

NPTEL

NPTEL ONLINE CERTIFICATION COURSE

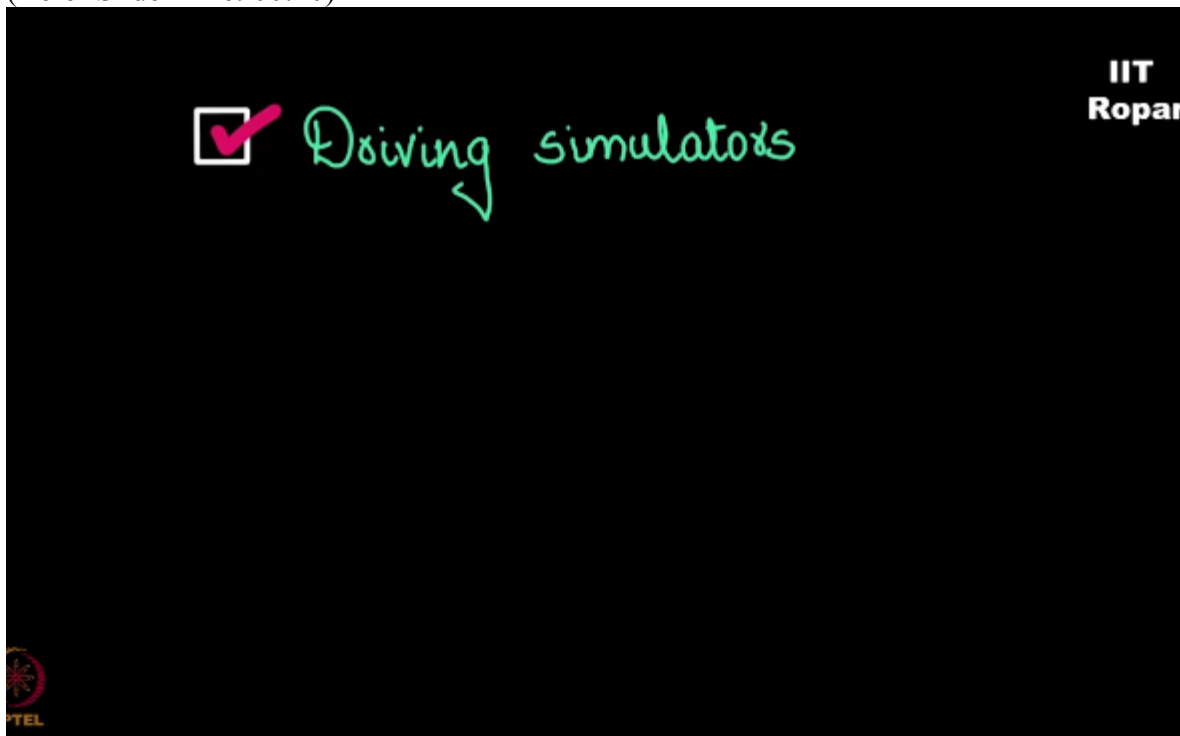
**Discrete Mathematics
Graph Theory - 1**

NetworkX - Need of the hour

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Car driving was initially taught live with an instructor next to the person learning to drive, but today we have driving simulators which are increasingly used where one is asked to learn all by oneself to begin with before doing live.

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Similarly given that today PC's, laptops are available at ones disposal learning a subject like graph theory has become even more fun,

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- Driving simulators
- Learning Graph theory is fun.

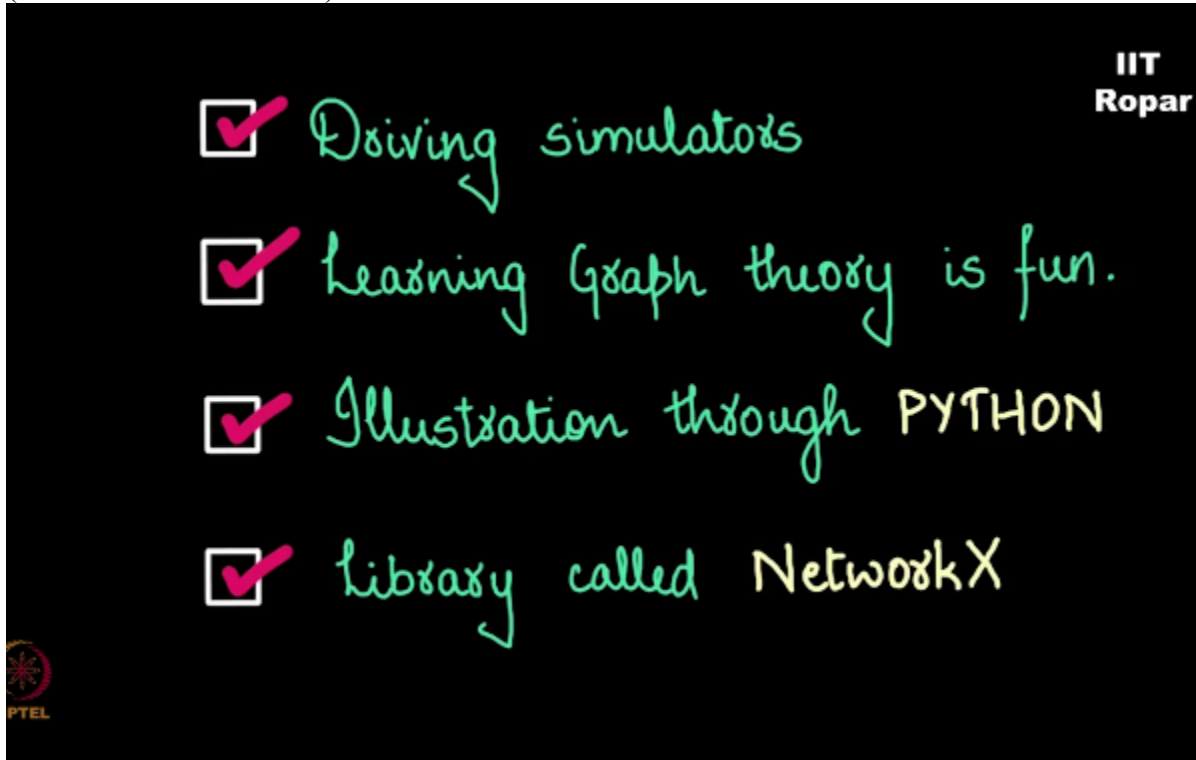


this was not the case back in let's say 1960s, because of which most of the classical graph theory books gave a very abstract approach to learn the subject, we take an approach where we illustrate graph theory results with the help of a powerful programming language called Python, (Refer Slide Time: 00:49)

- Driving simulators
- Learning Graph theory is fun.
- Illustration through PYTHON



we ensure that the abstraction requirements for studying the subject is not compromised, we first introduced you to Python and then a graph theory library in Python called NetworkX, (Refer Slide Time: 01:02)



we assume some basic knowledge of programming, in case you don't have any you can still follow the lessons with a bit of an extra effort, you can safely ignore this part if your motive is to just learn graph theory with a pure mathematical approach, but still even the increasing applications of graph theory in data science or social networks and the like we feel it is important for anyone studying discrete math as a subject in computer science to know a programming package for graph theory analysis.

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