



ROMÂNIA
UNIVERSITATEA BABEŞ-BOLYAI CLUJ-NAPOCA

Str. Mihail Kogălniceanu, nr. 1, 400084 Cluj-Napoca
Tel. (00) 40 - 264 - 40.53.00*; 40.53.01; 40.53.02 ; 40.53.22

Fax: 40 - 264 - 59.19.06

E-mail: staff@staff.ubbcluj.ro

RECTORATUL

Universitatea Babeş-Bolyai Competiția Excelenței 2010

Dosar individual

Notă: Toate datele se referă la perioada 2005-2009

Nume, prenume, grad did.	CHIRA CAMELIA, CERCETATOR
Facultatea, Catedra	Facultatea de Matematica si Informatica, Catedra de Limbaje si Metode de Programare
Domeniul științific	Inteligența Computațională, Studiul Complexității
Adresa paginii web personale	http://www.cs.ubbcluj.ro/~cchira/
Adresa e-mail	cchira@cs.ubbcluj.ro

Criteria I – Output

1. Articole științifice publicate în reviste indexate ISI (cu menționare factorului de impact în cazul celor cotate)

1. C. Chira, C.-M. Pinte, D. Dumitrescu, *An Agent-Based Approach to Combinatorial Optimization*, Int. J. of Computers, Communications & Control, ISSN 1841-9836, E-ISSN 1841-9844, Vol. III (2008), Suppl. Issue, pp. 212-217, 2008.
2. Chira O., Chira C., Tormey D., Brennan A., Roche T., *An agent-based approach to knowledge management in distributed design*, in Panetto H., Goncalves R., Pereira C.E. (Eds) (2006), Journal of Intelligent Manufacturing, 17/6, December 2006, Springer Verlag, pp. 737-750, 2006 (factor impact ISI: 1.325).

2. Articole științifice publicate în ISI proceedings

1. C. Chira, A. Gog, D. Dumitrescu, *Asynchronous Collaborative Search using Adaptive Coevolving Subpopulations*, ECOMASS Workshop, Genetic and Evolutionary Computation Conference GECCO'09, July 8-12, 2009, Montreal, Canada, F. Rothlauf (Ed), GECCO Companion, ACM, 2575-2582, 2009.
2. C. Chira, C.-M. Pinte, G. C. Crisan, D. Dumitrescu, *Solving the Linear Ordering Problem using Ant Models*, Genetic and Evolutionary Computation Conference GECCO'09, July 8-12, 2009, Montreal, Canada, F. Rothlauf (Ed), ACM, 1803-1804, 2009.
3. A. Gog, C. Chira, D. Dumitrescu, *Asynchronous Evolutionary Search: Multi-Population Collaboration and Complex Dynamics*, IEEE Congress on Evolutionary Computation (CEC 2009), 240-246, 2009.
4. A. Gog, C. Chira, *Cellular Automata Rule Detection using Circular Asynchronous Evolutionary Search*, Proceedings of the 4th International Workshop on Hybrid Artificial Intelligence Systems

