

Short CURRICULUM VITAE

Lamia CHAARI FOURATI

PERSONAL DETAILS

Professor at Computer Science and Multimedia Higher Institute, SFAX University, TUNISIA.

Researcher, at Digital Research Center of Sfax (CRNS), Laboratory of Signals, systems, artificial Intelligence, networks (SM@RTS), Sfax University; TUNISIA.

Birthday: **27 February 1972**

Phone: **(00216)-(97589752)**

E-mail : lamiachaari1@gmail.com

Work Address: Institut Supérieur D'Informatique et De Multimédia de Sfax, Route de Tunis Km 10 ; Pôle technologique Sfax, BP 242 Sakiet Ezzi Sfax

Home Address : Route El mahdia 2.5 km elbosten rue nassime n° 46 Sfax 3099, TUNISIE.

Google Scholar: https://scholar.google.com/citations?user=V6_5wpQAAAAJ&hl=fr

DBLP: <https://dblp.org/pid/08/8038.html>

ResearchGate : <https://www.researchgate.net/profile/Lamia-Fourati>

LinkedIn <https://www.linkedin.com/in/lamia-fourati-chaari-3a6a188a/>

RESEARCH INTERESTS (H-Index =34)

- ❖ Wireless Networks Protocols Design and Optimisation (Related to: Body Area Network (WBAN), Internet of Everything, Wireless Sensor Networks...).
- ❖ Healthcare Systems (Secure Communication systems for Internet of Medical things) .
- ❖ Wireless Networks mechanisms: MAC Protocols, Quality of Services Provisioning, Routing Protocol, Localization trust management, Privacy and security.
- ❖ Vehicular area Network (Access control, security and trust management).
- ❖ UAV, FANET (Communication Systems, Security and IDS).
- ❖ Information Centric Network and Software Defined Network.
- ❖ Machine Learning and Federated Learning for 5G.
- ❖ Cloud Computing, Vehicular Cloud Computing, Fog Computing
- ❖ Mobile Networks (5G, 6G).

Memberships

- N2Women
- The organization for Women in Science for the Developing World (OWSD)
- Women in Technology
- Leading Women In AFRICA (LWA)
- Internet Society (ISOC) member (Internet Society Member ID: 195883)
- Internet Society (ISOC) **SIG Women Chapter Membership (ID : 797122)**
- IEEE senior member.

EDUCATIONAL DEGREE

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| July 2011 | HDR degree (The ability for supervising research activities) in telecommunication field from Sfax National engineering School in 2011. Research subject : Study And Conception Of Mechanism For Enhancing The Performances Of Communications Networks . |
| 1999=>2004 | Ph.D. in Electrical Engineering , ENIS, SFAX University
Dissertation title: Study And Conception of A Electric Vehicle Piloting System Based on Controller Area Network Communications. |
| 1997=>1998 | Master degree in electronic (option : telecommunications), ENIS
Master Thesis title: Hardware Implementation of FDDI Transmitter. |
| 1993=>1997 | Electrical Engineering degree , ENIS. Ranked first during my engineering study. |
| 1991=>1993 | Preparatory cycle for engineering study , Preparatory Institute For Engineering Study at SFAX UNIVERSITY. |

RESEARCH LABORATORIES HISTORY

1997=>2016 Researcher at Laboratory of Electronic and Information Technology (**LETI**), Sfax National Engineering School (ENIS), SFAX University, TUNISIA.

2017 => December 2020 Researcher at Laboratory of Technologies for Smart Systems (**LT2S**), Digital Research Center of Sfax (CRNS).

Jan. 2021 => Now Researcher, at Digital Research Center of Sfax (CRNS), Laboratory of Signals, systems, artificial Intelligence, networks (**SM@RTS**), Sfax University; TUNISIA.

Since 2017: Head of **INTELLECT** (Intelligent Networks and TELecommunication ProtocoLs for Emerging Communication Technologies)research team.

