# NeuroIS Retreat 2026

Vienna, Austria | June 2-4 | www.NeuroIS.org

## *June 2*

**The schedule is based on**
**Central European Summer Time (CEST)**

**NeuroIS Retreat Pre-Event Training Course** 10:00-16:00
Separate registration necessary

*Theme:* Getting Started with NeuroIS:
Choosing Tools, Methodologies, and Theories

**NeuroIS Society Annual Meetings** 16:30-18:30

16:30-17:30 Board Meeting
17:30-18:30 Members Meeting

Note: Participation only for NeuroIS Society Members.

*Venue for the pre-event and annual meetings:*
*Austria Trend Parkhotel Schönbrunn*
*Hietzinger Hauptstraße 10*
*1130 Vienna*

**Welcome Reception & Dinner** *19:00-23:00*

*Welcome Remarks by Fred D. Davis*

*Venue for the welcome reception and dinner:*
*Austria Trend Parkhotel Schönbrunn*
*Hietzinger Hauptstraße 10*
*1130 Vienna*

Note: This reception is the official start of the retreat.

## *June 3*

**Session 1** *Opening & Paper Session* *09:00-10:30*

*Opening by René Riedl* *09:00-09:10*

*Paper Session* *09:10-10:30*
Chair: *Bernhard Lutz*

**Assessing Task Load Using Functional Near Infrared Spectroscopy**
*Karran, Rolon-Merette, Stamp, Fairclough, Sénécal, Léger, Coursaris*

**The Influence of Breathing on Brain and Heart Activity during Motor Execution**
*Höber, Kostoglou, Müller-Putz*

**Brain Speaks Louder Than Words: Neurophysiological Opinion Inference via Cognitive Dissonance Triggers**
*Zhao, Karahanna, Wu, Ding*

**The Neural Recruiter: A Research Proposal for Evaluating Human-GenAI Dynamics in High-Stakes Decision-Making**
*Schulz, Banh, Strobel*

**Coffee Break** *10:30-11:00*

**Session 2** *Paper Session* *11:00-12:30*
Chair: *Kathrin Figl*

**Beyond Single Metrics: Validating Composite Indicators for Physiological and Cognitive User Experience Research**
*Czaban, Riedl, Wengler*

**Recovery of Physiological Videoconferencing Fatigue: An Expectancy-Violations Perspective**
*Bernard, Weinert, Weitzel*

**Human vs. Automated Feedback: A Study on the Dissociation Between Physiological Activation and Cognitive Self-Focus**
*Bisson, Passalacqua, Joblot, Magnani, Sénécal, Coursaris, Pellerin, Léger*

**Gastric Myoelectrical Dynamics During Experimentally Induced Affective and Cognitive States**
*Dharmapalan, Maedche, Scheibehenne*

**Lunch** *12:30-14:00*

**Session 3** *Sponsor Session* *14:00-14:45*
Presentations by our technology sponsors



**Session 4** *Short Paper Session* *14:45-15:30*
Chair: *Alina Bockshecker*

**The Autism-IT Linkage: A NeuroIS Research Agenda for Sociocognitive and Auditory Processing**
*Jia, Jia*

**Reflective and Impulsive GenAI Use in Workplace Tasks: Proposal for an Eye-Tracking Study of Adults with ADHD**
*Wortmann, Kroenung*

**How Work Feels: Affective Responses to Real-Effort Tasks**
*Barta, Begovic, Dinu, Dorner, Fellner-Röhling, Retegan, Stefanovic*

**"I Don't Really Care": How Generative AI Use Shapes Affective Reactions to Feedback on Work Outcomes**
*Memmert, Bittner*

**Coffee Break** *15:30-16:00*

**Session 5** *Short Paper Session* *16:00-17:00*
Chair: *Marion Korosec-Serfaty*

**Generative Artificial Intelligence–Enabled Cognitive Offloading: Effects on Task Performance and Skill Development**
*Pecher, Aslan*

**Neurodiversity and Technostress: Towards a Multimodal Research Design for Evaluating Subjective, Physiological, and Behavioral Responses**
*van den Heuvel, Ivkic, Riedl*

