

Mohamed Habib KAMMOUN

PhD Student, Assistant



Curriculum vitæ

Personal Data

Date of birth January 29, 1980 (30 ans)
Place of birth Sfax (Tunisia)
Civil status Single
Nationality Tunisian
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Current Situation

Since Sept. 08 Assistant, Department of Computer Science
The Gafsa Faculty of Science, University of Gafsa (Tunisia)
Since Jan. 06 PhD Student on Computing System engineering
National School of Engineers, University of Sfax (Tunisia)
Since Sept. 04 Member of Research Group on Intelligent Machines (REGIM)
National School of Engineers, University of Sfax (Tunisia)

Qualifications

January 2008 Computer Science and Internet Certificate (C2i)
Virtual University of Tunisia
2003–2005 Master Degree on Computer Science, Dedicated Computer System New Technologies
(NTSID)
National School of Engineers, University of Sfax (Tunisia)
2001–2003 Four-year University Degree on Computer Science
The Sfax Faculty of Science, University of Sfax (Tunisia)
1999–2001 D.U.E.S. Degree on Mathematics, Physics, Chemistry, Computer Science
The Sfax Faculty of Science, University of Sfax (Tunisia)
June 1998 Baccalaureate on Technology
April 9, 1938 secondary School, Sfax (Tunisia)

Research Activities

Research Interests

My research interests focus on the design of agents for a complex real-world problem : Transportation. In this context, I am interested in some large domains :

- Intelligent Architectures
- MultiAgent Modeling and Simulation
- Road Traffic Simulation
- Route Choice Problem
- Reinforcement Learning
- Ant Colony Optimization

Thesis

- Title attempt** An Adaptive MultiAgent Vehicle Routingbased on Hybrid Ant-Hierarchical Fuzzy Model
- Abstract** In view of the sharp increase of vehicle number, accidents and traffic jam situations in all road networks have become wide spread all over the world. A solution for these problems is to develop and invest in Intelligent Transportation System (ITS) which is capable of managing in a better way the existing capacity and developing more efficient vehicle routing over time and space, in order to improve safety, traffic efficiency, etc. The main objective of my works is the development of a management/control strategy of road traffic in real-time in order to improve traffic efficiency, reduce road congestion. Furthermore, the system has to guide drivers' vehicles to reach their destinations taking into account the current situation of the road network. The route choice model is based on hybrid ant-hierarchical fuzzy model.
- Speciality** Computing System engineering
National School of Engineers, University of Sfax (Tunisia)
- Registrations** 4 registrations : 2006–2010
- Advisor** **Mr. Mohamed Adel Alimi**, *Professor, University of Sfax, REGIM Laboratory*
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- Co-Advisor** **Mr. Jorge Casillas**, *Associate Professor, University of Granada, SCI2S Laboratory (Soft Computing and Intelligent Information Systems)*
☎ (+34) 958 240804 ; ☎ (+34) 958 243317
✉ casillas@decsai.ugr.es - Web page : <http://decsai.ugr.es/~casillas/>
- Co-Advisor** **Mme Ilhem Kallel**, *Assistant Professor, University of Kairouan, Tunisia*
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✉ ilhem.kallel@ieee.org - Web page : <http://kallel.regim.org/>

Master

- Title** MultiAgent Modeling and Simulation of Autonomous Agents' cooperation for Road Supervision Framework (In French)
- Abstract** This work is placed in the context of conception, modelling and simulation of complex systems, more especially the administration of road networks. It is integrated in the setting of two recent domains : the multi-agent approach and the intelligent transport systems ITS. We present an architecture of road supervision system based on multi-agent approach, called RoSMAS. This architecture is based on the Aalaadin organizational model. A system design has been achieved using the AUML. A road network simulator, RoSMAS2, has been achieved while using MadKit multi-agent platform. Some simulation results are also presented.

Speciality Dedicated Computer System New Technologies (NTSID)
National School of Engineers, University of Sfax (Tunisia)
Advisor **Mr. Mohamed Adel Alimi**, Professor, University of Sfax, REGIM Laboratory

Publications

International Book Chapters

- 1 **Habib M. Kammoun**, Ilhem Kallel, Adel M. Alimi. (2008). A Hierarchical Fuzzy Controller for Route Choice Problem. *In New Developments in Robotics, Automation and Control*, I-Tech Education and Publishing, edited by A. Lazinec, October 2008, pp. 285-302.

