

W6: Modulation Formats vs Data Rates

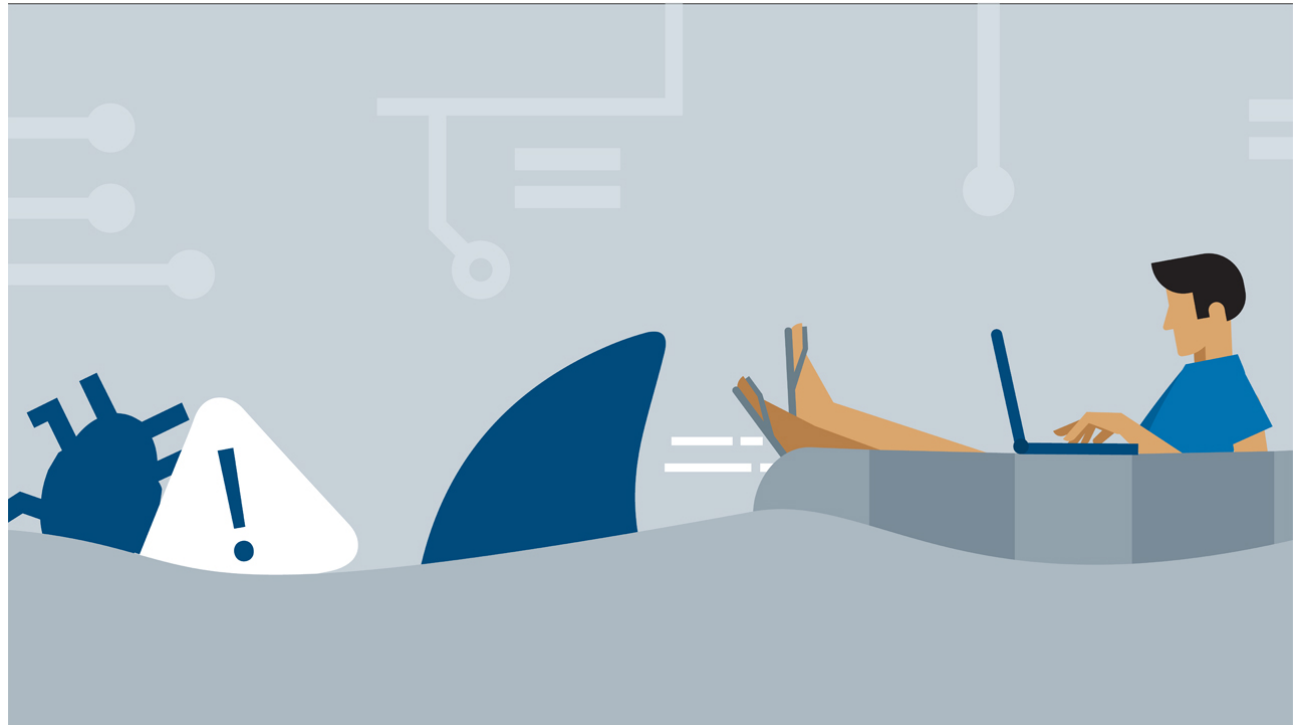
by

Ninad Joshi (4734122)

