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Dr. Said Ghoul

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Part 1/ General Information

First name and Surname: *Saïd Ghoul*

Date and Place of Birth: *07/05/1954, Arris, Batna, Algeria*

Institution: *Philadelphia University, Faculty of Information Technology, Department of Software Engineering, PO Box 1, 19392, Jordan.*

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Degrees

1. Doctorate Es. Sciences (Post doctoral researches), in Software Engineering, Annaba University, Algeria, 1995.
Thesis Topic: *Methodologies and Structures Aspects in Software Processes.*
Research Laboratory: *Software Engineering, Annaba University, Algeria*
Research Project: *Software Process: Object-Oriented Approach*
2. Doctorate of Engineer (By research only), in Software Engineering, INP Grenoble, France, 1984. *Equivalence to PhD in Software Engineering obtained in Jordan. Software Engineering Speciality is accredited.*
Thesis Topic: *Software Databases and Configurations Management in Software Engineering Environments*
Research Laboratory: *Software Engineering, INP Grenoble, France*
Research Project: *Software Engineering Environment ADELE*
3. Master (with courses and thesis), in Software Engineering, National Polytechnic Institute of Grenoble (INPG), France, 1981.
Thesis Topic: *Systems Modular Decomposition Improvement – Application to Pascal Model*
Research Laboratory: *Software Engineering, INP Grenoble, France*
Research Project: *Software Engineering Environment ADELE*
4. Engineer in Software (Five years study programme), University of Constantine, Algérie, 1980.
Graduated Project Topic: *Waterfall Methodology – Entity-Relationship DBMS Analysis, Design, Implementation, and Testing*
Research Laboratory: *Centre Universitaire de Recherches, University of Constantine, Algeria*
Research Project: *Databases*
5. Baccalaureat in Mathematics, Constantine, Algeria, 1995

Present Grade: *Full Professor of Software Engineering*

Languages: Arab (mother tongue), French (excellent), English (very good)

International Specialized Certifications: *OMG UML (2023)*

Referees

1. Professor M. Bettaz, Philadelphia University, Jordan: bettaz@hotmail.com
2. Professor Zoubir Belmesk, Computer science, CEGEP de Maisonneuve, Montreal, QC, belmeskz@hotmail.com
3. Professor J. Mossiere, INP Grenoble, France. Jacques.Mossiere@imag.fr

