



## Chirine GHEDIRA GUEGAN

Professor of Computer Science

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**iaelyon** School of Management, **Université Jean Moulin Lyon 3**

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### AREA(S) OF EXPERTISE:

Intelligent data integration and management, Privacy, Distributed Information Systems for decision making, Intelligent Services, Security and Quality of Service, Cloud Computing Application to the health and environment fields

### Biography / Summary

Chirine Ghedira Guegan is a Professor of Computer Science at iaeLyon School of Management, University Jean-Moulin Lyon 3, where she is President of the Computer Science-Mathematics Expert Committee and Head of the Master's Degree in Information Systems Management since 2011. She is deputy head of the Service Oriented Computing (SOC) research team and member of the scientific council of the LIRIS UMR 5205 laboratory of the CNRS. She led the Information System research group of the Magellan Center from 2011 to 2015. She is member of the thesis committee of the InfoMaths doctoral school at the University of Lyon3. Her research focuses the large-scale integration of heterogeneous data sources with attention to the servitization of sources, data privacy, trust, and security as well as Human-based Computing and AI in the co-evolution of distributed systems. Her didactic and research activities cover the digital strategy, smart services for emergent diseases detection, and integration of structured and unstructured resources in the health decision process. She is the author of more 110+ publications in internationally recognized journals and congresses. She is the coordinator of several research projects and an external expert among others for the Natural Sciences and Engineering Research Council of Canada. From December 2023 to 2026, she was Vice-President of the Board of Directors of the Knowledge Graph Alliance (KGA), and from September 2024 to 2026, its Academic Director. Since July 2026, she has been Director of the InfoMaths Doctoral School (n°512) of the University of Lyon.

### FUNCTIONS

- Since July 2026 Director of the InfoMaths Doctoral School (n°512), University of Lyon
- Sept 2024 - 2026 Academic Director of the Knowledge Graph Alliance (KGA), an international network of academics and industry partners
- Since 2024 Co-Responsible of the new 2nd year of Master degree on "Human & System Intelligence"
- Dec 2023 - 2026 Vice-President of the Board of Directors of the Knowledge Graph Alliance (KGA)
- Since 2021 Member of the "Parité Homme Femme" (gender equality) committee at LIRIS-CNRS Laboratory
- 2018 - 2021 Responsible of the Research development at IAELyon - School of Management
- 2018 - 2021 Member of the board of directors of the IAELyon - School of Management
- Since Jan 2016 Co-head of the Service Oriented Computing research team at LIRIS-CNRS Laboratory
- Since Jan 2016 Member of the scientific council of the LIRIS-CNRS laboratory (UMR 5205)
- Since Sept 2014 Member of the board of the doctoral school n°512 InfoMaths in Lyon 3 University
- Since May 2012 Coordinator of the Master "Management of Information System" of IAELyon - School of Management – Lyon 3 University, in charge of managing the Master's degree and drafting the HCERES evaluation and accreditation files
- 2012 - 2015 Head of the « Information systems » research group at Magellan Center – Lyon 3 University
- Since November 2011 President of the Committee of Experts in Computer Science & Mathematics in Lyon 3 University

## DEGREES AND DIPLOMAS

- December 2010: **Habilitation thesis to supervise research (HDR)**, Université Claude Bernard Lyon 1 (guarantor: Pr. Djamel Benslimane). « Des services web élémentaires à la composition de services pour les Systèmes d'Information distribués et étendus »
- November 2002: **PhD in Computer Science and Information for the Society**, specialty: Multimedia Documents, Pictures and Communicating Information Systems – INSA Lyon (LISI laboratory; supervisors: Pr. Paul Rubel and Pr. Pierre Maret). « Modélisation et méthode de conception de systèmes de navigation adaptative dans les hypermédias »
- June 1998: **Master (DEA) in Manufacturing Engineering**, specialty: Economic organization and computer engineering for the company – INSA Lyon
- June 1997: **Engineering degree in Computer Science** – INSA Lyon
- June 1995: **Engineering degree in Industrial Computer Science** – ENI de Monastir, Tunisia

## TEACHING AREAS

Teaching an average of 12 courses a year (including shifts) in French and/or English:

- Business Process Management
- Data warehouses and Business Intelligence
- Distributed Information Systems
- Web services, security and Quality of Service
- Data integration and management
- Digital strategy for organizations
- ERP in the organization
- Enterprise Information Systems Architecture
- Technical infrastructures and application architectures
- Strategic urbanization of enterprise information systems

## CURRENT RESEARCH INTERESTS

- Intelligent data integration, management and privacy in new environments and contexts: Clouds, IoT, Edge & Big data
- Smart services, adaptive distributed decision systems
- Service Oriented Computing: data services, security, quality, contextualization, adaptation
- Security governance, blockchain technology and business process in Cloud Computing
- **Application domains of the research: health & environment**

## RESEARCH CENTER OR TEAM

Service Oriented Computing (SOC) team @ LIRIS–CNRS (UMR 5205), Laboratory of Image Informatics and Information Systems (<https://liris.cnrs.fr/equipe/soc>)

