoara, Seria Matematica-Informatica, Vol. XXXVII, pp. 7-13, 10-11 Aug., 1999.
10. Alexandru Cicortas, Diagnosis and Detection Using Petri nets, Bulletins for Applied & Computer Mathematics, BAM-1740/2000 (XCII-A), PAMM, pp. 81-90, 2000.
11. Alexandru Cicortas, Some Coordination Styles in Cooperative Robotics, Bulletins for Applied & Computer Mathematics, BAM-1739/2000 (XCII-A), PAMM, pp. 91-100, 2000.
12. Alexandru Cicortas, Agent Actions Modeled by Coloured Petri Nets, The Proceedings of the 2-nd International Workshop on Symbolic and Numeric Algorithms for Scientific Computing, SYNASC 2000, Timisoara, pp. 45-51, Oct. 4-6, 2000.
13. Alexandru Cicortas, Analysis of Robotics Architectures for Software Simulation, Buletinul stiintific al Universitatii "POLITEHNICA" din Timisoara, Transactionss on Automatic Control and Computer Science, Vol. 45(59)No. 2 Special Issue Dedicated to FOURTH INTERNATIONAL CONFERENCE ON TECHNICAL INFORMATICS, Timisoara, pp. 129-134, Oct. 12-13, 2000.

14. Alexandru Cicortas, Systems with Adaptive Agents, Buletinul stiintific al Universitatii "POLITEHNICA" din Timisoara, Transactions on Automatic Control and Computer Science, Vol. 45(59)No. 2 Special Issue Dedicated to FOURTH INTERNATIONAL CONFERENCE ON TECHNICAL INFORMATICS Timisoara, pp. 135-140, Oct. 12-13, 2000.
15. Alexandru Cicortas, Role Modeling for Agent System Analysis, Design and Implementation, Bulletins for Applied & Computer Mathematics, BAM-1852/2001 (XCVI-A), PAMM, pp.135-142, 2001.
16. Alexandru Cicortas, Reactive and Configurable Agents in Production Management, 3-rd Intl. Workshop on Symbolic Computation and Numeric Algorithms for Scientific Computing, pp. 95-99, Oct. 2-5, 2001.
17. Alexandru Cicortas, A Particular Genetic Algorithm in Multi-Agent Systems in Manufacturing, SYNASC 4-th Intl. Workshop, Timisoara, pp.67-75, 9-12 Oct, 2002.
18. Alexandru Cicortas, Norbert Somosi, Multi-Agent System Model for Urban Traffic Simulation, Proceedings of the 2nd Romanian-Hungarian Joint Symposium on Applied Computational Intelligence, SACI 2005, Timisoara, May 12-14, 2005, pp.107-120, ISBN: 963 7154 39 6,  
<http://www.bmf.hu/conferences/saci2005/>
19. Alexandru Cicortas, Victoria Iordan, Multi-Agent Systems for Resource Allocation, Proceedings of the 2nd Romanian-Hungarian Joint Symposium on Applied Computational Intelligence, SACI 2005, Timisoara, May 12-14, pp.221-232, ISBN: 963 7154 39 6, 2005,  
<http://www.bmf.hu/conferences/saci2005/>.
20. Alexandru Cicortas and Victoria Iordan, Incidents and Intervention Solved by Agents in Urban transport Modeling, SYNASC 5-th Intl. Workshop, Timisoara, pp.67-77, 1-4 Oct, 2003,  
<http://synasc03.info.uvt.ro/>.
21. Alexandru Cicortas, Victoria Iordan, A particular Multi-Agent Framework for Execution of Application and Resource Management, Proceedings of the SACI 2006 3-rd Romanian-Hungarian Joint Symposium on Applied Computational Intelligence, Timisoara, Romania, 25-26 May, pp. 286-305, 2006,  
<http://www.bmf.hu/conferences/saci2006/>.
22. Alexandru, Cicortas, Victoria, Iordan, A Multi-Agent Framework for Execution of Complex Applications, Acta Polytechnica Hungarica, Journal of Applied Sciences, Vol. 3 Iss. 3, pp. 97-119, ISSN1785-8860, 2006.
23. Alexandru Cicortas, Victoria Iordan, A Multi-Agent Framework for Execution of Complex Applications,, Acta Polytechnica Hungarica, Journal of Applied Sciences, Vol. 3 Iss. 3, pp. 97-119, ISSN1785-8860, 2006.
24. Victoria Iordan, Alexandru Cicortaş, Considerations on Using Ontologies in Complex Systems, SYNASC 2008, 10th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing Timisoara, 26-29 September 2008, Timisoara, IEEE Computer Press, ISBN 978-0-7695-3523-4, pp. 305-309.
25. Victoria Iordan, Antoanel Naaji, Alexandru Cicortas, Deriving Ontologies Using Multi-agent Systems, Wseas Transaction on Computers, Vol. 7, Iss. 6 (June 2008), ISSN: 1109-2750, 2008, pp. 814-826.
26. Victoria Iordan, Alexandru Cicortas, Considerations on Using Ontologies in Complex Systems, SYNASC 2008, pp. 305-309.
27. Alexandru Cicortas, Victoria Iordan, Antoanel Naaji, Ontologies for Competence Description in Multi-agent Systems, Procs, of the 10-th Wseas International Conference on Mathematical Methods and Computational Techniques in Electrical Engineering, Sofia, 2008, ISBN:978-960-6766-60-2, pp. 100-107.

