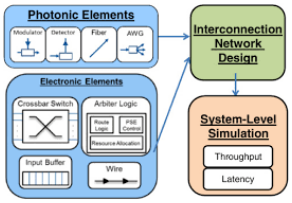
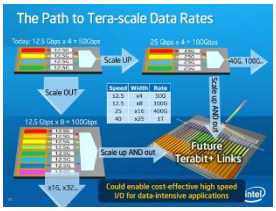
OBJECTIVES AND COURSE CONTENT OF SHORT TERM COURSES

TAC No.	ID - 26 (07 – 11 December 2026)
Name of the Course	**Optical Technologies for High Capacity Networks** (Inter-Disciplinary)
Objectives of Course 	Optical Communication has acquired a special place in electronic communication industry over past few decades. Since an optical wave can accommodate large amount of information, the system has a great potential to meet the global telecommunication challenges. The course endeavors to provide an opportunity to learn and appreciate the optical technological options and performance evaluation of optical networks for optimum usages.
Course Content  	The contents comprises of topics: Needs and Potential of optical transmission, Fundamentals of optical wave guiding, Transmission characteristics of optical fibers; Optical sources and detectors, OFC Link design and analysis aspects, Optical amplification of OFC signal; WDM and Super High Capacity OFC networks; Non-linear Effects in OFC and Soliton Transmission; Satellite Communication, Passive Optical Networks (PONs) & FTTH; Optical wireless communication technologies: FSO & Li-fi, Next generation networks; Modeling and Simulation of Optical Communication Systems; Lab Experiments and hands-on training using OFC trainers and design softwares.
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