Associate member of the MAGELLAN Research Center – Université Jean Moulin Lyon 3

### Coordination of projects and grants

1. Project Region ARA (2018 – 2022). **Multi-Cloud Service for Intelligent Integration of Mass Heterogeneous Data Driven by SLA Contracts for Multi-Device Environments**. Region funding for industrial projects (200K€). Partners: Labo LIRIS, University Lyon 3, Labo LIG, IMAG, DataMedCare (Industriel).
2. Project Region ARA (2017 – 2021). **PersoDiagMedi - Semantic Web Services Oriented Platform for Medical Service Customization and Early Detection of Emerging Diseases**. Region funding for international projects (60K€). Partners : LIRIS – Univ Lyon3, Laboratoire Parcours santé systémique (P2S) - University Lyon1, l'Observatoire National des Maladies Nouvelles et Émergentes maladies infectieuses - Tunis, Laboratoire RIADI - Université de la Manouba - Tunis.
3. Project IA (2019 – 2022). **Service-based approach and intelligent agents for prediction and crisis management: Application to the analysis and management of emerging diseases**. Funding: Research Contract IADOC. (105K€)

4. Project PhC – UTIQUE (2016 – 2020). [Restful Service-Oriented Platform for Predicting Natural Disasters](#). Hubert Curien Programme Utique, bi-lateral international collaboration France – Tunisia. (30K€)
5. Investissement Avenir Smart Electrique Lyon (2013 – 2017). [Project on the privacy of Big Data collected from smart grids](#). Collaboration with the Lyon3 private law team and with the support of the LABEX IMU. National Grant. (65K€)
6. Project ARC6 Rhône-Alpes region (2014 – 2017). [SLA guided data integration in clouds](#). Regional grant. (96K€)
7. Project ANR ARPEGE program (2009 – 2013). [PAIRSE: Privacy Preserving Data Sharing in P2P Environment: A Web Service-based Approach](#). National Grant. (192K€)

#### Projects as a partner / coordinator of a work package

1. LIRIS - AT program (2026). **INFILTRATE**: ExecutIoN platForm for negotiation driven trustable and sustainable federATed IEarning. Partners: LIRIS, U. Milano, Italy LNS-UDLAP Mexico.
2. LIRIS - Transversal Action Project (2024-2026). **FRIENDLY**: A Fairness approach to deal with data and models in federated learning verifying an intersectional, diverse, and inclusive analytics. Partners: LIRIS, U. Milano, U. Genoa, Italy LNS-UDLAP Mexico.
3. Project Region ARA (2021 – 2024). **CLEAN4SED**: Continuous **LEArning** and **Neuroevolution for Supporting Edge Devices** and predictive maintenance. Region funding for industrial projects (200K€). Partners: Labo ERIC, University Lyon 1, Labo LIRIS, University Lyon 3, Data Intelligence Team of laboratoire Hubert Curien, WITEKIO (Industrial).
4. Project PBI WASAS (2022 – 2025): « Witekio Advanced Security Accelerator Suite (WASAS) ». Turnkey solution for developing, implementing and managing secure IOT solutions. (2M€) Partners: Labo ERIC, University Lyon 1, Labo LIRIS, University Lyon 3, Data Intelligence Team of laboratoire Hubert Curien, WITEKIO (Industrial).
5. Project Emergence Program 2020 (2020 – 2022): **MuSE-MED**: Multi-objective, Socio-Economic and blockchain-based services for Medicines' Traceability. Emergence Program: The Paris Seine Initiative – Scientific Excellence and internationalization. Partners (France – Slovenia): LIRIS - équipe SOC (CNRS UMR 5205), ETIS (CNRS UMR 8051) Université de Cergy-Pontoise (Porteur), University of Ljubljana - Slovenia.
6. Project International Cluster 2021 (2020 - 2022): Responding to the Covid-19 Public Health Impact in UAE: An Intelligent Data Fusion Model and Predictive Analysis for Proactive and effective response, leveraging Semantic Technologies and Artificial intelligence. Partners : Zayed University - UAE, LIRIS - équipe SOC (CNRS UMR 5205) - France, University of Toronto – Canada, St. Joseph's Health Centre Toronto – Canada, Staffordshire University – UK, Johns Hopkins Medicine – UAE.
7. Project ANR PRCI – Taiwan (2018 – 2020): **uPrivacy**: Enabling End-Users to Protect their Privacy by themselves. Application to Smart Healthcare Cyber-Physical Environments. Partners: LIRIS, Franche-Comté University, Paris Dauphine University, National Taiwan University, National Chung Hsing University, Feng Chia University.

#### ACADEMIC ASSOCIATIONS:

- Vice President of the Knowledge Graph Alliance (KGA) Board of Directors <https://www.kg-alliance.org/> (December 2023 – 2026)
- Member of the Research Data Alliance (RDA – <https://www.rd-alliance.org>), of the RDA-France-Santé group, and of the Blockchain Applications in Health Working Group (<https://www.rd-alliance.org/groups/blockchain-applications-health-wg>; profile: <https://www.rd-alliance.org/users/chirine-ghedira-guegan>)
- Member of the FinES Cluster – Future Internet Enterprise System (since 2010)
- Member of GDR (Research Group) Cloud Computing for resource management and cloud computing services (since 2010)

#### Scientific and organizing committees of conferences

- Member of more than 40 international conference program committees

- Member of the Steering Committee & sessions chair of the IEEE International Conference on Computer Systems since 2017
- Program Chair of the IEEE International Conference on Web Services (ICWS), 2022 (CORE ranking A)
- Track Co-chair of « Cloud as a Service » @ IEEE International Conference on Cloud Computing, September 5-11, 2021 (CORE ranking B)
- Co-Chair of the workshop Big data & smaRt hEALTH Systems (BREATHS) – Big data and smart health systems: issues, new challenges and perspectives. 10 September 2019, Lyon. <https://iae.univ-lyon3.fr/atelier-de-recherche-donnees-massives-et-systemes-de-sante-intelligents-problematiques-nouveaux-defis-et-perspectives>
- Women in STEM founder and Co-Chair @ the ACS/IEEE International Conference on Computer Systems 2019, 2020 & 2021 (<http://www.aiccsa.net/AICCSA2020/tutorials-2>)
- Workshop Chair of FMEC 2020 & FMEC 2019: International Conference on Fog and Mobile Edge Computing (<https://emergingtechnet.org/FMEC2020/committee.php>)
- Workshop Co-General Chair: STRAPS on Smart daTa integRAtion And Processing on Service based environments (2019, 2020 & 2021), in conjunction with the international conference on Service Oriented Computing (ICSOC – CORE ranking A) (<https://straps-workshop.github.io/> ; <https://iae.univ-lyon3.fr/recherche-retour-sur-le-workshop-international-straps-2020-co-organise-par-chirine-ghedira-guegan-iaelyon>)