Part 2/ Research Activities

1 Publications in Journals, conferences, and workshops

Journals

1. Secure Context-Aware Traffic Light Scheduling System: Integrity of Vehicles' Identities. *World Electr. Veh. J.* **2025**, 16(8), 2025
2. Confidential Intelligent Traffic Lights ocntrol ystem: Prevention of Un-authorized Traceability. *Big Data and Cognitive Computing Big Data Cogn. Comput.* **2025**, 9(7), 169, 2025
3. Traffic Light Control Systems Requirements Engineering International Journal of Network Security & Its Applications (IJNSA) Vol.16, No.1, January 2024
4. Automatically generated goal models from requirements: Toward an enhanced formalism. *AIP Journal*. Volume 2979, Issue 1, October 2023
5. Blind color user interface requirements: A UMI specification, *AIP Journal*. Volume 2979, Issue 1, October 2023
6. Toward automated Goal Model generation from UML use case and suimlane diagrams. *International Journal of Computers and their Applications*, Vol 30, No. 02, 2023
7. Towards automated Feature Model generation from UML use case ans calss diagrams. *International Journal of Computers and their Applications*, Vol 30, No. 02, 2023
8. An Approach towards Goal-Oriented Requirements Ontology: Consistency and Completeness Based Requirements Analysis. *Journal of Software Engineering and Applications* > *Vol.16 No.2, February 2023*. <https://doi.org/10.4236/jsea.2023.162003>
9. Feature Model Configuration Reuse Scheme for Self-Adaptive Systems. *CMC-Computers, Materials & Continua*, 71(1), 1249–1262. 2022. <https://www.techscience.com/cmc/v71n1/45369>
10. A Holystic Self-adaptive systems model, *International Journal of Software Engineering & Applications (IJSEA)*, 12, 2/3, May 2021. <https://aircconline.com/ijsea/V12N3/12321ijsea01.pdf>
11. Requirements Variability Specification For data Intensive Software. *International Journal of Software Engineering & Applications (IJSEA)*, Vol.10, No.2, March 2019. <http://aircconline.com/ijsea/V10N2/10219ijsea03.pdf>
12. Bio-Inspired Requirements Variability Modeling with use Case. *International Journal of Software Engineering & Applications (IJSEA)*, Vol.10, No.2, March 2019. <http://aircconline.com/ijsea/V10N2/10219ijsea05.pdf>
13. A Feature Based Methodology for Variable Requirements Reverse Engineering. *American Journal of Software Engineering and Applications (AJSEA)*, 8(1): 1-7, 2019 <http://article.sciencepublishinggroup.com/pdf/10.11648.j.ajsea.20190801.11.pdf>
14. A Genetic Framework model for Self-Adaptive software. *Journal of Software Engineering*, 11 (3): 255-265, 2017 <http://www.scialert.net/qredirect.php?doi=jse.2017.255.265&linkid=pdf>
15. Software Evolution: A Features Variability Modeling Approach. *Journal of Software Engineering* Volume 11, Number 1, 12-21, 2017. <http://scialert.net/qredirect.php?doi=jse.2017.12.21&linkid=pdf>
16. A Road Map to Bio-inspired Software Engineering. *Research Journal of Information Technology* Volume 8, Number 3, 75-81, 2016. <http://scialert.net/qredirect.php?doi=rjit.2016.75.81&linkid=pdf>
17. Modeling Variability in Algorithms Design Methods - Divide and Conquer Case, *International Journal of Software Engineering and Its Applications* Vol. 9, No. 2 (2015), pp. 47-58. http://www.sersc.org/journals/IJSEIA/vol9_no2_2015.php
18. Systems Versioning: A Features-Based Meta-modeling Approach. *ONLINE SPECIAL JOURNAL ISSUES*. published in *International Science Index* Vol:8 No:06, 2014 at www.waset.org/Publications.
19. A Genetic Methodology for Object Evolution. *International Journal Of Software Engineering and Its Applications*, ISEIA, Vol.8, No. 3, 2014, http://www.sersc.org/journals/IJSEIA/vol8_no3_2014.php
20. A Bio-Inspired Approach to Selective Inheritance Modeling. *International Journal Of Software Engineering and Its Applications*, ISEIA, Vol. 8, No. 1, 2014, http://www.sersc.org/journals/IJSEIA/vol8_no1_2014.php

21. Systems Variability Modeling: A Textual Model Mixing Class and Feature Concepts. International Journal of Computer Science & Information Technology (IJCSIT) Vol 5, No 5, October 2013, http://airccse.org/journal/ijcsit2013_curr.html
22. A Rotational Blended Learning Model: Enhancement and Quality Assurance. i-manager's Journal of Educational Technology, Vol. 9, No. 4, March 2013. <http://www.imanagerpublications.com/Archives.aspx>
23. From Composition Filters to AspectJ: A Platform Specific Model Transformation, Journal of Computing and Information Technology - CIT 14, 2006, 2, 111-131
24. A New Textual Description for Software Process Modeling, Journal of Information Technology JIT, 2006.
25. A Model-Driven Approach to Aspect Mining, Journal of Information Technology JIT 5(3), 2006, pp. 573-576.
26. Software Process Modelling Using Role and Coordination, Journal of Computer Science 2(4): 333-336, 2006
27. A Comparative Classification of Aspect Mining Approaches, Journal of Computer Science 2(4): 322-325, 2006
28. Toward autonomously developed Software: A genetic approach in critical and embedded systems. Journal of Computer Science 1 (4): 530: 537, 2005.
29. A New approach for software process modeling, WSEAS Transactions on Information Science and applications, 1(1), july 2004
30. Aspect mining using a specification driven program slicing approach, WSEAS Transactions on Information Science and applications, 1(1), july 2004
31. A New Classification Scheme for Software Reuse. *The South African Computer Journal, SART/SACJ*, N° 25, ISSN 1015-7999, 2002.
32. RDF : A Formalism for reusing software. *The South African Computer Journal, SART/SACJ*, N° 25, ISSN 1015-7999, 2002.
33. Classifying Software for Reusability. *Courrier du Savoir* – N°01, Novembre 2001, pp. 41-47
34. Program Slicing: Precise shops extraction Approaches. *Hand book of Software Engineering & Knowledge Engineering*, Vol. 1, Fundamentals, S.K. Chang (editor), Word Scientific Publishing, 2001.
35. A New Approach for Program Integration. *The South African Computer Journal, SART/SACJ*, N° 25, ISSN 1015-7999, August 2000, pp. 3-11
36. Assistance a la comprehension de programmes: Un modele et un algorithme de fragmentation., *Jenie Logiciel (France)*, No. 45, September 1997, pp. 32-42.
37. Semantic Classification: A Genetic Approach to Classification in Object-Oriented Models. *Journal of Object-Oriented Programming (USA)*, Vol 9, No 8, January, 1997, pp. 25 - 37.
38. Preliminary experience with a configuration control system for modular programs. *ACM SIGSOFT (USA)*, Vol.9, No.3, May 84. pp. 149 - 156.
39. Un Système Automatique de Gestion de Gros Logiciels: La Base de Programmes Adele. *Techniques et Sciences Informatiques (France)*, Vol. 3, No. 4, Avril 1984, pp. 253 - 259.

