



Princess Sumaya جامعة
University الأميرة سميرة
for Technology للتكنولوجيا

Faculty Curriculum Vitae

1. Personal Data					
Full Name:	Rawan Ghnemat				
Department:	Computer science Department				
Faculty:	King Hussein School of Computing Sciences	University:	Princess Sumaya University for Technology		
Phone Number:	+96265359949 Ex: 5336	Fax Number:	(+962) 6-5347 295		
Address:	Amman 11941, Jordan P.O.Box 1438 Al-Jubaiha				
Email:	r.ghnemat@psut.edu.jo	Homepage:	https://rawan-ghnemat.com/		
Date of Birth:	05/06/1980	Nationality:	Jordanian		
2. Education					
Certificate	Specialization	Year	Name of University	City	Country
Ph.D. with distinction	Computer Science	2009	Le Havre University	Le Havre	France
M.Sc. GPA:3.94/4.0 (Rank: 1st in the computer science department).	Computer Science	2006	Al-Balqa' Applied University	As-Salt	Jordan
B.Sc. GPA: 3.75/4.0 (Rank: 1st in the engineering department).	Geomatics Engineering	2003	Al-Balqa' Applied University	As-Salt	Jordan
3. Ph.D. Dissertation					
Title of Dissertation:	Adaptive Modeling for Spatial Emergence within Complex Systems				

Name of University	City	State	Country
Le Havre University	Le Havre	---	France

4. Employment

4.1 Academic Positions:

Rank	Department	University	City	Country	Date/s
Associate Professor	Computer Science Department	Princess Sumaya University for Technology	Amman	Jordan	6/9/2017-present
Assistant Professor	Computer Science Department	Princess Sumaya University for Technology	Amman	Jordan	28/9/2011-6/9/2017
Assistant Professor	School of Electrical Engineering and Information Technology (SEEIT)	German Jordanian university	Amman	Jordan	13/9/2009-12/9/2011

4.2. Administrative Positions:

Position	Faculty	University	City	Country	Period
Chairman of Department	Chairman of Computer Science Department	Princess Sumaya University for Technology	Amman	Jordan	2016-2017

5. Research Interest:

Deep Learning.	Convolutional Neural Network (CNN), Computer Vision.
Deep Learning in Medical Imaging.	Machin Leaning.

6. Membership in Scientific Societies and Associations

Sigma Xi : Full Member, Sigma Xi, The Scientific Research Honor Society.(https://www.sigmaxi.org/)

RAWABIT: collaboration and information-sharing network among Jordanian and U.S. universities. RAWABIT aims to facilitate increased cooperation in all forms of higher and post-secondary education, to bridge the education-to-employment gap, and improve economic outcomes for all Jordanians. (<https://www.fulbright.org.jo/programs/rawabit>)

LITIS (Computer Science, Information Processing, and Systems Laboratory, Normandy Region, France) The LITIS is a laboratory (EA 4108) the University of Rouen Normandy, the University of Havre Normandy, and INSA Rouen Normandy. It is a member of the Normand network «Digital Normandy». LITIS is a partner of the French National Centre for Scientific Research (CNRS) Research Federation.

RNSC (Réseau National des Systèmes Complexes): The French National Network on Complex Systems is a vast network that coordinates and organizes all research related to complex systems in France. This network boasts hundreds of researchers as members.

ISCN (Institute of Complex Systems in Normandy) : The institute aims to advance fundamental scientific research and applied research in emerging areas related to complex systems and complexity.

7. Honor and Awards

Full Membership in Sigma Xi, The Scientific Research Honor Society based on the advance knowledge in my field.

Best Paper Award in 2024 9th International Conference on Machine Learning Technologies (ICMLT 2024), Oslo, Norway , May 24-26, 2024.

8. Fellowships and Scholarships

- A scholarship from the French Government to get Ph. D in Computer Science from Le Havre University, France (2006-2009).
- A scholarship from Al-Balqa Applied University to get a master's degree in Computer Science (2004-2006).

9. Teaching Experience

Over the past 8 years, consistently achieved an excellent student evaluation average score of 95%, reflecting exceptional teaching performance and dedication to student success across both undergraduate and graduate courses. This evaluation is based on multiple dimensions, including clarity of instruction, course organization, engagement, and student support.

