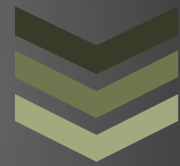


# PINE TRAINING ACADEMY



## Course Module

YOUR CAREER, OUR PASSION

Certified Online Course in ASIC  
Design.

### Address

D-557, Govindpuram,  
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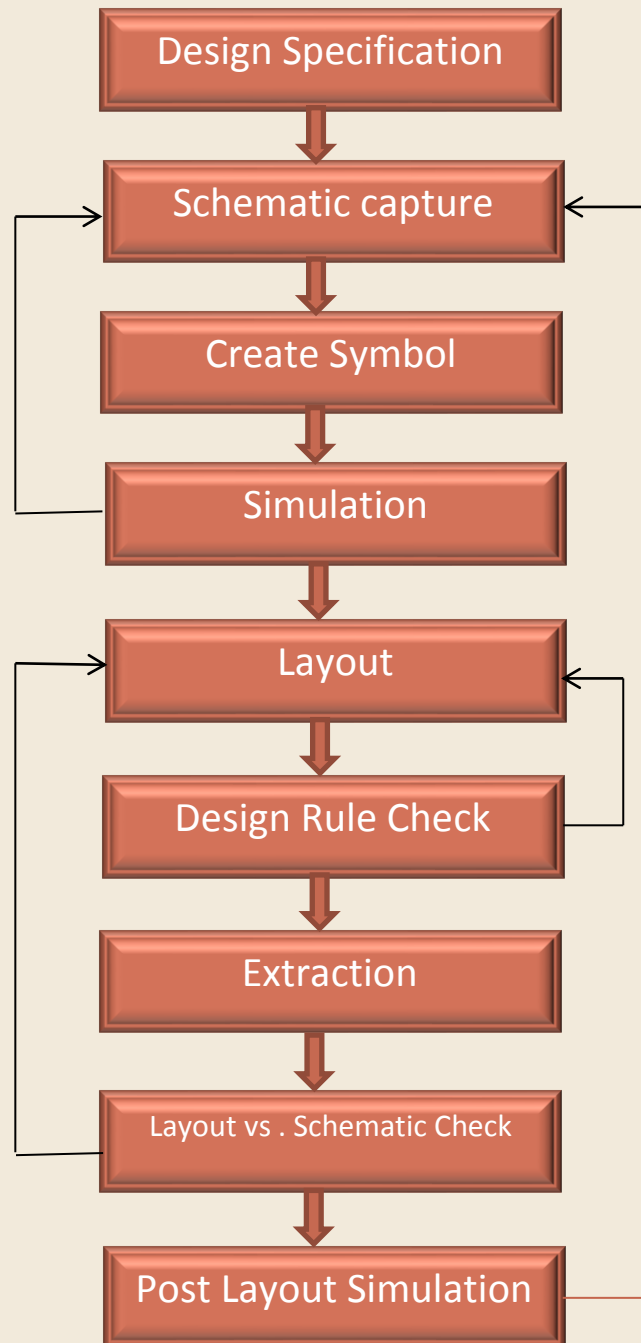
vaibhava.mishra@pinetr  
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8/15/2016



Pine Training Academy

## CUSTOM IC FLOW



<b>Full CUSTOM IC LAYOUT</b>		
<b>Module – 1</b> Beginner Custom IC Layouts.	<ul style="list-style-type: none"> <li>❖ Introduction of R, L, C, Diode, bipolar, MOS.</li> <li>❖ Basic CMOS theory (layout of p/n mos).</li> <li>❖ Basic IC Fabrication steps.</li> <li>❖ Basic concept of Standard cell/ Analog/IO layout.</li> <li>❖ Brief introduction of Full chip Layout Blocks eg. I/O, memory etc.</li> <li>❖ Layout of max possible components used in IC Design eg R, C, Diode, CMOS etc.</li> <li>❖ Test and Interview.</li> </ul>	
<b>Module – 2</b> Intermediate Custom IC LAYOUT	<ul style="list-style-type: none"> <li>❖ Standard cell layout concept and industry level discussion on it <ul style="list-style-type: none"> <li>• Grid/Track Calculation</li> <li>• Half Design Rule</li> <li>• Tap or Tapeless Architecture and sharing concept</li> <li>• Inverter and universal gates layout (Standard cell layout)</li> </ul> </li> <li>❖ Test and Interview.</li> </ul>	
<b>Module – 3</b> EXPERT- Custom IC Layout	<ul style="list-style-type: none"> <li>❖ Analog layout concept and industry level discussion on various topics related to Analog layout <ul style="list-style-type: none"> <li>• Inverter and universal gates layout (Analog layout)</li> <li>• Folding, fingering</li> <li>• Latch Up</li> <li>• Electro Migration</li> <li>• Matching (Current Mirror and Diff Amp layout)</li> <li>• Antenna</li> <li>• Static/Active Shielding</li> <li>• IR drop</li> <li>• Double Patterning (LELE, LFLE, SADP)</li> <li>• Via Redundancy</li> <li>• Density and Tiling</li> <li>• Isolated Pwell (DNW)</li> <li>• Physical Verification eg. DRC/LVS/DFM etc.</li> <li>• DRM</li> <li>• ERC and Soft Check</li> </ul> </li> <li>❖ Test and Interview.</li> </ul>	