Transmission Medium

Mr. Mayur Chavan

Departmental Vision & Mission

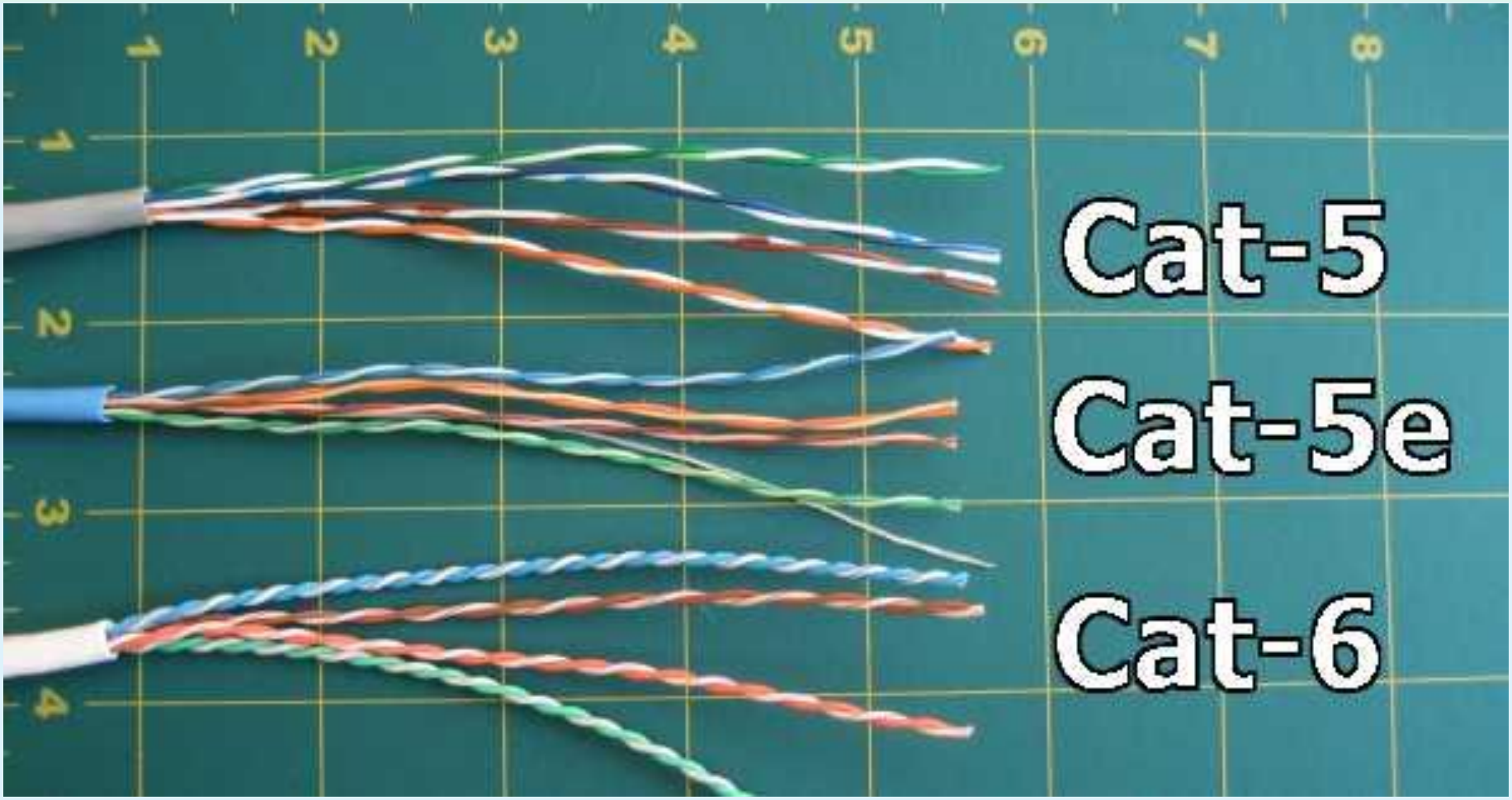
Vision

Achieve academic excellence through education in computing, to create intellectual manpower to explore professional, higher educational
and social opportunities.

Mission

To impart learning by educating students with conceptual knowledge and hands on practices using modern tools, FOSS technologies and competency skills there by igniting the young minds for innovative thinking, professional expertise and research.