- (HAIS 2009), Salamanca, Spain, Lecture Notes in Computer Science, Vol. 5572, 261-268, Springer, 2009.
5. C.-M. Pinteá, G. C. Crisan, C. Chira, D. Dumitrescu, *A Hybrid Ant-Based Approach to the Economic Triangulation Problem for Input-Output Tables*, Real-world HAIS and Data Uncertainty, Proceedings of the 4th International Workshop on Hybrid Artificial Intelligence Systems (HAIS 2009), Salamanca, Spain, Lecture Notes in Computer Science, Vol. 5572, 376-383, Springer, 2009.
 6. C. Chira, A. Gog, D. Dumitrescu, *Distribution, collaboration and coevolution in asynchronous search*, Proceedings of the International Symposium on Distributed Computing and Artificial Intelligence (DCAI 2008), Salamanca, Spain, Advances in Soft Computing, Vol. 50, 2009, p.596-604.
 7. C-M. Pinteá, C. Chira, D.Dumitrescu, *Sensitive Ants: Inducing Diversity in the Colony*, Nature Inspired Cooperative Strategies for Optimization, Studies in Computational Intelligence, Vol. 236 (Krasnogor, N.; Melián-Batista, B.; Moreno-Pérez, J.A.; Moreno-Vega, J.M.; Pelta, D.; Eds.), Springer-Verlag, 2009.
 8. Chira, C., Pinteá, C.-M., Dumitrescu, D., *Multi-population agent search: Stigmergy and heterogeneity* (2008) Proceedings of the 2008 10th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, *SYNASC 2008*, pp. 526-531.
 9. Gog, A., Chira, C., Dumitrescu, D., Zaharie, D., *Analysis of some mating and collaboration strategies in evolutionary algorithms* (2008) Proceedings of the 2008 10th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, *SYNASC 2008*, pp. 538-542.
 10. C.-M. Pinteá, P.C. Pop, C. Chira, D. Dumitrescu, *A Hybrid Ant-Based System for Gate Assignment Problem*. Proceedings of the 3rd International Workshop on Hybrid Artificial Intelligence Systems (HAIS 2008), Burgos, Spain, Lecture Notes in Computer Science 5271, Springer, 2008, p. 273-280.
 11. A. Gog, C. Chira, D. Dumitrescu, *Hybrid Multi-Population Collaborative Asynchronous Search*. Proceedings of the 3rd International Workshop on Hybrid Artificial Intelligence Systems (HAIS 2008), Burgos, Spain, September 24-26, Lecture Notes in Artificial Intelligence 5271, Springer, 2008, p. 148-155.
 12. C. Chira, D. Dumitrescu, C-M. Pinteá, *Heterogeneous Sensitive Ant Model for Combinatorial Optimization*, Genetic and Evolutionary Computation Conference *GECCO'08*, ACM, 163-164, July 12–16, 2008, Atlanta, Georgia, USA, 2008.
 13. C. Chira, A. Gog, D. Dumitrescu, *Exploring Population Geometry and Multi-Agent Systems: A New Approach to Developing Evolutionary Techniques*, Genetic and Evolutionary Computation Conference *GECCO'08*, ACM, 1953-1959, July 12–16, 2008, Atlanta, Georgia, USA, 2008.
 14. R. I. Lung, C. Chira, D. Dumitrescu, *An Agent-Based Collaborative Evolutionary Model for Multimodal Optimization*, Genetic and Evolutionary Computation Conference *GECCO'08*, ACM, 1969-1975, July 12–16, 2008, Atlanta, Georgia, USA, 2008.
 15. C-M. Pinteá, C. Chira, D. Dumitrescu, P.C. Pop, *A Sensitive Metaheuristic for Solving a Large Optimization Problem*, *SOFSEM 2008: Theory and Practice of Computer Science*, Lecture Notes in Computer Science 4910, Springer, V. Geffert, J. Karhumaki, A. Bertoni, B. Preneel, P. Navrat, M. Bielekova (Eds), p. 551-559, 2008.

16. C. Chira, D. Dumitrescu, C-M. Pinte, *Sensitive Ant Model for Combinatorial Optimization*, 14th International Conference in Soft Computing MENDEL 2008, June 18-20, M. Radomil (Ed), Brno University of Technology, 2008.
17. Chira, C., Dumitrescu, D. 2007. *Multi-Agent Cooperative Design Support in Distributed Environments*. In Proceedings of the 27th international Conference on Distributed Computing Systems Workshops (June 22 - 29, 2007). ICDCSW. IEEE Computer Society, Washington, DC, 76, 2007.
18. Chira, C.-M. Pinte, D. Dumitrescu, *Sensitive Stigmergic Agent Systems - A Hybrid Approach to Combinatorial Optimization*, In Innovations in Hybrid Intelligent Systems, Advances in Soft Computing, Springer, Emilio Corchado, Juan M. Corchado and Ajith Abraham (Eds), vol 44, 33-39, 2007.
19. Pinte C.-M, Chira C., Dumitrescu D., *Combining Meta-heuristics to Solve the Rook Problem*, IEEE International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, V. Negru, D. Petcu, D. Zaharie, A. Abraham, B. Buchberger, A. Cicortas, D. Gorgan, J. Quinqueton (Eds), pp 239-243, IEEE Computer Society, ISBN 0-7695-2740-X, 2007.
20. C.Chira, D.Dumitrescu, C-M.Pinte: *Learning Sensitive Agents*, Proc. of MENDEL 2007, 13-th Int.Conf. on Soft Computing, Brno University of Technology, (M.Radomil, P.Osmera; Eds.) pp.60–65 (ISBN: 978-80-214-3473-8), 2007.
21. Chira C., Dumitrescu D., *Agent-Based Management and Optimization System for Distributed Computing*, The Third IASTED International Conference on Computational Intelligence, Banff, Canada, 2007, R. Andonie (Ed), ACTA Press Anaheim, Calgary, Zurich, pp 28-34, ISBN 978-0-88986-671-3, 2007.
22. Chira C., Dumitrescu D., *Multi-Agent Systems and Ontologies for Distributed Collaboration*, Transactions on Information Science and Applications, Issue 8, Volume 3, pp 1452-1460, 2006.
23. Chira, C., Chira, O., Roche, T. 2005. *Multi-agent support for distributed engineering design*. In *Proceedings of the 18th international Conference on innovations in Applied Artificial intelligence* (Bari, Italy, June 22 - 24, 2005). M. Ali and F. Esposito, Eds. Lecture Notes In Computer Science. Springer-Verlag, London, 155-164, 2005.