**Brain–Body Responses to Workplace Discrimination in the Context of Inclusive Decision-Making**
*Gibaja, Kosuru, Cubillos, Keplinger, Vukelić*

**Towards Mental Fatigue-Adaptive Systems: A Pilot Interview Study**
*Schick, Bennardo, Krisam, Pfeiffer, Weinhardt, Knierim*

**Framing Bias and Financial Auditor Behavior: An Eye-Tracking Perspective**
*Teye*

**From Experience to Biomarkers: Surveying Neurophysiological Measures and Correlates of Flow**
*Stangl, Kalischko*

**Session 6** *Keynote* *17:00-18:00*
Moderator: *Rob Gleasure*

**Show Me Your Smartphone and Then I Will Show You Your Neurobiology**

***Prof. Dr. Christian Montag***

***University of Macau, China***

Digital phenotyping describes the endeavor to study digital footprints from various sources such as smartphones or social media to predict various psychological traits and states. Only few studies went one step further, namely aiming at the prediction of neurobiological variables from digital traces. In the presentation an overview will be provided on current advances in the field by also reflecting on how artificial intelligence can help to make accurate predictions to come up with what is called "digital biomarkers". In this context also AI chatbots – often used via the smartphone - will be discussed as an additional data source to carry out digital phenotyping procedures. Technical and ethical challenges will be another central focus of the presentation.

*Christian Montag is Distinguished Professor for Cognitive and Brain Sciences and Associate Director of the Institute of Collaborative Innovation at University of Macau, Macau SAR, China. He is a (co-)author of more than 450 peer-reviewed international papers and currently serves on the editorial board of the journals Personality Neuroscience, Telematics and Informatics Reports, and Addictive Behaviors. He is a co-editor of the book series "Studies in Neuroscience, Psychology and Behavioral Economics" at Springer. His current H-index is 93 and his works have more than 30.000 citations according to Google Scholar (13th January 2026). Christian Montag belongs to the World's Top 2% Scientists according to the list of Stanford/Elsevier published in 2025.*

**Group Picture & Social Event**

**Group Picture** *18:30 sharp!*

*Meeting Point: Main Entrance of Austria Trend Parkhotel Schönbrunn*

This picture represents last year's group picture.

**Social Event** *18:30-23:00*

Bus transfer from the conference hotel to the social event location starts at 18:35 sharp (directly after the group picture)! **Please be aware there is only one departure time of the bus!**

Departure from Austria Trend Parkhotel Schönbrunn: in front of the main entrance of the hotel.

**Restaurant "Stöckl im Park"**
Prinz-Eugen-Straße 25
1030 Vienna

Stöckl im Park
Brauerei und Gaststätte

## *June 4*

**Session 7** *Opening & Paper Session* *09:00-10:30*

*Opening by René Riedl* *09:00-09:10*

*Paper Session* *09:10-10:30*
Chair: *Verena Dorner*

**Toward Multimodal Attention Detection in Virtual Reality Lectures: Combining Ear-EEG and Eye Tracking**
*Stano, Schulz*

**Panoptic Oversight and Critical Thinking in AI-Assisted Professional Decision-Making: A NeuroIS Work-in-Progress Study**
*Korosec-Serfaty, Lesvéque, Sénécal, Léger*

**Empathic Displacement in Algorithmic Decision-Making: A NeuroIS Study**
*Ware III, Akinyemi, An*

**Neural Uncertainty Monitoring During Repeated GenAI Interaction: A Pilot EEG Study Using Frontal Theta Power**
*Kalischko, Eibl, Hollaus, Riedl*

**Coffee Break** *10:30-11:00*

**Session 8** *Hot Topic Talk* *11:00-12:00*
Moderator: *Gernot R. Müller-Putz*

**Neurophysiological Dynamics of Trust in Human–AI Interaction: A Multi-Level Study of Brain, Hormone, Mind, and Behavior**