## REVIEW COMMITTEES / EDITORIAL BOARDS

### Editorial boards

- IEEE Transactions on Services Computing – Associate Editor
- Computing & AI Connecting – Associate Editor

### Reading committees (reviewer)

- IEEE Transactions on Services Computing
- IEEE Transactions on Knowledge and Data Engineering
- Future Generation Computer Systems
- Data & Knowledge Engineering Journal
- International Journal of Systems and Service-Oriented Engineering
- Journal of Data and Information Quality
- World Wide Web Journal

## PHD AND HDR SUPERVISION

Supervision of 14 doctoral theses since 2007 (12 defended, 2 ongoing), and 40 Master's research internships since 2003.

Participation in 45 PhD thesis and HDR (Habilitation) juries, including 25 as reviewer (“rapporteure”) for PhD theses and 5 HDR juries (3 as reviewer).

### Ongoing PhD supervision

- **Nada Benltifa** (started October 2024). Co-supervision with ENSI Tunis, University of Manouba (50% with Pr. Narjes Bellamine): « *Vers la Standardisation de la Composition Auto-adaptative d'Applications dans les Environnements Dynamiques : Un Framework de Certification Fondé sur l'Expérience Utilisateur et les Normes de Qualité Logicielle* »
- **Anaïs Lavorel** (started March 2022). Regional grant, Pack Ambition CLEAN4SED project (50% with Nadia Kabachi, Pr. Univ. Lyon 1): “*Continual LEarning and Neuroevolution FOR Edge Computing Devices*”

### Completed PhD supervision

- **Maher Boughdiri** (defended December 2025). Co-supervision with the University of Carthage, Tunisia (50% with Dr. Takoua Abdellatif): “*Blockchain-Based Big Data Architecture for Collaborative eHealth*”
- **Hela Taktak** (defended 25 January 2024). Co-tutelle with the University of Sfax, Tunisia, PhC Utique PrediCat project: « *Approche orientée services sémantiques pour l'intégration de données massives* »

*et multi-sources pour la détection des catastrophes naturelles* ». Current position: contract lecturer, Faculty of Management, Sfax, Tunisia.

- **Firas Zouari** (defended 27 June 2023). Doctoral contract, AI project; 60% with Nadia Kabachi (MCF Univ. Lyon 1): « *Approche à base de services et agents intelligents pour la prédiction et la gestion de crise : Application à l'analyse et le management des maladies émergentes* ». Current position: R&D, NOVENCIA Group.
- **Senda Romdhani** (defended 10 May 2022). Regional grant, SuMMIT project; 40% with Nadia Bennani (MCF INSA Lyon) and Genoveva Vargas-Solar (CNRS, LIG Grenoble): « *Intégration de données intelligente et de confiance dans un environnement multi-cloud guidée par des SLAs* ». Current position: R&D Lab Manager, SII Group.
- **Faïza Loukil** (defended October 2019). Ministerial grant; 50% with Nabila Benharkat (MCF INSA Lyon): « *Vers une approche respectant la vie-privée des données issues des objets connectés* ». Current position: Associate Professor (MCF), IAE Annecy, Université de Savoie.
- **Alex Palesandro** (defended 9 November 2018). CIFRE Orange Labs; 40% with Dr. Marc Lacoste and Nadia Bennani (MCF INSA Lyon): « *Infrastructure de supervision de sécurité dans le contexte multi-cloud utilisant la virtualisation imbriquée* ». Current position: study engineer.
- **Cheima Ben Njima** (defended 6 July 2017). Co-tutelle with ENSI Tunis; 50% with Prof. Lotfi Ben Romdhane: « *Élaboration d'un modèle de découverte et de composition des services web mobiles* ». Current position: Assistant Professor, EPI Business School, Sousse, Tunisia.
- **Fanjuan Shi** (defended 19 May 2017). CIFRE Search'XPR; 30% with Profs J.-J. Cegara and C. Pivot: « *Le Big Data : interprétation des connaissances et des émotions pour la création de valeur dans le e-commerce* ». Current position: consultant, AxyS Consultants SAS.
- **Salah-Eddine Tbahriti** (defended 2 December 2012). ANR grant; 60% with Michael Mrissa (MCF Univ. Lyon 1): « *Préservation des confidentialités dans des environnements P2P : une approche à base de Services Web* ». Current position: research engineer, Satellite Development Centre, Algeria.
- **Soufiène Lajmi** (defended November 2009). Co-tutelle with ENSI Tunis; 40% with Prof. Djamal Benslimane and Prof. Khaled Ghedira: « *Apprentissage distribué pour une composition contextuelle et adaptative de services Web* ». Current position: Associate Professor (MCF), University of Sfax, Tunisia.
- **Yann Leblevec** (defended December 2008). CIFRE Alcatel Vacuum Technology (Annecy); 40% with Prof. Djamal Benslimane and Xavier Delatte: « *Vers la conception de Système d'Information Etendu autour d'une plateforme Service web* ». Current position: research engineer and head of integration and architecture, SmartWave, Geneva, Switzerland.
- **Michaël Mrissa** (defended November 2007). Ministerial grant; 50% with Prof. Djamal Benslimane: « *Médiation & Composition contextuelle de Services Web* ». Current position: Professor, University of Primorska, Slovenia.