3. Articole științifice indexate în BDI (din lista CNCSIS)

1. C. Chira, C.-M. Pinte, D. Dumitrescu, *A Step-Back Sensitive Ant Model for Solving Complex Problems*, Studia Universitatis Babes-Bolyai, Informatica Series, Special Issue, 103-106, 2009.
2. A. Gog, C. Chira, D. Dumitrescu, *Distributed Asynchronous Collaborative Search*, Studia Universitatis Babes-Bolyai, Informatica Series, Special Issue, 99 – 102, 2009.
3. C. Chira, A. Gog, D. Zaharie, D. Dumitrescu, *Complex Dynamics in an Evolutionary Asynchronous Search Model*, Creative Mathematics and Informatics, Vol. 17 (2008) No.3.
4. A.Varga, C. Chira, D. Dumitrescu, *A Multi-agent Approach To Solving Dynamic Traveling Salesman Problem*, BICS 2008: Proceedings of the 1st International Conference on Bio-Inspired Computational Methods Used for Solving Difficult Problems: Development of Intelligent and Complex Systems, AIP Conference Proceedings Volume 1117, pp. 189-197, ISBN: 978-0-7354-0654-4, 2008.
5. C. Chira, *Multi-Agent Distributed Computing*, Studia Universitatis Babes-Bolyai, Informatica Series, Special Issue, pp. 201-208, 2007.
6. C. Chira, D. Dumitrescu, R. Gaceanu, *Stigmergic Agent Systems for Solving NP-hard Problems*, Studia Universitatis Babes-Bolyai, Informatica Series, Special Issue, pp. 177-184, 2007.

7. C. Chira, C-M. Pinte, D. Dumitrescu, *Sensitive ant systems in combinatorial optimization*, Studia Universitatis Babes-Bolyai, Informatica Series, Special Issue, pp.185–192, 2007.
8. S. R. Pop, C. I. Duduiala, C. Chira, *Simulating Microcapillary Networks Using Random Graphs*, Studia Universitatis Babes-Bolyai, Informatica Series, Special Issue, pp.122-129, 2007.
9. Chira C., Pinte C.-M., Dumitrescu D., *Stigmergic Agent Optimization*, Romanian Journal of Information Sciences and Technology, pp. 175 – 183, Vol. 9, No. 3, 2006.

