PSSOH Conference Report

Applications of Free Software and Open Hardware

PLACE & DATE of the Conference: main building of the University of Belgrade – School of Electrical Engineering (ETF), Bulevar kralja Aleksandra 73, 11000 Belgrade (ground floor, room 56), October 24, 2020 and e-ETF via Zoom platform due to the COVID-19 virus outbreak ih 2020. A great effort from our team was directed towards technical elements of organisation so that everything can go smoothly for our presenters and audience. Although, we aimed at completely free software based technical support, that was not possible in a given time frame. The first stumbling block was the selection of platforms as we discussed at large whether to use BigBlueButton, eduMEET, or Jitsi. Mentioned platforms emerged from other free software sources and from experiences and practices from our contacts as well as our own. PSSOH Organizational and Editorial board performed various tests and finally selected eduMEET platform. As we couldn't rely on Institutional support as the official online learning platform at the ETF is proprietary - Microsoft Teams platform, we tried to install eduMEET with our own resources. With the help from the technicians from the Department Computer Engineering and Information Theory at ETF, we managed to install eduMEET at ETF. Still, we decided to use Zoom as we were more familiar with that platform and as we had not enough time to test and integrate eduMEET for an adequate organization. Despite this unfortunate decision to use proprietary software and to go for more comfort and less freedom, we extensively used other free and open-source software products (OBS - Open Broadcaster Software, Shotcut, LibreOffice, etc.). It is worth mentioning that we encountered other technical issues such as sound (e.g., type of microphone, tuning of parameters, the placement of equipment), camera (e.g., the type of camera, assembling all the accessories) - which we addressed with success with the help of technical stuff from the ETF and ETF Computing Center.

Album of spontaneously taken photographs is available at our **PSSOH 2020 Flickr album**:



The third PSSOH conference consisted of 15 lectures related to the application of free software and open hardware and to women and other minority groups representation in the electrical engineering and computer science in four sessions: (1) Plenary Session, (2) Free Software and Open Hardware in Electrical Engineering and Computer Science, (3) Open and Free Software in Social Sciences, Humanities, Linguistics, Meteorology, and Mathematics, and (4) Women in Electrical Engineering and Computer Science.

The conference started with the opening ceremony and three welcome speeches that were held by ETF Dean Prof. Dr. Milo Tomašević, and on behalf of the Editorial board spokespersons were Assoc. Prof. Dr. Nadica Miljković and Prof. Dr. Predrag Pejović. We are especially proud that we introduced the Plenary Session for the first time with a keynote lecture held by Italo Vignoli from The Document Foundation on the occasion of the 10th Anniversary of LibreOffice. Recordings from all speeches are available on our <u>YouTube channel</u> and Zenodo <u>PSSOH 2020 Community</u>. Final program for the PSSOH 2020 is available on Zenodo repository (doi: 10.5281/zenodo.3941618) and our electronic Proceedings for 2020 year with full papers is available on <u>PSSOH website</u>. We received very positive feedback from our attendees and the result of the PSSOH 2020 post-conference survey can be found <u>here</u>. This year, we did not count the attendees as some of them were present on spot, some of them online (even more people in front of one computer), and some of them browsed offline videos on our YouTube channel. Therefore, it was complex to determine the procedure for counting the number of participants.

We are very proud of our diversity of topics once again including: LibreOffice, digital sovereignty, open document standards, free software and open hardware licenses, load prediction in R programming, simulators in computer architecture and organization, Internet of Things, open resources and technologies for Serbian language processing, open-source software for data visualization, open hardware for e-bike design, application of free software in meteorology, overview of available software for teaching numerical Mathematics, repository of psychological instruments, free software tools for computational linguistics and experimental psychology, open library, and on gender diversity on Wikipedia.

In 2020., the majority of PSSOH lecturers were from the University of Belgrade (School of Electrical Engineering, Faculty of Philosophy, Faculty of Philology, Faculty of Physics, Innovation Center at the School of Electrical Engineering, and Computing Center at University of Belgrade) and from Institutes and Laboratories from Belgrade (Mihajlo Pupin Institute, Institute of Psychology, Institute of Meteorology, Laboratory for Experimental Psychology and Laboratory for research of individual differences both at the Faculty of Philosophy, University of Belgrade); but also from The Document Foundation; Faculty of Electrical Engineering from University of Banja Luka, Bosnia and Herzegovina; Institute Jožef Stefan from Ljubljana, Slovenia; Universität Zürich, University Research Priority Program (URPP) "Language and Space", Switzerland; Library "Milutin Bojić"; Laboratory for Experimental Psychology from the Faculty of Philosophy, University of Novi Sad; and from Wikimedia Serbia.

As announced in 2018., we offered to authors of open electronic textbooks in 2020. to promote them in our Proceedings, but we have not received an answer yet.

Logistics for the conference were provided by the organizer, University of Belgrade – School of Electrical Engineering, with strong support of the Dean Prof. Dr. Milo Tomašević and with kind engagement of our Organizational team led by Nikola Todorović, student and Assist. Prof. Miloš Bjelić, PhD. Members of our Organizational board are Bachelor, Master, and PhD students: Dejan Petković, Dragica Nikolić, Živana Garašević, Jovan Sandić, Mihajlo Pavlović, Nenad Popović, and Miloš Budimir. This year, we had only one volunteer Milan Antić, MSc.

The conference was supported by two public donors - Academic Mind and DK handmade masks from Belgrade Serbia. Many partners supported our event and their full list is available at our <u>website</u>. We would like to acknowledge <u>Descon</u> conference and Desiree Željka Milošević and Vanja Stanić as we organized a joint workshop related to the open hardware this year.

DATE of the post-conference events: October 31, 2020.

Post-conference events included following two workshops:

- Linux installation workshop held by Nikola Todorović, Mihajlo Pavlović, and Dejan Petković (doi: <u>10.5281/zenodo.3957243</u>, YouTube <u>presentation</u>, YouTube <u>instructional</u> <u>video</u>)
- How to assemble Klimerko (in collaboration with Descon) held by Desiree Željka Milošević and Vanja Stanić (doi: <u>10.5281/zenodo.3957225</u>, YouTube <u>presentation with</u> <u>Q&A</u>)

In Belgrade, April 7, 2021.

PSSOH Editorial board

Nadica Miljković, Predrag Pejović, and Miloš Cvetanović