***Dr. Frank Krueger***

***George Mason University, United States***

As artificial intelligence (AI) increasingly participates in human decision environments, understanding how trust emerges and breaks down in human–AI interaction has become a central challenge for information systems research. While prior work has predominantly focused on behavioral measures, the underlying neurophysiological mechanisms of trust remain largely unexplored. In this study, we investigated the multi-level dynamics of trust during face-to-face interaction with an embodied intelligent agent. Participants engaged in decision-making tasks with a humanoid robot while neural activity was recorded using functional near-infrared spectroscopy, salivary oxytocin levels were assessed, and self-reported trust and behavioral influence were measured. We experimentally manipulated system reliability (congruent vs. erroneous decisions) and social expressiveness (animated vs. stationary behavior). Results demonstrated that reliability constitutes the primary foundation of trust: agent errors significantly reduced both reported trust and behavioral influence. Social expressiveness modulated these effects. Animated agents elicited stronger prefrontal activation and enhanced neural–hormonal coupling. Notably, elevated oxytocin levels were associated with reduced trust and diminished behavioral influence when expressive agents committed errors, indicating a context-sensitive vigilance response rather than a simple affiliative bonding mechanism. Together, these findings establish a multi-level neurophysiological framework for understanding trust in human–AI interaction and reveal a critical design trade-off between social expressiveness and trust robustness in intelligent systems.

*Frank Krueger is Professor of Systems Social Neuroscience at George Mason University (GMU), USA, where he leads the Social Cognition and Interaction: Functional Neuroimaging (SCI:FI) Lab and serves as Core Faculty at the Center for Advancing Systems Science and Bioengineering Innovation within the Institute for Biohealth Innovation at GMU. He is also an Honorary Professor of Psychology at the University of Mannheim, Germany. He has authored or co-authored over 240 publications and edited The Neurobiology of Trust (Cambridge University Press).*

**Lunch** *12:00-13:30*

**Session 9** *Award Ceremony* *13:30-13:45*

*Zemlicka Award &*
*Best Reviewer Award*

Moderator: *Fred D. Davis*

**Session 10** *Short Paper Session* *13:45-14:45*
Chair: *Thomas Kalischko*

**Beyond Productivity: Cognitive and Neurophysiological Implications of Generative AI in Knowledge Work**
*Banh, Lachmann, Strobel*

**Exploring the Impact of the Gestalt Laws of Proximity and Similarity: A NeuroIS Study in the E-Commerce Context**
*Vogl, Königseder, Riedl*

**Autistic Traits, Executive Functions, and Burnout in IT Professionals**
*Jia, Sullivan*

**Neurophysiological Correlates of Flow: A Systematic Review based on Csikszentmihalyi's Flow Theory**
*von Uechtritz, Nadj*

**AI-Assisted Learning of Integrated Business Processes in SAP: A Proposed Eye-Tracking Study of Cognitive Engagement Strategies**
*Bera, Sarkar, Gopukumar*

**Stacking CTML Principles in Video Lessons: A Multimodal Feasibility Case-Series (Eye, Facial, GSR) and Early Steps Toward a Neuroadaptive Learning System**
*Chin, Edwards, Bantan, Barreto, Taylor, Randolph*

**Coffee Break** *14:45-15:15*

**Session 11** *Paper Session* *15:15-16:35*
Chair: *Anita Vogl*

**What Shall Artificial Intelligence Recognize When Programmed for the Purpose of Emotion Recognition?**
*Walla*

**The Slow Drift of Alpha/Mu Rhythms During Sustained Motor Engagement**
*Kostoglou, Müller-Putz*

**Neurophysiological Signatures of LLM Hallucinations and Their Emotional Impact on Student Performance: A Research-in-Progress Study**
*Khatua, Gupta*

**Investigating Reliance on Artificial Intelligence Through Adaptive Eye-Tracking: A Conceptual Paper and Research Agenda**
*Gutmann, Ernst, Mertová, Figl*

**Session 11** *Concluding Remarks* *16:35-16:45*
*Fred D. Davis & René Riedl*

**End of NeuroIS Retreat 2026** *16:45*

## VENUE

Austria Trend Parkhotel Schönbrunn, Hietzinger Hauptstraße 10, 1130 Vienna

## DR. HERMANN ZEMLICKA AWARD

The NeuroIS community lost a visionary thinker. Dr. Hermann Zemlicka, who was an Austrian politician, member of the Gmunden City Council, and an entrepreneur, passed away at age 55 in June 2012. Dr. Hermann Zemlicka significantly contributed to the establishment of the NeuroIS Retreat. Without his visionary support, it would not have been possible to bring this conference into being. In memoriam of this outstanding person, the DR. HERMANN ZEMLICKA AWARD will be given to "the most visionary paper". The paper will be selected by the organizing committee (conference and program co-chairs).

