NECTAR 2022 Conference Summary

Gabriel Dadashev , M.sc student in mathematics department, Ariel University.

Between July 20 and 22, I participated in the Network on European Communications and Transport Activity Research (NECTAR) annual conference. The conference was held in the city of Toronto in Canada, and its central theme was Mobilizing Justice. The conference had two keynote speakers. The first was Angela Gibson, who charge of strategic development at the Transportation Authority responsible for Metropolitan Toronto (TTC, The third largest transportation authority in North America), who examines aspects of inequality in the authority's decisions. This lecture explained the structure of Greater Toronto's transportation network, poor areas that serve less well than affluent areas of the city, the different pricing methods of public transportation, and how diverse populations accept them. Steven Farber, who heads the "Mobilizing Justice" project, gave the second keynote. Steven introduced the topic of "justice in transportation" from the level of defining concepts such as vertical and horizontal equity to selected examples from Toronto. His project these days is working on planning a massive survey across Canada to examine inequality in transportation, a survey whose purpose is to understand from the people not only where they traveled but which trips they gave up while demographically matching the respondents.

The conference was divided into several clusters simultaneously so the participants could leave and enter the lectures that interested them. From those clusters, several lectures left a mark on my memory; for example, Anne Durand's lecture discusses issues of digitization of transport services and aspects of inequality in this process in the Netherlands. The inequality in understanding these services exists along the dimensions of age, income level, education level, and ethnicity. It was explained that the effects of the generation gap would probably disappear throughout a few generations, but structural products such as learning, and communication deficiencies will likely remain. Another lecture is by Ramesh Pokharel. An empirical simulation was developed describing how policies such as adding a lane and parking spaces create circular relationships that are very difficult to break and create burdens on the public transportation system. As part of the simulation demonstrated in the lecture presentation, it was shown visually how it is possible to improve the loads on a transportation system by not being surprised by a harmful policy biased toward private vehicles. Richard Sadler's lecture discusses the injustice in road system development in the state of Michigan in the United States. In this lecture, historical maps were presented showing how the intercity road system was developed in the area of the city of Flint, specifically in neighborhoods where the land was cheap, most of which were poor neighborhoods significantly affected by this development.

Apart from the lectures, another very important aspect of the conference was about 10 participants' brainstorming sessions, which discussed micro-mobility modes such as electric scooters. We discussed the challenges of these measures, especially in the area of the state's responsibility that throws the issue to private companies with an interest different from the public one. These brainstorming sessions were a wonderful opportunity to hear different opinions and meet researchers worldwide.

My presentation on Friday, July 22, discussed an innovative simulation tool that models demand and supply for private cars under various test cases, such as a congestion charge or reducing private car ownership. The simulation results were analyzed in aspects of air pollution and social justice to see if air pollution is higher in the weaker sections of society. The presentation lasted 20 minutes, and there were 10 minutes for questions in which I was asked, for example, how can electric vehicles be integrated into the simulation platform? When it was explained that such an addition should also include an understanding of the distribution of the charging stations of the electric vehicles. Another question I was asked is which policy I prefer from those investigated under my test cases. It was explained that according to the experiment results, a reduction in vehicle ownership in the center of Tel Aviv achieves much better results than a congestion charge in terms of air pollution reaching the poor neighborhoods.

In conclusion, NECTAR's annual conference took the inequality in transportation very seriously. It broke it down for me into many factors, from definitions to learning from other people's studies that used techniques such as surveys and cluster analysis to learn about vulnerable populations and the injustice in their mobility abilities. The conference gives researchers many tools that can be applied later, especially in the field of government policy research on transportation issues in the hope of improving the transportation situation in a private vehicle-oriented policy like Israel.