

The Laboratory of Social and Neurocognitive Implicit Processes

The Baltic International Academy is the only higher education institution to establish the **Laboratory of Social and Neurocognitive Implicit Processes**, integrating modern neurocognitive technologies, research on implicit social cognition, quantitative and qualitative methods of sociological research and practical academic training.

The Laboratory provides a unique research environment for undergraduate, master's, and doctoral students while creating new opportunities for academic staff and researchers to engage in interdisciplinary projects. It significantly expands the Academy's capacity to collaborate with Latvian and European research institutions and to participate in international scientific research programs.

What the Laboratory Offers

The Laboratory provides:

- the development of research methodologies and teaching materials for students and academic staff;
- access to modern research equipment for practical training and the preparation of bachelor's, master's, and doctoral theses;
- applied research services for companies and organizations in transportation, communications, industry, trade, advertising, marketing, economic behaviour and other sectors;
- training in electrophysiological research methods and experimental design using implicit measurement techniques;
- opportunities for students and academic staff to participate in interdisciplinary scientific and educational research projects.

Advanced Research Methods

The Laboratory uses modern scientific methods, including:

- electroencephalography (EEG) and event-related potential (ERP) recording, including analyses of spectral signal characteristics, functional connectivity, and the dynamic interaction of brain regions;
- implicit attitude assessment methods, including the Implicit Association Test (IAT) and Subliminal Evaluative Priming;
- explicit methods for studying attitudes and cognitive processes;
- quantitative and qualitative methods of sociological study of socioeconomic and sociocultural human behaviour and interaction in various spheres of public life.

High-Technology Equipment

Research is conducted using modern equipment and specialized software, including:

- the **Neurovisor NVX52** electroencephalograph with 48 EEG recording channels and the NeoRec digital acquisition system;

- **E-Prime** and **Psychtoolbox (MATLAB)** programmes for designing and conducting experimental studies;
- **MATLAB** and **SPSS** for statistical analysis of experimental data.

Practice-Oriented Education

Students gain experience with the same technologies and research methods used in contemporary scientific practice.

Within the bachelor's study programmes, students work with:

- **E-Prime** software for developing implicit tests;
- EEG methodology, as well as implicit and explicit research methods, in courses such as “Consumer Psychology”, “Advertising and Public Relations Psychology”, “Cognitive Psychology”, and “Organizational Psychology”.

Within the master's study programmes, advanced implicit measures – including the Implicit Association Test (IAT) and Subliminal Evaluative Priming – are developed and applied. The Laboratory adapts implicit and explicit assessment tools to measure self-esteem attitudes, achievement motivation, brand attitudes, decision-making attitudes, consumer attitudes, and other psychological constructs. Special experimental procedures are developed for each research objective, including development of stimulus materials, target categories, and attributes.

Research Areas

The Laboratory advances both fundamental and applied research in the following areas:

- the structure and cognitive mechanisms of implicit attitudes at both behavioral and neurophysiological levels;
- the integration of implicit research methods with neurocognitive methodologies;
- neurocognitive mechanisms of memory, learning, and decision-making;
- the sociology of the characteristics of socioeconomic and sociocultural behaviour and interaction of people in various spheres of public life.

The Laboratory of Social and Neurocognitive Implicit Processes is a unique scientific and educational platform of the Baltic International Academy, where advanced technologies for studying the brain and cognitive processes become an integral part of education, scientific research, and applied interdisciplinary projects.