

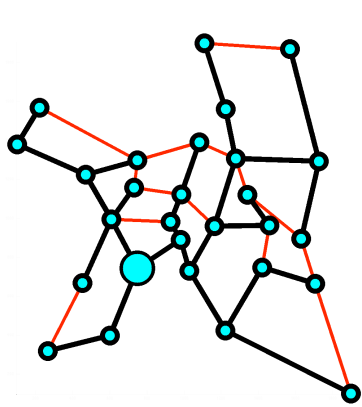
# **M.ENG PROJECTS: WIRED, WIRELESS, OPTICAL & SATELLITE NETWORKS**

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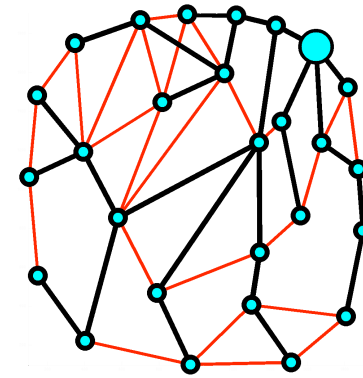
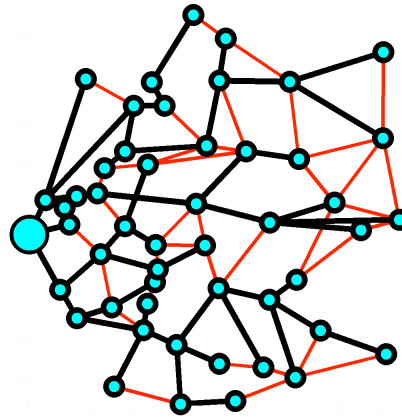
# Project Areas

- Network Performance Analysis: Perform Literature Review, and Develop Matlab algorithms for state-of-the-art network performance analysis: routing, scheduling, survivability, Quality-of-Service, traffic classes (VOIP, ITPV, telerobotic control, best-effort)
- 4 types of networks: (1) regular backbone Internet networks, (2) all-optical packet-switched backbone networks, (3) infrastructure wireless mesh networks with smart-antenna, (4) Satellite networks (CISCO Internet Routers in Space (IRIS) project)
- Goal: Achieve Perfect Internet Quality of Service
- Hardware: Develop 10 Gbps MPLS router/switch in FPGAs : high-speed serial data transmission, reception, packet buffers, routing tables, scheduling, towards developing an MPLS network testbed
- Hardware: Develop Linux Device Drivers for current WiFi 802.11 Cards, towards developing a wireless mesh network testbed
- Your ideas ?

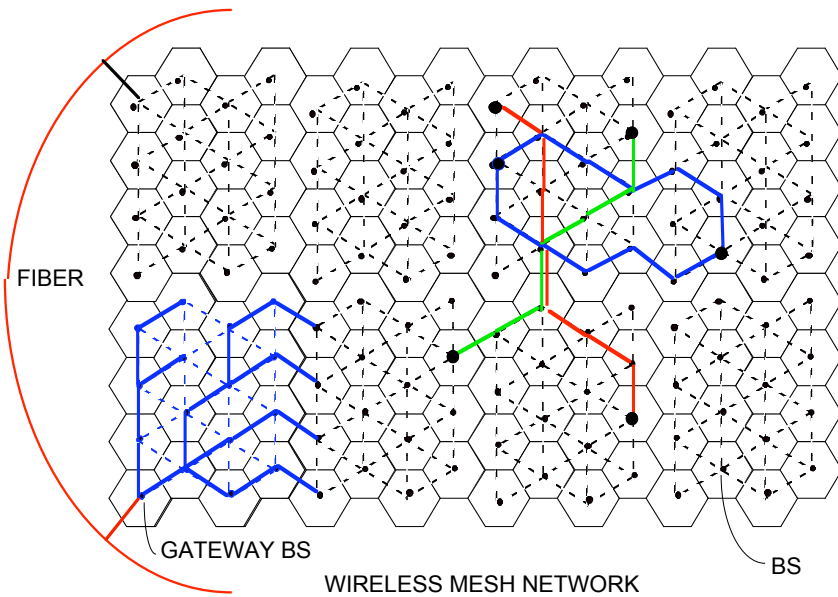
# NETWORKS



European backbone networks



CISCO IRIS



wireless mesh network

## Cisco Ground Space Merged Architecture (CGSMA)

A Futuristic Design of How the Internet can be Deployed in Space