#### **HDR supervision (Habilitation to Supervise Research)**

- November 2016: Scientific referent ("référente") for the Habilitation to Supervise Research (HDR) of **Mrs. Elise LAVOUE** at Université Jean Moulin Lyon 3. « *Soutien à l'autorégulation des apprenants : conception d'environnements informatiques réflexifs et engageants* »

#### **HDR juries (outside her own supervision)**

- June 2024: **HDR of Claude Duvallet**, Université Le Havre Normandie – jury president. « *Des systèmes informatiques temps réel et distribués : de la gestion de qualité de service dans les SGBD temps réel à la Blockchain* »
- February 2024: **HDR of Sana Sellami**, Université d'Aix-Marseille – reviewer. « *Vers une gestion intelligente des données* »
- December 2022: **HDR of Besma Zeddini**, CY Cergy Paris Université – reviewer. « *Contributions aux systèmes intelligents : des systèmes multi-agents à l'apprentissage automatique* »
- June 2020: **HDR of Layth Sliman**, Université Paris-Saclay – reviewer. « *On Security and Trustworthiness of Dynamic Collaboration* »
- October 2019: **HDR of Hedi Karray**, École Nationale d'Ingénieurs de Tarbes. « *Ontology based engineering for decision and interoperability* »

## FOREIGN LANGUAGES SPOKEN

- English (teaching, research and publications)
- French (teaching and research)
- Arabic (native)

## PROFESSIONAL STAYS ABROAD

- **Since 2017** (two weeks each year): visiting professor in Tunisia – “Resources Integration in multi-clouds” for the Research Master of the National School of Computer Sciences (ENSI Tunis); “Management of Data, Services in Clouds environments: Issues, Challenges & Contributions” for the doctoral program of the University of Manouba
- **2022 & 2023** (3 weeks each; June 2022, May 2023): visiting professor, University of Milan, Italy – teaching module and research seminars on “Intelligent Data Integration and Processing on Service Based Environments: Issues, Challenges & Contributions” for Master's and PhD students
- **2018 – 2019**: research leave (CRCT) and visiting professor for one month at Staffordshire University, United Kingdom
- **March – April 2011**: one-month stay at the University of Science and Technology of Hanoi, Vietnam – co-running the replicated Master's degree and teaching “Interoperable information systems / ERP” (evening course in English)
- **March – April 2005**: stay at the University of Vienna, Austria
- **2004 – 2007**: teaching at the Faculty of Legal Sciences of Jendouba, Tunisia (Master 2 in Medical Informatics)

## AWARDS AND DISTINCTIONS

- **2022**: Best paper award for respecting diversity and inclusion, international conference WISE 2022 (Web Information Systems Engineering)
- **Since 2022**: RIPEC – C3 (individual research and academic activity bonus)
- **2008 – 2018**: PEDR (doctoral supervision and research bonus), then PES (scientific excellence bonus)

## INTERVENTIONS WITH COMPANIES, INSTITUTIONS AND PROFESSIONAL OR VOLUNTARY ORGANIZATIONS

### Expertise and evaluation of research projects

- External expert evaluator of research and innovation projects for the European Commission and the Nouvelle-Aquitaine Region (since 2024).
- Evaluation of projects under the ECOS NORD program for scientific and academic cooperation with Spanish-speaking Latin America (since 2022).
- Expertise at the PANELFIT learning event, a research project under the Horizon 2020 programme, on the new European data protection regulation (2021).
- External project expert for Naif University for Security Sciences (NAUSS) for the Security and Cybercrimes Research Program grants (2020)
- Evaluator of graduation applications for Al-Hussein Bin Talal University, Jordan (since 2017)
- Natural Sciences and Engineering Research Council of Canada (NSERC) external project expert for Discovery Program research grants (since 2016).

### Industrial collaborations (research contracts and CIFRE theses)

- Alcatel Vacuum Technology (Annecy) – CIFRE thesis: towards extended information systems built around a web-service platform
- Orange Labs – CIFRE thesis: security supervision infrastructure in a multi-cloud context using nested virtualization
- EDF – Investissement d'Avenir project Smart Electric Lyon (PIA SEL)
- DataMedCare – SuMMIT project
- WITEKIO – CLEAN4SED and WASAS projects

## KEY FEATURES OF PROFESSIONAL BACKGROUND

- **Since 2011:** Professor of Computer Science, iaelyon School of Management – University Jean Moulin Lyon 3
- **2008 – 2011:** Associate Professor in the IT department, IUT Villeurbanne – Univ. Lyon 1
- **2003 – 2008:** Associate Professor in the IT department, IUT Bourg-en-Bresse – Univ. Lyon 1
- **2001 – 2003:** ATER (temporary teaching and research fellow), INSA Lyon

## ACADEMIC PRODUCTION

*Selection of recent international publications, with CORE (conferences) and SJR (journals) rankings. In the computer science field, the 27th section of the French National Council of Universities (CNU) only recognizes international publications, i.e. those written in English. Complete lists: Google Scholar, DBLP and LIRIS page (see “Website and social networks”).*

