

## **CURRICULUM VITAE**

**SEBTI FOUFOU, PHD**  
Professor of Computer Science  
University of Sharjah

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## EXECUTIVE SUMMARY

### Academic Degrees

- PhD in computer science, 1997
- HDR (research habilitation) in computer science, 2005

### Academic Positions

- Professor of Computer Science, University of Sharjah, UAE, Sept 2022–Present.
- Professor of Computer Science, University of Burgundy, Dijon, France, Feb 2008–Aug 2022.
- Visiting Professor, New York University of Abu Dhabi, UAE, Sept 2017–Aug 2020.
- Professor of Computer Science, Qatar University, Sept 2009–Aug 2017.
- Assistant, then Associate Professor of Computer Science, University of Burgundy, Dijon, France, Sept. 1998–Feb 2008.
- Guest researcher at National Institute of Standards and Technology in 2005 and 2006.

### Service and Academic Responsibilities

- Coordinator of the MSc of Computer Science, University of Sharjah since Sep. 2022.
- Coordinator of the Health-AI Master's program, University of Burgundy, France, Sep. 2021–Aug. 2022.
- Head of the Computer Science and Eng. Depart., Qatar University, Sep. 2012–Aug. 2015.
- Chair of the University Outstanding Faculty Service Award committee, Qatar University, Jan. 2013–June 2013.
- Member of the task force for the revision of Qatar University Faculty Appraisal System, Sep. 2012–Feb. 2014.
- Chair of the University Faculty Senate, Qatar University, Jan. 2012–Sep. 2012
- Member of the University Faculty Senate, Qatar University, Dec. 2009–Sep. 2012,
- Member of the dept and college boards, Univ. of Burgundy, France, Sep. 2008–Jun. 2009.
- Program coordinator for the 1<sup>st</sup> year of the master of the computer science (about 60 students), University of Burgundy, France, Sep. 2006–Jun. 2009.
- Deputy Director of the computer science sector within the Le2i Lab, University of Burgundy, France, Oct. 2008–Sep. 2009.

### Teaching

- Courses already taught include discrete structures, discrete mathematics, C++ programming, Java programming, data structures, object-oriented programming, semantic web, web development, computer networks, computer graphics, computer vision, discrete mathematics, software Engineering, computer systems organization, Introduction to Python and Machine Learning.
- Open to teach any undergraduate or graduate computer science course.

### Research

- Topics of interest: Product Lifecycle Management (PLM), Applications of Artificial Intelligence and Machine Learning, Computer graphics.
- Supervised and co-supervised 24 PhD students

### Research funding

- Lead PI of three QNRF funded projects 2.6 million USD.
- PI in one QNRF funded project 0.7 million USD.

### Research citations

- Number of citations: **5036**                      h-index: **28**                      i10-index: **82**
- Google Scholar Profile:  
<https://scholar.google.com/citations?user=E-8Pz2IAAAAJ&hl=en&oi=ao>

## **CURRICULUM VITAE**

**SEBTI FOUFOU,**

Professor of Computer Science

### **EDUCATION**

- July 2005: Research supervision habilitation (HDR), University of Burgundy, Dijon, France
- Topics: Curves and surfaces for computer graphics and geometric modeling, Data representation for product lifecycle modeling (PLM).
- July 1997: PhD. in computer science, LIGIM Lab., University Claude Bernard Lyon1, France
- Topic: Surface intersections for geometric and solid modeling.
- June 1993: Master (DEA) in computer science, University Claude Bernard Lyon1 & INSA Lyon, France
- Topic: Review and implementation of Bezier Surfaces intersection methods.
- June 1990: Engineer in computer science and information systems, University of Annaba, Algeria. Five years engineer degree.

