SOCIAL NETWORKS

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TYPE OF COURSE : Rerun | Elective | UG
COURSE DURATION : 12 weeks (26 Jul’ 21 - 15 Oct’ 21)
EXAM DATE : 23 Oct 2021

INTENDED AUDIENCE : Any Interested Learners

COURSE OUTLINE :
The world has become highly interconnected and hence more complex than ever before. We are surrounded by a multitude of networks in our daily life, for example, friendship networks, online social networks, world wide web, road networks etc. All these networks are today available online in the form of graphs which hold a whole lot of hidden information. They encompass surprising secrets which have been time and again revealed with the help of tools like graph theory, sociology, game theory etc. The study of these graphs and revelation of their properties with these tools have been termed as Social Network Analysis.

ABOUT INSTRUCTOR :
Sudarshan Iyengar has a PhD from the Indian Institute of Science and is currently working as an assistant professor at IIT Ropar and has been teaching this course from the past 4 years.

COURSE PLAN :
Week 1: Introduction
Week 2: Handling Real-world Network Datasets
Week 3: Strength of Weak Ties
Week 4: Strong and Weak Relationships (Continued) & Homophily
Week 5: Homophily Continued and +Ve / -Ve Relationships
Week 6: Link Analysis
Week 7: Cascading Behaviour in Networks
Week 8: Link Analysis (Continued)
Week 9: Power Laws and Rich-Get-Richer Phenomena
Week 10: Power law (contd..) and Epidemics
Week 11: Small World Phenomenon
Week 12: Pseudocore (How to go viral on web)