### Publications in recent peer-reviewed journals

1. Sarra Abidi, Imen Chebbi, Leila Ben Ayed & Chirine Ghedira Guegan (2026). "PRISM-HS: ontology-driven AI framework for personalized mobile healthcare services". CCF Transactions on Pervasive Computing and Interaction, Springer, pp. 401-418. **(SJR Q2)**
2. Souheir Merkouche, Chafia Bouanaka, Elhadj Benkhelifa & Chirine Ghedira Guegan (2025). "HARMONY: A Holistic Auto-Scaling Resilient Model for Multi-Objective Adaptation in Microservices Using HPPNs — A Case Study on E-Business Platforms". IEEE Access, vol. 14, pp. 3525-3544. doi: 10.1109/ACCESS.2025.3649730. **(SJR Q1)**
3. Maher Boughdiri, Takoua Abdellatif & Chirine Ghedira (2025). "ScalaChain: A scalable blockchain system with enhanced storage and querying". Peer-to-Peer Networking and Applications. doi: 10.1007/s12083-025-02115-4. HAL: hal-05485810. **(SJR Q2)**
4. Sarra Abidi, Imen Chebbi, Leila Ben Ayed & Chirine Ghedira (2025). "PAM-SHRM: pretrained artificial intelligence model based on microservices for secure healthcare recommendation systems". Cluster Computing, vol. 28, n°14, p. 894. doi: 10.1007/s10586-025-05583-8. **(SJR Q2)**
5. Maher Boughdiri, Takoua Abdellatif & Chirine Ghedira Guegan (2025). "A Systematic Literature Review on Blockchain Storage Scalability". IEEE Access, vol. 13, pp. 102194-102219. doi: 10.1109/ACCESS.2025.3578451. HAL: hal-05228745. **(SJR Q1)**
6. Maher Boughdiri, Mohamed Hkima, Takoua Abdelatif & Chirine Ghedira-Guegan (2025). "A standard-driven framework for blockchain security risk assessment". Peer-to-Peer Networking and Applications, vol. 18, n°4, p. 225. doi: 10.1007/s12083-025-02042-4. HAL: hal-05228746. **(SJR Q2)**
7. Claudio A. Ardagna, Nicola Bena, Nadia Bennani, Chirine Ghedira-Guegan, Nicolo Grecchi and Genoveva Vargas-Solar (2024). "Revisiting Trust Management in the Data Economy: A Roadmap," in IEEE Internet Computing, doi: 10.1109/MIC.2024.3398403. **(SJR Q2)**
8. Cheima BenNjima, Chirine Ghedira-Guegan, Youssef Gamha and Lotfi Ben Romdhane (2024) "Web Service Composition in Mobile Environment: A Survey of Techniques," in IEEE Transactions on Services Computing, vol. 17, no. 2, pp. 689-704, March-April 2024, doi: 10.1109/TSC.2024.3361655. **(SJR Q1)**
9. Firas Zouari, Chirine Ghedira-Guegan, Khoulood Boukadi & Nadia Kabachi (2023). « A semantic and service-based approach for adaptive mutli-structured data curation in data lakehouses ». World Wide Web. doi : 10.1007/s11280-023-01218-3. HAL : hal-04273080. **(SJR Q1)**
10. Hela Taktak, Khoulood Boukadi, Firas Zouari, Chirine Ghedira-Guegan, Michael Mrissa & Faiez Gargouri (2023). « A knowledge-driven service composition framework for wildfire prediction ». Cluster Computing. doi : 10.1007/s10586-023-03997-w. HAL : hal-04065708. **(SJR Q2)**
11. Faiza Loukil, Khoulood Boukadi, Mourad Abed & Chirine Ghedira-Guegan (2021). «Decentralized Collaborative Business Process Execution Using Blockchain ». World Wide Web. **(SJR Q1)** doi : 10.1007/s11280-021-00901-7. HAL : hal-03250846.
12. Shafaq Naheed Khan, Faiza Loukil, Chirine Ghedira-Guegan, Elhadj Benkhelifa & Anoud Bani Hani (2021). « Blockchain Smart Contracts: Applications, Challenges, and Future Trends ». Peer-to-Peer

- Networking and Applications (**SJR Q2**), pp. 2901-2925. doi : 10.1007/s12083-021-01127-0. HAL : hal-03195972.
13. Faiza Loukil, Chirine Ghedira-Guegan, Khoulood Boukadi & Aïcha-Nabila Benharkat (2021). «Privacy-Preserving IoT Data Aggregation Based on Blockchain and Homomorphic Encryption ». *Sensors* (**SJR Q1**), vol. 21, n°7, p. 2452. doi : 10.3390/s21072452. HAL : hal-03195937.
  14. Siyakha Mthunzi, Elhadj Benkhelifa, Tomasz Bosakowski, Chirine Ghedira & Mahmoud Barhamgi (2020). « Cloud computing security taxonomy: From an atomistic to a holistic view ». *Future Generation Computer Systems* (**SJR Q1**). doi : 10.1016/j.future.2019.11.013.
  15. C. Ben Njima, Y. Gamha, C. Ghedira & L. Ben Romdhane (2019). «Development of a mobile web services discovery and composition model ». *Cluster Computing* (**SJR Q2**), pp. 1-14. HAL : hal-01987385.
  16. W. Hidri, R. Hadj M'Tir, N. Bellamine Ben Saoud & C. Ghedira (2019). « A Meta-model for context-aware adaptive Business Process as a Service in collaborative cloud environment ». *Procedia Computer Science* (**SJR Q3**), vol. 164, pp. 177-186.
  17. M. Barhamgi, C. Perera, C. Ghedira & D. Benslimane. « User-centric Privacy Engineering for the Internet of Things ». *IEEE Cloud Computing* (**SJR Q1**), vol. 5, n°5, pp. 47-57. (2018) HAL : hal-01881359.
  18. E. Benkhelifa, A. Bani Hani, T. Welsh, C. Ghedira & S. Mthunzi (2019). « Virtual Environments Testing as a Cloud Service: A Methodology for Protecting and Securing Virtual Infrastructures ». *IEEE Access* (**SJR Q1**), vol. 7, pp. 108660-108676. doi : 10.1109/ACCESS.2019.2912957. HAL : hal-02294363.
  19. E. Benkhelifa, C. Ghedira. et al.. Addressing Data governance in Cloud Storage: Survey, Techniques and Trends. *Journal of Internet Technology* (**SJR Q2**). vol. 19, n°6, pp. 1763-1775. (2017);
  20. A. Palesandro, C. Ghedira, M. Lacoste & N. Bennani. « Overcoming Barriers for Ubiquitous User-Centric Healthcare Services ». *IEEE Cloud Computing* (**SJR Q1**), vol. 3, n°6, pp. 64-74. (201)
  21. F. Shi, C. Ghedira, JL Marini. "Context Adaptation for Smart Recommender Systems". In *IEEE IT Professional journal* (**SJR Q3**), vol.17, no.6, pp.18-26. doi: 10.1109/MITP.2015.96