28. Alexandru Cicortas, Victoria Iordan, Multi-agent models in workflow design, Proceedings of 5th International Symposium on Applied Computational Intelligence and Informatics SACI'09, Timisoara, Romania, pp. 527-532, ISBN 978-1-4244-4478-6, IEEE CFP0945C-CDR.
29. Victoria Iordan, Alexandru Cicortas, Considerations on Using Transactions in Workflow Design - Recent Advances In Computer Engineering archive, Proceedings of the WSEAES 13th international conference on Computers Rodos, Greece, 2009, ISBN 978-960-474-099-4, ISSN:1790-5109, ISI Thomson, pp.329-334.
30. Victoria Iordan, Alexandru Cicortas, Considerations concerning the requirements for transactional workflows and worflow engines, Proceedings 6th International Conference, Management of Technological Changes, 3rd -5th September 2009, Alexandroupolis, Greeece, ISBN: 978-960-89832-6-7, ISBN (vol.1) ISBN: 978-960-89832-7-4, pp. 505-508
31. Alexandru Cicortas, Victoria Iordan, Multi-agent models in workflow design, Proceedings of 5th International Symposium on Applied Computational Intelligence and Informatics SACI'09, Timisoara, Romania, pp.527-532, ISBN 978-1-4244-4478-6, IEEE CFP0945C-CDR.
32. Alexandru Cicortas, Victoria Iordan, Considerations on the Requirements for WFMS, Proceedings of the CSCS-17, 17-th International Conference on Control Systems and Computer Science, MASTS 2009, The International Workshop on Multi-Agent Systems Technology and Semantics, 26-29 May, Bucharest, Vol. 2, Ed. Politehnica Press, ISSN: 2066-4451, pp. 553-558.
33. Alexandru Cicortas, Victoria Iordan, Antoanelia Naaji, Monica Ciobanu, Norbert Somosi, Consideration on MAS as a Basis for Distributed Modeling of Urban Traffic Simulation, Latest Trends in Computers, Vol. I: Recent Advances in Computer Engineering. A Series of Reference Books and Textbooks, Grecia, 2010, ISBN: 978-960-474-201-1, pp. 288-293.

