Anastasia Vlasova presents her bachelor’s thesis with the title Communication for distributed control of slotcar vehicular platoon. The thesis presents an implementation of a communication infrastructure for platoon control algorithm, in which vehicles share their states with each other’s. Different algorithms were implemented as well (e.g. position determination in the platoon, address information and parameters setting).

Anastasia Vlasova nicely explained the hardware and software details. The communication infrastructure including the communication protocol (i.e. ZigBee protocol) and the underlying hardware are presented in details. All the related information to the construction of the network is nicely illustrated by figures, diagrams, flow charts and tables. The English quality is very good, however, some grammatical mistakes are found in the thesis and it is necessary to care more about the punctuation marks. Although in sequence diagram presented in Figure 14, one arc is not labeled. Some abbreviations like GPIO, USART are not included into the abbreviation section.

In the experiments part, different scenarios are demonstrated for 3 slotcars which partially confirmed that the implemented driver works successfully (i.e. the inter-vehicle communications are enabled and works correctly). Also, the communication system that allows the vehicles to share their measurements is tested and proved somehow that the address exchange, position determination and parameter settings are provided. But for real cases, the number of slotcars in the experiments is too small to prove the correctness of the work. Also, based on the communication network presented in the thesis, what about the effects of the data flows on the response time of the controllers? Also what about fault tolerance in case some errors happened during the communications?

Having read the manuscript submitted, the quality of writing and the ability of Anastasia Vlasova to present the inter-vehicle communication infrastructure and the provided communication infrastructure in which vehicles share their states and based on the obtained results and the future work guidelines, I recommend marking the aforementioned bachelor’s thesis with A-excellent.

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