



# FUZZ-IEEE 2021 LUXEMBOURG

HANDLING UNCERTAINTY IN INTERPRETABLE AI

July 11 – July 14, 2021

The 2021 IEEE International Conference on Fuzzy Systems (FUZZ-IEEE 2021), the world-leading event focusing on the theory and application of fuzzy set and systems, will be held in Luxembourg City, Luxembourg, Europe.

Located at the heart of Europe, Luxembourg provides a stimulating, picturesque and historic backdrop to the conference. With a vast set of cultural and leisure activities at your fingertips, the city and country also offer ample opportunities to recharge your batteries with friends, family and colleagues outside the conference. Linked to the rest of Europe by a first-class road network and excellent rail connections (e.g. TGV train from Paris in under 2.5 hours), Luxembourg is easily accessible from anywhere in Europe. Internationally, frequent air connections are available from Luxembourg airport via major hubs like London, Frankfurt, Munich, Zurich, Amsterdam or Paris, making Luxembourg reachable within one hour flight from across Europe and via a single connection from most countries worldwide.

FUZZ-IEEE 2021 will be hosted at the Alvisse Parc Hotel (<http://www.parc-hotel.lu>), set in quiet, green surroundings within minutes of Luxembourg City. Public transport is free in Luxembourg, offering convenient mobility. With ongoing uncertainty around COVID-19, the conference will keep a close eye on international developments and shape the program to maximise engagement and deliver the best experience possible – whether in-person, virtual, or both.

FUZZ-IEEE 2021 will represent a unique meeting point for scientists and engineers, from academia and industry, to interact and discuss the latest enhancements and innovations in the field. The topics of the conference will cover all aspects of theory and applications of fuzzy sets and systems and its hybridisations with other artificial and computational intelligence techniques. Under its 2021 theme, ‘Handling Uncertainty in Interpretable AI’, the conference will emphasise the handling of uncertainty, in particular in the context of interpretable and interactive AI, actively promoting engagement across disciplines. FUZZ-IEEE 2021 topics include, but are not limited to:

- Mathematical and theoretical foundations of fuzzy sets, fuzzy measures, and fuzzy integrals,
- Human-centric aspect of handling uncertainty in data and decision making,
- Interpretable and Interactive approaches to uncertainty in AI,
- Fuzzy control, robotics, sensors, fuzzy hardware and architectures,
- Fuzzy data analysis, fuzzy clustering, classification and pattern recognition,
- Type-2 fuzzy sets, computing with words, and granular computing,
- Fuzzy systems with big data and cloud computing, fuzzy

- analytics, and visualization,
- Fuzzy systems design and optimization,
- Fuzzy decision analysis, multi-criteria decision making and decision support,
- Applications of fuzzy sets and systems, fuzzy measures and integrals,
- Fuzzy and uncertain information processing, information extraction, and fusion,
- Fuzzy web engineering, information retrieval, text mining, and social network analysis,
- Fuzzy image, speech and signal processing, vision, and multimedia data analysis,
- Fuzzy databases and informational retrieval,
- Theory and applications of imprecise probabilities and possibilities,
- Theory and applications at the interface of fuzzy and probabilistic approaches,
- Interdisciplinary work on fuzzy sets and soft computing in social sciences,
- Handling of uncertainty and imprecision in applications from security to finance,
- Hardware and software for fuzzy systems and fusion,
- Hybrid, e.g., neuro- and evolutionary-fuzzy systems

The conference will include oral presentations, workshops, tutorials, panels, special sessions, and keynote presentations. Full details will be available on the conference website <http://attend.ieee.org/fuzzieee-2021.org> - we look forward to welcoming you with a warm ‘Moien!’ or hello, as we say in Luxembourgish! :-)

## Conference Committee:

General Co-Chairs: Christian Wagner (UK), Holger Voos (LU)

Program Co-Chairs: Hani Hagrais (UK), Susana Vieira (PT)

Special Session Co-Chairs: Sansanee Auephanwiriayakul (TH), Francisco Herrera (ES) Workshop and Tutorial Co-Chairs: Gabriella Pasi (IT), Derek Anderson (US) Keynotes

Co-Chairs: Jonathan Garibaldi (UK), Rosangela Ballini (BR)

Conflict of Interest Chair: Humberto Bustince (SP)

Competitions Chair: Anna Wilbik (NL) Panel Sessions Co-Chairs: Tim Havens (US), Mika Sato-Ilic (JP)

Publications

Cho-Chairs: Tufan Kumbasar (TR), Shaily Kabir (BD)

Finance Co-Chairs: Sabine Bösl (LU), Pablo Estevez (CL)

Student and Early Career Engagement Co-Chairs: Marie-

Jeanne Lesot (FR), Keeley Crockett (UK) Local

Arrangement Chairs: Magali Martin (LU), Yu-Youn Song

(LU) Web and Social Media Chair: Direnc Pekaslan (UK)

(for full committee details, please review the website)

## Important dates and deadlines:

Special Session, tutorial, and panel proposals: Oct. 25, 2020

Notification of special session, tutorial, and panel

approval: Nov. 16, 2020

Paper submission deadline: <please see website>

Notification for acceptance of papers: <please see webs>

Camera-ready paper deadline: <please

see website>

Early registration deadline: <pls see web>

Conference: Jul. 11 – 14, 2021