### Book chapters

1. M. Barhamgi, C. Ghedira, S.E. Tbahrity, M. Mrissa, D. Benslimane, B. Medjahed (2012). "Privacy-Conscious Data Mashup: Concepts, Challenges and Directions". *Handbook of Research on E-Business Standards and Protocols: Documents, Data and Advanced Web Technologies*, pp. 342-364.
2. M. Mrissa, S. Dietze, P. Thiran, C. Ghedira, D. Benslimane, Z. Maamar (2009). "Context-based Semantic Mediation in Web Service Communities". In "Weaving Services, Location, and People on the WWW", Springer.

### Papers published in recent international peer-reviewed conference proceedings

1. Farah Barika Ktata, Seif Khelifi & Chirine Ghedira Guegan (2026). "Rethinking Industrial IDS: Data Quality and Explainability Challenges". The 40th International Conference on Advanced Information Networking and Applications (AINA 2026), 8–10 April 2026, Victoria University of Wellington, New Zealand. Session: Security and Privacy I. pp 195–208. (CORE B)
2. Sarra Abidi, Imen Chebbi, Eya Ben Hmida, Leila Ben Ayed, Chirine Ghedira Guegan (2026). "From Natural Language to Executable Healthcare Workflows: HELIOS Ontology-Guided AI Framework". The 40th International Conference on Advanced Information Networking and Applications (AINA 2026), 8–10 April 2026, Victoria University of Wellington, New Zealand. pp 79–92 (CORE B)
3. Antongiaco Polimeno, Marco Luzzara, Marco Anisetti, Claudio Ardagna & Chirine Ghedira-Guegan (2025). "A Framework for Data Quality and Protection Management in Service-Based Data Pipelines". 2025 IEEE International Conference on Web Services (ICWS), 12 juillet 2025, Helsinki (Finlande), pp. 258-268. doi: 10.1109/ICWS67624.2025.00040. HAL: hal-05486703. (CORE A)
4. Maroua Masmoudi, Thamer Mecharnia, Redouane Bouhamoum, Hajer Baazaoui Zghal, Chirine Ghedira, Vlado Stankovski & Dan Vodislav (2023). « A semantic blockchain-based system for drug traceability ». IDEAS '23: International Database Engineered Applications Symposium Conference, 5 mai 2023, Heraklion (Grèce), pp. 115-118. doi: 10.1145/3589462.3589499. HAL : hal-04172449.

