

Topic	Dates	Lead	Short Description	No of Students	Level
Schoolbus Routing for Boğaziçi Personnel	July 2 - August 5	Taner Bilgiç	Boğaziçi University needs to transport about 2000 staff members to and from the campus every day. In this project you will analyze real data about the location of the customers and suggest better (faster, cost efficient) routes for this service. You will need programming skills, work with Google Maps or Yandex Maps API and use optimization software.	2	Sophomore-Junior
Industry 4.0 Hype or Reality?	July 2 - August 5	Taner Bilgiç	The German Government introduced the concept of Industry 4.0 which suggests that we are living a new era in the stage of industrial development which is largely powered by Internet-of-things and the huge transaction data they produce. In this project, you will make a critical reading of this proposition and write an essay on this topic based on your literature survey. The objective is to understand whether this conceptualization is accurate.	1 or 2 students	Junior-Senior
Beta Testing and Revision of Behavior Analysis and Testing Software (BATS) - A	June 13 - July 15 (or August 1 - September 9)	Gönenç Yücel	BATS is an award-winning simulation output analysis software that is developed in-house by the SEDYN research team. It is developed in Python language. In this assignment, user-tests of the software will be conducted, revisions will be planned and they will be implemented. You will need programming skills. Familiarity with Python language is an advantage, but willing to learn it will suffice for this assignment.	1	Junior, Senior, Graduate
Influence Estimation in Social Networks	June 13 - July 15 (or August 1 - September 9)	Gönenç Yücel	Quantifying the level of influence between two individual on a social network is of primary importance for several research topics. In this assignment, you will conducting a literature review on available influence estimation approaches, and implement a few of them for experimentation purposes. You will need basic statistics knowledge and programming skills. Familiarity with Python and/or R language is an advantage, but not strict requirements.	1	Junior, Senior, Graduate
Analyzing energy use patterns in BÜ campuses	June 13 - July 15 (or August 1 - September 9)	Gönenç Yücel	Electricity and heat consumption is being monitored for some buildings in the BU campuses. Recorded consumption levels show significant variation among different rooms/offices. You will be analyzing the consumption data, and seeking regularities and explanatory factors for the inter-room differences	1	Junior, Senior