Regularly recognized for outstanding student mentorship and guidance, fostering both academic and professional growth. Numerous students have pursued successful careers and higher education with direct supervision and support in areas such as artificial intelligence, deep learning, and data science.

9.1 Graduate Courses

No.	Course Name	Course Number
1.	Machine Learning (Ph.D.)	11946
2.	Artificial intelligence (Ph.D.)	11942
3.	Artificial intelligence (Master)	11753

9.2 Undergraduate Courses

No.	Course Name	Course Number
1.	Structured programming	11103
2.	Introduction to computer science.	11102
3.	Artificial intelligence	11428
4.	Graduation projects	11493/ 11494
5.	Compiler construction.	CS419
6.	Data structure.	CS223
7.	Object-oriented programming (Java).	CS214
8.	Computer graphics	CS332

10. Supervision of Graduate Research				
No.	Student Name	Title of Thesis		Year
1.	Hana Alrasheed	Enhance Large Language Models for Arabic Questions and Answers Medical Datasets		2023-present
2.	Ali Safia	End-to-end Jordanian dialect speech-to-text system using self-supervised learning.		2020-2023
3.	Zainab Althafir	A Hybrid Approach for Auto-Correcting Grammatical Errors Generated by Non-Native Arabic Speakers.		2020-2022
4.	Lina Siyam	Question Answering System For Arabic Medical Consultation Using Hybrid Deep Learning Model.		2020-2022
5.	Reem Ahmad	Detecting Phishing Websites by Integration of Sampling and Classification Techniques .		2017-2018
6.	Ahmad Gham	Using Second-Order Newton's Method for Artificial Neural Networks Optimizations.		2018-2019
7.	Reham Saeed	Improve Religious Hate Speech Detection in Arabic Language in Social Media.		2019-2022
8.	Dayan Rashid	Software Defect Prediction using Metaheuristic Algorithm and Random Forest Classifier.		2016-2017
9.	Rami Darwish	Enhancing the Ontologies Matching in Semantic Web using Artificial Neural Network.		2016-2017
10.	Mohammad Ghazawi,	Dynamic Clustering Queries for Search Engines using Particle Swarm Optimization Algorithm.		2015-2017
11.	Ruba Zaghari,	Behavioral Segmentation for Web Users Using Self-Organizing Kohonen Maps.		2012-2013
11. Grants				
No.	Project Name	Year Of Grant	Grantor Organization	Grant Amount
1.	Bringing Data Literacy to Jordan (BDL2JO)	2023	DAAD	40000 EUR

2.	Autism spectrum disorders diagnosis and rehabilitation using new pruning algorithm for deep Convolutional Neural Networks(CNN) with Swarm intelligence (SI).	2023	PSUT (Seed Fund)	3000 JD
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12. Patents

No.	Author's last name	author's first name	Name of Patent	Patent number	Date the patent was issued (Date/Month/Year)

13. Membership of Committees

13.1 National and International Committees (add rows as needed)

1.	International Advisory Board of 2025 9th International Conference on Artificial Intelligence and Virtual Reality (AIVR2025). https://www.aivr.org/com.html
2.	GAT GROUP Strategic Steering Committee. https://www.i-gat.com/members .
3.	Member in higher education accreditation council for computer science and information technology programs since the year 2016.
4.	Funded research project evaluation for the Jordanian Ministry of higher education and scientific research.
5.	Member in the Editorial Board of the Journal of Intelligent Computing, Dline.
6.	Participation in a focus group about: "The Challenges Women Face in Innovation in Jordan" Project funded by Civic Initiatives Support Program (USAID-CIS).
7.	Member in the Jordan Engineers Association (JEA).
8.	Member in the French universities' graduate alumni in Jordan.

