Find the current listing (18th) for the Green500 list for November 2021. Review the system architecture for each of the top 10 systems on this list. Discuss the differences that you see from this list and the list for the Top500 you found in question 4. Also compare it to the 17th Green500 list for June 2021.

*Answers to this question should be included in your homework 1 write-up in pdf format.

Peak computational and parallel efficiency is the basis for Top500 ranking. With the rapid growth of machine size, the challenge of achieving the highest peak value with limited overall power consumption has become a new challenge, and with carbon emission reduction becoming a global hot topic, the Green500 tries to consider floating point computing power per watt. I found that machines in Green500 list use accelerators to improve computational efficiency. Because of the better price/performance for the same process with AMD, most of the machines in the Green500 list are drived by AMD. By comparing the 17th and 18th lists, I found that the power efficiency of most of the computers on the list has increased, and the number of cores is relatively low. This is reflected in the considerable improvements made to computer architecture over the two list periods. According to the official comment, relying on the MN-Core chip and an accelerator optimized for matrix arithmetic, this machine was able to achieve an incredible 39.38 gigaflops/watt power-efficiency and this machine provided a performance 29.7- gigaflops/watt on the last list, clearly showcasing some impressive improvement.