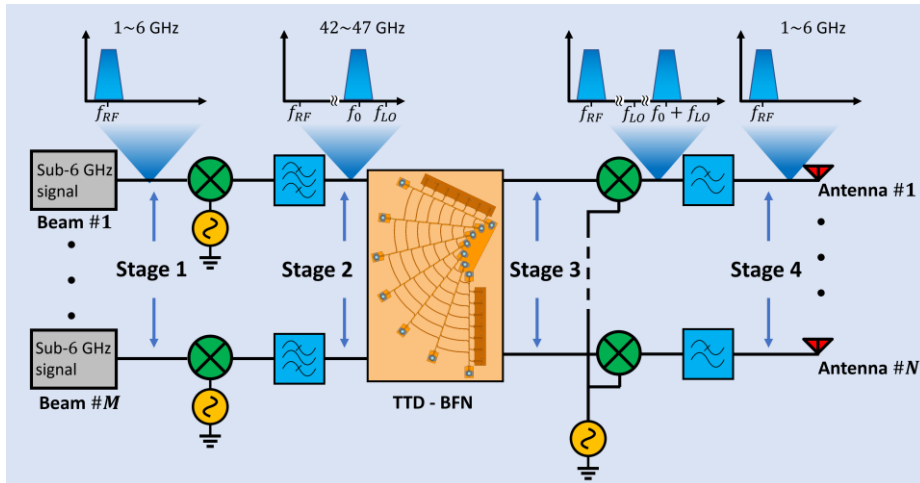


EEL 6468 – Adaptive and Smart Antennas
 Department of Electrical & Computer Engineering
 Florida International University
 Spring, 2023

Course Description

This course covers advanced concepts on phased arrays. It discusses scanned array in terms of radiation from apertures and traditional antennas, and introduces the effects resulting directly from scanning, including beam broadening, impedance mismatch, gain reduction, pattern squint and those effects of array periodicity including grating, quantization lobes and array blindness.



Course Objectives

The objective of the course is to provide an in depth understanding of antenna arrays and phased arrays. After finishing this course the student will be able to:

1. Identify, formulate, and solve complex antenna problems by applying principles of engineering, science, and mathematics.
2. Be able to derive antenna arrays with superior characteristics.
3. Be able to understand in depth the operating principles of antennas and microwave components.

Topics Covered

1. Electromagnetics principles
2. Antenna principles
3. Beamforming principles

Classroom	: EC 2440
Class Time	: Mon. & Wed. 3:00 pm - 4:15 pm
Faculty	: Dr. Constantinos Zekios
Office Hours	: Mon. 12:00 pm - 1:00 pm & Tue. 11:00 am - 12:00 pm
Office	: EC 2945
Phone	: 305-348-2270
Email	: kzekios@fiu.edu
Prerequisite	: EEL 3514 Communication Systems, EEL 5437 Microwave Engineering, EEL 5467 Antennas for Wireless Communication
	: Systems, EEL 5482 Fields and Waves Engineering