9.	Member in the Organizing Committee of the International Conference on New Trends in Computing Sciences (ICTCS) .
10.	RAWABIT: collaboration and information-sharing network among Jordanian and U.S. universities. RAWABIT aims to facilitate increased cooperation in all forms of higher and post-secondary education, to bridge the education-to-employment gap, and improve economic outcomes for all Jordanians. (https://www.fulbright.org.jo/programs/rawabit)
11.	Falling walls competitions Jury member. https://falling-walls.com/
13.2 University Committees (add rows as needed)	
1.	Member of the Department sabbatical leave technical report evaluation Committee, PSUT, 2023.
2.	Member of the Student’s Mental Health Committee, PSUT, 2022-present
3.	Member of the Department Scientific Research Committee, PSUT, 2021-present
4.	Member of the Student’s Violation Investigation Committee, PSUT, 2020-present
5.	President of the university social Committee, PSUT, 2020-present
6.	President of the Academic Advising Committee, PSUT, 2019-2021
7.	Member in Department graduation project evaluation committee 2019-present
8.	External examiner for Ph.D. thesis and master thesis from (2014-present)

14. Professional and Scientific Meetings	
14.1 Scientific Meetings Organized	
Provide list of conference or symposium or workshop etc., place, and date (add rows as needed)	
1.	International Advisory Board of 2025 9th International Conference on Artificial Intelligence and Virtual Reality (AIVR2025). https://www.aivr.org/com.html Osaka, Japan ,2025, July 11-13.
2.	Conference of the European project :Female Academic Role Model Empowerment, Equality, and Sustainability at Universities in Mediterranean Region: towards 2030 Agenda – FREE, June 2022, Amman, Jordan

3.	Scientific/Organizing Committee member of the second International Conference on New Trends in Computing Sciences (ICTCS), October 2019, Amman, Jordan,
4.	Scientific/Organizing Committee member of the first International Conference on New Trends in Computing Sciences (ICTCS), October 2017, Amman, Jordan
14.2 Participation in Scientific meetings	
Provide list of conference or symposium or workshop etc., place, and date (add rows as needed)	
1.	AI in Higher Education Workshop organized by German Academic Exchange Service (DAAD), June 2024, Amman Jordan.
2.	2024 9th International Conference on Machine Learning Technologies (ICMLT 2024) , Oslo, Norway ,May 24-26, 2024. https://icmlt.org/2024.html
3.	Technology Camp at the US embassy in Jordan. January 2024
4.	SHETECHS forum : Amplifying Business Growth through Women in Technology, March 2024. https://www.shetechsforum.com/
5.	RAWABIT Launch program event RAWABIT: The U.S.-Jordanian University Cooperation Network , June 2023. https://www.fulbright.org.io/programs/rawabit
6.	2022 International Conference on Emerging Trends in Computing and Engineering Applications (ETCEA), November 2022, Amman, Jordan.
7.	International Conference on Software and Information Engineering (ICSIE) November 2020, online.
8.	Huawei deep learning workshop, June 2020, online.
9.	Judge FALLING WALLS compaction LAB 2017. https://falling-walls.com/lab/apply/jordan/
10.	Participation in World Science Forum November ,2017. https://2017.worldscienceforum.org/

15. Participation in or organization of curricular and/or extra-curricular activities

Provide list with name, place, date of event and other relevant details (add rows as needed)

1.	The founder and the organizer of chat Bot summer camp for PSUT students with Jordan's open-source association, PSUT, in the summer of 2017.
2.	Participation in a focus group about: "The Challenges Women Face in Innovation in Jordan" Project and funded by Civic Initiatives Support Program (USAID-CIS).Al-Hussain Business park Amman ,Jordan 2019.
3.	Developing introduction course for Artificial Intelligence with Edraak Organization (https://www.edraak.org/programs/course/ariv-vt3_2018/).
4.	Invited Speaker in Dubai Smart City / Expo 2020 seminar about intelligent web applications. Dubai, April 5 – 7/ 2018.

16. Publications

Provide numbered lists of:

- Papers in refereed journals
- Books and Book Chapters
- Conference Presentations
- Reports

Format to be followed:

Author's family name, initials (in case of multiple authors, your name and initials should be in bold); Title of Article, Name of Journal, Vol. no., year of publication, pages xxx-xxx. (add rows as needed)

