



CORPORATE



NetZero

Taking Action for the Future



Z43 Goes NetZero!

Z43 partners IT'IS, SPEAG, ZMT, and TI Solutions have made the next step in our journey toward net-zero emissions: We have established the Z43 NetZero Foundation, a Swiss-based nonprofit dedicated to reducing the impact of human activities on the climate through scalable, carbon-neutral technologies. We invite you to embrace the Z43 spirit and contribute to the Foundation as we work together to find effective solutions for a sustainable future. Z43 – Think Renewable!

MEASUREMENTS

DASY Enables Automated Proximity Sensor Assessments



SPEAG has released DASY8 Module SENS V1.0 β , a system designed for automated standards-compatible testing of proximity sensors – including the latest time-averaged proximity sensors – of wireless devices. The module is based on a research collaboration, supported by Innosuisse, between the IT'IS Foundation and Semtech. See a demonstration of DASY8 Module SENS in action by watching our [video](#).

AWARD

o²S²PARC Y8 Award

IT'IS has been awarded funding for the 8th year for its [o²S²PARC computational platform](#) under the NIH SPARC program. In the past year, important progress has been made to enhance the platform's capabilities. In this final year of funding, the main focus is on preparation of o²S²PARC and the [SPARC Portal](#) for a sustainable future!

WORKSHOPS

Successful Workshops



A heartfelt thank you to the AUDEN and DYMSTEC teams for organizing another successful and dynamic series of workshops – held in China and Taiwan in July, and in South Korea in September –that continue to foster innovation and collaboration across multiple sectors. We deeply appreciate your dedication and hard work in making these events such a resounding success!

TEMPORAL INTERFERENCE



TIBS-R V3.0 & TIP V3.0 Released

Temporal Interference (TI) remains a top priority of Z43 as scientific evidence of its effectiveness is rapidly emerging. The TI Solutions TIBS-R device is already fully compatible with the low-pass electroencephalogram (EEG) filter solutions developed by IT'IS. The latest release, TIBS-R V3.0, comes with several new features for even better support of the projects of research groups. In addition, the IT'IS TIP team has added personalization and more advanced stimulation signals to its [TI Planning tool V3.0](#).

MEASUREMENTS



DASY8/6 API Generates Compliance Report

Tired of generating manual specific absorption rate (SAR) compliance reports from dozens of single SAR measurements conducted on multiple systems? Great news! Watch the latest [video](#) of BNN Communication Engineers who have streamlined their compliance process using the DASY8/6 Module SAR API and a custom Python script. Questions? Contact us at info@speag.swiss.

EVENTS



Z43 Summer Party

We wrapped up the summer with a lively party on one of the season's final hot days. Colleagues, both old and new, gathered with their families to enjoy local food. And, of course, to top it off, the iconic ice cream van – this time featuring the specialty “Glacé-Berliner” and other innovative shapes – was there to keep the tradition alive and to cool everyone down.



RESEARCH

PUBLICATIONS

Peroxynitrite: A Tale of Two Radicals

P. L. Bounds and W. H. Koppenol 2024, Redox Biochemistry and Chemistry, [doi: 10.1016/j.rbc.2024.100038](https://doi.org/10.1016/j.rbc.2024.100038) (online: 03 August 2024)

The Implantable System That Restores Hemodynamic Stability after Spinal Cord Injury

A. A. Philips, *et al.* 2024, in revision

Recommendations for the Safe Application of Temporal Interference Stimulation in the Human Brain

A. M. Cassarà, *et al.* 2024, in revision

Non-invasive Temporal Interference Stimulation of the Hippocampus Suppresses Epileptic Biomarkers in Patients with Epilepsy

E. Neufeld, *et al.* 2024, submitted

Safety of Non-invasive Brain Stimulation in Patients with Implants: A Computational Assessment

F. Karimi, *et al.* 2024, in revision

Efficient Fourier Base Fitting on Masked or Incomplete Structured Data

F. Karimi, *et al.* 2024, in revision

Precision Non-Invasive Brain Stimulation: An In Silico Pipeline for Personalized Control of Brain

F. Karimi, *et al.* 2024, in revision