### **Articles in Romanian Universities reviews and Annals**

1. Alexandru Cicortas, Modeling with Petri Nets, Analele Universitatii din Timisoara, Seria Matematica-Informatica, Vol. XXXIV, Fasc. 1, pp. 49-63, 1996.
2. Alexandru Cicortas, Discrete Event Dynamic Systems Modeling, Studia Universitatis Babes-Bolyai Cluj, Informatica, Vol.XLII, Number 2, pp. 33-40, 1997.
3. Alexandru Cicortas, Modeling of Systems with Similar Components, Analele Universitatii din Timisoara, Seria Matematica-Informatica, Vol. XXXVI Fasc.1, pp.13-22, 1998.
4. Alexandru Cicortas, Optimistic Simulation of Discrete Events, Analele Universitatii din Timisoara, Seria Matematica-Informatica, Vol. XXXVII, pp. 99-107, 1999.
5. Alexandru Cicortas, Optimistic Simulation with Virtual Assembly Cells, Analele Universitatii din Timisoara, Seria Matematica-Informatica, Vol. XXXVII, Fasc. 1, pp.57-66, 2000.
6. Alexandru Cicortas, Ioan Despi, Victoria Iordan, Considerations in Designing Data Bases for Product's Structure Representation, Annals of the Timisoara West University, SERIES ECONOMIC SCIENCES Vol. 1(7) NEW SERIES, pp. 17-24, 1995.
7. Alexandru Cicortas, Designing Data Bases for Product Structure Representation Using Directed Graphs, Annals of the Timisoara West University, SERIES ECONOMIC SCIENCES Vol. 1(7), NEW SERIES, pp. 44-51, 1995.
8. Alexandru Cicortas, Designing Data Bases for Product Structure Representation Using Object Oriented Concepts, Annals of the Timisoara West University, SERIES ECONOMIC SCIENCES Vol. 1(7) NEW SERIES, pp. 97-102, 1995.
9. Alexandru Cicortas, Some Basic Features in Modeling with Virtual Assembly Cells, Annals of the Timisoara West University, SERIES ECONOMIC SCIENCES, Vol. 4(10) NEW SERIES, ISSN 1223-1886, pp. 23-34, 1998.

10. Alexandru Cicortas, Daniela Maria Sirbu, A Distributed Model for Products Assembly, Annals of the Timisoara West University, SERIES ECONOMIC SCIENCES, Vol. 4(10), NEW SERIES, ISSN 1223-1886, pp. 35-45, 1998.
11. Alexandru Cicortas, Development of Distributed Simulation System, Annals of the Timisoara West University, SERIES ECONOMIC SCIENCES, Vol. 4(10) NEW SERIES, ISSN 1223-1886, pp. 46-58, 1998.
12. Alexandru Cicortas, Virtual Reality a style in modeling and application development, Annals of the Timisoara West University, SERIES ECONOMIC SCIENCES, Vol. 4(10), NEW SERIES, ISSN 1223-1886, pp. 223-240, 1998.
- Alexandru Cicortas, Virtual Assembly a Management Technic, Annals of the Timisoara West University, SERIES ECONOMIC SCIENCES, Vol. 4(10) NEW SERIES, ISSN 1223-1886, pp. 262-270, 1998.
13. Alexandru Cicortas, Queueing Petri Nets a Mixture between Queueing Nets and Petri Nets, Proceedings of the 8-th Symposium of Mathematics and its Applications, Buletinul Stiintific al Universitatii Politehnica, Tom 43 (57), 1 Seria Matematica-Fizica, pp. 48-53, 1998.
14. Alexandru Cicortas, Modeling with Fault Tolerant and Degradable Assembly Cells, CONTI'98, Buletinul Stiintific al Universitatii Politehnica, Seria Automatizari si Calculatoare, Vol. 43(57), No.4 of 4, ISSN 1224-600X, Timisoara, pp.143-150, Oct. 29-30, 1998.
15. Alexandru Cicortas, Some Considerations on Neural Networks in Manufacturing, Buletinul stiintific al Universitatii "POLITEHNICA" din Timisoara, Tom 44(58), 2, Seria Matematica Fizica, pp. 62-67, 1999.
16. Alexandru Cicortas, Client-Server Model in Multi-Agent Systems Used in Manufacturing, 5-th Intl. Conference on Technical Informatics CONTI 2002, Timisoara, Periodica Politehnica, Transactions on Automatic Control and Computer Science, Vol. 47(61), No. 3 pp. 56-60, 2002.
17. Alexandra Fortis, Alexandru Cicortas, and Victoria Iordan, (2008) Considerations on Resource Usage in Exceptions and Failures in Workflows. Annals. Computer Science Series, Tibiscus, 2008, vol.VI, fasc.I, pp.69-79.
18. Alexandru Cicortas, Victoria Iordan, Alexandra Fortis Considerations on Construction Ontologies, Annals. Computer Science Series, Tibiscus Vol. VII, fasc. 1 – 2009, pp. 79-88.