1.	Alnagi, E., Ghnemat, R. & Abu Al-Haija, Q. Boosting Arabic text classification using hybrid deep learning approach. <i>Discov Appl Sci</i> 7, 540 (2025). https://doi.org/10.1007/s42452-025-07025-x
2.	Ghnemat R. , Al-Madi N , Awad M."An Intelligent Approach for Autism Spectrum Disorder Diagnosis and Rehabilitation Features Identification", <i>Neural Computing and Applications</i> 37, 2557–2580 (2025). https://doi.org/10.1007/s00521-024-10770-6 .
3.	Ghnemat R. , and Al-mashaqbeh s." Novel Image Data Augmentation Technique for Deep Learning Using Least Significant Bit Encryption". In 2024 9th International Conference on Machine Learning Technologies (<i>ICMLT 2024</i>), May 24-26, 2024, Oslo, Norway. ACM, New York, NY, USA, Pages: 143-152. ACM ISBN 979-8-4007-1637-9/24/05 https://doi.org/10.1145/3674029.3674053
4.	Saif A., Ghnemat R. , Abu Al-Haija Q." A Siamese network optimization using genetic algorithm for brain diseases". <i>IET Image Process.</i> 00, 1–10 (2024). https://doi.org/10.1049/jpr2.13168
5.	AlsIman Y., Khalil A., Younis R., Alnagi,E., Al-Saraireh J. and Ghnemat R. " DDOS ATTACK-DETECTION APPROACH BASED ON ENSEMBLE MODELS USING SPARK". <i>Jordanian Journal of Computers & Information Technology (JJCIT)</i> . Feb 2024.10(2).

	https://doi.org/10.5455/jcit.71-1694806966
6.	Ghnemat R. , Almodawar A. and Al Saraireh J.” Scalable model for segmenting Cells’ Nuclei using the U-NET architecture”. <i>Multimedia Tools and Applications</i> . <i>Multimed Tools Appl</i> 83 , 63655–63678 (2024). https://doi.org/10.1007/s11042-023-18033-7
7.	Ghnemat R. , Alodibat S., Abu Al-Haija Q. “Explainable Artificial Intelligence (XAI) for Deep Learning Based Medical Imaging Classification”. <i>J. Imaging</i> . 2023, 9, 177. https://doi.org/10.3390/jimaging9090177
8.	brahimR., Ghnemat R. , Abu Al-Haija Q. “Improving Alzheimer’s Disease and Brain Tumor Detection Using Deep Learning with Particle Swarm Optimization”. <i>AI</i> 2023, 4, 551-573. https://doi.org/10.3390/ai4030030
9.	Younisse R., Ghnemat R. , AlSaraireh J.”Fine-tuning U-net for medical image segmentation based on activation function, optimizer and pooling layer”. <i>International Journal of Electrical and Computer Engineering (IJECE)</i> .2023 Oct Vol. 13, No. 5. http://doi.org/10.11591/ijece.v13i5.pp5406-5417
10.	Ghnemat R. , Khalil A., Abu Al-Haija Q. “Ischemic Stroke Lesion Segmentation Using Mutation Model and Generative Adversarial Network”. <i>Electronics</i> . 2023 Jan 25;12(3):590. https://doi.org/10.3390/electronics12030590
11.	Safieh A., Abualhaol I., Ghnemat R. “End-to-end Jordanian dialect speech-to-text self-supervised learning framework”. <i>Frontiers in Robotics and AI</i> . 2022 Dec 22:345. https://doi.org/10.3389/frobt.2022.1090012
12.	Althafir Z., Ghnemat R. “A Hybrid Approach for Auto-Correcting Grammatical Errors Generated by Non-Native Arabic Speakers”. <i>In2022 International Conference on Emerging Trends in Computing and Engineering Applications (ETCEA)</i> .2022 Nov 23 (pp. 1-6). IEEE. https://doi.org/10.1109/ETCEA57049.2022.10009874
13.	Ghnemat R. “Hybrid Framework for Diabetic Retinopathy Stage Measurement Using Convolutional Neural Network and a Fuzzy Rules Inference System”. <i>Applied System Innovation</i> . 2022 Oct 14;5(5):102. https://doi.org/10.3390/asi5050102
14.	Ghnemat R. , Shaout A., Al-Sowi A.M. “Higher Education Transformation for Artificial Intelligence Revolution: Transformation Framework”. <i>International Journal of Emerging Technologies in Learning</i> . 2022 Oct 1;17(19). https://doi.org/10.3991/ijet.v17i19.33309
15.	Ghnemat R. , Shaout A. “Measuring Waste Recyclability Level Using Convolutional Neural Network and Fuzzy Inference System”. <i>International Journal of Intelligent Information Technologies (IJIT)</i> . 2022 Jan 1;18(1):1-7. https://doi.org/10.4018/IJIT.306969