2013 winner: Looking for Information Relevance in the Brain by Jacek Gwizdka. 2014 winner: Designing Web Pages for Increased Content Familiarity: A Strategy 1 Study by Rob Gleasure. 2015 winner: Neurophysiological Analysis of Visual Syntax in Design by Christopher J. Davis and Alan R. Hevner. 2016 winner: A Refined Examination of Worker Age and Stress: Explaining How, and Why, Older Workers Are Especially Techno-Stressed in the Interruption Age by Stefan Tams. 2017 winner: Using EEG Signal to Analyze IS Decision Making Cognitive Processes by Nabila Salma, Bin Mai, Kamesh Namuduri, Rasel Mamun, Yassir Hashem, Hassan Takabi, Natalie Parde, and Rodney Nielsen. 2018 winner: Using Gaze Behavior to Measure Cognitive Load by Lisa Perkhofer and Othmar Lehner. 2019 winner: The Effect of Technology on Human Social Perception: A Multi-Methods NeuroIS Pilot Investigation by Peter Walla and Sofija Lozovic. 2020 winner: AttentionBoard: A Quantified-Self Dashboard for Enhancing Attention Management with Eye-Tracking by Moritz Langner, Peyman Toreini and Alexander Mädche. 2021 winner: An Inward Focus of Attention During Information Security Decision Making: Electrophysiological Evidence by Robert West and Kate Cowger. 2022 winner: Information Overload and Argumentation Changes in Product Reviews: Evidence from NeuroIS by Florian Popp, Bernhard Lutz and Dirk Neumann. 2023 winner: Customer Decision-Making Processes Revisited: Insights from an Eye Tracking and ECG Study using a Hidden Markov Model by Tobias Weiß, Lukas Merkl, and Jella Pfeiffer. 2024 winner: Causality Analysis on Performance Differences in Comprehension of Business Process Representations by John Krogstie and Kshitij Sharma. 2025 winner: Understanding the Impact of Cyberloafing on the Multiple Dimensions of Individual Attention: An EEG-Based Lab Experiment by Hemin Jiang and Wenpei Zhang.

## ORGANIZER

University of Applied Sciences Upper Austria, Forschungs & Entwicklungs GmbH, Roseggerstraße 15, 4600, Wels, Austria in cooperation with NeuroIS Society.

## ORGANIZING COMMITTEE

*Conference Co-Chairs:* Fred D. Davis and René Riedl

*Program Co-Chairs:* Jan vom Brocke, Pierre-Majorique Léger, Adriane B. Randolph, Gernot R. Müller-Putz

*Program Committee:* Marc T. P. Adam, Bonnie B. Anderson, Leonardo Banh, Ricardo Büttner, Colin Conrad, Théophile Demazure, Alan R. Dennis, Djordje Djurica, Verena Dorner, Thomas M. Fischer, Nadine Gier-Reinartz, Rob Gleasure, Anke Greif-Winzrieth, Jacek Gwizdka, Alan R. Hevner, Hemin Jiang, Thomas Kalischko, Peter H. Kenning, Michael T. Knierim, Bernhard Lutz, Mahdi Mirhoseini, Mario Nadj, Fiona F.-H. Nah, Anika Nissen, Jella Pfeiffer, Julia Seitz Sänger, Sylvain Sénécal, Fabian J. Stangl, Stefan Tams, Ofir Turel, Anthony O. Vance, Eric A. Walden, Peter Walla, Barbara Weber, Selina C. Wriessnegger, Inon Zuckerman

## LOGISTICS

Participants are responsible for booking accommodation directly with the hotels. Please find a selection of hotels and guesthouses at https://www.neurois.org/hotels/. Ensure to have visas where necessary! All registration and cancellation details can be found at www.NeuroIS.org.

## Supporting Institutions & Journals

Local Arrangement Chair: Prof. Dr. Dr. René Riedl. More information about NeuroIS: www.NeuroIS.org. 