ES 404 Network and Complex System Reflection

Starting with my introduction, I am Ashish Poonia, a BTech 2nd year student in the Department of Civil Engineering. So, what were my expectations from this course? When I registered for this course on the IMS portal. I went with a mindset of learning a different course and a different field, which I hadn't discovered before. However, I know something about the complex system that I studied in school. But, after the first class, almost all main doubts were cleared that we would use the networks to understand the complex system. There will be worksheets regularly, and the project component was very high. So, I was clear about learning new things and doing the project.

Low points and high points for me in the course: When we started this course in January, the first few classes were based on the degree, nodes, edges, etc. It was all going well, and I was interested in learning all those things. The topics became really easy as a professor told the story behind all the topics, so it was a really good experience. Also, there were regular worksheets that helped us understand the topics more. The course was really going well until we tried our first Assignment. I faced a lot of difficulties in that assignment; I wasn't able to do the first assignment fully, only able to answer the three questions from the assignment. At that point in time, I thought that it was not good. Soon, however, I was able to understand things, and the course really ended on a high note.

When talking about the project, my teammate and I decided to find out the impact of the food trade network on European countries due to Russia's war on Ukraine. However, we were facing difficulties in finding the data; at that time, one of the Professor's lab students gave us the relevant data, which was available on the site. However, by that data, we were not able to find the significant impact on the food trade network due to that war, and also, the data was only up to the year 2022; maybe because of that, we were not able to do that. After that, we decided to change our topic to Analysing the International Wheat Trade Nwtwok for the year 2022. The high point of our project was that we were able to find a lot of things for our network, including degree distribution, foremost importer and exporter, detecting communities, and also we can do some future work on that network like detecting the transit points in the network. The low point was that we were not able to find the relevant data.

My expectations were fully met by this course. My perspective regarding networks changed. We all are in the network, and there are networks everywhere around the world. The most exciting part of the course was the project and poster presentation. We get to know a lot of things during poster presentations.