16.	Ghnemat R. , Ghnnam A., Al-Sowi A.M. “Deep Artificial Neural Networks Optimizations Using Second-Order Newtons Method”. <i>Journal of Theoretical and Applied Information Technology</i> .2021 Nov. Vol.99. No 22.pages 5527-5550. http://www.jatit.org/volumes/Vol99No22/27Vol99No22.pdf
17.	Alhuniti O., Ghnemat R. , El-Seoud M.S. “Smart university scheduling using genetic algorithms”. <i>In Proceedings of the 2020 9th International Conference on Software and Information Engineering (ICSIE)</i> . 2020 Nov 11 (pp. 235-239). https://doi.org/10.1145/3436829.3436873
18.	Alwidian J., Elhassan A., Ghnemat R. “Predicting autism spectrum disorder using machine learning technique”. <i>International Journal of Recent Technology and Engineering</i> . 2020;8(5):4139-43. https://doi.org/10.35940/ijrte.E6016.018520
19.	Ghnemat R. , Mansour A., Abbadi J., Madain R. and Madain A., "Medsinfo: An Android Application For Recognizing JFDA Approved Medication And Acquiring The Corresponding Arabic Leaflet." <i>International Journal of Scientific & Technology Research</i> . 2019.Vol 8, no. 12.: 10-15. https://www.ijstr.org/final-print/dec2019/Medsinfo-An-Android-Application-For-Recognizing-Jfda-Approved-Medication-And-Acquiring-The-Corresponding-Arabic-Leaflet.pdf
20.	Alsadi M.S., Ghnemat R. , Awajan A. “Accelerating stochastic gradient descent using adaptive mini-batch size”. <i>In2019 2nd International Conference on new Trends in Computing Sciences (ICTCS)</i> . 2019 Oct 9 (pp. 1-7). IEEE. https://doi.org/10.1109/ICTCS.2019.8923046
21.	Saeed R., Ghnemat R. , Benbrahim G., Elhassan A. “Learning with Dynamic Architectures for Artificial Neural Networks-Adaptive Batch Size Approach”. <i>In2019 2nd International Conference on new Trends in Computing Sciences (ICTCS)</i> .2019 Oct 9 (pp. 1-4). IEEE. https://doi.org/10.1109/ICTCS.2019.8923070
22.	Ibrahim D.R., Ghnemat R. , Hudaib A.” Software defect prediction using feature selection and random forest algorithm”. <i>In2017 International Conference on New Trends in Computing Sciences (ICTCS)</i> .2017 Oct 11 (pp. 252-257). IEEE. https://doi.org/10.1109/ICTCS.2017.39
23.	Ghnemat R. , Shaout A. “Hybrid Fuzzy Neural Search Retrieval System”. <i>International Journal of Enterprise Information Systems (IJEIS)</i> . 2016 Jul 1;12(3):1-6. https://doi.org/10.4018/IJEIS.2016070105

