

Dr. Oussama Abderrahmane Dambri

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ACADEMIC BACKGROUND

- A biomedical engineer with a bachelor in microbiology, working on bio-inspired nanocommunications applied to the medical field and neuroscience.
- **PhD in Electrical Engineering** | Faculty of Engineering 2020
University of Sherbrooke, Quebec-Canada
- Master in Biomedical Electronics** | Faculty of Science and Technology 2016
University of Batna, Batna-Algeria
- Bachelor in Medical Instrumentation** | Faculty of Science and Technology 2014
University of Batna, Batna-Algeria
- Bachelor in Microbiology** | Faculty of Biology 2011
University of Batna, Batna-Algeria

PROFESSIONNAL CAREER

- **POSTDOCTORAL FELLOW** 01/2021 to date
Ottawa University| Ontario, School of EECS Canada
 - Conduct research in field of specialization and publish findings.
 - Advise and mentor graduate students on their research works.
- RESEARCH AUXILIARY** 05/2017 to 11/2020
University of Sherbrooke| Quebec, Faculty of Engineering Canada
 - Suggest new methods for improving nano-communication systems.
 - Derive the mathematical models and do the simulations.
 - Publish the results obtained in conferences and journal papers.
- **TEACHING ASSISTANT** 07/2018 to 04/2019
University of Sherbrooke| Quebec, Faculty of Engineering Canada
 - Demonstration for GIF331, GIF 332, GIF660 and GIF362 courses.
 - Validation of the solutions given by the students.
 - Correction of exam papers and reports.
- TEACHER** 11/2015 to 03/2017
Private School Dar El-ilm | Batna, High school level Algeria
 - Plan, create and deliver innovative lesson plans to students.
 - Provide parents with bi-weekly progress reports.
 - Correct exercises and present students' difficulties to parents.
- LABORANTIN** 11/2013 to 03/2017
Clinic Les Rosiers | Batna, Biochemical analyzes Algeria
 - Receive patients, record them in the software for their analyzes.
 - Perform all preoperative analyzes using automated systems.

LANGUAGES

- Arabic: Maternal
- French: Fluent
- English: Fluent
- Italian: Good

SKILLS

- Mathematical Modulation of Biological systems
- Programming with C, C++, MikroC, Python
- MATLAB
- TensorFlow
- AcCoRD Simulator

VOLUNTEER ACTIVITY

VOLUNTEER

Expo-science | Sherbrooke

2018/2020
Quebec

- Provide technical support to organizers and participants.
- Help run the activity.
- Lead the audience and answer their questions.
- Give a hand to overwhelmed teams if necessary.

ASSOCIATION MEMBER

Association Seeking Knowledge | Batna

2015/2017
Algeria

- Make people aware of the importance of books and daily reading.
- Organize and animate activities for students.
- Teach extra help classes for pupils and students.

AWARDS

EUREKA SCHOLARSHIP

University of Sherbrooke, Quebec-Canada PhD Scholarship.

2019/2020
Canada

VALEDICTORIAN

University of Batna | Batna

Head of the year 2016 at the Faculty of Science and Technology
with a score (A+).

2015/2016
Algeria

PUBLICATIONS

JOURNAL PAPERS

1. **O. A. Dambri** and S. Cherkaoui, "Performance Enhancement of Diffusion-Based Molecular Communication," in IEEE Transactions on NanoBioscience, vol. 19, no. 1, pp. 48-58, Jan. 2020.
2. **O. A. Dambri** and S. Cherkaoui, "A Polymer-based Channel Model for Wired Nano-Communication Networks," in IEEE Transactions on Molecular Biological and Multi-scale Communications. Accepted, Nov. 2020.
3. **O. A. Dambri** and S. Cherkaoui, "Design and Evaluation of a Receiver for Wired Nano-Communication Networks," in IEEE Transactions on NanoBioscience, Accepted, Jun. 2022.

PEER REVIEWED CONFERENCES

4. **O. A. Dambri** and S. Cherkaoui, "Toward a Wired Ad Hoc Nanonetwork", 2020 IEEE International Conference on Communications (ICC), Dublin, Ireland, pp. 1-6, 2020.
5. A. Abouaomar, S. Cherkaoui, A. Kobbane and **O. A. Dambri**, "A Resources Representation for Resource Allocation in Fog Computing Networks," 2019 IEEE Global Communications Conference (GLOBECOM), Waikoloa, HI, USA, pp. 1-6, 2019.
6. **O. A. Dambri**, A. Abouaomar and S. Cherkaoui, "Design Optimization of a MIMO Receiver for Diffusion-based Molecular Communication," 2019 IEEE Wireless Communications and Networking Conference (WCNC), Marrakesh, Morocco, pp. 1-6, 2019.
7. **O. A. Dambri**, S. Cherkaoui and B. Chakraborty, "Design and Evaluation of Self-Assembled Actin-Based Nano-Communication," 2019 15th International Wireless Communications and Mobile Computing Conference (IWCMC), Tangier, Morocco, pp. 208-213, 2019.
8. **O. A. Dambri** and S. Cherkaoui, "Enhancing Signal Strength and ISI Avoidance of Diffusion-based Molecular Communication," 2018 14th International Wireless Communications and Mobile Computing Conference (IWCMC), Limassol, pp. 1-6, 2018.