CURRICULUM VITAE

MSc Igor Lopušina

Affiliation: University assistant (PhD student)
University of Innsbruck,
Institute of Mechatronics,
Innsbruck Power Electronics Lab. (**i-PEL**)
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PERSONAL DATA

Date of birth: 16th, October, 1994.
Place of birth: Belgrade, Republik of Serbia

EDUCATION

- Ph.D (October 2019–present)
  - **Dissertation expose**: "**Advanced Topics on Partial Power Rated Converter Topologies with Utilization of the Wide Band-Gap Semiconductor Devices**", Innsbruck Power Electronics Laboratory (i-PEL), the University of Innsbruck, Austria.
- MSc. E.E. (2 years program, July 2019.)
  - **Master thesis**: "**Modeling of the Modular Multilevel Converter in Hardware in the Loop Environment,**" École Polytechnique Fédérale de Lausanne, Electrical and Electronic Section, Power Electronics Laboratory, Switzerland.
- B. Sc. E.E. (4 years program, July 2017.)
  - **Diploma thesis: "Open-Loop High Precision Sensing of DC Bias in 0.4 kV AC Grids,"** The School of Electrical Engineering, the University of Belgrade, Serbia.

EMPLOYMENT & PROFESIONAL ACTIVITES

October 2019 - Present

University assistant
Innsbruck Power Electronics Laboratory (i-PEL), Institute od Mechatronics,
University of Innsbruck, Innsbruck, Austria

September 2018 – March 2019

Intern
European Organization for Nuclear Research (CERN), Genève, Switzerland

February 2018 – Jun 2018

Student member
EPFLoop team for hyperloop pod competition, École Polytechnique Fédérale de Lausanne, Switzerland.

February 2017 – Jun 2017

Student member
Road arrow Belgrade: Formula student team, University of Belgrade, Serbia.

September 2016 – October 2016

Intern
Company Elektrovat, Čačak, Serbia.

ON-GOING R&D PROJECTS

[PR 1] Partial Power Rated Battery Interface Power Converter for Three-phase Grid Applications

- Battery interface dc/dc converter, rated power 30kW, Efficiency more than 99.5% (expected), power density 50[kW/dm^3] (expected).

RESEARCH INTEREST

- DC to DC conversion networks, specifically DC to DC partial power rated converter
- Application, control and driving techniques for advanced power semiconductor devices (specifically GaN HEMTs)
- Electromagnetic compatibility

Academic and Teaching Activities

[L 1] Power Semiconductors, 3rd semester, Curriculum Electrical Engineering
[L 2] Power Electronics & Electric Drives, 5th semester, Curriculum Electrical Engineering
[L 3] Electrical Power Engineering & Electric Drives, 5th semester, Curriculum Mechatronics

LANGUAGES

Serbian-Native**, English**-Fluent, **Russian**-Intermediate, **German**- Basic.