### **WORK EXPERIENCES**

- Full Professor of computer science, since Sept 2022,  
Department of Computer Science, University of Sharjah, UAE
- Full Professor of computer science, from Feb. 2008–Present,  
UFR Sciences & Techniques, University of Burgundy, Dijon, France,  
Teaching: Department of computer science and electrical engineering,  
Research: Burgundy Laboratory of computer science (LIB Lab).  
Was on leave from the university of Burgundy between 2009 and 2020.
- Visiting Professor, From Sept. 2017–August 2020  
Computer Science Department, New York University of Abu Dhabi, UAE
- Full Professor of computer science, Sept 2009–Aug. 2017  
Computer Science Department, College of Engineering, Qatar University, Qatar. Head of the department between Sept 2012 and Aug. 2015
- Assistant, then Associate Professor of computer science, Sept. 1998–Feb. 2008  
UFR Sciences & Techniques, University of Burgundy, Dijon, France.
- Guest researcher. Jun–Jul. 2002, Apr.–Sept. 04, and Jan. 2005–Sept 2006.  
Design and Process Group, MSID, NIST, Maryland, USA.
- Teaching and Research Assistant in computer science, Sep. 96–Aug. 98.  
Department of Computer Science, University Claude Bernard Lyon 1, France.

### **TEACHING ACTIVITIES**

#### **Undergraduate Courses**

- Relational Data Bases, SQL and PLS/SQL, Computer graphics. Junior & senior students.
- Computer vision. Junior & senior students.
- Languages and programming (algorithms & data structures, C++, java). Sophomore & junior students.

- Human-computer interfaces (Java Swing, Microsoft MFC C++). Junior students.
- Operating system (Unix, and shell programming). Junior students.
- Web tools and technologies (Web data bases, static and dynamic web sites, XML tools). Junior students.
- Introduction to computer graphics and geometric modeling. Junior students.
- Network programming (rooting and sockets). Junior students.
- Computers architecture. Sophomore students.
- Discrete structures (Discrete Mathematics). Freshman and sophomore students.
- Computer Systems Organization. Sophomore students.
- Software Engineering, Senior students

### **Graduate Courses (Master level)**

- Python programming (basic library as well as math and machine learning libraries).
- Web tools and technologies (Web data bases, static and dynamic web sites, XML tools).
- Semantic Web.
- Multimedia tools and technologies.
- Computer graphics and geometric modeling.
- Industrial computer science.

### **ADMINISTRATIVE RESPONSIBILITIES**

#### **After Sept. 2020 (University of Burgundy, Dijon, France)**

- Coordinator of the Health-AI Master's program, University of Burgundy, France, Sep. 2021– Present.

#### **Sept. 2009-Aug. 2017 (Qatar University, Qatar)**

- Head of the Computer Science and Engineering Department, Sep. 2012 - Aug. 2015.
- Chair of the University Outstanding Faculty Service Award committee, Jan. 2012 – 2013.
- Member of the task force for the revision of the University Faculty Appraisal System, Sep. 2012 – Feb. 2014.
- Chair of the University Faculty Senate, Jan. 2012 - Sep. 2012.
- Vice-chair of the University Faculty Senate, May 2010 - Dec. 2011.
- Member of the University Faculty Senate, Dec. 2009 - Sep. 2012.
- Member of the graduate, search, and research committees, of the Computer Science and Engineering department, Sep. 2009 – Aug. 2015.
- Member of the promotion committee, College of Engineering, Sep. 2010 – July 2012.

#### **Before Sept. 2009 (University of Burgundy, Dijon, France):**

- Member of the search committee of the computer science and electrical engineering department, Sep. 2006 – Jun. 2009.
- Vice chair of the search committee of the department, Sep. 2007 – Jun. 2009.
- Member of the department management board, Sep. 2008 – Jun. 2009.
- Member of the board of the college (UFR) sciences and techniques, Sep. 2008 – Jun. 2009.
- Program coordinator for the first year of the master of the computer science (about 60 students), Sep. 2006 – Jun. 2009.
- Coordinator of the submissions and management of project proposals for regional funds for the Computer Science sector (3 research teams) within the Le2i Lab, Academic year 2008 – 2009.
- Deputy Director of the computer science sector within the Le2i Lab, Oct. 2008 – Sept. 2009.