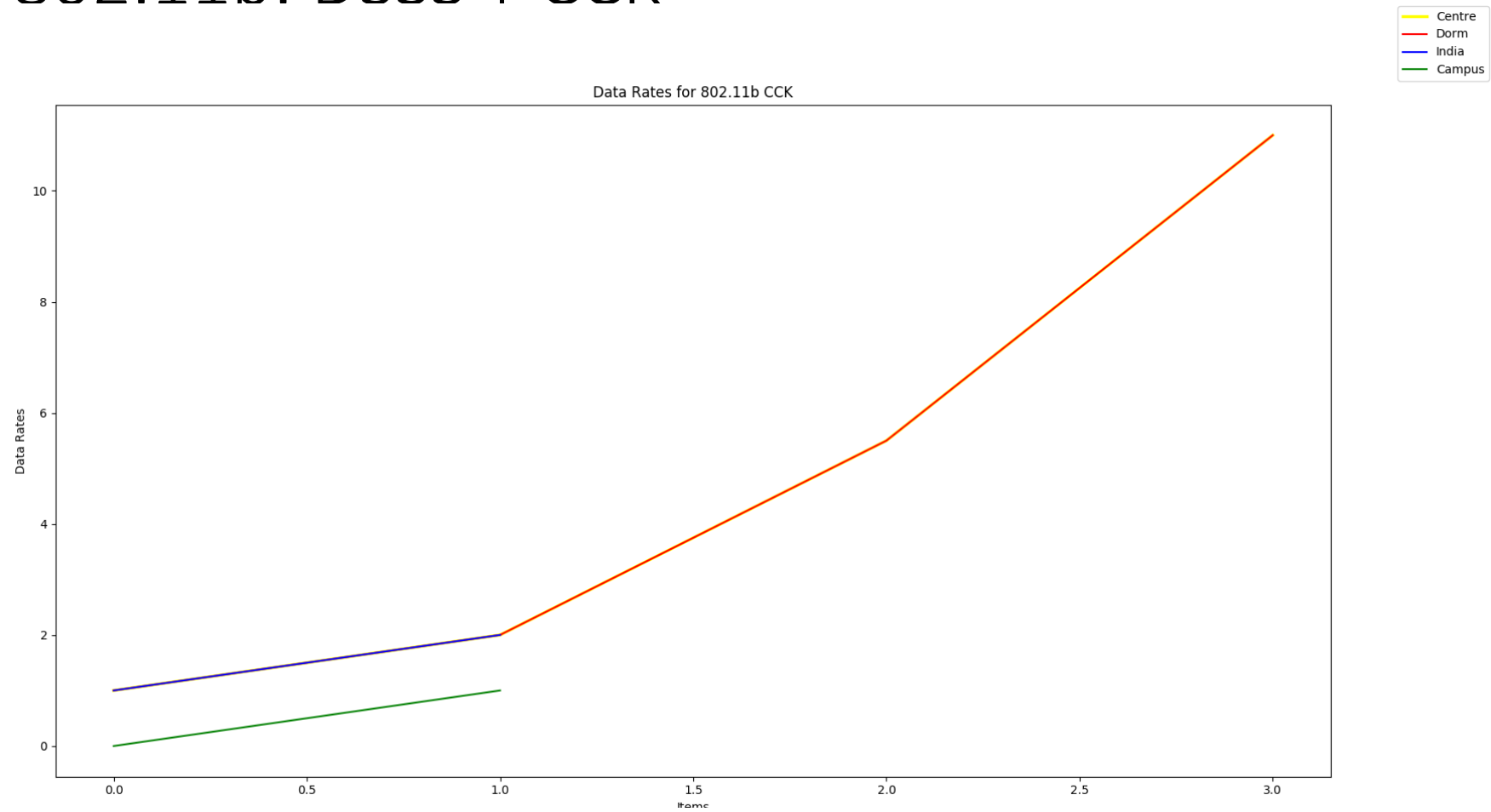
Dhaval Shah (4739426)