Transmission Medium: cat5



Ref: howtogeek.com

UTP

Ref: howtogeek.com

UTP

Different Ethernet Categories

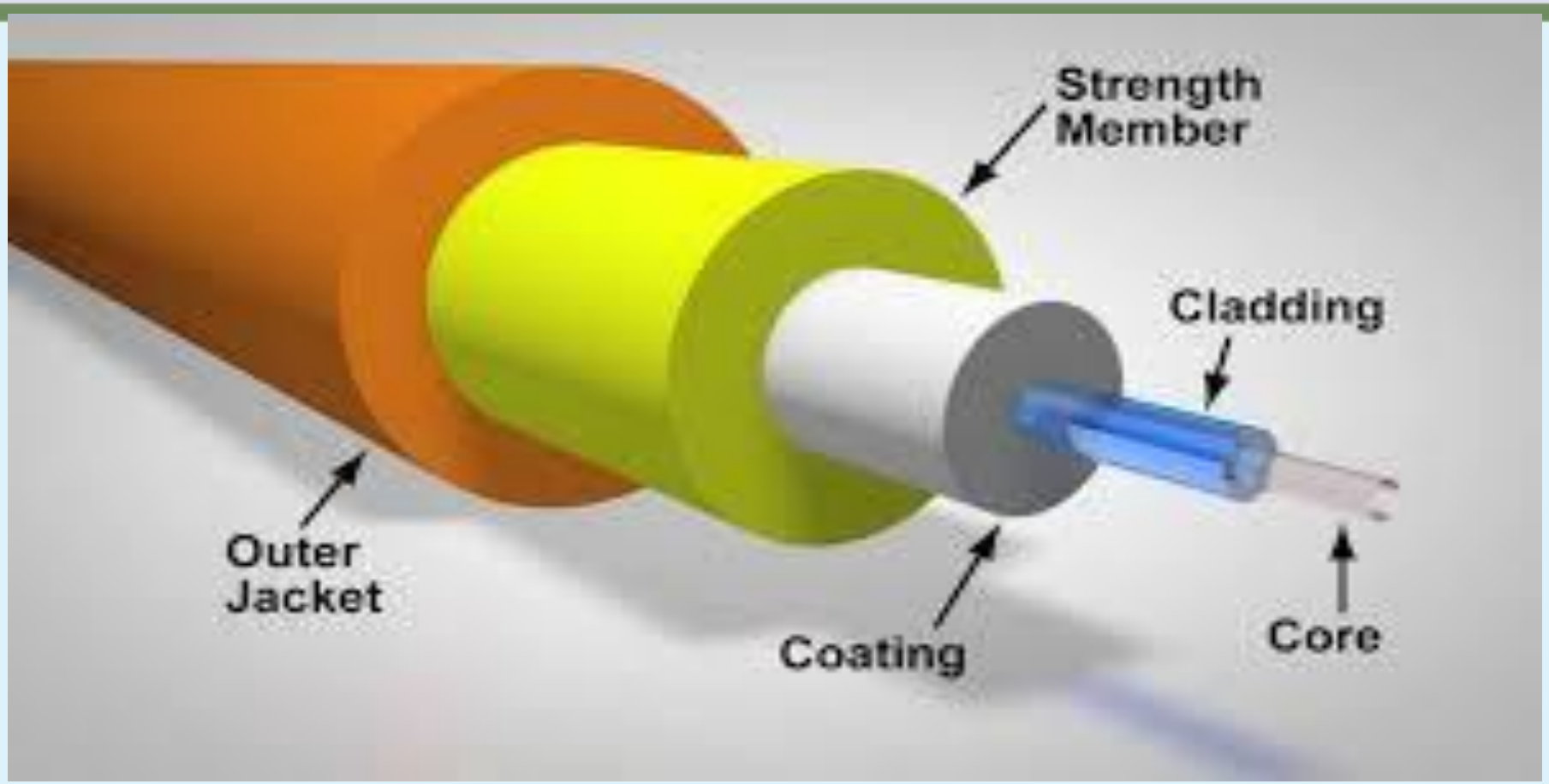
	Category 3	Category 5	Category 5e	Category 6	Category 6a	Category 7
Cable Type	UTP	UTP	UTP	UTP or STP	STP	S/FTP
Max. Data Transmission Speed	10 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10,000 Mbps	10,000 Mbps
Max. Bandwidth	16 MHz	100 MHz	100 MHz	250 MHz	500 MHz	600 MHz