### **RESEARCH TOPICS OF INTEREST**

- *Improving the digitization of cultural heritage using AI and Machine Learning tools:* Cultural heritage takes an important part of the history of humankind as it is one of the most

powerful ways to preserve moral identity and transfer it over generations. As a result, cultural heritage products and artifacts are highly valuable and sometimes priceless assets. Digital technologies provided multiple tools that address challenges related to the promotion and information access in the cultural context. Applying recent tools from artificial intelligence (AI) with deep learning and data mining to process the large data collections of cultural information will help addressing various challenges in this context. In our ongoing research effort, we are investigating several approaches to promote, curate, preserve and value cultural heritage through new and evolutionary techniques based on deep learning tools. Our contributions in this area include: (i) Collection of a large dataset (More than 600GB of images and metadata) from various cultural institutions using a handful of data harvesting techniques. (ii) Design and development of a Multitask-multimodal classification approach for the annotation of cultural objects using their visual and textual features. (iii) Suggesting a hierarchical classification paradigm to reduce the complexity of classification models. (iv) The use of image inpainting and reconstruction as an alternative for physical restoration of assets to reconstruct the digital copy of objects. (v) Improving the reconstruction quality of existing image completion frameworks by combining supervised and unsupervised learning through the divide and conquer strategy. (vi) Validating the discussed approaches on a large dataset collected from multiple cultural institutions. One PhD student and one postdoc contributed to this effort.

- *Data center networks and cloud computing*: Our interest in this research area started as part of a collaborative project with Hong-Kong University of Science and Technology. The project was funded by Qatar National Research Fund (QNRF), we investigated the design and development of new network architectures to support the heavy traffic of data centers and improve the quality of service provided. The proposed architectures and their routing algorithms allow to: (i) optimize the network parameters such as throughput, bisection, and latency, (ii) ensure high scalability of the network topology, (iii) reduce the overall cost of the data center, (iv) make the data centers environment friendly (green data centers). Two PhD level and one Master level students contributed to this project and published some excellent results on this topic.
- *Product Lifecycle Management (PLM) and Smart Manufacturing*: This topic is subject to a long-term collaboration with the National Institute of Standard and Technologies (NIST), in Maryland, USA. We started by studying the use of semantic web technologies (e.g. XML, ontologies, description logic, etc.) to better represent the product data during its whole lifecycle. A generic model, called CPM – Core Product Model, was defined as a class diagram using UML2 and implemented as an ontology using OWL. CPM is based on the notion of artifact and its decomposition into form, features, function, and behavior. This model was then extended to represent information of assembly hierarchies and kinematics. Furthermore, the digital archival of product data from enriched STEP models has also been considered. We also worked on the integration of big data analytics and semantic modelling for manufacturing data, the dynamic customization of PLM-related information models. On the *Smart Manufacturing research*, we have proposed several tools and methods to improve the manufacturing operations in the shop floor through facilitating autonomous vehicles movement and robot-human interactions as well as introducing data analytics to simulate and process manufacturing data. Following are some specific topics we have investigated within 5 different PhD theses: (i) Moving object predictions in dynamic environments for autonomous ground vehicles, (ii) Knowledge representation for the optimization of smart machining systems, (iii) Inferring intentions through state representations in cooperative human-robot environments, (iv) Measurement of the performances of robot mobile manipulators, (v) Integration of big data analytics and semantic modelling for manufacturing.