Proceedings of international Conferences

1. Towards A Framework For Complex Software Design: Challenges And Perspectives. Proceedings of ICSIC 2024
2. Towards A Metamodel for Educational Systems Chatbot: Issues and Perspectives. Proceedingd of ICSIC 2024
3. Automatically Generated Goal Model from Requirements: Toward an Enhanced Formalism. Proceedings of ICSIC2022, 2022
4. Blind color user interface Requirements: A UML Specification. Proceedingdings of ICSIC2022 2022
5. Automatically Generated Feature Model from Requirements: Toward an Enhanced Formalism. Proceedings of ICICS2022, IEEE
6. Stemming Effects on Sentiment Analysis using Large Arabic Multi-Domain Resources. 2019 Sixth International Conference on Social Networks Analysis, Management and Security (SNAMS) October 2019
7. Software Engineering Perspective: Bio-inspired Approach, [The International Arab Conference on Information Technology, ACIT 2015](#), Keynote Speaker.
8. Systems Versioning: A Features-Based Meta-modeling Approach. [ICFSE 2014: International Conference on Forensic Software Engineering](#)", London, United Kingdom, Jun 29-30, 2014
9. Supporting AOP by Bio-inspired concepts. IEEE Xplore, 2011. [Supporting Aspect-Oriented Paradigm by bio-inspired ...](#)
10. A Methodology for AUML role modeling. IEEE Xplore, 2011. [IEEE Xplore Abstract - A methodology for AUML role modeling](#)
11. Bio-inspired Systems – An Integrated Model. MISC2010, International Symposium on Modeling and Implementation of Complex systems, Constantine, Algeria, May 30 – 31, 2010.
12. Enhancing the Web Application Security Using Aspect-Oriented Programming. MISC2010, International Symposium on Modeling and Implementation of Complex systems, Constantine, Algeria, May 30 – 31, 2010.
13. A Genetic Based Approach for Reducing Null ValuesIn Object-Oriented Database. MISC2010, A Genetic Based Approach for Reducing Null ValuesIn Object-Oriented Database, Constantine, Algeria, May 30 – 31, 2010.
14. Toward Bio-inspired Systems Integrated Model, accepted in 11th International Conference on Enterprise Information Systems, Milan, Italy6 - 10, May 2009
15. Une approche Cognitive pour L'aspect Mining, 8th International Symposium on Programming and Systems, ISPS'2007, Algiers, May 7-9, 2007
16. Classification of Software and Hardware Bio-inspired Systems, *ACS/IEEE AICCSA* 2006, UAE.
17. Modeling Role Model and Component Model: Confrontation of Concepts, 4th International Multiconference on Computer Science & Information Technology, Amman - April 5-7, 2006.
18. Plan-based Aspect Mining, 4th International Multiconference on Computer Science & Information Technology, Amman - April 5-7, 2006

