

Guest speaker series
Internet of Things for Engineers
Spring 2025
<https://gwu-mae6291-iot.github.io/spring2025/>

Jitish Kolanjery

Jitish Kolanjery, has 20+ years of experience in networking and embedded systems and has held various senior-level engineering positions in Ericsson, Cisco, Cruise and is currently positioned at Google.

He has 12+ years' experience in software development with C/C++, for autonomous vehicles, embedded systems, routing and connectivity protocols and media/network telemetry. He has designed and implemented algorithms using efficient data structures in multithreaded environments and deep understanding of complex system designs, statistical traffic modeling, layer 2/3 protocol design. wireless networks, discrete event simulators and location algorithms for sensor networks and medium access design. At Ericsson and Cisco, he worked on large-scale enterprise solutions for ISPs, corporate/campus networks and datacenter networks. He developed software for routers and switches, implementing standard networking functionalities and protocols. He joined Cruise (GM), managing connectivity for their cars. During his work in Cruise he developed novel solutions for small embedded devices. Currently, at Google he is back to the domain of designing solutions for large-scale datacenter networks.

Jitish earned his undergraduate in Electronics and Telecommunications from University of Mumbai with a focus on computer networks. He received his MS degree from The George Washington University where his thesis was a study of protocols for ad hoc networks and proposed some modifications for reduced power consumption.

Abstract:

The interactive presentation will go over some basic networking concepts: standard topologies, OSI layers, nature of traffic carried by networks and protocols. The audience will be exposed to some well-known protocols, identify the relevant parameters/requirements and delve into basics of protocol design. Finally, given a set of requirements and parameters, the audience will help design a complete protocol for point-to-point communication between two devices.

Date: February 12th, 2025
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