



DEMYSTIFYING NETWORKING

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INTENDED AUDIENCE : Computer Networking

INDUSTRIES APPLICABLE TO : Networking, Security, Troubleshooting

COURSE OUTLINE :

This course will provide students with an overview of networking concepts and technologies. It is meant as a primer for non-majors, i.e., for students who don't have networking as a core course in their curriculum. After this primer, students may choose to take other networking courses for delving deeper into specific technologies.

ABOUT INSTRUCTOR :

Prof. Sridhar Iyer is a faculty member in the Inter-Disciplinary Program in Educational Technology, and Department of Computer Science and Engineering at IIT Bombay. His current research interests include: Technology enhanced learning environments for thinking skills, Pedagogies for effective use of educational technologies, development of ICT tools for educational applications, and Computer science education research. Sridhar Iyer received his BTech, MTech and PhD from the Dept of Computer Science & Engg. at IIT Bombay.

Prof. Ashutosh Raina is Researcher with the IDP in Educational Technology at IIT Bombay. His PhD in the Interdisciplinary program in Educational Technology at IIT Bombay focused on nurturing tinkering as a strategy for problem-solving in engineering design. His research interests also include the role of situated learning and analogies in problem-solving, specifically in computer science. He has experience designing active learning-based pedagogies and methods of teaching online, including a range of skills for creating and managing MOOCs. He has mentored in several teacher training workshops and FDPs for Institutions and public sector companies.

COURSE PLAN :

Week 1: Layers of Computer Networks and Network Addressing

Week 2: Routing

Week 3: Transport and Application Layers

Week 4: Introduction to Security and Troubleshooting