



AIM Summer Academy 2019 – July 22-26, MIT
Integrated Photonics: Fundamentals, Applications and Implementation
Applied PIC Design Education Track

	Monday	Tuesday	Wednesday	Thursday	Friday
Morning	8-8:50 AM Registration, Welcome <i>S. Saini L.C. Kimerling</i>		8-8:50 PM Introduction to AIM PDK & MPW <i>E. Timurdogan</i>		
	9-9:40 AM EPDA Briefing Synopsys Lumerical	8:30-9:25 AM EPDA Briefing Synopsys Lumerical	9-9:40 AM EPDA Briefing Synopsys Lumerical	8:30-9:15 AM EPDA Briefing Mentor	8:30-11:20 AM Design Presentations
	9:45-12 PM EPDA Workshop PIC Device Design	9:30-12 PM EPDA Workshop PIC Circuit Simulation	9:45-11:20 PM EPDA Workshop PIC Circuit Layout	9:15-10:50 AM EPDA Workshop PIC Design Review Checking	Student Teams' Design Project Review
	<i>Tool Sequence: A) Synopsys R-Soft (FEM, BPM) B) Lumerical MODE, FDTD</i>	<i>Tool Sequence: A) Synopsys OptSim B) Lumerical INTERCONNECT</i>	<i>Tool Sequence: A) Synopsys OptoDesigner B) K-Layout</i>	<i>Tool Sequence: A), B) Mentor Calibre</i>	
			11:30-12 PM EPDA Tool Overview Synopsys, Lumerical	11-11:30 AM EPDA Tool Overview Mentor	
				11:30-12 PM Introduction to AIM TAP Facility <i>E. White</i>	11:30-12:30 PM Conclusion - Education/Workforce - IPSR Roadmap <i>L.C. Kimerling</i>
Afternoon	Lunch 12-1 PM		(Optional) EPDA Workshop Overtime/ Lunch 12-1 PM	<i>Group Photo</i> Lunch 12:10-1 PM	
	1-1:30 PM EPDA Tool Overview Synopsys Lumerical	1-1:30 PM EPDA Tool Overview Synopsys Lumerical	1-2:20 PM Integrated Photonics Application: AR Imaging <i>M. Zirmgibl</i>	1-2 PM Integrated Photonics Application: Sensing <i>B. Miller</i>	
	1:30-2:50 PM Integrated Photonics Application: Datacom <i>M. Glick</i>	1:30-2:50 Integrated Photonics Application: Wireless <i>D. Prather</i>	2:30-4:20 PM PIC Packaging <i>S. Preble</i>	2:30-4:20 PM PIC Optical & Electrical Testing <i>J. Cardenas</i>	
	3-3:30 PM Virtual Design Workshop <i>E. Verlage</i>	3-3:30 PM Workshop: Coventor <i>M. Hargrove</i>			
	3:30-6 PM Design Team Breakout Session	3:30-5:30 PM Design Team Breakout Session	4:30-6 PM Design Team Breakout Session	4:30-6:30 PM Design Team Breakout Session	
	<u>Define Problem</u> - Systems constraints - Figure of Merit	<u>Select Components</u> - Analog, Digital	<u>Plan Circuit Layout</u> - Performance - Layout constraints	<u>Finalize Design</u> - process integration	
Evening			6-8 PM Networking Dinner (Catalyst Restaurant / Tech Square)		