### **Papers in Proceeding of Int'l Conferences**

1. Alexandru Cicortas, Ioan Despi, Victoria Iordan, Useful Methods and Techniques in the Maintenance of DataBases that Allow the Product Structure Representation, The Proceedings of the 2-nd International Symposium of Economic Informatics, Software Engineering and Applications, Bucharest, pp. 302-305, May, 1995.
2. Ioan Despi, Victoria Iordan, Alexandru Cicortas, ISA Correctness in OODB Schema, The Proceedings of the 2-nd International Symposium of Economic Informatics, Software Engineering and Applications, Bucharest, pp. 298-301, May, 1995.
3. Ioan Despi, Alexandru Cicortas, Victoria Iordan, Schema Evolution Management for Object-Oriented Databases, The Proceedings of the 3-rd International Symposium of Economic Informatics, Computer Science, Bucharest, ISBN 973-97435-2-8, pp. 44-49, May, 1997.
4. Victoria Iordan, Alexandru Cicortas, Ioan Despi, A Model for Parallel Discrete Event Simulation, The Proceedings of the 3-rd International Symposium of Economic Informatics, Computer Science, Bucharest, ISBN 973-97435-2-8, pp. 317-321, May, 1997.
5. Alexandru Cicortas, Ioan Despi, Performance and Performability Analysis, Simpozionul International de Management, SIM'97, Timisoara, pp. 543-549, iulie, 1997.