International Conferences

- 3 **Habib M. Kammoun**, Ilhem Kallel, Jorge Casillas, Adel M. Alimi. (2008). A Road Traffic MultiAgent Simulation using TurtleKit under MadKit. *9th International Conference on Artificial Intelligence and Soft Computing ICAISC*, In Challenging Problems of Science series, Computational Intelligence : Method and Applications, June 2008, Zakopane-Poland, pp. 503-514.
- 2 **Habib M. Kammoun**, Ilhem Kallel, Adel M. Alimi. (2007). A Joint Hierarchical Fuzzy-MultiAgent Model Dealing with Route Choice Problem. *In Proc. of the 4th International Conference on Informatics in Control, Automation and Robotics ICINCO*, May 2007, Angers-France, pp. 394-397.
- 1 **Habib M. Kammoun**, Ilhem Kallel, Adel M. Alimi. (2005). RoSMAS2 : Road Supervision based Multi-Agent System Simulation. *In Proc. of the 2nd International Conference on Machine Intelligence ACIDCA-ICMI*, November 2005, Tozeur-Tunisia, pp. 203-210.

Reports

- 2 **Habib M. Kammoun**.(2005) *MultiAgent Approach and Simulation for Road Supervision (In French)*. Master memory on Dedicated Computer System New Technologies, National School of Engineers, University of Sfax (Tunisia).
- 1 **Habib M. Kammoun**.(2003) *Development of a library components (In French)*. Four-year University Degree Memory on Computer Science, The Sfax Faculty of Science, University of Sfax (Tunisia).

Research Project

Since Jan. 07	Member of cooperation project
Title	A multi-agent intelligent transportation system in an integrated soft computing framework
Jan.05 - Dec.05	Member of Tunisian-Spanish cooperation project
Title	Remote Control of Adaptive and Self-governing Mobile Robot Systems to Perform Joint Task by Beta-type Genetic Fuzzy Systems
Partner	Soft Computing and Intelligent Information Systems (SCI2S) Laboratory, University of Granada, Spain

Research Stays

- May 06-June 22, 2008 Research stay supervised by Jorge Casillas, 'Thesis Advancement', research Lab 'Soft Computing and Intelligent Information Systems' SCI2S, Department of Computer Science and Artificial Intelligence (DECSAI), University of Granada, Spain.
- May 14-June 9, 2007 Research stay supervised by Jorge Casillas, 'Thesis Advancement', research Lab 'Soft Computing and Intelligent Information Systems' SCI2S, Department of Computer Science and Artificial Intelligence (DECSAI), University of Granada, Spain.
- Nov.30-Dec.24, 2007 Research stay as part of the Tunisian-Spanish cooperation project (code 39/04/P), research Lab 'Soft Computing and Intelligent Information Systems' SCI2S, Department of Computer Science and Artificial Intelligence (DECSAI), University of Granada, Spain.

Scientific Event Attendances

- Nov. 5-8, 09 Workshop on Computational Intelligence in Systems Design : Theory and Applications, CISD, Djerba Island, Tunisia
- Aug. 23-29, 09 Advanced Course in Artificial Intelligence Summer school ACAI'2009, Belfast, Northern Ireland, United Kingdom
- Dec. 26-28, 08 1st Doctoral School on Science and Technology JEDST (in French), Monastir-Tunisia
- June 22-26, 08 9th International Conference on Artificial Intelligence and Soft Computing, ICAISC, Zakopane, Poland
- Dec.13-14, 07 5th European Workshop on Multi-Agent Systems, EUMAS, Hammamet-Tunisia
- Mai 9-12, 07 4th International Conference on Informatics in Control, Automation and Robotics, ICINCO, Angers, France
- Nov.24-25, 06 50th Anniversary of Artificial Intelligence : past, present and future (in French), ATIA - INSAT, Tunis, Tunisia
- March23-26, 06 6th Conference on Electric and Computer Science GEI (in French), Hammamet-Tunisia
- Nov.5-7, 05 2nd International Conference on Machine Intelligence, ACIDCA-ICMI, Tozeur, Tunisia