4. Alte articole științifice/capitole publicate în reviste/volume cu referenți (peer-reviewed)

1. C. Chira, C.-M. Pinte, D. Dumitrescu, *Stigmergy and Sensitivity in Heterogeneous Agent-Based Models*, Workshop on Natural Computing and Applications, Proceedings of the 10th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC 2008), September 26-29, Timisoara, Romania, 2008, p.13-17.
2. A. Gog, C. Chira, D. Zaharie, D. Dumitrescu, *Analysis of a Distributed Collaborative Evolutionary Algorithm*, Workshop on Natural Computing and Applications, Proceedings of the 10th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC 2008), Timisoara, Romania, September 26-29, 2008, p. 25-32.
3. C. Chira, D. Dumitrescu, *Stigmergy, Communication and Learning in Solving Complex Problems*, New Approaches, Algorithms and Advanced Computational Techniques in Approximation Theory and its Applications, pp. 47-59, ISBN 978-973-739-494-1, Ed. Univ. Lucian Blaga, Sibiu, 2007.
4. C. Pinte, C. Chira, D. Dumitrescu, P. Pop, *A Sensitive Robot Metaheuristic for Complex Applications*, 6th International Conference on Large-Scale Scientific Computations, B-52, Sozopol, Bulgaria, 2007.
5. Chira C., Pinte C.-M., Dumitrescu D., *Sensitive Stigmergic Agent Systems*, Adaptive and Learning Agents and Multi-Agent Systems (ALAMAS), Maastricht, The Netherlands, 2 & 3 April 2007, MICC Technical Report Series, number 07-04, Edited by Karl Tuyls, Steven de Jong, Marc Ponsen, Katja Verbeeck, ISSN 0922-8721, pp. 51-57, 2007.
6. Pinte C.-M., Chira C., Dumitrescu D., *Agent-based Approaches for the Rook Problem*, Workshop on Agents for Complex Systems, 8th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC), Workshop on Agents for Complex Systems, pp 42-46, Timisoara, Romania, September 26-29, 2006.
7. Chira C., Pinte C.-M., Dumitrescu D., *Stigmergic Agents for Solving NP-difficult Problems*, Volume of Evolutionary Computing, International Conference Bio-Inspired Computing – Theory and Applications (BIC-TA), pp 63 – 69, Wuhan, China, September 18-22, 2006.
8. Pinte C.-M., Pop P., Chira C., *Reinforcing Ant Colony System for the Generalized Traveling Salesman Problem*, Volume of Evolutionary Computing, International Conference Bio-Inspired Computing – Theory and Applications (BIC-TA), pp 245 – 252, Wuhan, China, September 18-22, 2006.
9. Chira C., Pinte C.-M., Dumitrescu D., *A Multi-Agent Approach to Distributed Collaboration*, 6th Joint Conference on Mathematics and Computer Science, Pecs, Hungary, July 12-15, 2006.
10. Chira C., Dumitrescu D., *Development of a Multi-Agent Information Management System*, 6th International Conference on Recent Advances in Soft Computing (RASC 2006), Canterbury, UK, July 10-12, 2006.

5. Cărți științifice publicate în edituri internaționale

6. Cărți științifice publicate în edituri naționale acreditate

1. Chira C., *Multi-Agent Systems for Distributed Collaborative Design*, Casa Cărții de Știință, Cluj-Napoca, ISBN: 978-973-133-036-5, 2007.
2. Iantovics B., Chira C., Dumitrescu D., *Principiile Agentilor Inteligenti*, Casa Cartii de Stiinta, Cluj-Napoca, ISBN: 978-973-133-035-8, 2007.
3. C. Chira, C.-M. Pinte, D. Dumitrescu, *A Multi-Agent Stigmergic Model for Complex Optimization Problems*, From Natural Language to Soft Computing: New Paradigms in Artificial Intelligence, Editing House of Romanian Academy, Zadeh L.A., Tufis D., Filip F.G., Dzitac I.(Eds.), 2008, pp. 51-62.
4. G. Stefanescu, C. Chira, *New Parallel Programming Language Design: A Bridge between Brain Models and Multi-Core/Many-Core Computers?*, From Natural Language to Soft Computing: New Paradigms in Artificial Intelligence, Editing House of Romanian Academy, Zadeh L.A., Tufis D., Filip F.G., Dzitac I.(Eds.), 2008, pp. 196-210.

7. Editor de volume publicate în edituri naționale și internaționale

8. Brevete internaționale

9. Brevete naționale

10. Impact tehnologic al brevetelor: resurse financiare extrabugetare atrase în relație cu economia

11. Realizări artistice naționale și internaționale (Domeniul Arte) (Expoziții, spectacole, concerte, publicații, filme, înregistrări)

Criteriul II – Prestigiu profesional

1. Citări ale articolelor ISI listate la Criteriul I

Chira C., Gog A., Dumitrescu D. Exploring population geometry and multi-agent systems: A new approach to developing evolutionary techniques (2008) GECCO'08: Proceedings of the 10th Annual Conference on Genetic and Evolutionary Computation 2008,, pp. 1953-1959.

Citat in

1. Barkat Ullah, A.S.S.M., Sarker, R., Lokan, C. An agent-based memetic algorithm (AMA) for nonlinear optimization with equality constraints (2009) 2009 IEEE Congress on Evolutionary Computation, CEC 2009, art. no. 4982932, pp. 70-77.

Lung R.I., Chira C., Dumitrescu D. An agent-based collaborative evolutionary model for multimodal optimization (2008) GECCO'08: Proceedings of the 10th Annual Conference on Genetic and Evolutionary Computation 2008,, pp. 1969-1975.