- *Computer Graphics*: Several topics have been considered under the wide area of computer graphics. Our earlier activities concerned *geometric modeling and 3D shapes representation* using a particular class of algebraic surfaces, called Dupin cyclides. We have studied the geometric properties of Dupin cyclides and investigated the use of these surfaces for the blending of quadrics. We have also studied the conversion of Dupin cyclide patches into Bezier surfaces and vice-versa, and the combination of quadrics and Dupin cyclides for shape modeling. Then, we studied the *reconstruction of curves and surfaces from real data*. The proposed algorithms start from a dense set of 3D points resulting from the scanning of real objects and reconstruct the surfaces that perfectly represent the scanned objects. Supershapes, which are defined as an extension of the well-known superquadrics surfaces, are used to individually approximate segmented parts of the data set, and then r-functions are used to combine the individually constructed supershapes together to define the global implicit equation of the initial object. We have also investigated the *formulation and solving of geometric constraint systems* in geometric modeling, mainly the formulation of coordinate-free constraint systems, the detection and elimination of hidden dependences between constraints, and the detection of constraint inconsistencies (e.g. presence of contradictory constraints). We have also proposed new solvers based on interval arithmetic, Bernstein basis, and Bernstein polytops.
- *Image processing*: We have proposed several image segmentation algorithms based on techniques such as genetic algorithms, Markov chains and multi-agents. We have also investigated the use of multispectral images (MSI) to enhance face recognition systems and proposed various methods for multispectral bands selection, MSI filtering and noise removal, and MSI fusion. A system that includes all these methods was developed for human face recognition.
- Reviewer of a dozen of international journals. Program committee member and reviewer of various international conferences. Program co-chair of the Signal and Image Track of the 2008, 2009 and 2014 editions of the SITIS int'l conference. General Chair of IEEE AICSSA'14, and IFIP PLM int'l conferences since 2014.

## RECENTLY FUNDED PROJECTS

- Industry Funded project (Dec. 2021 – Dec. 2024) with the SYARTEC company in Aix-en-Provence, France.  
*Project title*: The use of data analytics and machine learning for decision support in automotive marketing
- NPRP 9-390-1-088, from Nov 9, 2016 to Nov 9, 2019. Total amount: \$781264  
*Funding Agency*: Qatar National Research Fund  
*Project Title*: SIMUPOR: Simulation of microscale biogeochemical processes in porous media using advanced computer vision methodologies.  
*Role*: Lead-PI
- NPRP 9-181-1-036 from Nov 9, 2016 to Nov 9, 2019. Total amount: \$720000.  
*Funding Agency*: Qatar National Research Fund  
*Project title*: CEPROQHA: Cost-Effective Preservation and Restoration of Qatar Cultural Heritage through Advanced 3D Holographic Imaging.  
*Role*: PI
- NPRP 6 718-2-298. From Apr. 15, 2014 to April 14, 2017. Total amount: 946266.63 USD  
*Funding Agency*: Qatar National Research Fund.

*Project title:* Interconnection Networks for Massive Data Centers

*Role:* Lead-PI

- NPRP 4 1165-2-453. From Aug 11, 2012 to Feb. 11, 2016. Total amount: 831285.23 USD  
*Funding Agency:* Qatar National Research Fund.  
*Project title:* Advances in Biometrics via Narrowband Multispectral Imaging  
*Role:* Lead-PI
- UREP 12 064-2-027. From Nov 20, 2012 to June 30, 2013. Total amount: 30000 USD  
*Funding Agency:* Qatar National Research Fund.  
*Project title:* Incorporating Olfactory and Haptic Sensation Into Surgical Simulation  
*Role:* PI
- NPRP 09-906-1-137. From Dec. 1st. 2010 to Mar. 30, 2014. Total amount: 1050000 USD  
*Funding Agency:* Qatar National Research Fund.  
*Project title:* Design and implementation of a new geometric constraint solver based on Bernstein Polytopes  
*Role:* Lead-PI

## **PHD SUPERVISIONS**

Currently, I am supervising the PhD thesis of Ms. Laetitia Monnier, who works on the analysis of product data for smart manufacturing. I am also co-supervising (with my colleague Dr. Lylia Abrouke) the PhD thesis of Mr. Hamid Ahaggach on the use of data analytics and machine learning for decision support in automotive marketing. This thesis, started in Dec. 2021, is partly funded by industry under the CIFRE framework for academia-industry research partnerships. I am also co-supervising the PhD thesis of Mr. Hadrien Belkebir in collaboration with my colleague Prof. Frédéric Demoly from the ICB laboratory, UTBM. This thesis aims to develop a framework for decision support during the design and manufacture of multi-material products by an additive manufacturing process.