EMPLOYMENT HISTORY

Professor in telecommunication, Department of Multimedia & Computer Engineering at Computer Science and Multimedia Higher Institute (ISIMS), SFAX University (**June 2018 → until now**).

Associate Professor in telecommunication, Department of Multimedia & Computer Engineering at Computer Science and Multimedia Higher Institute (ISIMS), SFAX University (**Dec. 2012 → June 2018**).

Head of Multimedia & Computer Engineering Department (**Aug. 2011 → 2017**)

Assistant Professor in telecommunication, Computer science and multimedia higher institute (ISIMS), (**Sep. 2004 → Dec. 2012**).

Assistant in telecommunication, Computer Science Department, faculty of Science, SFAX University, (**Sep. 2000 → Sep. 2004**).

Graduate Research Assistant, Computer science Department, Sfax National Engineering School (ENIS), (**October. 1997 → Sep. 2000**).

PRIZES, AWARDS AND HONORS

1. African Union Kwame Nkrumah Regional Scientific Award for Women, 2016.
2. 2018 Miss.Africa Seed Fund, for the organization of the 1st IoT Joint Program to African Young Women. From DotConnectAfrica Trust.
3. Burj Kallel Award for the best research activities in computer science at Sfax University during 2018-2019, delivered on 11 July 2019
4. Outstanding Woman In Tech, North Africa, 31 July 2021 (second Position)
<http://www.womenintech africa.com/2021/07/22/press-release-women-in-tech-africa-awards-nominees-announced/>
5. « Tunisian Women in Tech of The Year 2024 ». Delivered by Reconnect
<https://www.entreprises-magazine.com/women-in-tech-2024-reconnectt-distingue-5-tunisiennes-inspirantes/>

Awards for supervised researches

1- Award for the best Project in 2016 (delivered by Sfax University), to Audace Manirabona for his dissertation entitled «Design and performances evaluation of a WBAN monitoring system for mobile people in a cooperative environment». Supervised by **Lamia CHAARI FOURATI**

RESEARCH PROJECTS

Working Group Member in European Research Projects

- 1- Working Group member at COST action, CA20120 - Intelligence-Enabling Radio Communications for Seamless Inclusive Interactions (INTERACT): 18-10-2021 → 17-10-2025
- 2- Working Group member at COST action CA22168- Physical layer security for trustworthy and resilient 6G systems: 26/09/2023 → 25/09/2027

List of Sponsored Research Projects

- 1- PR1: Conception and validation of autonomous tracking system through collaborative drones. Financed via the Federated project **SuperSense**: Supervision Sensitive de lieux Sensibles multi-capteurs, and especially SmartCastle (2017-2019) , Leader for WP4. (National Competetive Funding Project).
- 2- PR2: Design and deployment of a system based on wireless sensors networks system for the remote monitoring of a pump station and water pipelines. Financed by the Tunisian Chemical Industrial Group, (2015 → 2018).
- 3- PR3: Communication Technologies Enabling the Distributed Smart Water Grid; Partially financed by Instituto de Telecomunicações, University of Aveiro, Portugal. Joint collaboration, (2019 → 2021).
- 4- PR4: Trust Management within Vehicular Networks (Joint thesis Project: Sfax University & Troyes University), (2019 → 2022)
- 5- PR5: Artificial Intelligence Based Security Enforcement in IoV: (Joint thesis Project: Sfax University & Troyes University), (2020 → 2023).
- 6- PR6: Artificial Intelligence based Secure Framework for Unmanned Aerial Vehicles Networks (Joint thesis: Sfax University & Troyes University), (2021 → 2024).

List of Un-sponsored Research Projects

In addition to the sponsored projects above, several projects are underway which are not directly sponsored. These projects were financed by international collaborators or via the national funds provided to Tunisian scientific research laboratories by the Tunisian Ministry of Higher Education and Scientific Research.