6. Ioan Despi, Alexandru Cicortas, Using Valuation for Schema Evolution Management in Object-Oriented Databases, Simpozionul International de Management, SIM'97, Timisoara, pp. 561-567, iulie, 1997.
7. Alexandru Cicortas, Modelling with Virtual Assembly Cell, Simpozionul International de Management, SIM'97, Timisoara, pp. 617-623, iulie, 1997.
8. Alexandru Cicortas, Daniela Maria Sirbu, Celule de asamblare virtuala-instrument in modelare, Studii si Cercetari Economice, Vol. XXVIII-XXIX, Cluj-Napoca, pp. 818-826, 1998.
9. Alexandru Cicortas, Daniela Maria Sirbu, The Lookahead Usage in Conservative Simulation, Proceedings of the Seventh Symposium of Mathematics and its Applications, pp. 73-78, Nov., 1997.
10. Alexandru Cicortas, Virtual Assembly, International Symposium on Systems Theory, Robotics, Computers & Process Informatics, SINTES 9 IX-th edition, Volume II Computers, Craiova, pp. 294-301, 4-6 June, 1998.
11. Alexandru Cicortas, Daniela Maria Sirbu, Distributed Simulation of Products Assembly, Sesiunea internationala de comunicari stiintifice, ROSYCS 98, IASI, 1998.
12. Alexandru Cicortas, Ioan Despi, Waiting Time and Delay in Modeling with Virtual Assembly Cells, Sesiunea internationala de comunicari stiintifice, ROSYCS 98, IASI, 1998.
13. Ioan Despi, Alexandru Cicortas, Intranets Solutions, Buletinul Stiintific al Universitatii POLITEHNICA din Timisoara, Transactions on MANAGEMENT, ECONOMIC ENGINEERING, TRANSPORTATION ENGINEERING, Tome 43(57) Fasc. 1,2, ISSN 1224-6050, pp.10-13, 1998.
14. Alexandru Cicortas, Distributed Discrete Event Modeling, Sesiunea internationala de comunicari stiintifice a Universitatii Transilvania, Brasov, Nov.1998.
15. Alexandru Cicortas, Performability Estimation of Degradable Virtual Assembly Cells, The Proceedings of the Fourth Symposium on Economic Informatics INFORMATION TECHNOLOGY, Bucuresti, pp. 107-114, May 1999.
16. Alexandru Cicortas, Fuzzy Control in Manufacturing, The Proceedings of the 8-th Symposium of Mathematics and its Applications, Timisoara, pp. 281-287, Nov. 4-7, 1999.
17. Alexandru Cicortas, Cooperation, Communication and Observation in Multi-agent Systems as Main Properties, Fourth Intl. Symposium on Economic Informatics, ASE Buc, pp. 1001-1005, May, 2001.
18. Alexandru Cicortas, Reactive Scheduling in Production Management, The 9-th Symposium of Mathematics and Its Applications, Timisoara, Nov. 2-3,2001.
19. Alexandru Cicortas, Configurable Systems in Assembly, The 9-th Symposium of Mathematics and Its Applications, Timisoara, Nov. 2-3,2001.
20. Alexandru Cicortas, Diana Dubu, Workflow Treatment with Colored Petri Nets, Computer-Aided Verification of Information Systems (CaVIS), Romanian-Austrian Workshop, Timisoara, pp.43-46, feb., 12, 2003, <http://www.ieat.ro:8080/IeAT/workshop/workshop2003/cavisprogram>.
- Alexandru Cicortas, Managing the Incidents in the Urban Transport, International Symposium Development, Specialization, Integration, Cluj-Napoca, pp. 428-433, 14-15 Nov., 2003.
21. Klaus-Peter Eckert, Yuri Glickman, Jane Hall, Rafal Knapik, Rafal Renk, Florin Fortis, Alexandru Cicortas, Workflow Technologies for a Virtual ISP, [http://www.visp-project.org/html/publications\\_002.html](http://www.visp-project.org/html/publications_002.html).
22. Alexandru Cicortas, Victoria Iordan, Alexandra Fortis, Florin Fortis, Reengineering the Failed Workflows, Annals of the Tiberiu Popoviciu Seminar, Supplement international Workshop in Collaborative Systems, Vol. 4, ISSN 1584-4536, pp.57-66, 2006.

1. Alexandru Cicortas, Generator automat de variante de structura a produselor, Sesiunea de comunicari stiintifice a Institutului Central pentru Conducere si Informatica, Bucuresti, pp. 45-61, Oct., 1975.
2. Alexandru Cicortas, Badus Rodica, Bolcu Marcel, Conversia fisierelor, utilitare, Sesiunea de comunicari stiintifice a Institutului Politehnic 'Traian Vuia', Timisoara, Nov., 1983, pp 76-70.
3. Alexandru Cicortas, Modelarea cu retele Petri si retele de evaluare, Simpozionul Economia prezent si viitor, Universitatea "Aurel Vlaicu", Nov. 27, ARAD, 1998, pp. 884-890.
4. Alexandru Cicortas, Modele cu evenimente discrete in asamblarea produselor, Simpozionul Economia prezent si viitor, Universitatea "Aurel Vlaicu", ARAD, pp. 891-894, Nov. 27, , 1998.

### **Books and courses**

1. Alexandru Cicortas, Simularea lanturilor Markov, Editura M & B, Timisoara, 1997, ISBN 973-97-120-2-9, p. 134.
2. Alexandru Cicortas, Modelarea evenimentelor discrete, Editura M & B, Timisoara, 1997, ISBN 973-97-120-1-0, p. 120.
3. Alexandru Cicortas, Marius Tomescu, Vlad Hanciuta, Tehnici de programare. Algoritmi, Ed. Universitatii "Aurel Vlaicu" Arad, ISBN 973-9361-68-4, 2001, p. 141.
4. Alexandru Cicortas, Initiere in Access si in SQL, Ed. "Vasile Goldis" University Press, Arad, ISBN 973-8161-38-X 2002, p. 130.

**Citations:** 54

### **Projects:**

European Project: VISIP, 1995-1998

National Projects: 8