5. Thamer Mecharnia, Redouane Bouhamoum, Maroua Masmoudi, Hajer Baazaoui, Chirine Ghedira, Vlado Stankovski & Dan Vodislav (2023). « Identification of Counterfeit Drugs Based on Traceability Ontology and Blockchain ». The Eighth International Congress on Information and Communication Technology. ICICT. Lecture Notes in Networks and Systems, vol 695., Singapour (Singapour), pp. 715-722. doi : 10.1007/978-981-99-3043-2\_58. HAL : hal-04210774. (CORE B)
6. Firas Zouari, Chirine Ghedira, Khouloud Boukadi & Nadia Kabachi (2022). « A Service-Based Framework for Adaptive Data Curation in Data Lakehouses ». 23rd International Conference on Web Information Systems Engineering (WISE'22). Lecture Notes in Computer Science 13724, Springer 2022, ISBN 978-3-031-20890-4. p225-240., Biarritz (France). HAL : hal-03864110. (CORE B)
7. Eddy Kiomba Kambilo, Hajer Baazaoui Zghal, Chirine Ghedira, Vlado Stankovski, Petar Kochovski & Dan Vodislav (2022). « A blockchain-based framework for drug traceability: ChainDrugTrac ». (SAC '22), The 37th ACM/SIGAPP Symposium on Applied Computing, 25 avril 2022, Prague (République Tchèque), pp. 1900-1907. HAL : hal-03670890. (CORE B)
8. Genoveva Vargas-Solar, Chirine Ghedira-Guegan & Nadia Bennani (2022). « Intelligent integration of heterogeneous data for answering analytics queries in multi-cloud environments ». 6th International workshop on Data Analytics solutions for Real-Life APplications (DARLI-AP @EDBT/ICDT 2022), 29 mai 2022, Edimburgh (Royaume-Uni). HAL : hal-03680832.
9. Mouncef Naji, Maroua Masmoudi, Hajer Zghal, Chirine Ghedira-Guegan, Vlado Stankovski & Dan Vodislav (2022). « Semantic-based Data Integration and Mapping Maintenance: Application to Drugs Domain ». 17th International Conference on Software Technologies, (ICSOFT'22), 13 juillet 2022, Lisbon (France), pp. 469-477. doi : 10.5220/0011279900003266. HAL : hal-03771349. (CORE B)
10. F. Zouari, C. Ghedira, N. Kabachi & K. Boukadi (2021). « Towards an adaptive curation services composition based on machine learning ». 2021 IEEE International Conference on Web Services (ICWS 2021), 10 septembre 2021, Chicago (États-Unis), pp. 73-78. doi : 10.1109/ICWS53863.2021.00022. HAL : hal-03437780. (CORE A)
11. S. Romdhani, G. Vargas-Solar, N. Bennani & C. Ghedira (2021). « QoS-based Trust Evaluation for Data Services as a Black Box ». 2021 IEEE International Conference on Web Services (ICWS 2021), 10 septembre 2021, chicao (États-Unis). HAL : hal-03314992. (CORE A)
12. Firas Zouari, Nadia Kabachi, Khouloud Boukadi & Chirine Ghedira (2021). « Data Management in the Data Lake: A Systematic Mapping ». IDEAS 2021: 25th International Database Engineering & Applications Symposium, Montreal QC Canada (Canada), pp. 280-284. doi : 10.1145/3472163.3472173. HAL : hal-03342938. (CORE B)
13. F. Loukil, C. Ghedira-Guegan & A-N. Benharkat (2020). « PATRIoT: A data sharing platform for IoT using a service-oriented approach based on Blockchain ». 18th edition of the International Conference on Service Oriented Computing (ICSOC 2020), décembre 2020, Dubai (Émirats Arabes Unis). (CORE A)
14. I. Selmi, N. Kabachi, S. Ben Abdallah, C. Ghedira & H. Baazaoui (2020). « Adaptive Multi-agent-based Alert System for Diseases' Detection ». International Conference on Advanced Information Networking and Applications (AINA 2020), Italie, pp. 734-745. (CORE B)
15. H. Taktak, K. Boukadi, M. Mrissa, C. Ghedira & F. Gargouri (2020). « A Model-Driven Approach for Semantic Data-as-a-Service Generation. ». The IEEE International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises – (WETICE2020), Basque Coast - Bayonne (France). (CORE B)
16. S. Romdhani, N. Bennani, C. Ghedira & G. Vargas-Solar (2019). « Trusted Data Integration in Service Environments: A Systematic Mapping ». International Conference on Service-Oriented Computing (ICSOC 2019). Springer, Cham, 31 octobre 2019, toulouse (France), pp. 237-242. doi : 10.1007/978-3-030-33702-5\_18. HAL : hal-02344610. (CORE A)
17. S. Abidi, M. Essafi, C. Ghedira, M. Fakhri, H. Wittl & H. Hjjami Ben Ghezala (2019). « A Web Service Security Governance Approach Based on Dedicated Micro-services ». Knowledge-Based and Intelligent Information & Engineering Systems (KES 2019), 6 septembre 2019, Budapest (Hongrie), pp. 372-386. HAL : hal-02324616. (CORE B)

18. M. Radaoui, S. Ben Abdallah Ben Lamine, H. Baazaoui Zghal, C. Ghedira & N. Kabachi (2019). « Knowledge Guided Integration of Structured and Unstructured Data in Health Decision Process ». Information Systems Development: Information Systems Beyond 2020 (ISD2019), 28 août 2019, Toulon (France). HAL : hal-02445505. (CORE A)
19. F. Shi & C. Ghedira (2018). « Adapted Decision Support Service Based on the Prediction of Offline Consumers' Real-Time Intention and Devices Interactions ». 2018 IEEE 42nd Annual Computer Software and Applications Conference (COMPSAC 2018), 27 juillet 2018, Tokyo (France), pp. 266-271. doi : 10.1109/COMPSAC.2018.10241. HAL : hal-01872313. (CORE B)
20. F. Loukil, C. Ghedira, Khouloud Boukadi & Benharkat Aïcha-Nabila (2018). « Towards an end-to-end IoT data privacy-preserving framework using blockchain technology ». 19th International Conference on Web Information Systems Engineering (WISE 2018), 12 novembre 2018, Dubai (Émirats Arabes Unis), pp. 68-78. HAL : hal-01871493. (CORE A)
21. H. Witt, C. Ghedira & E. Benkhelifa (2018). « A Conceptual Framework of Security Requirements in Multi-cloud Environment ». SERVICES 2018 - 14th World Congress, Held as Part of the Services Conference Federation, SCF 2018. p3-17, 25 juin 2018, Seattle (États-Unis), pp. 3-17. HAL : hal-01844325. (CORE B)
22. F. Loukil, C. Ghedira, K. Boukadi & AN. Benharkat (2018). « Semantic IoT Gateway: Towards Automated Generation of Privacy-Preserving Smart Contracts in the Internet of Things ». 26th International Conference on Cooperative Information Systems (CoopIS 2018), 24 octobre 2018, Valletta (Malte), pp. 207-225. HAL : hal-01871490. (CORE A)
23. M. Masmoudi, H. Taktak, S. Ben Abdallah Ben Lamine, K. Boukadi, MH. Karray, H. Baazaoui Zghal, B. Archimède, M. Mrissa & C. Ghedira (2018). « PREDICAT: A Semantic Service-Oriented Platform for Data Interoperability and Linking in Earth Observation and Disaster Prediction ». 2018 IEEE 11th Conference on Service-Oriented Computing and Applications (SOCA – CORE C), 22 novembre 2018, Paris (France), pp. 194-201. doi : 10.1109/SOCA.2018.00035. HAL : hal-01990258.
24. Faiza Loukil, Chirine Ghedira, Benharkat Aïcha-Nabila, Khouloud Boukadi, Zakaria Maamar. «Privacy-Aware in the IoT Applications: A Systematic Literature Review ». International Conference on Cooperative Information Systems (CoopIS 2017). Proceedings, Part I. Lecture Notes in Computer Science 10573, Springer 2017, ISBN 978-3-319-69461-0, 23 octobre 2017, Rhodes (Grèce). doi : 10.1007/978-3-319-69462-7\_35. HAL : hal-01630125. (CORE A)
25. Sana Ben Abdallah, Hajer Baazaoui Zghal, Michael Mrissa & Chirine Ghedira. « An ontology-based approach for personalized RESTful Web service discovery ». Knowledge-Based and Intelligent Information & Engineering Systems: Proceedings of the 21st International Conference (KES-2017), 6 septembre 2017, Marseille (France). HAL : hal-01599006. (CORE B)
26. Alex Palesandro, Marc Lacoste, Nadia Bennani, Chirine Ghedira & Bourge Denis. « Mantus: Putting Aspects to Work for Flexible Multi-Cloud Deployment ». (CLOUD 2017), 30 juin 2017, Honolulu, CA (États-Unis). doi : 10.1109/CLOUD.2017.88. HAL : hal-01590673. (CORE B)
27. Fanjuan Shi, Chirine Ghedira. Improving Recommender Systems with an Intention-based Algorithm Switching Strategy. The 32nd ACM SIGAPP Symposium On Applied Computing, (SAC 2017), April 2017. Marrakech, Morocco. (CORE B)