A- Laboratory of Electronic and Information Technology (LETI), Sfax National Engineering School (ENIS), SFAX University, TUNISIA. (2008 → 2016)

- 1- PR7: Study and design of channel codec architectures for radio communication systems.
- 2- PR8: Admission control mechanisms and traffic management in WiMAX networks.
- 3- PR9: Quality of service provisioning for multimedia flows streaming over new generation of wireless local area networks.
- 4- PR10: Congestion management mechanisms to improve the robustness of the carrier Ethernet protocol to transport data centers traffic.
- 5- PR11: Reconfigurable hardware architectures for ECC-based crypto-systems.
- 6- PR12: Wireless Body Area Networks (WBAN: IEEE 802.15.6 protocol) advanced mechanisms toward efficient healthcare remote monitoring mobile people.

B- Laboratory of Technologies for Smart Systems (LT2S), Digital Research Center of Sfax (CRNS). (2016 → 2020)

- 1- PR12: Content Centered Networks (CCNs) Management via SDN based architecture using OpenFlow controllers.
- 2- PR13: Energy-efficient routing mechanisms for Metro-Ethernet networks.
- 3- PR14: Structure Health Remote Monitoring System based on Power-aware and Context-aware WSN and IoT Devices.

C- Laboratory of Signals, systems, artificial Intelligence, networks (SM@RTS), Digital Research Center of Sfax (CRNS), (Jan. 2021 → Now)

- 1- PR-15: New techniques and approaches to make 5G and 6G networks secure reliable intelligent and more flexible.
- 2- PR-16: Networking Technologies toward Optimal and Secure Space-Air-Ground Integrated Networks (SAGIN)
- 3- PR17- Security and Trust Management Framework for IoT Networks based on SDN and Blockchain.

PUBLICATIONS & PATENTS

Patents

Patent 1 : Fluid Leakage Risk Management System, INNORPI, 2020, TN2020/0085

Authors Marwa ABDELHAFIDH, Lamia CHAARI FOURATI, Mohamed FOURATI

Editor of Books:

B1-2021: Adel Ben Mnaouer, Lamia CHAARI FOURATI, Enabling Blockchain Technology for Secure Networking and Communications, Webpage Link: <https://www.igi-global.com/book/enabling-blockchain-technology-secure-networking/253545>)

Publications:

Google Scholar: https://scholar.google.com/citations?user=V6_5wpQAAAAJ&hl=fr

DBLP: <https://dblp.org/pid/08/8038.html>

ResearchGate : <https://www.researchgate.net/profile/Lamia-Fourati>

EXPERT FOR SCIENTIFIC PROJECTS REVIEW

- 1- PHC-UTIQUE for 2020.
- 2- PHC-MAGHREB for 2021.
- 3- Joint Projects Tunisie-Québec TUNQC : 2023-2024
- 4-Referee for EURAMET (European Association of National Metrology Institutes) Review Conference in Amsterdam (13-14 November 2023)
- 5- Referee for Stevie award 2024, New Product, Technology & Sustainability Awards (64 entries are evaluated)
6. Expert for 6G-Path open call1 (I evaluated 10 projects)

RESPONABILITIES

- Head of the Computer and Multimedia Engineering Department at the Higher Institute of Computing and Multimedia of SFAX (ISIMS). From July 2011 → December 2017
- Member of the Scientific Council of ISIMS since September 2004.
- Member of the Scientific Council of CNRS since September 2015.
- Member of the master of research commission at the ISIMS since 2007.
- Project manager and chair of the Quality Support Committee within the ISIMS.
- Member of the Quality Support Committee within the University of SFAX during the academic year 2009/2010.
- Member of the commission responsible for the selection of applications for access to the Computer Engineers Web and Multimedia Technology (IITWM) at the ISIMS (2008 → 2017).
- Member of the jury for the recruitment of assistant in telecommunication field for 2014 and 2015

Supervised PhD Dissertations and Master Theses

- Number of Supervised PhD Dissertations =26
- Number of Supervised Master Thesis = 35

ORGANIZATION OF EVENTS

1- RUN 2017, 10 ième rencontre annuelle du réseau RUN (réseau international universitaire de création numérique), 09 to 16 April 2017, ile de Kerkenah, TUNISIA .

