INSPEM WEEKLY SEMINAR

09/2020

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

#UNSDG

Date & Time
Friday, 28th February 2020 @ 3.15 pm

Venue
al-Farabi Seminar Room, Second Floor, INSPEM

Presenter
Dr. Azadeh Zahedi Khameneh
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Topic
Introduction to Graph Theory (I)

Abstract

A long time ago, there was an issue called the Seven Bridges of Konigsberg, named by Leonard Euler in 1736, and it sounds more like a beautiful legend than a problem. Konigsberg in Prussia (now Kaliningrad, Russia), was set on both sides of the Pregel River, and included two large islands, which were connected to the rest of the city by seven bridges. The problem was to design a walk through the city that would cross each of those bridges once and only once. The residents of the city always challenged visitors and travellers to see whether they could solve the problem. However, no one except Leonard Euler could find a way. Euler proved that the problem had no solution. He found a rule, using which; it was easy to determine whether it is possible to pass through all bridges, without passing twice on either of them. Its negative resolution laid the foundations of graph theory. Euler wrote a paper entitled ''The Seven Bridges of Konigsberg'' and published it in 1736. It was the first page of the history of graph theory.

But, this is the historical issue. In the domain of mathematics and computer science, graph theory is the study of graphs that concerns with the relationship among edges and vertices. It is a popular subject having its applications in computer science (Information Networks: Web & Internet), biosciences (Neurons Network), mathematics, mapping (Transportation & Routing), and so on.