### **As co-supervisor:**

- Hadrien Belkebir, Sep. 2019 – Present. Co-supervisor with Prof. Fred Demoly, ICB Lab, UTBM, France  
AI decision making for design and modeling of structures in additive manufacturing.
- Abdelhak Belhi, Sep. 2016 – July 2020, with Prof. Abdelaziz Bouras, University Lyon 2.  
Data sciences for cultural heritage information representation and preservation.
- Arnaud Kubicki, Sep. 2010 - 2013, with Pr. D. Michelucci.  
Formulation and solving of geometric constraints for curves and surfaces modeling  
Original title in French : Formulation et résolution des systèmes de contraintes géométriques pour la représentation des courbes et surfaces.  
This PhD thesis was delayed, then stopped due to medical reasons
- Sophie Voisin, Sep. 2004 – Dec. 13, 2008, with Pr. F. Truchetet  
3D Model Acquisition, Segmentation and Reconstruction using Primitive Fitting.
- David Ménegaux, Sep. 2003 – Dec. 12, 2006, with Pr. D. Michelucci.  
Modeling of implicit and parametric surfaces using geometric constraints  
Original title in French : Modélisation des surfaces implicites et paramétriques en utilisant les contraintes géométriques.

- Yohan Fougerolle, Sep. 2002 – Dec. 13, 2005, with Pr. F. Truchetet  
Modeling and reconstruction of surfaces using supershapes and R-functions  
Original title in French : Modélisation et Reconstruction de Surfaces par Supershapes et R-fonctions.
- I Wayan Simri Wicaksana, Sep. 2001 – Dec. 21<sup>st</sup>, 2004, with Pr. Kokou Yetognon  
Semantic Mediation for Geography interoperability at Peer-to-Peer Environment.
- Lionel Garnier, Sep. 2001 – Dec. 10, 2004, with Pr. M. Neveu  
On the use of Dupin cyclides and supercyclides in geometric modeling  
Original title in French : Utilisation des cyclides de Dupin et des supercyclides en modélisation géométrique.
- Michael Roy, Sep. 2001 - 2004, with Pr. F. Truchetet  
Comparison and multiresolution analysis of irregular 3D meshes with appearance attributes. Original title in French : Comparaison et analyse multiresolution de maillages irréguliers avec attributs d'apparence.

**As the main supervisor:**

- Hamid Ahaggach, Dec. 2021–Present.  
Artificial Intelligence and data driven decision making in car marketing.  
Co-supervisor with my colleague Dr. Lylia Abrouke, University of Burgundy
- Laetitia Monnier, Sep. 2018–Present.  
Manufacturing data analysis for Product Lifecycle Management.
- Richard Candell, Dec. 2017–Sep. 2020.  
Performance Estimation, Testing, and Control of Cyber-Physical Systems Employing Non-ideal Communications Networks.
- Roger Bostelman, Sep. 2014 – Mar. 7, 2018,  
Measurement of the performances of robot mobile manipulators.
- Enma Baccour, Dec. 2014 – June 2017,  
Interconnected computer networks for massive data centers
- Zina Chkirbene, Sep. 2014 – June 2017,  
Computer networks topologies for data centers
- Ala Gouisssem, Oct. 2013 – June 2017, with Assoc. Pr. Ridha Hamila, Qatar University  
Sparsity-Aware Interference Mitigation and Multiple Relay Selection in Large Relay Networks
- David Lechevalier, Sep. 2013 – April 7, 2017, with Prof. Sudardsan Rachuri, NIST  
Integration of big data analytics and semantic modelling for manufacturing.
- Hamdi Bouchech, Sep. 2011 - Jan. 26, 2015,  
Selection of optimal narrowband multispectral images for face recognition.
- Faten Omri, Sep. 2012 – June 5, 2015,  
Multispectral data fusion for improving face recognition.