Employment

- Since Sept.08 Assistant, Department of Computer Science
The Gafsa Faculty of Science, University of Gafsa (Tunisia)
- Sept.05 - July08 Contractual assistant, Department of Computer Science and Communications
The Sfax Faculty of Science, University of Sfax (Tunisia)
- Sept.03 - July05 Researcher student, Department of Computer Science and Communications
The Sfax Faculty of Science, University of Sfax (Tunisia)

Pedagogical Activities

Teaching Experience

2009 - 2010, I taught at the National School of Engineers of Sfax :

Subject	Charge	Section	Schedule
Intell. Syst. Design (MAS)	Lecture	GI3-ISI	2h/week

2008 - 2010, I taught at the Gafsa Faculty of Science :

Subject	Charge	Section	Schedule
Artificial intelligence	Lecture	I4	1h30mn/week
Formal language theory	Lecture	LFSI2	1h30mn/week
Compiler	Lecture	LFSI2	1h30/week

2003 - 2008, I taught at the Sfax Faculty of Science :

	Subject	Charge	Section	Schedule
2003->2007	C Programming Language	Lect.,Pract.	MI1, TII2	1h30mn/week
2005->2008	C++ O.O Programming Language	Tutorials	MI2	1h30mn/week
2005->2008	Data Structures	Tutorials	MI2	1h30mn/week
2007->2008	Advanced Topics in Algorithms	Tutorials	I3	1h30mn/week
2007->2008	Graph Theory	Tutorials	I3	1h30mn/week

Pedagogical Training

- Nov.14, 07 Pedagogical Seminar (In French), ESSTSS, Sfax, Tunisia
- April, 05 Pedagogical Training Course (CFP, in French), ENIS, Sfax, Tunisia
- Apr. 13-14, 04 Spring Course on Pedagogy (UPP, in French), ENIS, Sfax, Tunisia

Continuous Training

- March21-25, 08 Spring School on Practice of free software (in French), EPL2, Gammarth, Tunisia
- February 08 English for academic purposes - Speaking in academic settings, ENIS, Sfax, Tunisia
- Dec.26-29, 07 Winter School on document preparation system : LaTeX (in French), ECO-LATEX, Manastir, Tunisia
- Nov. 07 English for academic purposes - listening in academic settings, ENIS, Sfax, Tunisia
- July 2-6, 07 LPI 101 Linux Certification Training (in French), Linux Professional Institute, AUF - ADCNS, Sfax, Tunisia
- March 19-23, 07 Transfer Training Workshop 3.2 : Design, development and use of online course (In French), AUF - University of Kairouan, ISIGK, Kairouan, Tunisia
- Dec.17-20, 06 Winter School on Valorization of Innovation by Patents (in French), EHVIB, Sousse, Tunisia
- Dec.26-28, 04 Winter School on Matlab and Applications (in French), EHMA, Tozeur, Tunisia

Associative Activities

- Since 2009 IEEE CIS Tunisia chapter, Treasurer
- Since 2009 IEEE Student Branch in ENIS, Chair
- Since 2009 IEEE SMCS Student Branch Chapter in ENIS, Chair

Memberships

- Since Jan. 09 Member of French Association for Artificial Intelligence (AFIA)
- Since Nov. 06 Member of Tunisian Association for Artificial Intelligence (ATIA)
- Since Sep. 06 Member of Scientific Association for Research and Technologic Innovation Support (ASARIT)

- Since April 06 Graduate Student Member of Institute of Electric and Electronic Engineering (IEEE), IEEE Computational Intelligence Society (CIS), IEEE Computer Society (CS), and IEEE Systems, Man, and Cybernetics (SMCS)
- Since Sep. 04 Member of Research Group on Intelligent Machines (REGIM)

Organizing Activities

- Nov.5-8, 09 Workshop on Computational Intelligence in Systems Design : Theory and Applications, CISD, Djerba Island, Tunisia
- Dec.17-20, 06 Winter School on Valorization of Innovation by Patents (in French), EHVI, Sousse, Tunisia
- Nov.5-7, 05 2nd International Conference on Machine Intelligence, ACIDCA-ICMI, Tozeur, Tunisia
- Dec.26-28, 04 Winter School on Matlab and Applications (in French), EHMA, Tozeur, Tunisia