Areas covered

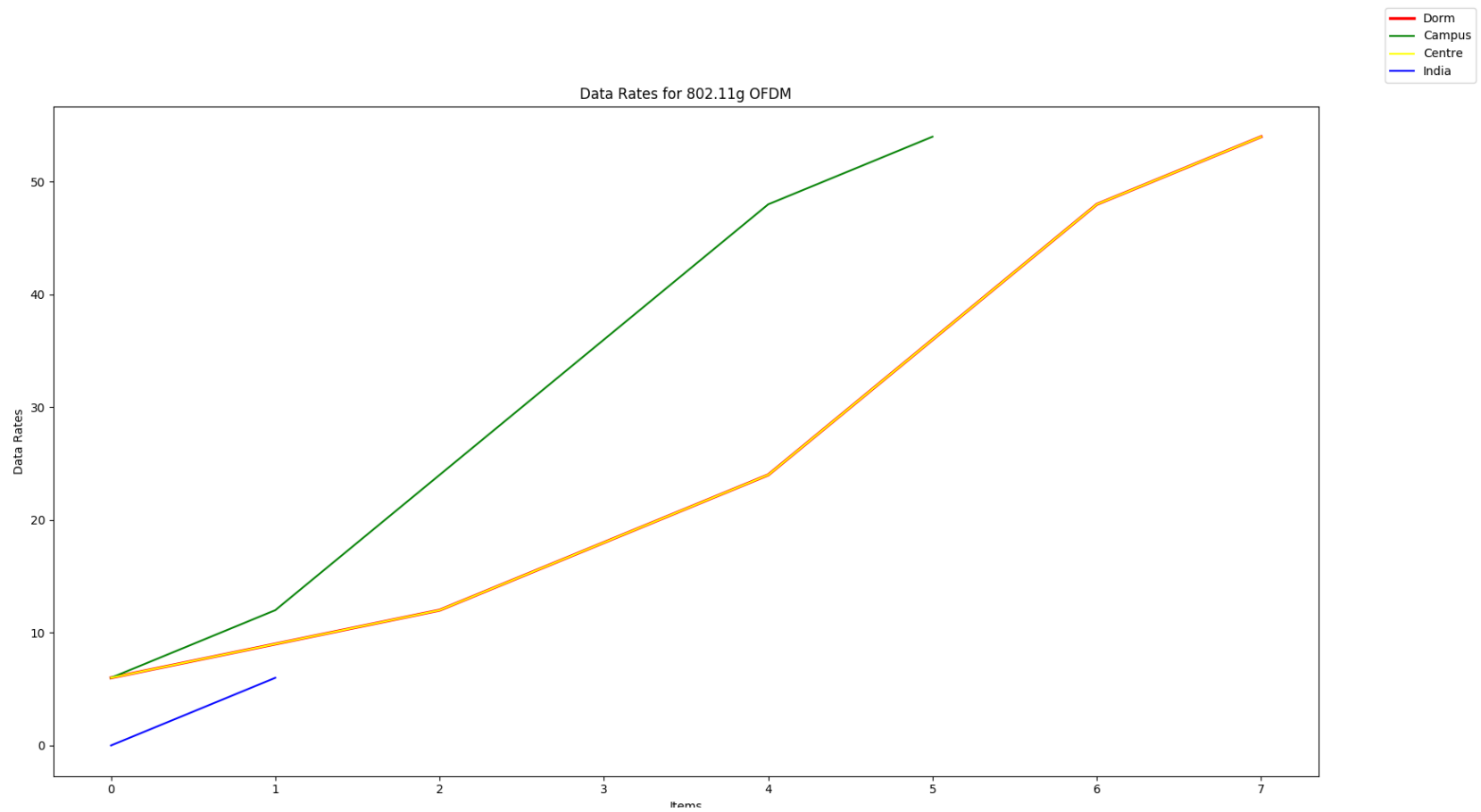
- Residence @ Mumbai, India
- Delft Centre
- TU Campus
- Dorms