19. From AspectJ to Composition Filters: A platform Specific Model transformation, 4th International Multiconference on Computer Science & Information Technology, Amman - April 5-7, 2006
20. Le Model Miage, ICSSEA, 2004
21. A Survey of Aspect mining techniques, CIIA05 Congrès International en Informatique Appliquée, Novembre 19,20,21 2005, pp. 241-246.
22. Role based Software Process Modeling, ISPS'2005, May 9-11, 2005, Algiers.
23. Modeling software process using roles, 17th International Conference on Software & Systems Engineering and their Applications, Paris - November 30 & December 1-2, 2004
24. The MAGE ontogenetic model: Towards autonomously-developed software, 17th International Conference on Software & Systems Engineering and their Applications, Paris - November 30 & December 1-2, 2004
25. L'auto-évolution par MAGE, Une Approche Génétique Orientée Aspects, ISPS'2003, 6th International Symposium on Programming and Systems, Algiers May 2003.
26. A Reuse Description Formalism. *AICCSA 2001, IEEE (USA)*
27. Software Reuse: A new classification approach, ISIICT, Jordan, 2001
28. Object-based softwre process modellig. *Proc of 1st UK Colloquium on Object Technology & System Reengineering, COTSR '98 (UK), 1998*
29. An object-based decomposition for assistance to software maintenace. *Proc. of the 5th Magrrbian Conf. on Software Engineering and Artificial Intelligence. MCSEAI'98, Tunis, Tunisia, 1998*
30. An object system for software maintenance. *Proc. of the 4th African Conference on Computer Science, CARI'98, Dakar, Senegal, 1998.*
31. A new dependence model for program fragmentation. *Proc. of Recent technologies in information processing, Aleppo, Syria, 1998.*
32. Genetic perception: Convergence of the object-oriented technology. *Proc. of the 2nd Conf. on Computer Science and its applications. Applied Science University, Amman, 1998.*
33. Gap between genetic perception and Object-Oriented technology. *Conference on Advanced Technologies of Information Processing, Philadelphia University, Amman, July, 1998.*
34. Analyse de comportement de programmes: Extraction de coupes inter-procédurales. *Proc. of 1st International Workshop on the Many Facets of Process Engineering, MFPE'97, Tunisia, Sep. 1997.*
35. Extraction de rôles d'agents dans l'analyse de comportements de programmes. *Proc. of International Symposium on Programming and Systems, ISPS'97, Algiers, April 14-16, 1997, pp. 316-331*
36. Software Process between research and industrial reality. *Conference on Advanced Technologies of Information Processing, Philadelphia University, Amman, July, 1997*
37. L'objet processus logiciel. *Proc. dixieme Séminaire National en Informatique, Biskra, 1997, pp. 210-220*
38. . A Multi-Agents Model of program dependencies. *MCSEAI'97, 4th Maghrebien Conference on Software Engineering and Artificial Intelligence, Alger, 96.*
39. Processus Logiciels: Coordination d'un système d'agents. *Proc. Iier Séminaire National en Informatique, Tizi-Ouzou, 1996, pp. 03 - 28*
40. Spécification d'un modèle de dépendances de Programmes. *Proc. Iier Séminaire National en Informatique, Biskra, 1995, pp. 193-203*
41. . Modélisation de Processus Logiciels: le Modèle génétique. *Proc. of International Symposium on Programming and Systems. ISPS'91, Algiers, Oct. 21-23, 1991, pp. 372 - 395*
42. Vers un modèle unifié de données. *BD'91, CERIST, Algiers, 15-17 Juin, 1991, pp. 131 - 142*
43. Un Système Automatique de Gestion de Versions: La base de Programmes Adele. *Bigre, No 37, Cap d'Agde, France, Dec. 1983, pp. 481 - 494*
44. Modularité et Composition de Programmes dans l'Atelier de Logiciels Adele. *Proc. of Afcet, 1er Colloque Génie Logiciel, Paris, France, 1982, pp. 183 - 197*