Ref: howtogeek.com

OFC

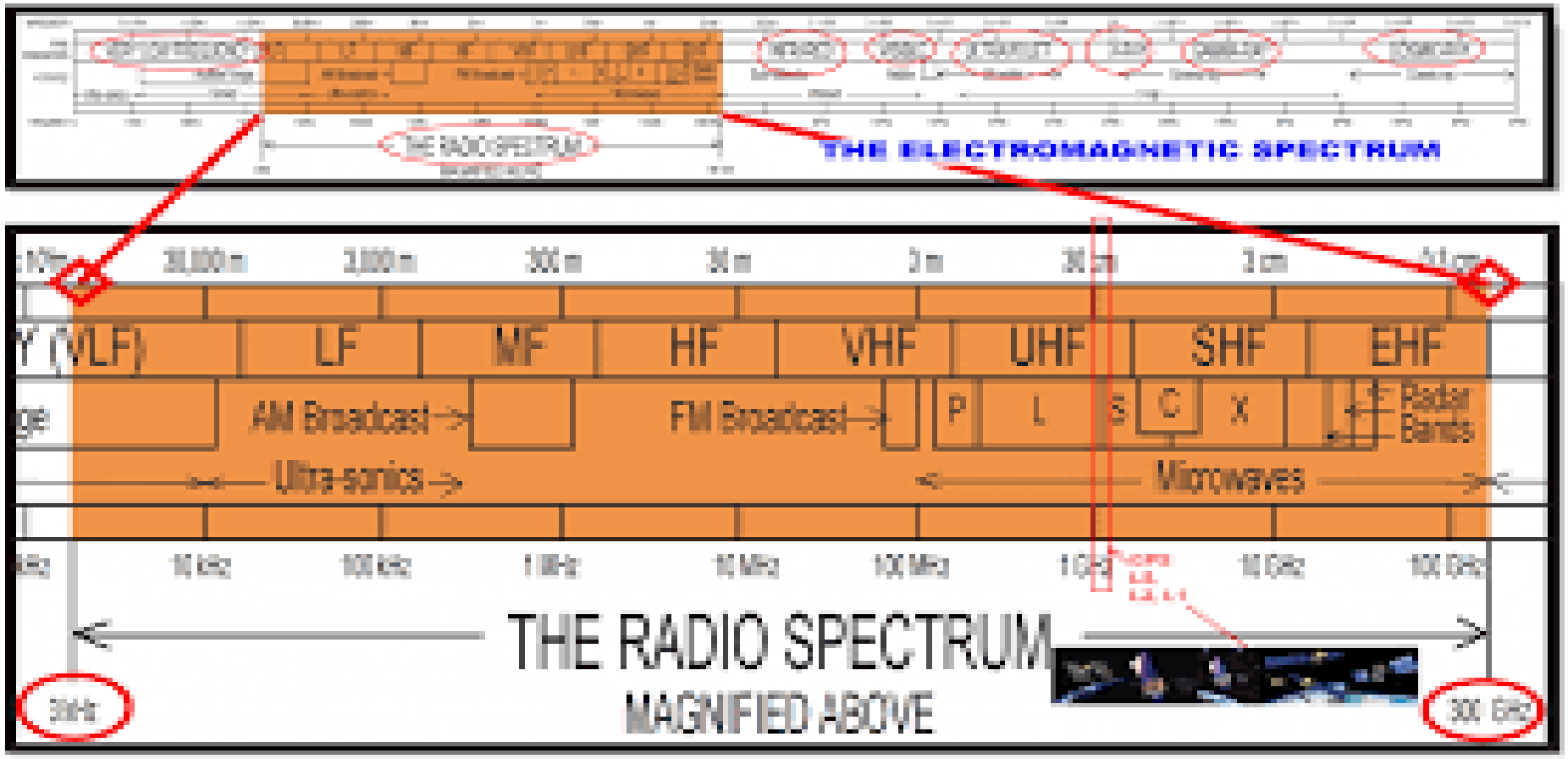
Ref: en.wikipedia.org

OFC



Ref: community.fs.com

Radio Spectrum



Ref: www.transportation.com

Radio Spectrum

Band name	Abbreviation	ITU band number	Frequency and Wavelength	Example Uses
Extremely low frequency	ELF	1	3–30 Hz 100,000– 10,000 km	Communication with submarines
Super low frequency	SLF	2	30–300 Hz 10,000– 1,000 km	Communication with submarines
Ultra low frequency	ULF	3	300– 3,000 Hz 1,000– 100 km	Submarine communication, communication within mines
Very low frequency	VLF	4	3–30 kHz 100–10 km	Navigation, time signals, submarine communication, wireless heart rate monitors, geophysics
Low frequency	LF	5	30–300 kHz 10–1 km	Navigation, time signals, AM longwave broadcasting (Europe and parts of Asia), RFID, amateur radio
Medium frequency	MF	6	300– 3,000 kHz 1,000– 100 m	AM (medium-wave) broadcasts, amateur radio, avalanche beacons
High frequency	HF	7	3–30 MHz 100–10 m	Shortwave broadcasts, citizens band radio, amateur radio and over-the-horizon aviation communications, RFID, over-the-horizon radar, automatic link establishment (ALE) / near-vertical incidence skywave (NVIS) radio communications, marine and mobile radio telephony

Radio Spectrum

				radios such as land mobile, FRS and GMRS radios, amateur radio, satellite radio, Remote control Systems, ADSB
Super high frequency	SHF	10	3–30 GHz 100–10 mm	Radio astronomy, microwave devices/communications, wireless LAN, DSRC, most modern radars, communications satellites, cable and satellite television broadcasting, DBS, amateur radio, satellite radio
Extremely high frequency	EHF	11	30– 300 GHz 10–1 mm	Radio astronomy, high-frequency microwave radio relay, microwave remote sensing, amateur radio, directed-energy weapon, millimeter wave scanner, wireless LAN (802.11ad)
Terahertz or Tremendously high frequency	THz or THF	12	300– 3,000 GHz 1–0.1 mm	Experimental medical imaging to replace X-rays, ultrafast molecular dynamics, condensed-matter physics, terahertz time-domain spectroscopy, terahertz computing/communications, remote sensing,