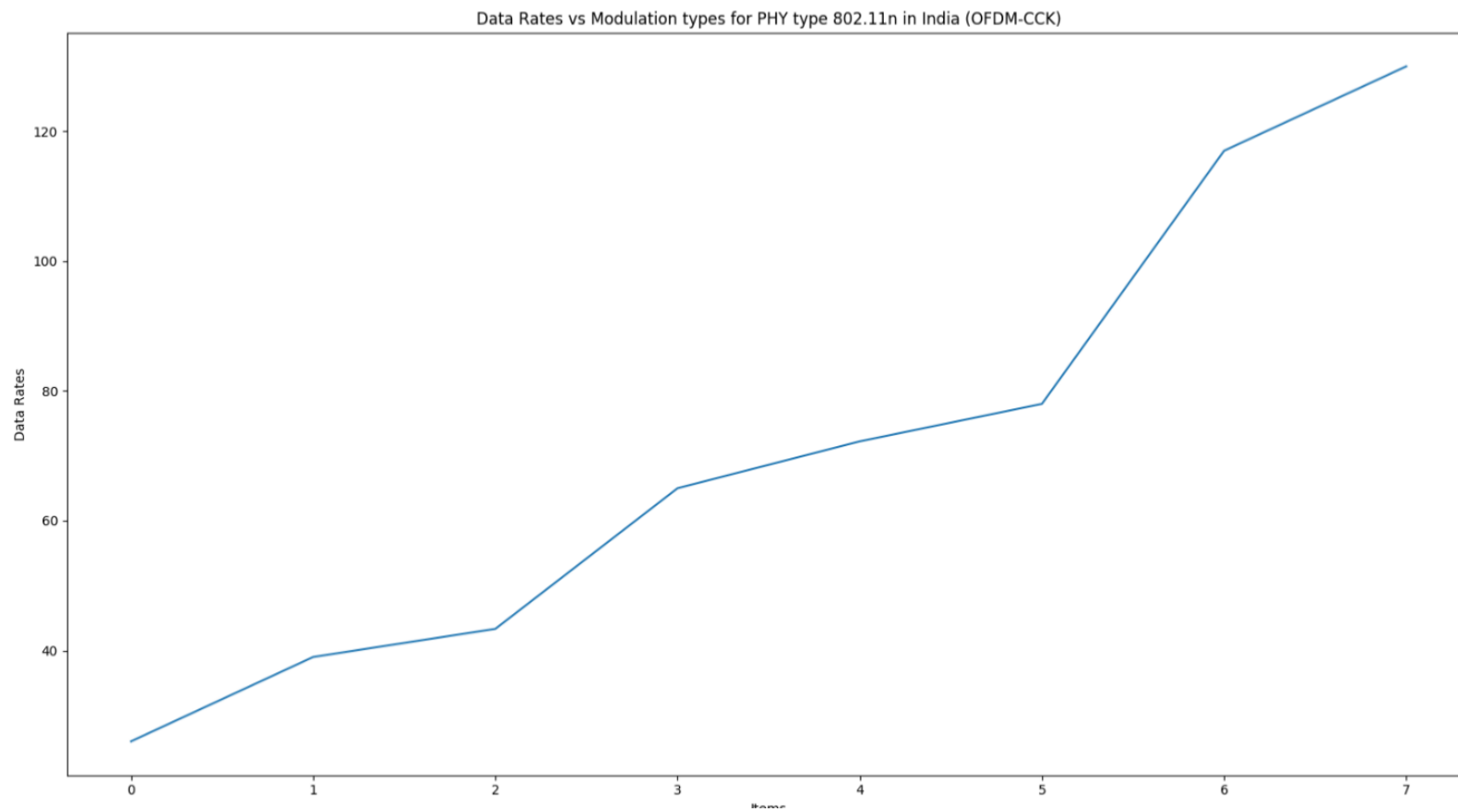
802.11b: DSSS | CCK



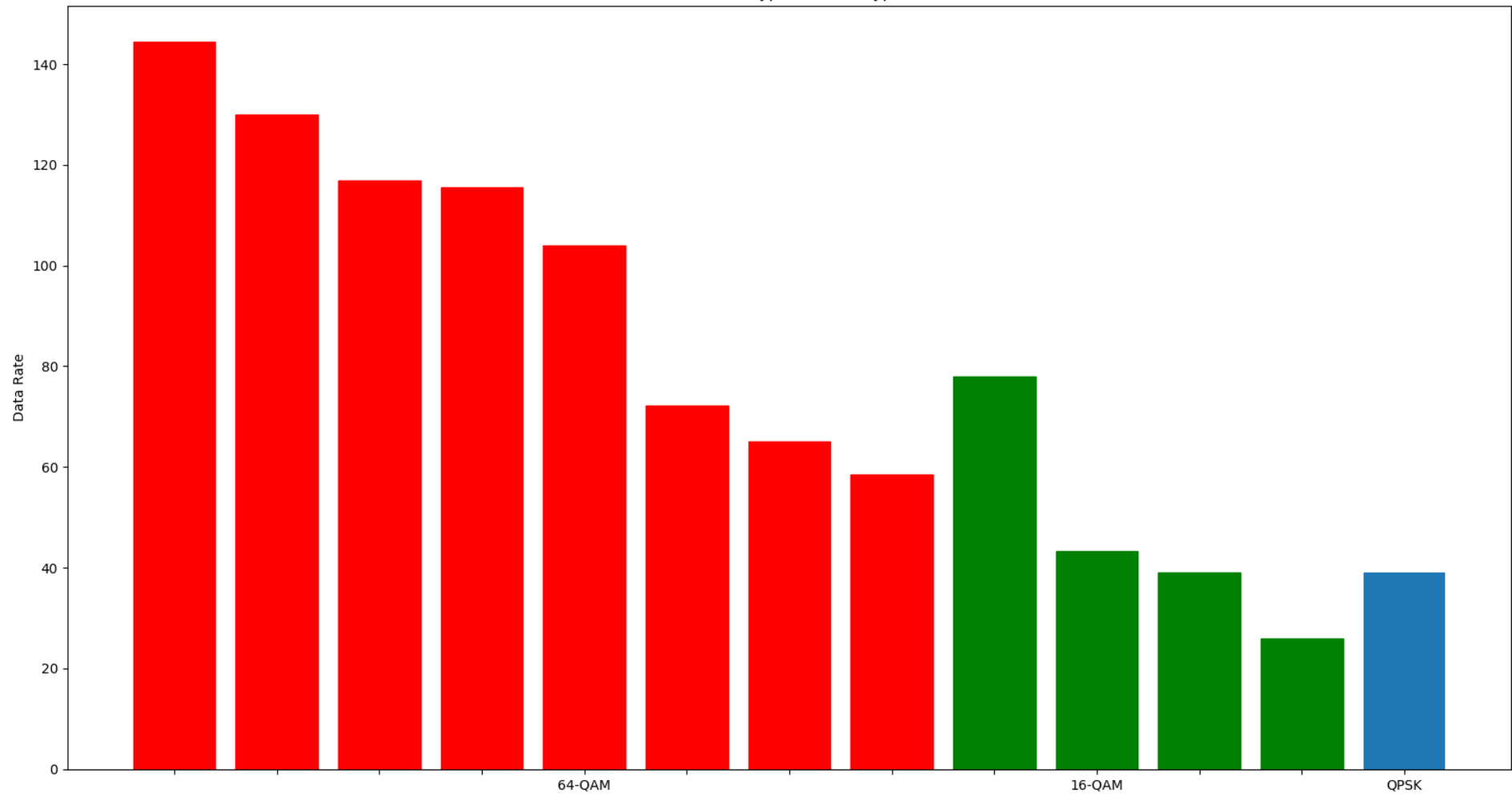
802.11g : OFDM



802.11n: MIMO-OFDM 64QAM, 16QAM, QPSK



Data Rates vs Modulation types for PHY type 802.11n in India



Legacy 802.11: DSSS

- No Data Rates received from Wireshark explicitly.

Conclusion

- 802.11b is most popular in India, but seen in Delft centre (residences and small businesses: Restaurants, stores etc.). Most packets have a data rate of 1 Mbps.
- 802.11g negligibly present in India (less than 0.1%). However it is quite popular in Delft. It uses a better modulation technique and provides higher data rates, however provides the same range as 802.11b
- 802.11n only seen in India. Majority of the packets are QoS (more than 99%). It provides the highest data rates.
- Legacy 802.11 is only seen in Delft. Mainly used by tudelft-dastud and TU-visitor for Beacon Frames and Probe Requests and Responses.