Workshops

1. Perception génétique: convergence de la technologie orietnée-objet. *Workshop sur le soutien génétique aux systèmes multiagents, Annaba, Juin, 1997*
2. Ateliers de développement de Logiciels. *Workshop sur les technologies Informatiques: Applications industrielles, December 1995.*
3. Compréhension de Concepts Symboliques dans les Méthodologies de Résolution de Problèmes *Workshop sur les environnements de résolution de problèmes orientés-tâches. Annaba, Nov. 1994*
4. La Spécialisation à Sémantique Variable dans le Modèles Orintés-Objet. *Workshop sur les environnements de résolution de problèmes orientés-tâches, Annaba, Nov. 1994.*
5. La coordination dans les méthodologies de résolution de problèmes. *Workshop sur les Environnements de Résolution de Problèmes Orientés-Tâches, Annaba, Nov. 1994*
6. Edition à base de connaissances. *Artificial Intelligence, Logic Programming, Prallel Computing, Software Engineering WorkShop, Annaba, Dec. 1991*

2 Books and e-courses Publications

1. *A Genetics-Based approach to inheritance modeling*. LAP LAMBERT Academic Publishing, October, 2017. <https://www.morebooks.de/store/gb/book/a-genetics-based-approach-to-inheritance-modeling/isbn/978-620-2-05043-2>
2. *Software Evolution: A Features Variability Modeling Approach*. LAP LAMBERT Academic Publishing, December, 2016. <https://www.amazon.de/Feature-based-Variability-Modelling-Software-Evolution/dp/3330000104>
3. *A Textual Software Product Lines Design Model By Mixing Class and Feature Concepts*. LAP LAMBERT Academic Publishing, May 20, 2014. <http://www.amazon.com/Textual-Design-Mixing-Feature-Concepts/dp/3659525510>
4. *Software Analysis & Design*. e-learning course, Avicenna University, 2005.
5. *Data Structures, Algorithms, and Proof*. OPU, Cod. 2.08.2897, Algier, Feb. 1990 (in French)

3 Thesis Supervision

• PhD

1. *Feature-based self-Adaptive Software* (2021, Turkey)
2. *Software Process Modeling* (2006, Algeria)
3. *Automatic Software Understanding* (2006, Algeria)
4. *Software evolution: a genetic approach* (2006, Algeria)
5. *Reuse in Software Engineering* (2003, Algeria)
6. *Integration in Software Engineering* (2000, Algeria)
7. *Software Reengineering* (1998, Algeria)

• Mater

More than 30 theses

6. **Chair of research projects**

1. Smart requirements engineering, Philadelphia University, Jordan, 2025 – 2028.
2. Requirements Engineering.
3. Software Process: Bio-inspired Modeling, Philadelphia University, Jordan, 2000 – 2019.
4. Software Process: Genetic Support for Multi-Agents Systems, Annaba U., Algeria, 1997/1998.
5. Software Process: Multi-Agents Systems approach, U. Annaba, Algeria, 1995/1997
6. Software Process: Object-Oriented approach, Annaba U., Algeria, 1993/1995
7. Software Process: investigation, Annaba U., Algeria, 1991/1993.

7. **Community Services**

Editor and Referee of Journals

Editorial Board

1. JSE (Journal of Software Engineering, Science Alert), since 2016
2. IE (Information Engineering, IET), since 2013

Referee of

- Journal of Software Engineering (JSE), International Arab Journal of Information Technology (IAJIT), Information Engineering Technology Software (IET Software), Int'l Journal of Software Engineering and Knowledge Engineering (IJSEKE), Revue Nature & Technologie, Journal of King Saud University, Saudi Arabia, l'objet (the object), France. 1998. Science and Technology, University of Constantine, Algérie, 1991.

Chair, Organizer, and PC member

Chair

1. International Conference on Advanced Technologies on Computer Science, Philadelphia University, Jordan, 1999.

Organizing Chair

1. the 3rd International Symposium on Innovation in Information and Communication Technology, Philadelphia University, 2009
2. The 5th ACS/IEEE International Conference on Computer Systems and Applications AICCSA 2007.

