



Id	indegree	outdegree	Degree	closenesscentrality	betweennesscentrality	eigencentality
Bob	0	4	4	0.387097	0	0
John	1	3	4	0.354839	1.5	0.008345
Mike	2	1	3	1	0	0.310504
Emma	2	4	6	0.45	9.5	0.357961
Jill	6	0	6	0	0	1
Shane	3	3	6	0.428571	16	0.387475
Leah	1	2	3	0.333333	0	0.029514
Liz	2	1	3	0.454545	25	0.651776
Allen	1	2	3	0.666667	24	0.50604
Lisa	1	3	4	1	14	0.350704
Tom	3	0	3	0	0	0.847312
Merry	1	1	2	0.666667	0	0.229194
Mark	2	1	3	1	1	0.384916
Jen	0	1	1	1	0	0
Sean	1	0	1	0	0	0.008345

Size of  $n/w=15$  , Node Count=15, Edge Count=26 , Average Degree=1.73 , Graph Density= 0.124

**Brokers** play an integral role in connecting different communities of actors, moving knowledge and information, or intermediating resource exchanges. So, here in our graph **Liz is connecting to different communities via Allen.( bridging )** As it can be seen from it's size **Jill (indegree 6)** is the center of focus, so it **is social capital** because everyone in the right hand side community forwarding some information to Jill. And also it's value in eigen centrality proves that is the most important student in this community.

Out of these two communities we can say that Jen and Sean are isolated from environment, has no interaction with other students. If we observe the table we've created above we can see that **Bob and Emma has the highest outdegree values**. They are distributing most of the information in the group which is in the right hand side. The **betweenness centrality** for each vertex is the number of shortest paths that pass through the vertex. And here the **Liz has the highest betweenness centrality (25)**. In a connected graph, **closeness centrality** (or closeness) of a node is a measure of centrality in a network, calculated as the sum of the length of the shortest paths between the node and all other nodes in the graph. Thus the more central a node is, the closer it is to all other nodes. **Mike, Lisa, Mark and Jen has the highest rates of this type in our graph.** (1).