



# PLL Design

**ON-LINE CLASS by Microsoft TEAMS**

**April 5-16, 2027**

<b>WEEK 1</b>		<b>April 5-9, 2027</b>			
<b>WEEK 2</b>		<b>April 12-16, 2027</b>			
		Central European Time	Eastern Standard Time	Pacific Standard Time	India Standard Time
<b>DAILY</b>		<b>CET (Lausanne)</b>	<b>EST (New York)</b>	<b>PST (California)</b>	<b>IST (India)</b>
Module 1		3:30-5:00 pm	9:30-11:00 am	6:30-8:00 am	8:00-9:30 pm
Module 2		5:30-7:00 pm	11:30 am -1:00 pm	8:30-10:00 am	10:00-11:30 pm
<b>WEEK 1</b>	<i>Module</i>				
DAY 1, MON April 5	1	Fundamentals of Analog PLLs			Michiel Steyaert
	2	Interference Effects in PLL's			Michiel Steyaert
DAY 2, TUE April 6	1&2	Spiral Inductor Interference, Deadzone and Phase Noise			Michiel Steyaert
DAY 3, WED April 7	1	PLL Analysis and Modeling			Sam Palermo
	2	PLL Building Blocks			Sam Palermo
DAY 4, THU April 8	1&2	VCO Design			Ali Hajimiri
DAY 5, FRI April 9	1&2	Jitter and Phase Noise in PLLs			Ai Hajimiri
<b>WEEK 2</b>	<i>Module</i>				
DAY 6, MON April 12	1&2	Analog Fractional-N PLLs for Frequency Synthesis			Ian Galton
DAY 7, TUE April 13	1	Clock Generation and Distribution in Wireline Systems			Sam Palermo
	2	PLL-Based Clock and Data Recovery Systems			Sam Palermo
DAY 8, WED April 14	1&2	All-Digital PLL Architecture and Implementation			Bogdan Staszewski
DAY 9, THU April 15	1	FDC-based Digital PLLs			Ian Galton
	2	Digitally-Controlled Oscillator (DCO)			Bogdan Staszewski
DAY 10, FRI April 16	1	Time-to-Digital Converter (TDC)			Bogdan Staszewski
	2	Ultra-low noise PLL-Reference Co-design Techniques			Taekwang Jang