### Conference presentations

- 2018: “From Row data to Intelligent Decision Making in Real Word applications”. Seminar and tutorial, 15th ACS/IEEE International Conference on Computer Systems and Applications (AICCSA), Jordan
- August 2018: “LloPY: A legal compliant ontology to preserve privacy for the Internet of Things”. Invited seminar, international workshop CPSS “Software Engineering for Cyber-Physical-Social Systems” (The Open University, National Institute of Informatics (Japan), Lero (Ireland), Khalifa University (UAE) and Claude Bernard University)
- November 2013: “An introduction to intelligent distributed Big Data storage”. Invited speaker, 1st CopSee Conference on BIG DATA, Shanghai, China

## Other academic productions

- 2023: “Behind Servitization & Distributed Computing Continuum Ecosystems: Research Trends and Challenges”. Invited seminar, University of Milan, Italy
- 2022: “Smart Environment: Data and Services Management”. Invited seminar, University of Milan, Italy
- 2019: “Resources Integrations in multi-clouds: Issues and road map”. Invited seminar, ENSI Tunis, Tunisia
- December 2013: “Cloud computing: Principles, paradigms & research roadmap”. Seminar, University of Manouba, Tunis, Tunisia
- Proceeding’s editor: “EdgeAI: Redefining Web Intelligence with Decentralized Computing” track, WISE 2024 (Doha, Qatar); « Advances in Model and Data Engineering in the Digitalization Era. Short and Workshops papers proceedings » (2024); IEEE International Conference on Web Services (ICWS 2022), Barcelona, IEEE 2022, ISBN 978-1-6654-8143-4; “Cloud as a Service” track, IEEE CLOUD 2021; ACS/IEEE AICCSA 2016; “Cloud and Distributed Computing” track, AICCSA 2015
- December 2010: HDR thesis “Des services web élémentaires à la composition de services pour les Systèmes d'Information distribués et étendus”, Université Claude Bernard Lyon 1 (guarantor: Pr. Djamal Benslimane)
- November 2002: PhD thesis “Modélisation et méthode de conception de systèmes de navigation adaptative dans les hypermédias”, INSA Lyon, LISI laboratory (supervisors: Pr. Paul Rubel and Pr. Pierre Maret)

## PRODUCTION FOR THE SOCIO-ECONOMIC WORLD

### Books

- Participation in the writing of the white book “Boosting online sales with Artificial Intelligence” (Booster ses ventes en ligne avec l'intelligence artificielle), Dunod, January 2023, 208 pages

## EDUCATIONAL PRODUCTION

### Educational materials / textbooks

- Urbanisation stratégique des systèmes d'information. 220 pages
- Entrepôt de Données et BI. 120 pages
- Les architectures applicatives. 110 pages
- Annales du concours de recrutement des technologues en Informatique, épreuve d'application, option Informatique des systèmes de gestion (UML, SQL, PL/SQL case studies). Tunisia, 78 pages. Authors: D. Benslimane, C. Ghedira, N. Bel Hadj Abdallah. ISBN 978-9973786-94-4

### MOOCs, educational videos (e.g., AUNEGE)

- Outreach video presentation of the Master in Information Systems Management: <https://www.youtube.com/watch?v=LMYw7Ma2VGo>

## WEBSITE AND SOCIAL NETWORKS

Lab website: <http://liris.cnrs.fr/chirine.ghedira-guegan>

Google Scholar: <https://scholar.google.fr/citations?user=5fBxs7cAAAAJ&hl=fr>

DBLP: <http://dblp.uni-trier.de/pers/hd/g/Ghedira:Chirine>

LinkedIn: <https://www.linkedin.com/in/chirine-ghedira-guegan-72559849/>

ResearchGate: [https://www.researchgate.net/profile/Chirine\\_Ghedira2](https://www.researchgate.net/profile/Chirine_Ghedira2)