- Ahmed Ben Said, Sep. 2012 – June 3, 2015,  
Multispectral images and their use for face recognition: Sensory data enhancement.
- Craig Schlenoff, Nov. 2011 – June 30, 2014,  
Inferring intentions through state representations in cooperative human-robot environments.
- Sylver Krma, Sep. 2008 – July 5, 2013, with Prof. Sudardsan Rachuri, NIST  
Semantic based framework for dynamic customization of PLM-related information models.
- Raphael Barbau Oct. 2008 - July 5, 2013, with Prof. Sudardsan Rachuri, NIST Reference  
architecture for archival systems: the case of product models.
- Jean-Louis Vigouroux, Sep. 2005 – Dec. 2008,  
Knowledge representation for the optimization of smart machining systems  
Original title in French: modélisation des connaissances pour l'optimisation des systèmes  
d'usinage intelligents
- Zeid Kootbally, Oct. 2005 - 2008, with Craig Schlonoff , NIST  
Moving Object Predictions in Dynamic Environments for Autonomous Ground Vehicles

#### **INTERNATIONAL COLLABORATIONS**

- Several research invitations at the National Institute of Standards and Technology (NIST), MD, USA.
- Collaboration on the topics of Product Lifecycle Management with NIST, MD, USA. Exchange and co-supervision of several PhD students: Zeid Kootbally, Jean Louis Vigouroux, Raphael Barbau, Sylvere Krma, Craig Schlenoff, David Lechevallier, Roger Bostelman, Richard Candell, Laetitia Monnier.
- Collaboration on the topics of 3D reconstruction and image processing with the IRIS Lab at the University of Tennessee Knoxville, TN, USA. Exchange and co-supervision of three PhD students: Yohan Fougerolle, Michael Roy, Sophie Voisin.
- Collaboration, and several PhD students exchanges, with the computer science Lab at the University of Constantine and University of Biskra, Algeria.
- Volunteer with the Agence Universitaire de la Francophonie (AUF), to teach computer science courses in French speaking countries (ITC = Technology institute of Phnom Penh, Cambodia).

#### **PUBLICATIONS**

- 70 papers in reputable indexed journals, e.g. IEEE Trans. *Visual. & Comp. Graphics*, *Comp. Graphics Forum*, *Comp. Aided Design*, *Comp. Aided Geom. Design*, *Int'l J. of Images and Graphics*, *Machine Vision and Graphics*, *ASME-JCISE*, *Pattern Recognition*, *J. of computer communication*, *J. of parallel and distributed computing*, *IEEE Systems*, etc.
- 7 book chapters.
- More than 110 papers in the proceedings of international conferences (e.g. *Math of Surfaces*, *ACM Solid Modeling*, *Pacific Graphics*, *IEEE ICIP*, *SIAM Geom. Design*, *PLM*, *IEEE Globecom*, *IEEE ICC*, *IEEE WCNC*, *PLM*).
- 11 papers in the proceedings of French conferences.
- Few research and technical reports.

## Accepted, not published, papers

1. "An automated approach for segmenting numerical control data with controller data for machine tools". Laetitia Monnier, Bill Bernstein, Vincenzo Ferrero, Sebti Foufou, submitted to the Journal of Computing and Information Science in Engineering, ASME.

