

SITB 2025 Program

19 May, 2025

09:45-10:20 Welcome and Registration

10:20-10:30 Opening

10:30-11:30 Session 1

- **Two-stage Bayesian Non-parametric Clustering for Channel with Intersymbol Interference and Bursty Impulsive Noise** *Chinhung Chen (Eindhoven University of Technology)*; Boris Karanov (Karlsruhe Institute of Technology); Yan Wu (NXP Semiconductor); Wim van Houtum (Eindhoven University of Technology, NXP Semiconductor)*
- **A Hierarchical View of Structured Sparsity in Kronecker Compressive Sensing** *Yanbin He (Delft University of Technology)*; Geethu Joseph (Delft University of Technology)*
- **Impact of Environmental Conditions on Fingerprint Image Quality and Recognition Performance** *Florens de Wit (University of Twente)*

11:30-12:30 Poster session and break

12:30-13:30 Lunch

13:30-14:30 Session 2

- **Accelerating Selective Sweep Detection using AMD Deep Learning Processing Units and Vitis AI** *Sebastian Bunda (University of Twente); Nikolaos Alachiotis (University of Twente); Luuk Spreeuwers (University of Twente)*
- **Transformer-based Motor Fault Detection Using DWT** *Jiarui Zhou (Delft University of Technology (TU Delft)); Sinian Li (Delft University of Technology (TU Delft)); Edmund Marth (Johannes Kepler University Linz); Patrick Zorn (Johannes Kepler University Linz); Wolfgang Gruber (Johannes Kepler University Linz); Justin Dauwels (Delft University of Technology (TU Delft))*
- **Revisiting Rotational Cryptanalysis on Chained Modular Additions** *Addie Neyt (KULeuven)*

14:30-15:00 Coffee break

15:00-16:00 Session 3

- **Hybrid Fusion for 802.11ax Wi-Fi-based Passive Radars Exploiting Beamforming Feedbacks** *Martin Willame (UCLouvain); Hasan Can Yildirim (ULB); Laurent Storrer (ULB); Francois Horlin (ULB); Jerome Louveaux (UCLouvain)*
- **Learnable Model Compression for Edge Inference** *Joris van de Weg (TU Delft); Sinian Li (TU Delft); Justin Dauwels (TU Delft)*
- **A Sparse Network Design for Fast Multiagent Formation Stabilization** *Zhonggang Li (Delft University of Technology); Geert Leus (Delft University of Technology); Raj Thilak Rajan (Delft University of Technology)*

16:00-16:15 Coffee break

16:15-17:00 Keynote 1: Frans Willems - Explaining ZIP Using Information Theory

17:00-18:30 Drinks

18:30-22:00 Social event and dinner

22:00 Back in resort

SITB 2025 Program

20 May, 2025

09:00-10:00 Keynote 2: Kiran Raja - Attacks on Face Biometrics Systems

10:00-10:15 Coffee break

10:15-11:00 WIC General Assembly

11:00-12:00 Session 4

- **Physics-informed Intelligent Motor Fault Detection on Edge Devices** *Sinian Li (Delft University of Technology (TU Delft)); Raj Thilak Rajan (Delft University of Technology (TU Delft)); Edmund Marth (Johannes Kepler University Linz); Patrick Zorn (Johannes Kepler University Linz); Wolfgang Gruber (Johannes Kepler University Linz); Justin Dauwels (Delft University of Technology (TU Delft))*
- **Frame-Level Autoregression Yields High-Quality Spatio-Temporal Modelling of Rainfall** *Varun Sarathchandran (Delft University of Technology); Justin Dauwels (Delft University of Technology); Cristian Mwo (Delft University of Technology); Ruben Imhoff (Deltares); Remko Uijlenhoet (Delft University of Technology)*
- **Long-Range Light Messaging: To Backscatter or not to Backscatter?** *Tijl Schepens (KU Leuven); Gilles Callebaut (KU Leuven); Liesbet Van der Perre (KU Leuven)*

12:00-13:00 Lunch

13:00-14:00 Session 5

- **Exploring the statistical behavior of Facial Biometrics Based on Neural Embeddings in Privacy-Preserving schemes** *Erica Liu (Eindhoven University of Technology); Jean-Paul Linnartz (Eindhoven University of Technology)*
- **Automatic Reading of Hazmat Plates using Computer Vision Techniques** *Stanislav Levendeev (University of Twente); Ewald Nieuwenhuis (University of Twente); Melissa Tijink (University of Twente); Estefanía Talavera (University of Twente)*
- **Near-Field Wideband Localization: Performance Analysis Based on the Ambiguity Function** *Laurence Defraigne (UCLouvain); Luc Vandendorpe (UCLouvain); Jérôme Louveaux (UCLouvain)*

14:00-14:15 Coffee break

14:15-14:55 Session 6

- **Graph Topology Identification Based on Covariance Matching** *Yongsheng Han (TU Delft); Geert Leus (TU Delft)*
- **Unclonable Encryption with Continuous Variables** *Arpan Ray (TU Eindhoven)*

14:55-15:15 Coffee break

15:15-15:30 Awards and closing

15:30-16:30 Drinks