Citat in

1. Wong, K.-C., Leung, K.-S., Wong, M.-H., An evolutionary algorithm with species-specific explosion for multimodal optimization (2009) Proceedings of the 11th Annual Genetic and Evolutionary Computation Conference, GECCO-2009, pp. 923-930.

Chira C., Chira O., Roche T., Tormey D., Brennan A. An agent-based approach to knowledge management in distributed design (2006) Journal of Intelligent Manufacturing, 17 (6), pp. 737-750.

Citat in

1. Moon, S.K., Simpson, T.W., Kumara, S.R.T. An agent-based recommender system for developing customized families of products (2009) Journal of Intelligent Manufacturing, 20 (6), pp. 649-659.
2. Khazab, M., Tweedale, J., Jain, L. Dynamic applications using multi-agents systems (2009) Studies in Computational Intelligence, 217, pp. 67-79.
3. Pehlivan, S., Summers, J.D., Ameri, F. An agent-based system approach to fixture design (2009) International Journal of Computer Applications in Technology, 36 (3-4), pp. 284-296.
4. Khazab, M., Tweedale, J., Jain, L. Interoperable intelligent agents in a dynamic environment (2009) Studies in Computational Intelligence, 199, pp. 183-191.
5. Chuan, Z., Xiangsheng, Y., Shimin, D. A distributed knowledge model for knowledge management system (2008) 2008 International Conference on Wireless Communications, Networking and Mobile Computing, WiCOM 2008.
6. Zhang, C., Tang, D., Liu, Y., You, J. A multi-agent architecture for knowledge management system (2008) Proceedings - 5th International Conference on Fuzzy Systems and Knowledge Discovery, FSKD 2008, 5, art. no. 4666563, pp. 433-437.
7. Ameri, F., Summers, J.D. An ontology for representation of fixture design knowledge (2008) Computer-Aided Design and Applications, 5 (5), pp. 601-611.
8. Hu, J., Peng, Y.H., Xiong, G.L. Multi-disciplinary robust coordination for algebraic and differential constraints and its application to parameter design of bogies (2008) Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 222 (11), pp. 2147-2161.
9. Yan, R., Li, Y., Pan, Z., Liao, W. A multi-agent-based semantic collaboration framework for aircraft tooling design and application (2008) Proceedings of the 2008 12th International Conference on Computer Supported Cooperative Work in Design, CSCWD, 1, art. no. 4537009, pp. 373-378.
10. Li, Y., Pan, Z., Yan, R., Liao, W. A PDM-based framework for collaborative aircraft tooling design (2008) International Journal of Production Research, 46 (9), pp. 2413-2431.

Chira C., Chira O., Roche T. Multi-agent support for distributed engineering design (2005) Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 3533 LNAI, pp. 155-164.

Citat in

1. Li, J., Zhang, H.-C., Lin, Z. Asymmetric negotiation based collaborative product design for component reuse in disparate products (2009) Computers and Industrial Engineering, 57 (1), pp. 80-90.
2. Shiang, W.-J., Rau, H., Lin, Y.-H. Performance comparison of data exchange in agent-based collaborative design process (2009) 2009 IEEE/INFORMS International Conference on Service Operations, Logistics and Informatics, SOLI 2009, art. no. 5203972, pp. 434-438.
3. Roberts, C., Yasar, S., Morrell, D., Henderson, M., Danielson, S., Cooke, N. A pilot study of engineering design teams using protocol analysis (2007) ASEE Annual Conference and Exposition, Conference Proceedings.

2. Alte citări ale lucrărilor listate mai sus

3. Citări în perioada 2005-2009 ale articolelor anterioare anului 2005

4. Distincții, premii și alte recunoașteri naționale și internaționale

Premiul Academiei Romane “Grigore Moisil”, 2008

5. Studenți naționali atrași (activități de coordonare științifică și didactică)

- Îndrumare lucrari de licență (număr lucrări susținute)
- Îndrumare lucrări de disertație (număr lucrări susținute)
- Doctoranzi (lista nominală a doctoranzilor înmatriculați resp. lista nominală a tezelor susținute)
- Post-doctoranzi (lista nominală)

6. Studenți internaționali atrași (activități de coordonare științifică și didactică)

- Îndrumare lucrari de licență (număr lucrări susținute)
- Îndrumare lucrări de disertație (număr lucrări susținute)
- Doctoranzi (lista nominală a doctoranzilor înmatriculați resp. lista nominală a tezelor susținute)
- Post-doctoranzi (lista nominală)

