




University of Ljubljana, Slovenia
Faculty of Arts,
Department of Psychology

Anja Podlesek

CEEPUS coordinators' meeting, Zagreb, 29-30 Sept, 2021

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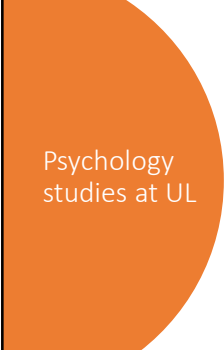


University of Ljubljana
Filozofska fakulteta

About

- University of Ljubljana:**
 - established in 1919;
 - 50,000 undergraduate and postgraduate students in over 300 different undergraduate and postgraduate study programs;
 - 6,000 higher education teachers, researchers, assistants and administrative staff in 23 faculties and 3 art academies.
- Faculty of Arts:**
 - the largest teaching and research institution in Slovenia in the fields of humanities and social sciences;
 - 21 departments, 450 teachers and researchers
- Department of Psychology:**
 - since 1951, the leading institution for education of psychologists in the country;
 - seven chairs: psychological methodology, general psychology, developmental psychology, social psychology, educational psychology, clinical psychology and psychotherapy, psychology of work and organisation
 - The Laboratory for Cognitive Neuroscience (Mind & Brain Lab) and the Centre for Psychological Measurement and Counselling.

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Psychology studies at UL

1st phase

- <https://psihologija.ff.uni-lj.si/univerzitetni-studijski-program-prve-stopnje-psihologija>
- Relevant courses:
 - Cognitive psychology (9 ECTS)
 - Motivation and emotions (6 ECTS)
 - Neurophysiology (3 ECTS)
 - Fundamentals of neuroscience and behavioral neurology (3 ECTS)
 - Cognitive neuroscience (3 ECTS)
 - Fundamentals of measurement in psychology (6 ECTS)
 - experimental psychology, psychophysics

2nd phase

- <https://psihologija.ff.uni-lj.si/studijski-program-druge-stopnje-psihologija>
- Relevant courses:
 - Applied cognitive psychology (4 ECTS)
 - Applied psychometrics (7 ECTS)
 - Cognitive neuroscience of psychopathology (3 KT)
 - Master's seminar (3 ECTS) + MA thesis (12 ECTS)

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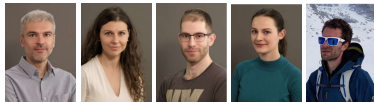
Available research equipment

- Psychological laboratory with 6 rooms
- EyeLink 1000 Desktop Mount eyetracker
- 64-channel BrainProducts EEG system ActiChamp Plus with actiCap and R-Net caps + sensors for physiological measurements (breathing, heart rate, GSR) <https://brainvision.com/products/actichamp-plus/>
- A magnetic resonance tomograph (available at the Neurology Clinics, with payment of rental and services); can be combined with EEG and eye-tracker
- the BIOPAC MP150 system with ED100C, SKT100C, PPG100C, and RSP100C modules and the LabView and ActiKnowledge software, available at the Faculty of Electrical Engineering
- HTC VIVE™ Virtual Reality System
- Logitech G29 Driving Force Racing Wheel with pedals
- BlackBox Toolkit mB8TK v2... response pads Cedrus, BlackBox, joystick <https://www.blackboxtoolkit.com/m8tkv2.html>
- Test of Attentional Performance TAP 2.3-1
- basic psychological tests, such as Raven Progressive Matrices (Standard, Standard Plus, Advanced, Colour), d2, WISCIII ... in Slovene language
- several experiment generators and psychology software tools (E-Prime, NOLDUS, ExperimentBuilder ...)

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Mind & Brain Lab – Research Interests

- Noninvasive neuroimaging studies
 - electroencephalography (EEG)
 - functional magnetic resonance imaging (fMRI)
- Simultaneous EEG-fMRI
 - methodology and software development
 - joint EEG-fMRI data analysis
- Resting-state and task-based functional connectivity
- Working memory (visual)
- Cognitive control
- Emotional regulation



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Mind & Brain Lab – Ongoing studies

- Stable and dynamic EEG and fMRI functional connectivity patterns and their relation to individual differences
- Mechanisms of functional brain integration underlying efficient cognitive control
- Working memory mechanism and representations

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Research program Psychological and Neuroscientific Aspects of Cognition


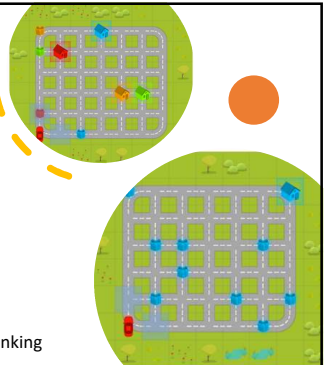
- Development and validation of psychometric instruments and other methods for measuring cognitive processes
 - Measurement of cognitive control → CCRacer (gamification)
 - Self-regulated learning measures
 - VR: immersion, presence
 - Emotional executive functions and self-control measures
- Cognitive trainings - development and evaluation of cognitive trainings (training of attention, reasoning training, multicomponent training of executive functions)



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Research program – Ongoing studies

Development of CCRacer – Planning test

Cognitive flexibility and divergent thinking

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Other research interests

- Impact of COVID-19 on affective and cognitive functioning (subjective cognitive decline, conspiracy theories, vaccination intention)
- Metacognition and self-regulation of (e-)learning
- Intelligence, giftedness, and creativity
- Human-robot interaction
- Visual perception and attention (the effect of typography on text processing, the effect of cognitive load on the visual system)
- Use of psychophysiology for assessing cognitive load, problem-solving strategies, affective responses
- Cognition and emotions

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Research collaboration

- Through the established collaboration with other institutions we can provide access to various laboratories at UL:
 - Institute of Clinical Neurophysiology at the Division of Neurology, University Medical Centre Ljubljana
 - Faculty of Electrical Engineering
 - Laboratory for Metrology and Quality
 - Laboratory for Robotics
 - The User-Adapted Communications and Ambient Intelligence Lab
 - Laboratory for Computer Graphics and Multimedia at the Faculty of Computer Sciences

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Neuroshare experiences & prospects – Incoming mobilities

- 2020/21:
 - One PhD student from University of Priština - Kosovska Mitrovica (University of Belgrade) (May 2021)
 - One MA student from University of Montenegro (Sept 2021, freemover)
 - 2 cancelled mobilities
- 2021/22:
 - One MA student from University of Zagreb (October 2021)
 - One MA student from University of Belgrade (March 2022)
 - One PhD student from University of Zagreb ?

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Neuroshare experiences & prospects – Outgoing mobilities

- 2020/21:
 - One MA student to University of Zagreb (Nov-Dec 2021)
 - One PhD student to University of Krakow (May 2021) - cancelled
- 2021/22:
 - One MA student to University of Zagreb (October 2021)
 - One PhD student to University of Krakow (Jan-Feb 2022)
 - The call for spring 2022 will be published soon.

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