We have designed a multi-layer network with six layers. The layers consist of the following, followers, co-authorship, skill similarity, equal department, and document similarity. We call this set of data Multirelation ResearchGate Network (MRGN). In this data set, each layer is presented as a list-edge data set containing two columns for user *i* and user *j*, which shows that there is an edge among user *i* and *j* in the corresponding layer. Following-follower and skill layers’ are directed; however, co-authoring and department layers are undirected, but for keeping the consistency of the network, which is directed, we add reciprocal edges. We present the analytical information of each layer in Table 11 of our paper [Presenting a Dataset for Collaborator Recommending Systems in Academic Social Network: a Case Study on ReseachGate](https://arxiv.org/abs/2101.01141).