## Journal papers (72)

1. "QPert: Query Perturbation to improve shape retrieval algorithms", Abdelhakim Benkrama, Bilal Mokhtari, Kamal Eddine Melkemi, Sebti Foufou, Omar Boudraa and Dominique Michelucci. Journal of Multimedia Tools and Applications. Springer 2023  
<https://doi.org/10.1007/s11042-023-16376-9>
2. "A machine learning framework for enhancing digital experiences in cultural heritage". A Belhi, A Bouras, AK Al-Ali, S Foufou  
Journal of Enterprise Information Management 36 (3), 734-746, April 2023  
<https://doi.org/10.1108/JEIM-02-2020-0059>
3. "An integrated framework for the interaction and 3D visualization of cultural heritage". Abdelhak Belhi & Hosameldin Osman Ahmed & Taha Alfaqheri & Abdelaziz Bouras & Abdul H. Sadka & Sebti Foufou. Multimedia Tools and Applications, Jan 2023.  
<https://doi.org/10.1007/s11042-023-14341-0>
4. "3D Quantum Cuts for automatic segmentation of porous media in tomography images". Junaid Malik, Serkan Kiranyaz, Riyadh I.Al-Raoush, Olivier Monga, Patricia Garnier, Sebti Foufou, Abdelaziz Bouras, Alexandros Iosifidis, Moncef Gabbouj, Philippe C. Baveye, Computers & Geosciences, Volume 159, February 2022, <https://doi.org/10.1016/j.cageo.2021.105017>
5. "Investigating low-delay deep learning-based cultural image reconstruction". Abdelhak Belhi, Abdulaziz Khalid Al-Ali, Abdelaziz Bouras, Sebti Foufou, Xi Yu, Haiqing Zhang. Journal Real Time Image Process. 17(6): 1911-1926 (2020)
6. "LaScaDa: A Novel Scalable Topology for Data Center Network". Zina Chkirbene, Rachid Hadjidj, Sebti Foufou, Ridha Hamila. IEEE/ACM Trans. Networks. 28(5): 2051-2064 (2020)
7. "Exploiting Sparsity in Amplify-and-Forward Broadband Multiple Relay Selection". Ala Gouissem, Ridha Hamila, Naofal Al-Dhahir, Sebti Foufou. IEEE Access 7: 57985-57995 (2019)
8. "Towards a better integration of modelers and black box constraint solvers within the product design process". Jean-Philippe Pernot, Dominique Michelucci, Marc Daniel, Sebti Foufou. Ann. Math. Artif. Intell. 85(2-4): 147-173 (2019)
9. "A SysML Representation of the Wireless Factory Work-cell Enabling real-time observation and control by modeling significant architecture, components, and information flows", R. Candell, M. Kashef, Y. Liu, S. Foufou, International Journal of Advanced Manufacturing Technology, Springer. Volume 104, Issue 1-4, pp 119-140, Sept. 2019. <https://doi.org/10.1007/s00170-019-03629-x>
10. "Multiple Relay Selection and Beamforming in Dual-Hop Amplify-and-Forward Relay Networks", A. Gouissem, L. Samara, R. Hamila, N. Al-Dhahir, and S. Foufou. Volume 13, issue 2, pp 1534-1545, IEEE Systems Journal, Jun. 2019.
11. "Industrial wireless systems guidelines: Practical considerations and deployment life cycle," R. Candell, M. Kashef, Y. Liu, KB. Lee, S. Foufou, IEEE Industrial Electronics Magazine 12 (4), 6-17, 2018.
12. "Leveraging Known Data for Missing Label Prediction in Cultural Heritage Context," A. Belhi, A. Bouras, S. Foufou, Applied Science, 8, 1768; MDPI Publishers, 2018. doi:10.3390/app8101768
13. "Efficient techniques for energy saving in data center networks." Z. Chkirbene, A. Gouissem, R.

- Hadjidj, R. Hamila, S. Foufou, *Computer Communications*, Elsevier, Vol 129, pp 111-124, 2018.
14. "A methodology for the semi-automatic generation of analytical models in manufacturing," D Lechevalier, A Narayanan, S Rachuri, S Foufou. *Computers in Industry* 95, 54-67, 2018
  15. "Secondary Users Selection and Sparse Narrow-band Interference Mitigation in Cognitive Radio Networks", A. Gouisse, R. Hamila, N. Al-Dhahir, and S. Foufou, Elsevier *Computer Communications*, vol. 123, pp.97-115, 2018.
  16. "Unsupervised geodesic convex combination of shape dissimilarity measures". Mokhtari, B., Melkemi, K.E., Michelucci, D., Foufou, S. *Pattern Recognition Letters*, vol. 98, 46-52 (2017). <https://doi.org/10.1016/j.patrec.2017.07.012>
  17. "Total variation for image denoising based on novel smart edge detector: an application to medical images", A. Ben Said, R. Hadjidj, S. Foufou, *Journal of Mathematical Imaging and Vision*, 2018, pp 1-16 (volume not yet available), doi: 10.1007/s10851-018-0829-6
  18. "PTNet: An Efficient and Green Data Center Network". E. Baccour, S. Foufou, R. Hamila, Z. Tari and Albert Y. Zomaya, *Journal of Parallel and Distributed Computing* (Elsevier, IF 1.93). 107: 3-18 (2017).
  19. "Achieving energy efficiency in data centers with a performance-guaranteed power aware routing". E. Baccour, S. Foufou and R. Hamila, *Journal of Computer Communications* (Elsevier, IF 3.33). 109:131-145 (2017). DOI: <https://doi.org/10.1016/j.comcom.2017.04.012>
  20. *Simulating a virtual machining model in an agent-based model for advanced*. David Lechevalier· Seung-Jun Shin· Sudarsan Rachuri· Sebti Foufou, ·Y. Tina Lee, and Abdelaziz Bouras. *Journal of Intelligent Manufacturing*, Springer (IF 3.03)). DOI 10.1007/s10845-017-1363-x, 2017
  21. *Cross-industry standard test method developments: from manufacturing to wearable robots*. Roger Bostelman, Elena Messina, Sebti Foufou. *Frontiers of Information Technology & Electronic Engineering*, Vol.18 No.10 P.1447-1457, 2017, doi:0.1631/FITEE.1601316
  22. "LaCoDa: Layered Connected Topology for Massive Data Centers". Zina Chkirbene, Sebti Foufou, Ridha Hamila, Zahir Tari, Albert Y. Zomaya. *Journal of Network and Computer Applications*. Vol 83, pp 169 - 180, Apr. 2017. Elsevier. <http://dx.doi.org/10.1016/j.jnca.2017.01.020>
  23. "Cross-Industry Standard Test Method Developments – from Manufacturing to Wearable Robots." Roger Bostelman, Elena Messina, Sebti Foufou. *Frontiers of Information Technology & Electronic Engineering*, Springer, In Press, Apr. 2017.
  24. "A 3D shape matching and retrieval approach based on fusion of curvature and geometric diffusion features." Bilal Mokhtari, Kamal Eddine Melkemi, Dominique Michelucci, Sebti Foufou. *Int. Jour. of Computer Applications in Technology*, 55(2) pp 79 - 91, Inderscience. 2017. <http://dx.doi.org/10.1504/IJCAT.2017.082869>
  25. "Sparsity-Aware Multiple Relay Selection in Large Multi-hop Decode-and-Forward Relay Networks." Ala Gouisse, Ridha Hamila, Naofel Al-dhahir, Sebti Foufou. *EURASIP Journal on Advances in Signal Processing* (IF 1.9), Vol 2016, No 1, pp. 81. Dec. 2016
  26. "Re-parameterization reduces irreducible geometric constraint systems", Hichem Barki, Lincong Fang, Dominique Michelucci, Sebti Foufou. *Elsevier Computer-Aided Design* (Special issue of Symposium on Solid and Physical Modeling 2015, Salt Lake City, USA, Oct. 12-14, 2015), V. 70, 182-192, January 2016.
  27. "An improved star test for implicit polynomial objects", Lincong Fang, Dominique Michelucci, Sebti Foufou. *Elsevier Computer-Aided Design* (Special issue of Symposium on Solid and Physical Modeling 2015, Salt Lake City, USA, Oct. 12-14, 2015), V.70, 161-170, January 2016.
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