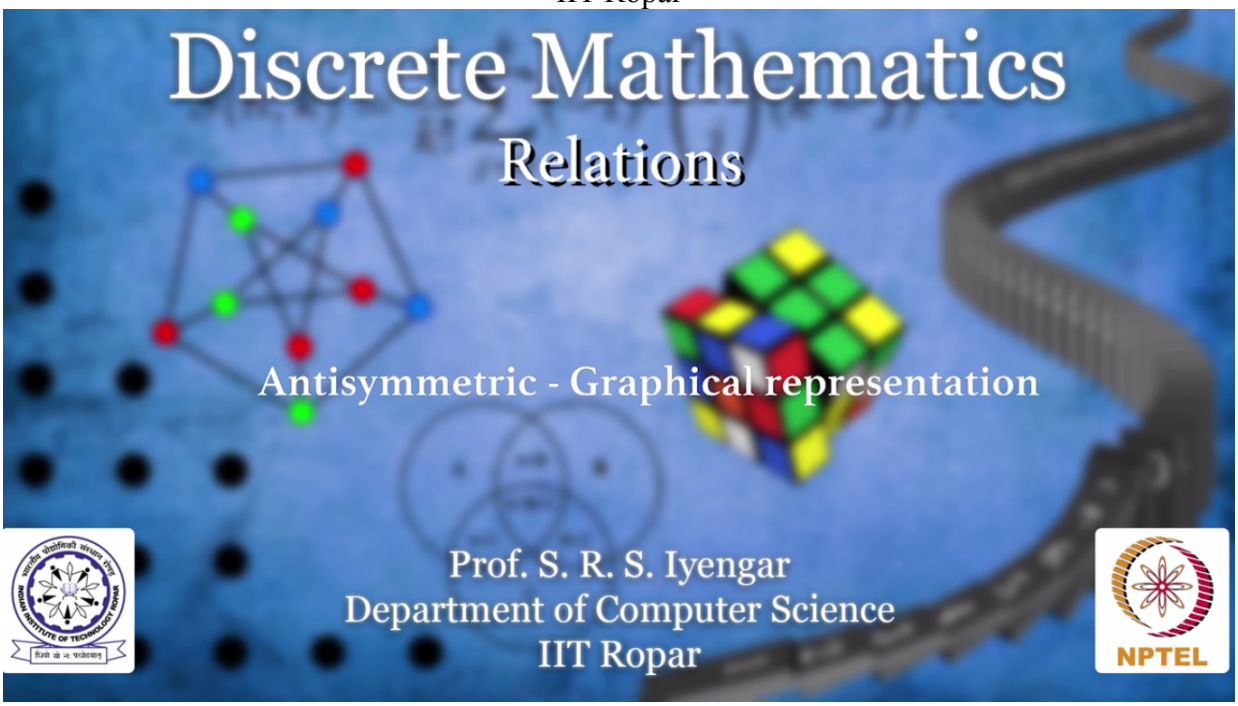
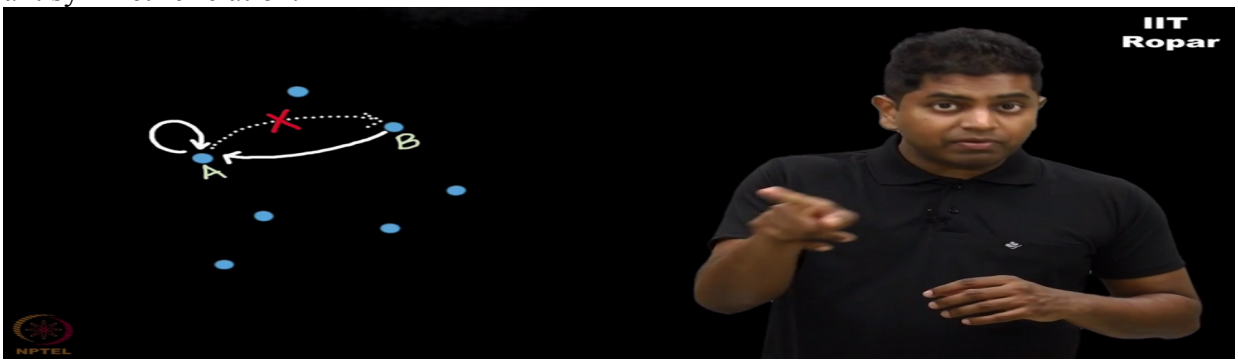
NPTEL
NPTEL ONLINE COURSE
Discrete Mathematics Relations
Antisymmetric – Graphical Representation
With
Prof. S.R.S. Iyengar
Department of Computer Science
IIT Ropar



Now that we saw a couple of examples of antisymmetric relations, I am sure it is very clear to you people. Let me go ahead and make a few observations about antisymmetric relations. First observation, let me look at the graphical representation of an antisymmetric relation. How does it look like? So whenever (a, b) is present (b, a) is not present which means (a, b) is present means there is an arrow starting from a going to b. Whenever there is an arrow from one node to another node the other way arrow is strictly missing. That's what we mean by an antisymmetric relation.



However, there can be loops, you see. (a, a) can be present but whenever (a, b) is present (b, a), a cannot be present. Just in case (b, a) is present, then (a, b) cannot be present. This is what we mean by an antisymmetric relation.

Online Editing and Post Production

Karthik
Ravichandran
Mohanarangan
Sribalaji
Komathi
Vignesh
Mahesh Kumar

Web-Studio Team

Anitha
Bharathi
Catherine
Clifford
Deepthi
Dhivya
Divya
Gayathri
Gokulsekar
Halid
Hemavathy
Jagadeeshwaran
Jayanthi
Kamala
Lakshmipriya
Libin
Madhu
Maria Neeta
Mohana
Mohana Sundari
Muralikrishnan
Nivetha
Parkavi
Poornika
Premkumar
Ragavi
Renuka
Saravanan
Sathya
Shirley
Sorna
Subhash
Suriyaprakash
Vinothini

Executive Producer

Kannan Krishnamurty

NPTEL Coordinator

Prof. Andrew Thangaraj
Prof. Prathap Haridoss
IIT Madras Production
Funded by
Department of Higher Education
Ministry of Human Resource Development
Government of India
www.nptel.ac.in