3. International Symposium on Innovation in Information and Communication Technology, Philadelphia University, 2004.
4. International Symposium on Innovation in Information and Communication Technology, Philadelphia University, 2001.

Referee (last 5 years)

Of several periodic international conferences (see EasyChair)

8. Professional Associations

European Association in Software Science and Technology (EASST), No. 271

Part 3/ Pedagogical activities

1. Graduate teaching

Philadelphia university, Jordan (1997 – 2025)

Introduction to computer science, Introduction to Information technology, Visual Basic and Access, Programming Fundamentals, C language, Prolog language, Pascal language, Programming Languages paradigms, Programming languages Design and implementation, Data structures (Modular), Data structures (object-oriented with C++), Algorithms analysis & Design, Networks, Introduction to Software Engineering, Software Processes, Software Requirements Engineering, Formal Specification of software systems, Object-oriented Software Engineering, System Analysis & Design, System programming, Software Coding & Testing methods and tools, Software Packages, Software Reengineering methods and tools, Software Management.

U. of Annaba, Algeria, (1984-1997)

Data Structures and Algorithms, Operating Systems, Networks, Databases, Software engineering.

U. of NouakShott, Mouritania (1991).

Distributed systems.

U. of Constantine, Algeria (78/79-79/80)

Initiation to Computer Science, Data Structures and Algorithms

2. Postgraduate teaching

Philadelphia Univeristy (2005 – 2025): CS MSc and SE MSc

Advanced Database Concepts, Algorithms design and analysis, Scientific research methodologies, Software evolution & maintenance, Formal methods, Software Processes management, Theory of concurrency, Requirements engineering

Princess Sumaya University of Technology (2018-2019): CS PhD

Advanced Software Engineering

Arab academy for Banking & Financial Sciences (2004-2006): MSc

Software Engineering

U. of Annaba, Algeria (90 – 97): MSc

Knowledge: Modeling and Interpretation, Knowledge Bases, Distributed Methodologies of Problems Solving, Multi-Agents Systems in Problems Solving.

U. of Constantine, Algeria (93 – 94): MSc

Software Engineering.

Part 4/ Quality Assurance (QA) activities

- Chair of IT programs accreditation, 2020-2025
- Chair of Software Engineering international accreditation committee 2023 (EUR-ACE LABEL)
- University QA Experts Team member 2020-2025
- University QA accreditation team member and coordinator 2010-2025
- Faculty of Information Technology team member and coordinator 2000-2025
- Faculty of Information Technology Quality Assurance Officer, 2000 – 2025.
- Department Quality Assurance Officer, 2000 – 2025
- Participation to several Qualification Workshops in Quality Assurance by the British Quality Assurance Agency, 2000–2022.
- Quality Assurance in Higher Education. Workshop providing at Constantine 2 University, Algeria, Feb 14-18, 2016
- Chair of Computer Science Accreditation Committee, at Philadelphia University, by the Accreditation Board for Engineering and Technology (ABET), Inc. USA, 2015 – 2016.
- Member of Philadelphia University Quality Assurance Committee, 2000 – 2016.
- Quality Assurance – Sustainability in Computer Science programme, Philadelphia University, 2003 – 2007. The external evaluation by the British Quality Assurance Agency has been “Excellent”
- Obtention of the Higher Education Quality Assurance Expertise certificate, Philadelphia University, 2003
- Quality Assurance – Self Assessment of Computer Science programme, Philadelphia University. The external evaluation by the British Quality Assurance Agency has been “Excellent”. The Computer Science programme has been classified the First in Jordan. 2000 – 2003

Part 5/ Administrative activities

1. Chair of Research Laboratory on Bio-Inspired Software Engineering, 2006 – 2023.
2. Chair of all Departments in the Faculty of Information Technology, 2001
3. Member of University Council, Philadelphia University, Jordan, 2001
4. Dean of the faculty of Sciences, Philadelphia University, Jordan, 1998-1999.
5. Dean of the faculty of Engineering, Philadelphia University, Jordan, 1998.
6. President of Institute Scientific Council, University of Annaba, Algeria, 1986 - 1987.
7. Director of Computing Center, University of Annaba, Algeria, 1986 - 1987.