7. Membru in comitetul de redacție la reviste ISI

Referent pentru:

IEEE Transactions on Evolutionary Computation
Journal of Logic and Algebraic Programming

8. Membru in comitetul de redacție la reviste BDI

9. Participări la programe/granturi de cercetare finanțate din sursă internațională (se menționează și valoarea)

1. Intelligent Agent Based Collaborative Design Information and Support Tools (IDIMS), Enterprise Irlanda: CIMRU – National University of Ireland Galway, 2002-2005, Enterprise Ireland, Project Director: Dr. Thomas Roche, Galway-Mayo Institute of Technology, Galway, Irlanda.
2. Information Management for Green Design (IMAGREE), 2000-2002, Enterprise Ireland, Project Director: Dr. Thomas Roche, National University of Ireland, Galway, Irlanda.

10. Participări la programe/granturi finanțate din sursă națională (se menționează și valoarea)

1. NatComp – Noi modele de calcul natural in studiul complexitatii si in rezolvarea problemelor complexe, Parteneriate, 2007- 2010, ANCS (Valoare: 2000000 lei)
2. Noi paradigme computationale in abordarea problemelor complexe dinamice, IDEI, 2007-2010, CNCSIS (Valoare: 1000000 lei)
3. Modele computationale inspirate din natura. Noi paradigme si metaeuristici.Aplicatii reale, 2007-2009, CNCSIS (Valoare: 199870 lei)
4. CEEEX-II: Calcul natural – noi paradigme si aplicatii, 2005-2007, CNCSIS, Project Director : Prof. Dr. D. Dumitrescu, Babes-Bolyai University Cluj-Napoca (Valoare: 280000 lei)

11. Coordonări de programe/granturi finanțate din sursă internațională (se menționează și valoarea)

12. Coordonări de programe/granturi finanțate din sursă națională (se menționează și valoarea)

13. Profesor invitat la universitati de prestigiu, cu titlu oficial

14. Membru în comisii profesionale relevante, cu titlu oficial

15. Conferințe invitate internaționale

16. Membru în comitete de organizare sau științifice ale unor conferințe internaționale

1. HAIS 2010, HAIS on Logistics, 5th International Conference on Hybrid Artificial Intelligence Systems 2010, San Sebastian, Spain (Chair - <http://www.ehu.es/ccwintco/hais2010/specialsessions/SS07.html>)
2. HAIS 2009, 2010, Real World HAIS Applications and Data Uncertainty, International Conference on Hybrid Artificial Intelligence Systems, Spain
3. NCA 2008, 2009, Workshop on Natural Computing and Applications, SYNASC, Timisoara, Romania
4. MENDEL 2008, 2009, International Conference on Soft Computing, Czech Republic
5. MICAI 2009, 8th Mexican International Conference on Artificial Intelligence, Guanajuato, Mexic
6. ICCCC 2008, International Conference on Computers, Communications & Control , 2008, Oradea, Romania

III. Realizare remarcabilă

(Descrieți într-o manieră cât mai accesibilă (în maximum 1 pagină) cea mai importantă realizare științifică/tehnică/artistică din ultimii 5 ani și impactul acesteia.)

Principalele rezultate ale cercetării pot fi sumarizate astfel:

O arhitectura multi-agent bazată pe ontologii pentru medii distribuite,

Definirea unei biblioteci de ontologii ca baza de cunoștințe a unui sistem multi-agent pentru medii distribuite,

Un model multi-agent de colaborare, cooperare, comunicare și coordonare distribuită, Implementarea, testarea și validarea unui sistem multi-agent (MADIS),

Un model de sistem multi-agent ce admite comunicare indirectă (stigmergic),

Metaeuristica de optimizare stigmergică și Modelul Sensitive Ant Colony,

O metaeuristica de căutare și optimizare combinatorială bazată pe modelul Sensitive Ant Colony, Un model hibrid bazat pe metaeuristici ale Calculului Evolutiv și Sisteme Multi-Agent,

Modelul agenți stigmergici colaborativi pentru optimizare combinatorială,

Modelul Sensitive Stigmergic Agent System și metaeuristici derivate pentru rezolvarea problemelor NP-dificile, Modelul evolutiv geometric colaborativ de căutare asincronă,

Un model evolutiv bazat pe operatori de căutare hill-climbing pentru predicția structurii proteinelor.

Data:

22.03.2010

Certific validitatea datelor prezentate

Sef de catedră,

Semnătura: