Ahcene **Bounceur**, PhD, SMIEEE

Agentic AI - Digital Twin IoT - Data Science - Quantum Computing - Cybersecurity

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University of Sharjah, Sharjah, United Arab Emirates

I am an Associate Professor at the University of Sharjah (College of Computing and Informatics). I was an Associate Professor at KFUPM University (College of Computing and Mathematics) and a high-ranked associate professor of Computer Science at the University of Brest (UBO). I am a member of the Interdisciplinary Research Center for Intelligent Secure Systems and the Lab-STICC laboratory. In 2021, I was nominated by the ministry as a member of the National Council of Universities (CNU) section Computer Science. My current research activities are focused on the following aspects:

- Agentic AI and Digital Twin IoT
- Digital Transformation, Data Science and AI Data Analytics
- Cybersecurity

I received my PhD in Micro and Nanoelectronics at Grenoble INP, France, in 2007. Note that the main topic of my PhD is Computer Science; however, in France, the official specialty of the PhD degree corresponds to that of the thesis supervisor. I received the M.Sc. degree from ENSIMAG in Grenoble, France, in 2003. From April 2007 to August 2008, I was a postdoctoral fellow at TIMA Laboratory. From September 2007 to August 2008, I was at Grenoble INP in France, where I was an ATER.

I obtained 3rd place in the Annual IEEE Test Technology Technical Council (TTTC-IEEE) Doctoral Thesis Contest, VLSI Test Symposium, Berkeley, USA, May 2007. I am the coordinator of the ANR PERSEPTEUR project (587K€) and a partner on the Suidia project, a patented IoT-based digital health initiative. To date, I have published more than 200 articles and have been invited many times to serve as a keynote speaker. I am the main developer of the simulator CupCarbon.

I have developed a new theoretical concept, called a ***Pseudo-Polygon***, which represents a specific graph structure that can be used to model and resolve many problems that can be modeled as a boundary of a Euclidean connected graph, such as the boundary of a country or any sensitive geographical site, fingerprints, data security, and key generation. This theory is published in the book "***Boundaries and Hulls of Euclidean Graphs: From Theory to Practice***".

Academic Qualifications

PhD in Micro and Nano Electronics, TIMA Laboratory (Grenoble) 2007
Subject: Computer-Aided Test Platform for mixed-signal circuits

M.Sc. in Operations Research, School of Computer Science and Applied Mathematics of Grenoble (ENSIMAG) 2003
Subject: Computer-Aided Design tool for the Auto-test validation of microelectronic circuits

Engineer degree in Operations Research, University of Bejaia, Algeria 2002
Subject: Optimal Stock Management of the Company Cevital

Positions

Associate Professor, University of Sharjah 2024–Present

Associate Professor, University of KFUPM 2023–2024

Associate Professor, University of Western Brittany (UBO) 2014–2023

Assistant Professor, University of Western Brittany (UBO) 2008–2014

ATER Position[1], National School of Electronics and Radio-electricity (ENSERG) 2007–2008

Responsibilities

Member of the National Council of Universities (CNU), Nominated by the french ministry 2021–2023

Head of the computer science section, Continuous Training department (UBO) 2011–2023

Co-Head of the Master Degree LSE, University of Western Brittany (UBO) 2009–2023

Associated Researcher and Member of the Scientific Council, Center for the Development of Advanced Technologies (CDTA, Algeria) 2014–2016

Associated Researcher, LIMED Laboratory, University of Bejaia (Algeria) 2010–2007

Distinctions and Patents

Best papers at CINS'25, UAE 2025

Patent: Platform Suidia, IoT Platform for monitoring the gestational diabetes 2015

Best papers at ACM ICFNDS, Jordan 2018

Best papers at ACM ICC, Bulgaria 2016

3rd place winner in the Annual IEEE Test Technology Technical Council (TTTC) Doctoral Thesis Contest, VLSI Test Symposium, Berkeley, USA 2007

Collective Responsibilities / Scientific Events

At the University of Sharjah

- At the university level:
  - Member of the committee AI for Administration and Operation Excellence (Artificial Intelligence Applications Center)
  - Member of the UoS Smart Student Advising Platform Technical Committee
- At the college level:
  - Research Committee
  - Industry Committee
  - Equipment and Labs Committee
  - Seminars and Events Committee
- At the department level:
  - Graduate Studies Committee
  - Curriculum Committee
  - Development Task Group (MSc Digital Transformation)

At the international level

- **Steering Committee (co-founder)**:
  - ICFNDS: since 2017
- **Guest Editor** of the following journals:
  - Discover Artificial Intelligence, Springer, 2026 (section Intelligent Digital Twin IoT with Multi-Agent and Agentic AI).
  - Annals of Telecommunications, Springer, 2026 (Extended Papers from the 8th International Conference on Machine Learning for Networking, MLN'2025)

[1] https://academicpositions.fr/career-advice/french-academic-job-titles-explained

- **Associate Editor**
  - EURASIA journal
- **General Chair** of the conferences ACM ICC 2016, ACM BDAW 2016, and ACM ICFNDS 2019.
- **General Co-Chair** of the conferences IEEE IC3IT 2024 (International Conference on Innovative and Intelligent Information Technologies) and ACS 2021 (International Conference on Applied CyberSecurity)
- **Program Co-Chair** of the conference IEEE ICAAI 2025 (9th International Conference on Advances in Artificial Intelligence - ICAAI)
- **Summer-Schools** with Pr. Bernard Pottier of an international summer school on sensor networks, measurements and environment and organization of a training on Arduino and wireless. http://ecole-capteurs.univ-brest.fr
- **Responsible of the Tutorials** of the IDT 2014 conference
- **Associate head** of the RCM (Network of Sensors for Medicine) research team of the LIMED laboratory (Medical Informatics Laboratory - University of Béjaia)
- **Co-organisation** with Pr Abdelkamel Tari (University of Béjaia, Algeria) of a summer school on Wireless Sensor Networks: Impacts and Challenges for Society from 30 June 2013 to 3 July 2013.
  - 13 speakers were invited, including 8 international and 5 national researchers.
  - I provided training on the basic programming of wireless sensor networks.
- **Invited** to provide practical training on wireless sensor networks and to manage the website of a winter school on wireless sensor networks organised by the University of Oran (2013)
- **Invited** to provide practical training on wireless sensor networks and the Arduino (winter school on wireless sensor networks organised by the CDTA -2014)
- **Proposal for the creation of a new medical informatics laboratory LIMED** (Laboratoire d'Informatique Médicale) and participation in the piloting of its creation at the University of Béjaia (with Mr Abdelkamel Tari, its director and Mrs Chafiaa Hamitouche, the deputy director of the LATIM laboratory of Brest) under the direction of Pr Djoudi Merabet and Pr Kamel Tari the former rector of the University of Béjaia - 2013.
- **Establishment of official cooperation** between the University of Béjaia and the University of Brest in 2010 and 2012.

The French scientific community

- **Member of the steering committee** of the national CNRS research group GDR-SoC2 (Axis: Connected Objects)
- **Member of the steering committee** of the national CNRS research group GDR-OSI from 2011
- **Organisation** of a thematic day with the Test and Tolerance Group of GDR SoC-SiP (Pierre and Marie Curie University, Jussieu, 5 October 2012)
  - Theme: Methods and Tools for Taking into Account the Variability of Manufacturing Processes
  - Site: http://pagesperso.univ-brest.fr/~bounceur/journee_thematique_gdr.html
- **Carrying out scientific expertises** (European and french project funding, grant applications, etc.)

At the university of Brest

- **Member of the Scientific Council** of the research centre IBNM (Institut Brestois du Numérique et des Mathématiques) and responsible for its website
- **Responsible** of the website of the computer science department
- **In charge** (with Franck Vermet) of the IBNM seminars since 2016
- **Co-responsible** of the SSC seminars (Seminaires des Systèmes Communicants) of the Lab-STICC and the ISSTB (11 monthly seminars organised) from 2010 to 2011.
- **Organisation** of a thematic day on IoT networks at UBO

Keynotes and Invited Talks

Keynote Speaker [20]

CupCarbon Klaines: A Platform to Design Agentic AI for Next-Generation Smart Cities 2025
8th International Conference on Machine Learning for Networking (MLN'25), Paris, France, December 4, 2025

Making Systems Intelligent: AI-Driven Automation in CupCarbon for Digital Twin IoT and Smart Cities 2025
3rd International Conference on Computational Intelligence and Network Systems (CINS'25), November 25, 2025, BITS Pilani, Dubai

Securing Algeria's Critical Infrastructure: Quantum & AI Threats and the Road to Resilience in Algeria 2025
1st National Conference on Artificial Intelligence Applications for National Security, University of Oum-Elbouaghi, Algeria, April 15-16, 2025

Digital Twins for Emergent Traffic Management 2024
Journée Scientifique (SPLIT 2024), Lorient, France, December 6, 2024

Building Digital Twins for Smart-cities and Intelligent Infrastructures 2023
6th International Conference on Machine Learning for Networking (MLN'2023), Paris, France, November 28-30, 2023

CupCarbon-AI: Toward a digital twin for the validation of AI algorithms in smart-city applications 2022
First International Conference on Big data, IoT, Web intelligence and Applications (BIWA-2022), Sidi Bel Abbes, Algeria, December 11th, 2022.

CupCarbon: A Platform for Designing and Simulating IoT and Wireless Sensor Networks dedicated to secured smart-city applications 2022
Int. E-Conference on Advances of Electronics And Computer Technology (ICAECT-2022), India, April 7th, 2022.

CupCarbon for Cybersecurity and BlockChain modelling: which model? 2021
Artificial Intelligence for Cyber Security and Privacy Conference, El-Oued, Algeria, November 20th, 2021.

DATA simulation, generation and collection tools for smart cities 2020
Workshop on Data, Algerian ministry invitation, DGRSDT, Cerist, Algeria, February 27th, 2020.

CupCarbon-Lab for the validation of Cybersecurity algorithms including BlockChain technology 2019
In the 2nd International Conference on Computational Intelligence, Security and IoT (ICCISIoT 2019), 13-14 December 2019, National Institute of Technology Agartala, Tripura, India

The concept of a Pseudo-Polygon and its Application to IoT 2018
In the 1st International Conference on Artificial Intelligence and its Applications (AIAP'18), 4-5 December, 2018, El-Oued, Algeria

The concept of a Pseudo-Polygon and its Application to Big Data and IoT 2018
In the 7th International Society for Knowledge Organization (ISKO-Maghreb), 25-26 November, 2018, Bejaia, Algeria (https://www.youtube.com/watch?v=hIQqLA5psNI)

A Pseudo-Polygon and Its Application in IoT Networks 2018
In the International Conference on Future Networks and Distributed Systems (ICFNDS), 26-27 June, 2018, Amman, Jordan

CupCarbon Simulator: Simulating the D-LPCN Algorithm to Find the Boundary Nodes of a WSN 2017
The 3rd international on advanced intelligent systems and informatics (AISI2017), September 9-11, 2017, Cairo, Egypt

Finding the boundary nodes of a WSN using the D-LPCN algorithm and its simulation under CupCarbon 2017
In the 1st EAI International Conference on Future Internet Technologies and Trends (ICFITT 2017), August 31-September 2, 2017, Surat, India

From Smart-city and IoT Simulation to Big Data Generation 2017
In the 2nd ACM International Conference on Internet of things and Cloud Computing (ICC 2017), Keynote Speaker, Cambridge city, Churchill College. University of Cambridge, United Kingdom. 22-23 March 2017

CupCarbon: A New Platform for Designing and Simulating Smart-City and IoT Wireless Sensor Networks (SCI-WSN) 2016
International Conference on Internet of Things and Cloud Computing, Mar 2016, Cambridge, United Kingdom

Big-Data: The third computer revolution 2016
The first edition of the Annual Congress on Applied Science and Technology (CASTA'16), Boumerdes, Algeria. September 18-20, 2016

A New Platform for Designing and Simulating Smart-City and IoT Wireless Sensor Networks 2016
5th edition of the "Big Data Mining and Visualization" days, University of Lorraine, June 23-24, 2016

CupCarbon: A New Platform for Designing and Simulating Smart-City & IoT Wireless Sensor Networks (SCI-WSN) 2015
In the International conference on Intelligent Information Processing, Security and Advanced Communication, IPAC'2015, University Hadj Lakhdar of Batna, Algeria, 23-25 November 2015

Invited Talks [18]

When Your City Can Think: Building Agentic Digital Twins for Smart City Emergency Response 2026
Invited Talk, Canadian University of Dubai, June 4th, 2026.

IoT simulation with CupCarbon 2026
Invited Talk: Department of CS, University Paris 8, France (21/01/2026)

Agentic Digital Twins for Smart Cities 2026
Winter Workshop on Digital Twins and Agentic AI: Concepts, Applications and Futures Directions, BITS Pilani University, Dubai, February 9th, 2026.

CupCarbon Klaines and Agentic AI for Smart Cities 2025
Workshop for the students of Computer Science, University of Sharjah, Sharjah, November 24th, 2025.

Intelligent Acting Digital Twin IoT 2025
Seminar for students, ESTIN, Bejaia, Algeria, April 13th, 2025.

Digital Twins for Emergent Traffic Management 2024
Scientific Day (SPLIT), University of Southern Brittany, France, December 6th, 2024.

Design a Digital Twin IoT from Scratch with CupCarbon 2023
Artificial Intelligence and its Applications Laboratory (LIAP), El Oued, Algeria, November 9th, 2023.

Digital-Twins for the Validation of AI Cybersecurity Solutions in Intelligent Critical Infrastructure Applications 2023
Seminar of the KFUPM (KIKX), Dhahran, Kingdom of Saudi Arabia, February 7th, 2023.

CupCarbon: A Platform for Designing and Simulating IoT and Wireless Sensor Networks dedicated to secured smart-city applications 2022
Internal Seminar, University of Sharjah, Dubai, United Arab Emirates (UAE)

Teaching method of the IoT in Master, 3rd Pedagogical Day 2020
Third Pedagogical Day, GDR SoC2, Connected Objects Axis, UPMC, Paris, France, March 9th, 2020

Design and Simulate Secure Algorithms 2020
International Multidisciplinary PhD Meeting (IPPM'20), University of El-Oued, Algeria, February 25th, 2020

Simulate IoT networks with CupCarbon 2019
Seminaire d'Automatique du plateau de Saclay of iCODE, Centrale Supelec

Algorithms for finding the boundary nodes of a WSN and their simulation under CupCarbon 2019
Internal seminar, Manchester Metropolitan University, UK, June 19th, 2019

Distributed Algorithms for Leader Election in Wireless and IoT Networks 2017
Invited presentation, GT-OSI, Jussieux, Paris, France, October 20, 2017

From Smart-city and IoT Simulation to Big Data Generation 2016
Invited talk, University of Bejaia, Algeria, July 2016

Plateforme logicielle CupCarbon de conception et de simulation des réseaux de capteurs sans fil de nouvelle génération dédiée aux smart-cities 2015
IRCICA seminar on sensor networks, IRCICA, Lille, France, 6 November 2015

Finding the Polygonal Envelope of a Wireless Sensor Network: Theory and Practice 2015
Internal Seminar, University of Clermont-Ferrand, France, July 2015

Finding the Polygonal Envelope of a Wireless Sensor Network: Theory and Practice 2015
Internal Seminar, GDR-RO, CEA, Paris, May 2015

Projects

CNEPRU: 500K€, Algerian National Research Project 2016–2019
The project concerns "Applications of wireless sensor networks in the context of the Internet of Things", Project code: C00L07UN310120150010, Project approved from 01/01/2016 for a duration of 4 years (until 31/12/2019).

PERSEPTEUR: 587K€, French Research Agency Project 2015–1018
I was a coordinator of an ANR research project on behalf of PERSEPTEUR. The aim of this project is to develop a design flow of wireless sensor networks in an urban environment while taking into account electromagnetic waves. This flow will be integrated into a 3D sensor network simulator to be able to model and simulate networks in a 3D environment, which in our case represents a virtual city.

SUIDIA: 600K€, Regional Health Agency Project 2014-2018
The project focuses on the development of an IoT Health Application for the remote monitoring of patients with gestational diabetes using new communication technologies based mainly on smartphones and touch-sensitive tablets. This platform is currently being used officially by the doctors of the Brest hospital.

PNR: 500K€, National Research Programme Project 2011-2014
A PNR project involves international partners and is funded completely by the Algerian government. It is focused on cybercrime under the title "***Automatic extraction and analysis of evidence data in cybercrime investigations***".

ISSTB: 10K€, ISSTB (university institute) project 2011-2014
The objective of this project is to work on Statistical modelling for testing the extreme behaviour of microelectronic circuits.

Cuparbon U-One, Principal Investigator 2013-Present
A Smart City and IoT Wireless Sensor Network Simulator. (URL: http://cupcarbon.com)

SeaShell, Principal Investigator 2019-Present
Android IoT and RFID Platform for Digital Twins Design and simulation. (URL: https://www.youtube.com/watch?v=C9LsxsIOxzA)

Tutorials

Polygon Hulls of Euclidean Graphs, CIMPA School, Beirut, Lebanon 2022

Tutorial on WSN Programming, Summer School, Research Center CDTA, Algeria 2014

Tutorial on XBee and WSN Programming, Summer School, University of Oran, Algeria 2013

Tutorial on WSN Simulation, Summer School, University of Bejaia, Algeria 2013

Tutorial on XBee Programming, Summer School, University of Brest, France 2012

Teaching

Associate Professor, University of Sharjah, UAE 2024–present
Advanced Digital Transformation Tools (Master students)
Database Management and Analytics (Master students)
Analytical Software Tools and R Programming (Master students)
Computer Organization and Assembly Programming (Undergraduate students)
Introduction to Business Information Systems (Undergraduate students)
Advanced Business Programming: Java (Undergraduate students)
Customer Relationships Management: CRM (Undergraduate students)

Associate Professor, University KFUPM, Saudi Arabia 2023–2024
Mobile Application Development: Android and Flutter (Undergraduate students)

Python and C Programming (Undergraduate students)
Computer and Network Forensics (Graduate students)
Object Oriented Programming (Undergraduate students)
Seminars (Graduate students)

Associate Professor, University of Brest, ISEN School, ENSTA School, France 2010–2023
Security programming with Java (3rd Year)
Wireless Sensor Network Design and Simulation (5th Year)
Distributed Graph programming and simulation (3rd Year)
IoT Programming (5th Year)
GUI Programming with Android (4th Year)
Advanced Android Programming (5th Year)
Advanced Java Programming (3rd Year)

External Lecturer, University of Brest and ISEN School, France 2008–2014
J2ME (Java Micro Edition) for mobile Programming (5th Year)
GUI Programming with Java (4th Year)
Digital Testing (5th Year)
Network Programming with Java (3rd Year)

ATER, ENSIEG, Grenoble, France 2007–2008
VHDL programming (3rd Year)
Prototyping with VHDL (4th Year)
C Programming (4th Year)
Introduction to VLSI desigh (4th Year)
Digital Microelectronics (4th Year)
Operating System (4th Year)
Java Programming (4th Year)

Lecturer, ENSIEG and Polytech'Grenoble, France 2004–2007
Object-oriented programming: Java (M.Sc. Degree)
Tcl/Tk Language (M.Sc. Degree)
DBMS (database management system) (1st year)

International Teaching
Software Testing (3rd Year) - University of HANOI, Vietnam (2010–2014)
Android Programming (Post-Doctoral students) - University of Bejaia, Algeria (2010-2012)
WSN Programming (Post-Doctoral students) - University of Bejaia, Algeria (2010-2012)

PhD and HDR External Examinership

Leila Merzak, PhD thesis (CEA Grenoble) 24/07/2026

Hussah Ali Albinali, PhD thesis (KFUPM) 07/11/2024

Ibraheem Al-hejri, PhD thesis (KFUPM) 26/12/2023

Bourenane Abbache, PhD thesis (University of Bejaia, Algeria) 14/09/2019

Joreg Herrera, PhD thesis (Universitat Politècnica de València, Spain) 12/07/2017

Xuan Sang, PhD thesis (ENSTA Bretagne, France) 31/05/2017

Lotfi Zaouche, PhD thesis (UTC de Compiègne, France) 08/02/2017

Samir Uzzaman, PhD thesis (King's College London) 25/02/2017

Feriel Bouakkaz, PhD thesis (University of Bejaia, Algeria) 02/07/2016

Samia Djemai, PhD thesis (University of Bejaia, Algeria) 28/06/2016

Yao Li, PhD thesis (UPMC, Paris, France) 17/06/2015

Nawel Bendimerad, PhD thesis (University of Oran, Algeria) 01/10/2015

Richun Fei, PhD thesis (TIMA, Grenoble INP, France) 13/10/2015

Mawloud Omar , HDR thesis (University of Bejaia, Algeria) 27/11/2014

Noureddine Akkouche, PhD thesis (TIMA, Grenoble INP, France) 09/09/2011

Master's Student Supervision

4 students, University of Sharjah 2025
Title: Digital Twin for Gestational Diabetes Management

2 Students: Zaina Hassan Alshawa and Amani Ahmed Ali Alhumaidi Alsaadi, University of Sharjah 2025
Title: Data Analytics and AI for IoT

2 students, University of Bejaia 2025
Title 1: Smart Digital Twin for Smart-cities
Title 2: Blockchain Digital Twin for secured Smart-cities

PhD Supervision [24]

Djouher Mhenni, University of Tizi Ouzou 09/2028
Title: Title 1

Chaima Timizar, University of Batna 09/2028
Title: AI-Driven Digital Twins for Smart Cities

Sabrina Bessaoudi, University of Bejaia 09/2028
Title: Digital Twin to Enhance Drone Learning for Object Tracking

Nora Saadi, University of Bejaia 09/2026
Title: Target Coverage in Wireless Sensor Networks

Yazid Lahlouhi, University of Batna 09/2026
Title: A Blockchain and Deep Learning Based Recommendation Systems

Amara Miloudi, University of El-Oued 09/2026
Title: An efficient image protection based on lightweight asymmetric encryption

Dina Djeghar, University of Batna 09/2026
Title: Techniques for occupational health and safety using IoT

Djamila Bouhata, University of Batna 09/2026
Title: Fault Tolerance in Dynamic Distributed Systems

Hamza Ngadi, University of Brest 11/2024
Title: Digitail Twin for secured smart-city applications

Mostefa Kara, University of Eloued 09/2022
Title: Security management of autonomous cloud entities in a distributed system

Saci Medileh, University of Eloued 09/2022
Title: The Security and efficient management of distributed behavior in the context of Internet of Things (IoT)

Nabil Kadjouh, University of Bejaia Funding 09/2024
Title: Simulation of next-generation wireless sensor networks for smart cities

Naima Belakbir, Systrans Company 05/2020
Title: Optimisation methods for transport, the case of specific constraints

Madani Bezoui, University of Boumerdes 09/2019
Title: Contribution of multi-objective programming to portfolio optimisation

Sanaa Ghalem, University of Oran 09/2019
Title: Managing uncertainties in wireless sensor networks

Umber Noreen, ANR Project 12/2018
Title: Interference modelling for 3D simulator of sensor networks dedicated to smart-cities

Taha Alwajeeh, ANR Project 12/2018
Title: Efficient radio channel modelling for urban sensor networks

Ali Benzerbadj, PROFAS B+ 07/2018
Title: A cross-layer approach for energy savings and reliability in wireless sensor networks for mission-critical monitoring applications

Massinissa Lounis, PNR Project 05/2018

Title: Wireless Sensor Networks, Modelling and Application to Environmental Measurements

Abdelkader Laouid, PNR Project 11/2017
Title: Self-management and security in dynamic distributed systems

Massinissa Saoudi, University of Brest 09/2017
Title: Design of a network of sensors for decision making based on Data Mining methods

Farid Lalem, Cherchell School 09/2017
Title: Methodological and application framework for the development of reliable sensor networks

Rima Houari, PNR Project 03/2017
Title: Multi-Dimensional Sample Generation for Data Mining Study

Kamel Beznia, Cherchell School 09/2013
Title: Statistical methods for test evaluation of analogue and mixed-signal circuits under multiple parametric variations

Research Activities

Recent Years 2002-Present

- **Agentic AI and Digital Twins for Smart Cities** (CupCarbon Klaines Platform)
- **Digital Twin IoT for Cybersecurity** in Smart systems
- **Pseudo-Polygons** for the determination of polygonal hulls
- **Data Science and Statistical modeling** (missing data, failures, anomalies modeling)
- **Computer-Aided Design (CAD) and Computer-Aided Test (CAT)** for test evaluation by considering variations in the manufacturing process using multidimensional statistical modeling (Copulae theory, Extreme Value Theory, classification, ...)
- **Monte Carlo simulation** techniques to accurately evaluate the Test Metrics under deviations from the manufacturing process

Conference and Journal Committees

Advisory Committee of the workshop *Agentic Artificial Intelligence for Internet of Things*

Program Committee Member:

- In the past: Globecom, IEEE ICC, CCNC, IEEE PiCom, IDT, ANT, IMS3TW, IPAC, ISNCC, ATSIP, CBDCom, MSPA, DeSe, PAIS
- Recent:
  - ACM ICFNDS: from 2017 to present
  - ICAAI: 2025, 2026
  - COSI: 2025, 2026
  - C2I2A: 2024, 2025
  - Springer MLN: from 2023 to present
  - IEEE UCC/BDCAT: 2024, 2025
  - IEEE IC3IT: 2024, 2025

Reviewer: JAIHC (Journal of Ambient Intelligence and Humanized Computing), Ad hoc Networks, JNCA (Journal of Network and Computer Applications), TCAD (Transactions on Computer Aided Design), ITC (International Test Conference) and JETTA (Journal of Electronic Testing: Theory and Application), and in many other conferences.

Press and Public Profile

Interview about Future Internet Technologies, Conference ICFITT, India 2017
https://www.youtube.com/watch?v=4gEvdW0I_Q8

Ennahar TV (in arabic), Invitation to talk about research in Algeria 2018

https://www.youtube.com/watch?v=Qeo3I2XIV1U

Suidia (CHRU of Brest Magazine), IoT Platform for gestational diabete 2015
http://labsticc.univ-brest.fr/~bounceur/documents/envies_magazine.pdf
Suidia (UBO Research Magazine), IoT Platform for gestational diabete 2015
http://labsticc.univ-brest.fr/~bounceur/documents/suidia_lettre_rech_ubo.pdf
Science Mag: Bouncing Back in a New Country, Interview in Science Mag 2007
https://www.sciencemag.org/careers/2007/10/bouncing-back-new-country
Newspaper Telegram, Article: Computer Science in Business Schools 2014
https://www.ouest-france.fr/bretagne/brest-29200/le-langage-internet-lecole-de-commerce-2980727
Interview, Coworking space of Brest 2014
https://www.lacantine-brest.net/membres/ahcene-bounceur/

Publications

H-INDEX: 31 (Google Scholar) - i10: 89 - Citations: >5500
H-INDEX: 24 (Scopus) - Citations: >3350

ORCID: 0000-0002-0043-7742

Peer-reviewed International Journals (57)

| Q1:34 | Q2:7 | Q3:10 | Q4:6 |
17 Journals submitted with the UoS Affiliation

MAIN/FIRST AUTHOR (10)

[1] **(Q1-A-Top 8%) [UoS-1] Ahcene Bounceur**, Madani Bezoui, Foudil Mir, Adel Oulefki, Member, Mohamed-Amine Ouamri, Huseyin Seker, Sebti Foufou, Abbes Amira, and Yassine Himeur, *Phygital Twin IoT: A Hardware-Software Decomposition Architecture for Scalable and Secure Digital Twin IoT Systems*, IEEE Open Journal of the Computer Society, Volume 7, No. 01, 07 April 2026, pp. 755–768,
→ **DOI**: https://doi.org/10.1109/OJCS.2026.3681725

[2] **(Q1-A-Top 15%) [UoS-2] Ahcene Bounceur**, Ahmed-sami Berkani, Hamouma Moumen and Saber Benharzallah, *The Transparency Challenge in Blockchain-Enabled Sustainable Development Goals Applications: Exploring Privacy-Preserving Techniques and Emerging Platforms*, IEEE Access Journal, Volume 13, pp. 81769-81793, 06 May 2025.
→ **DOI**: https://doi.org/10.1109/ACCESS.2025.3567341

[3] **(Q1-A-Top 7%) [UoS-3] Ahcene Bounceur**, Mostefa Kara, Brahim Ferik, Abdelkader Laouid. *An Adaptive ACM Watermarking Technique Based on Combined Feature Extraction and Non-Linear Equation*. Expert Systems With Applications Journal (ESWA), Volume 275, 25 May 2025.
→ **DOI**: https://doi.org/10.1016/j.eswa.2025.126954

[4] **(Q1-A-Top 15%) [UoS-4] Ahcene Bounceur**, Lotfi Hocini, Mohamed Amine Ouamri and Mostefa Kara, *Dominance Based Boundary Nodes Finding Algorithm (DBBNFA) and its application to WSN*, IEEE Sensors Journal, 25(7), April 1, 2025, pp. 12172-12183.
→ **DOI**: https://doi.org/10.1109/JSEN.2025.3540125

[5] **(Q1-A-Top 15%) [UoS-5] Ahcene Bounceur**, Mostefa Kara, *Intelligent Acting Digital Twins (IADT)*, IEEE Access Journal, Volume 13, pp. 15201-15214, January 2025.
→ **DOI**: https://doi.org/10.1109/ACCESS.2025.3532545

[6] **(Q1-A-Top 20%) Ahcene Bounceur**, *A Secure and Lightweight ZNP-based Mutual Authentication Scheme with Key Agreement*, Arabian Journal for Science and Engineering, Springer, Volume 49, Issue 12, December 2024.
→ **DOI**: https://doi.org/10.1007/s13369-024-09885-8

[7] **(Q1-A-Top 19%) Ahcene Bounceur**, Salvador Mir, Reinhardt Euler, Kamel Beznia, *Estimation of Analog/RF Parametric Test Metrics Based on a Multivariate Extreme Value Model*. In IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD), Volume: 39, Issue: 5, pp. 966-976, May 2020.
→ **DOI**: https://doi.org/10.1109/TCAD.2019.2907923

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Software (3)

Under development

SeaShell: Digital Twin for cybersecurity Smart critical infrastructures
→ https://www.youtube.com/watch?v=C9LsxsIOxzA

Free

CupCarbon: Smart City and Internet of Things Wireless Sensor Network simulator.
→ https://www.cupcarbon.com
→ https://www.youtube.com/channel/UC_rAd5qpwuPz3myMZfTWbdA

With licence

Suidia: Application Android de télémédecine pour le suivi à distance, par tablettes ou smartphones, des patientes atteintes du diabète gestationnel (http://www.suidia.fr).

CATPlatform: Une plateforme formée d'un ensemble d'outils de CAO pour la simulation de fautes et l'évaluation des techniques de test des circuits analogiques, mixtes et RF sous Cadence. Cette plateforme a été installée à STMicroelectronics de Grenoble et à l'Université de Cantabrie en Espagne sous forme d'un NDA (*Non Disclosure Agreement*).