2- International Girls in ICT Day, 27 April 2017, Digital Research Center of Sfax, TUNISIA.

3- Workshop “Enabling Technologies toward Intelligent Connected Environments “ , 27/02/2020, Digital Research Center of SFAX.

INTERNATIONAL MOBILITY

➤ Visiting Positions:

1. One month (january 2000), Laboratoire IXL, ENSERB à Bordeaux, France, Tuniso-Français Project.
2. One month (from 10 Mars 2012 to 10 Avril 2012), l’Institut de recherche en informatique et systèmes aléatoires (IRISA), Rennes 1 University.
3. One week (from 23 June 2013 to 29 June 2013), L2TI laboratory, Galilee Institute, Paris 13 University, France.
4. One week (from 7 July 2013 to 14 July 2013), Visit to four incubators in France.
5. One week from 16 December 2013 to 23 December 2013 to, Madynes team, Loria, Nancy, France.
6. Two week from 16 June 2014 to 29 June 2014 to, Madynes team, Loria, Nancy, France.
7. On week from 16 December 2017 to 23 December 2017 to, Canadian University in Dubai.
8. One week “Staff Week”; from 16 October 2022 to 23 October 2022 to, University of Technolgy, Lublin, Poland, ERASMUS+ Mobility program.
9. One week “Staff Week”; from 22 May 2023 to 28 May 2022 to, U3niversity of Lisboa, Lisbo, Portugal, ERASMUS+ Mobility program.

INVITED TALKS/SEMINARS/TUTORIALS

International Events

1. An Overview of Mobile WiMAX Technology, Mosharaka International Conference on Communications, Networking and Information Technology (MIC-CNIT 2008), 5-7 December 2008, Amman, Jordan
2. Security mechanisms over Mobile WiMAX, FOSAD summer School: “Security and cryptography systems”, 30 August →4 September 2009, Bertinoro, Italy.
3. Wireless Body Area Network and Healthcare Monitoring Systems, Tutorial, **IEEE International Conference on Healthcare Informatics 2014 (ICHI 2014)**, 15 September →17 September 2014, Verona, Italy.
4. e-Heath technology, RUN **2016**, 9 ième rencontre annuelle du réseau **RUN** (réseau international universitaire de création numérique), **01 to 08 May**, Abitibi-Témiscamingue, **CANADA**.
- 5- Témoignages des femmes dans les STEM : challenges et perspectives, Strategies for retention and completion of girls and young women in educational systems, in Mauritius, from 10 to 12 July, 2017
- 6- Invited Professor : An OpenFlow Architture for managing Content-Centric-Network (OFAM-CCN) based on Popularity Caching Strategy. Canadian University in Dubai, 20 December 2017.
- 7- Invited Speaker : Autonomous IoT Systems for remote monitoring of water pipeline and pumping station. Intelligent Technologies for Environment and Agriculture Monitoring (I-TEAM), 26-30 November 2018 , Digital Research Center of Sfax.
- 8- Invited Speaker: (Tutorial one Hour: Security and Trust Management in the Internet of Vehicles Environment), Wednesday, 7 December (from 14h to 15 h)
9. CRISIS 2022, the 17th International Conference on Risks and Security of Internet and Systems; December 7th-9th 2022 Sousse, Tunisia
<https://crisis2022.redcad.org/>
- 9- Invited Speaker Tutorial (90 min): **Advanced Technologies toward Terrestrial and Non Terrestrial Vehicular Networks**. IEEE Tunisian Student · and Young · Professional · 12th Edition · 22, 23, 24 december **2024** · Medina Congress Center, Yasmine Hammamet

National Events

- 1- Internet of things, Tunisian Developers Meetup, 26 February ISSATSo.
- 2- Concepts, Trends, Research Issues, Opportunities and Challenges of IoT, TWESD’2017, 6th Tunisian Workshop on Embedded Systems Design , May 12-15, 2017 in Monastir, Tunisia