**PhD Researcher in Multimodal Explainable AI for Multimodal Sensing**

We are seeking a highly motivated and talented individual to join our research team as a PhD student in the exciting field of **Multimodal Explainable AI for Multimodal Sensing**. This position offers a unique opportunity to contribute to cutting-edge research at the intersection of artificial intelligence and sensory technologies.

The successful candidate will work on developing novel methods and algorithms that integrate **multiple sensory modalities** (including radar and LiDar sensors, cameras, and joint communication and sensing systems) in the primary prediction models and **multiple data modalities in generating explanations** for their behavior (including visual, textual and speech). By leveraging multiple modalities, these approaches enhance the system's understanding of complex data and provide transparent explanations that users can trust. This research will have applications in various domains, including healthcare diagnostics, autonomous systems, and human-computer interaction in agricultural and industrial environments.

The position is available within [the team of Prof. Nikos Deligiannis](https://www.etrovub.be/people/member/about-bio/ndeligia/) at the Department of Electronics and Informatics (www.etrovub.be) at **Vrije Universiteit Brussel, Belgium**, which specializes in interpretable and explainable machine learning, signal processing, and federated learning for computer vision and data processing. The team is affiliated with imec, an international R&D and innovation hub in nanoelectronics and digital technologies (www.imec-int.com/).

Responsibilities:

* Conduct research to advance the state-of-the-art in multimodal explainable AI.
* Designing and implementing algorithms for integrating multiple modalities in prediction models.
* Developing methods for generating transparent and interpretable explanations for AI decisions.
* Collaborate with interdisciplinary teams to apply research findings to real-world problems.
* Publish at top-tier journals and conferences.
* Prepare a doctoral dissertation and support in teaching.

Profile and requirements:

* An MSc degree focusing on computer science, electrical engineering, mathematics or related field;
* Bachelor's or Master's degree in computer science, engineering, or a related field.
* Strong background in artificial intelligence, machine learning, and/or computer vision.
* Experience with one or more programming languages such as Python, C++, or Java.
* Familiarity with deep learning frameworks (e.g., TensorFlow, PyTorch) is desirable.
* Excellent analytical and problem-solving skills.
* Effective communication skills and ability to work both independently and collaboratively.

What we offer:

* A fully funded PhD position;
* A competitive salary and benefits,
* An international scientific environment driven by excellence in research,
* Opportunities for travelling to conferences and research visits to international partner research groups.

Interested candidates can send via email: (i) a detailed curriculum vitae; (ii) a motivation letter related to the position’s profile; (iii) academic transcripts (undergraduate and graduate), and (iv) the names of two potential referees by **May 27, 2024** to the following contact person:

**Prof. Dr. Nikos Deligiannis**

Vrije Universiteit Brussel – imec

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https://www.etrovub.be/people/member/about-bio/ndeligia/

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