24.	Hudaib A., Fakhouri H., Ghnemat R. "New methodology for microarray spot segmentation and gene expression analysis". <i>Scientific Research and Essays</i> .2016; Vol. 11, No. 12, Pages 126-134. https://doi.org/10.5897/SRE2015.6378
25.	Ghnemat R, Jaser E. "Classification of Mobile Customers Behavior and Usage Patterns using Self-Organizing Neural Networks". <i>International Journal of Interactive Mobile Technologies</i> . 2015 Oct 1;9(4). https://doi.org/10.3991/ijim.v9i4.4392
26.	Al-Shboul M., Rababah O., Ghnemat R., Al-Saqqah, S. "Challenges and Factors Affecting the Implementation of E-Government in Jordan". <i>Journal of Software Engineering and Applications</i> . 2014; Vol. 7, No. 13, Pages 1111-1127. https://doi.org/10.4236/jsea.2014.713098
27.	Rabah O., Al-Shboul M., Al-Zaghoul F., Ghnemat R." Website Search Engine Optimization: Geo-graphical and Cultural Point of View". <i>Journal of Software Engineering and Applications</i> , 2014; vol. 7, No. 13, Pages 1087-1095. https://doi.org/10.4236/jsea.2014.713096
28.	Ghnemat R., Jaser E. "Toward Mobile Telecommunication Recommendation System through Intelligent Customers Categorization". <i>International Journal of Computers & Technology</i> , 2014; Vol. 12, No. 7, Pages: 3651-3658. https://doi.org/10.24297/ijct.v12i7.3099
29.	Ghnemat R., Zaghari R., Atoum J." Behavioral Segmentation For Web Searching Users Using Self-Organizing Kohonen Maps". <i>Proceedings of The Second International Conference on e-Technologies and Networks for Development</i> . 2013 ISBN: 978-0-9853483-6-6, Kuala Lumpur, Malaysia, March 4-6, 2013, the Society of Digital Information and Wireless Communication Pages: 114-121.
30.	Corson N., Aziz-Alaoui M., Ghnemat R., Balev S., Bertelle C. "Modelling the Dynamics of Complex Interaction Systems: from Morphogenesis to Control", <i>International Journal of Bifurcation and Chaos</i> ,2012; Vol. 22, No. 2, Pages 1250025(1) - 1250025(20), https://doi.org/10.1142/S0218127412500253
31.	Ghnemat R., Lucchini F., Bertelle C." Modeling urban cultural systems with the interactive simulation platform Rouants". <i>Proceedings of MESM'2011, Middle Eastern Simulation and Modelling Conference</i> , 2011;Amman, Jordan, November 14-16, 2011. Pages 96-100.
32.	Ghnemat R., Lucchini F., Bertelle C.. "Rouants simulation platform to model service user dynamics of cultural sites within urban area". <i>Proceedings EPNACS 2011, a satellite meeting of ECCS'11</i> , 2011; Vienna, Austria, September 12-16, 2011, Pages 61-67.
33.	Bertelle C., Dutot A., Ghnemat R." Modeling Self-Organization Systems with Social Insects Algorithms", <i>International Journal Broad Research in Artificial Intelligence and Neuroscience</i> , 2010;Vol. 1, Pages 18-32.

34.	Ghnemat R. , Bertelle C., Duchamp G.H.E." Modeling Spatial Organization with Swarm Intelligence Processes", <i>International Journal of Bio-Inspired Computation (IJBIC)</i> , 2010 ; Vol. 2, No. 6, Pages 374-382.
35.	Ghnemat R. , Bertelle C. , Duchamp G.H.E. "Modeling Urban Dynamics Complexity with Swarm Intelligence processes", <i>EPNACS'2010 satellite meeting for ECCS'2010 - European Conference on Complex Systems</i> , 2010 ;Lisbon, Portugal, September 13-18, 2010
36.	Bertelle C., Al-Obaidy M., Ayesha A., Ghnemat R. "Interacting wireless sensors networks to spatial emergence for decision making". <i>Proceeding of 7th IEEE International Conference and Workshops on Engineering of Autonomic and Autonomous Systems</i> , 2010 (EASe 2010), University of Oxford, England, March 22-26, 2010. Pages 73-78
37.	Ghnemat R. , Bertelle C., Duchamp G.H.E.." Modeling urban services usage with social insect algorithms". <i>Proceeding of 2nd Asian Simulation Technology Conference</i> , 2010 ; (<i>ASTE'2010</i>), Shanghai, China, March 1-3, 2010, Pages 115-122.
38.	Ghnemat R. , Bertelle C., Duchamp G. " A Methodology for Urban and Land-Use Management Simulation Using Spatial Self-Organization Processes". <i>Dynamics of Continuous, Discrete and Impulsive Systems journal - series B: Applications and Algorithms</i> , 2009 ;Vol. 16, No. 4, Pages 501-513.
39.	Ghnemat R. , Bertelle C., Duchamp G.H.E." Swarm intelligence for urban dynamics modeling", <i>American Institute of Physics (AIP Journals)</i> , 2009;Vol. 1117 ,Pages 105-115.
40.	Bertelle C., Dutot A., Ghnemat R. "Applicative issues from self-organized systems based on social insects modelling", presented in <i>International Symposium in Understanding Intelligent and Complex Systems (UICS)</i> , 2009 ; Romania, October 22-23,.
41.	Ghnemat R. , Bertelle C., Duchamp G.H.E." Agent-based modeling using swam intelligence in geographical information systems. <i>In proceeding of 5th International Conference on Information Technology (ICIT), IEEE</i> , 2008 ; Al-Ain, UAE, Dec. 16-18, 2008. Pages: 69-73.
42.	Ghnemat R. , Bertelle C., Duchamp G.H.E." Managing Spatial Self-organization via Collective Behaviors". <i>Proceeding of European Simulation and Modelling Conference ESM'2008</i> , October 27-29, 2008 , Le Havre, France, Pages 264-266.
43.	Ghnemat R. , Lucchini F., Bertelle C. " Urban cultural dynamics modelling using swarm intelligence and geographical information systems", In proceedings of <i>The 2008 European Simulation and Modelling Conference (ESM2008)</i> , 2008 ; Le Havre University, France, Oct. 27-29, 2008.Pages: 258-263.

