

**NPTEL**

**NPTEL ONLINE CERTIFICATION COURSE**

**Discrete Mathematics  
Graph Theory – 2**

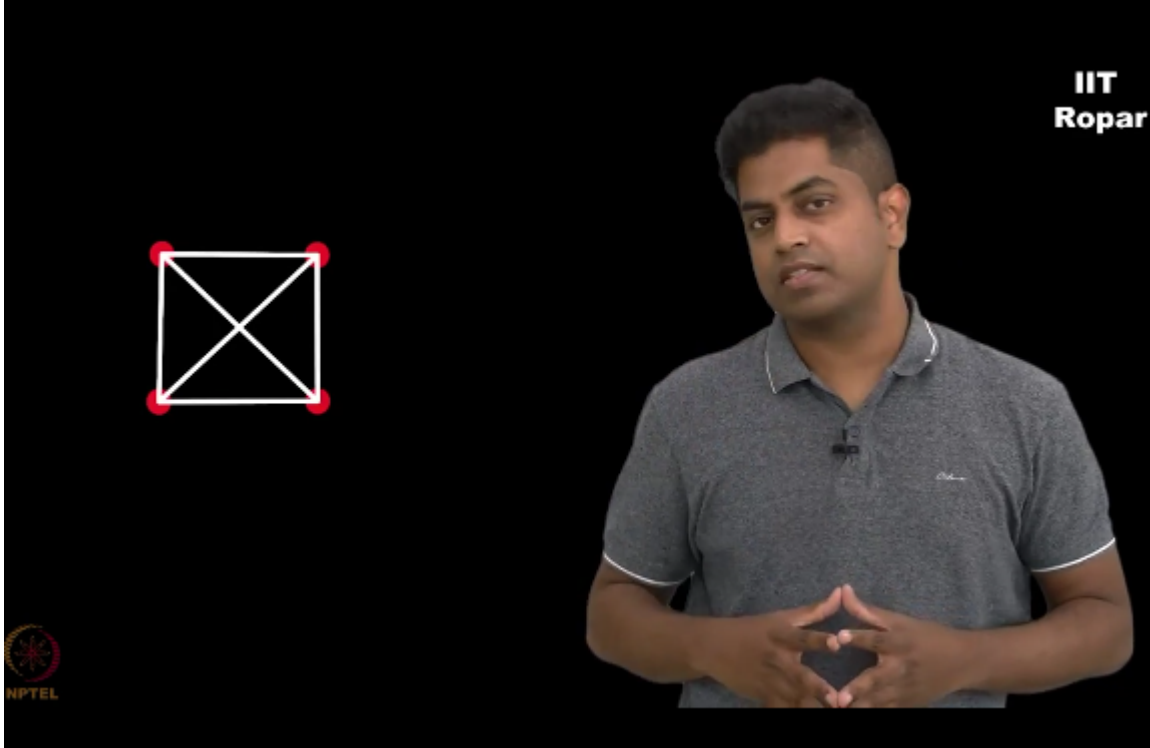
**Definition of a Planar graph**

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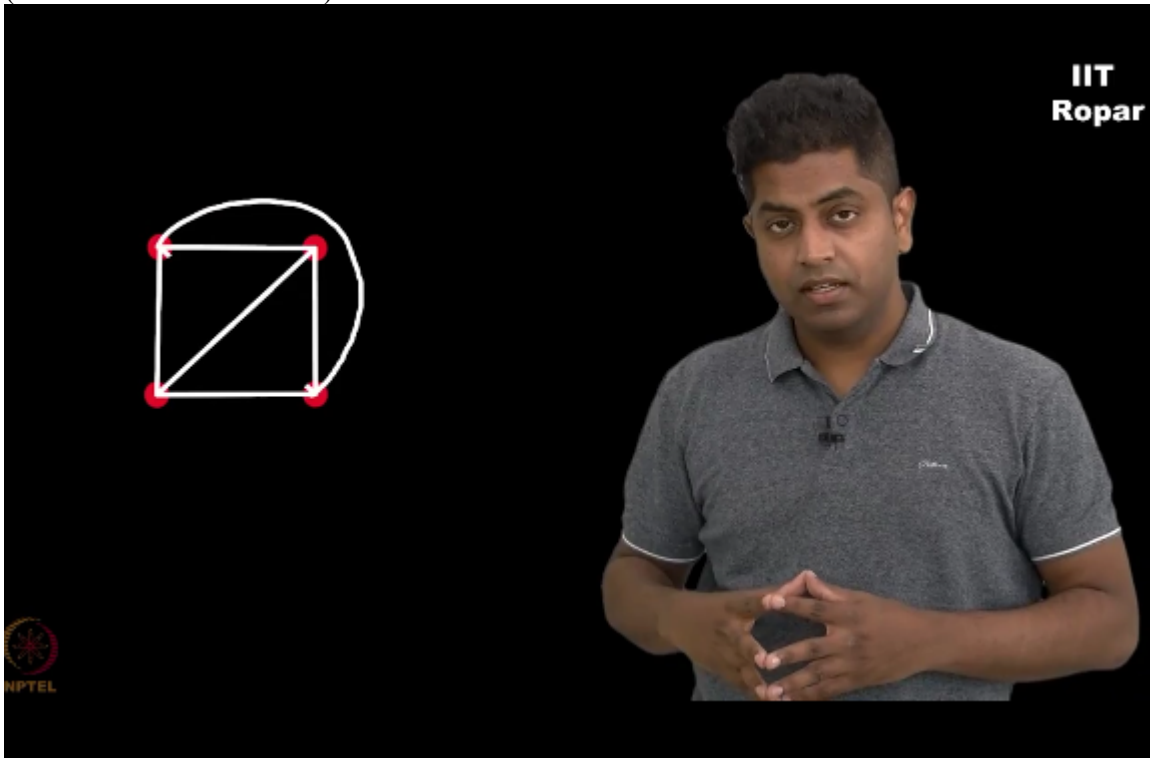
You call a graph planar, if you can draw it on a plane, a sheet of paper such that edges don't intersect,  
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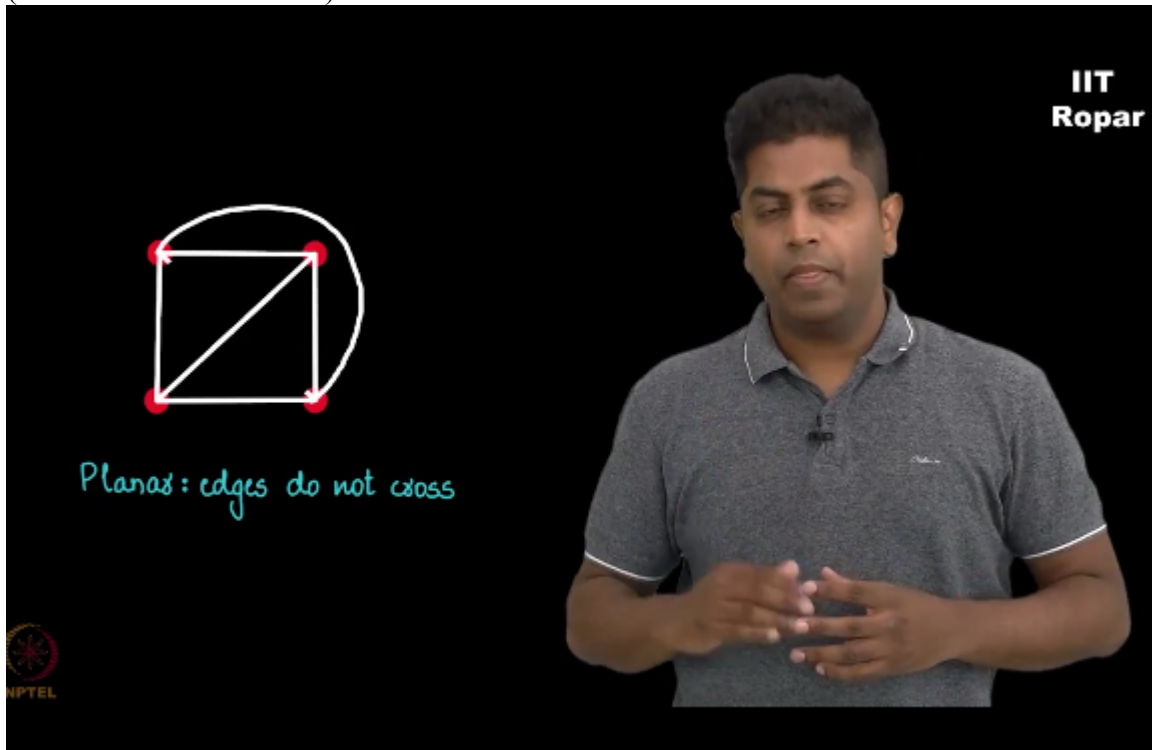
now look at this complete graph on 4 vertices,  
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it is not planar obviously as you can see, but then you can remove this edge and put it across like this,  
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and make it become planar, I repeat planar means a graph where edges do not cross, so a complete graph on 4 nodes although appear to be non-planar, you can modify it slightly and make it become planar, right,  
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so that definition of a planar graph goes like this, a graph where edges do not intersect or if there is a way in which you can write edges so that they don't intersect such a graph is called a planar graph.  
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