44.	Ghnemat R., Bertelle C., Duchamp G.H.E.. "Urban Dynamics Modelling using Ant Nest Building", <i>In proceedings of Middle East Simulation and Modelling (MESM 2008), 2008</i> ;Philadelphia University, Jordan, August 26-28, 2008. Pages: 124-128.
45.	Ghnemat R., Bertelle C., Duchamp G.H.E. 2008. "Adaptive Spatial System Emergence from Community Swarm Optimization", <i>In proceedings of Swarm Intelligence Algorithms and Applications Symposium (SIAAS), Aberdeen, Scotland, April 1-4, 2008.</i>
46.	Ghnemat R., Duchamp G.H.E., Bertelle C. "On the use of generalized derangements for Schelling's model of segregation", 2007 ; in proceedings of <i>ESM'2007</i> , St Julian's Malta, October 22-24, 2007, Pages 306-308.
47.	Ghnemat R., Bertelle C., Duchamp G.H.E.. "Adaptive Automata Community Detection and Clustering - A Generic Methodology", In proceedings of WCE'2007, London, U.K., July 2007 , Pages 25-30.
48.	Ghnemat R., Bertelle C., Duchamp G.H.E. "A Methodology for Ecological Resources Management Simulation using Geographical Information Systems and Interacting Agent Systems:," <i>Eco Summit 2007</i> , Beijing, China, May 22-27, 2007 .
49.	Ghnemat R., Bertelle C., Duchamp G.H.E. "Self-organization simulation over geographical information system based on multi-agent platform", <i>In Proceedings of ESM 2006</i> , Toulouse, France, 2006 ;October 23-25, 2006. Pages: 420-424
50.	Dahmani H., Duchamp G.H.E., Ghnemat R., Hadj-Kacem H., Bertelle C. "Emerging Decision Support System for Geographical Information Systems", <i>In Proceedings of ECELM-2</i> , Tigu-Mures, Romania, May 31 - June 3, 2006 . Pages 78-90.
51.	Ghnemat R., Bertelle C., Duchamp G.H.E., Khatatneh K., Oqeili S. "Automata-Based Adaptive Behavior for Economic Modeling Using Game Theory", <i>EPNADS'05 within ECCS'05 International Conference</i> , Paris, France, Nov. 14-18, 2005. Springer Berlin Heidelberg. Pages 171-183
Book Chapters:	
1	Ghnemat R., Bertelle C., and Duchamp G.H.E. 2009. Community swarm optimization. <i>From System Complexity to Emergent Properties. Springer-Verlag Berlin Heidelberg, Understanding Complex Systems series</i> , Pages 195–207.
2	Ghnemat R., Bertelle C., and Duchamp G.H.E. 2009. Swarm intelligence for urban dynamics. <i>Advanced Bio-Inspired Computational Methods</i> . (ISBN 978-973-7794-77-2), Pages 131–137.

3	Ghnemat R. , Bertelle C., and Duchamp G.H.E. 2009. Self-Organization Simulation over Geographical Information Systems Based on Multi-Agent Platform. <i>Complex systems and Self-Organization Modelling</i> , Springer-Verlag Berlin Heidelberg, Pages: 107-116.
4	Ghnemat R. , Oqeili S., Bertelle C. and Duchamp G.H.E. 2006. Automata-Based Adaptive Behavior for Economic Modelling Using Game Theory. <i>Emergent Properties in Natural and Artificial Dynamical Systems</i> , Springer-Verlag Berlin Heidelberg, Pages 173-185.