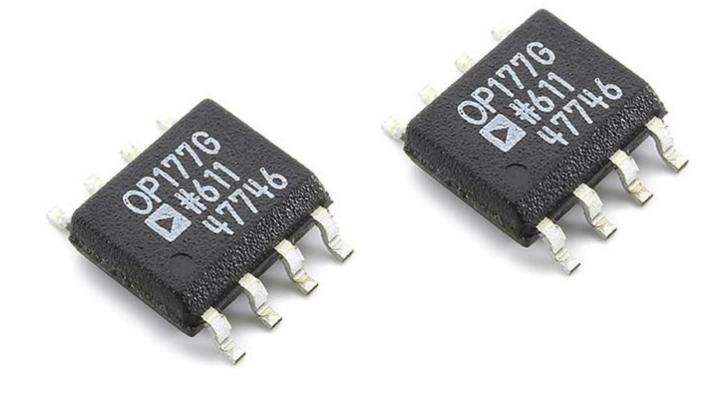
## Op-Amp Layout Design

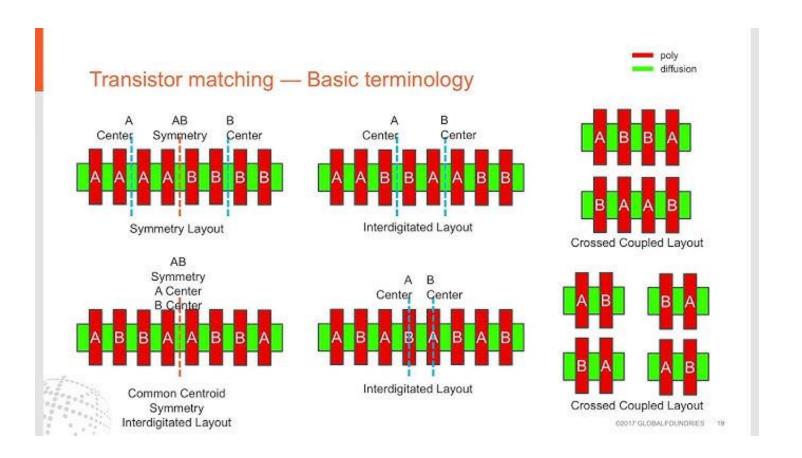
Submitted by-

Mohammad Shahariar Masud (222901008)



#### Introduction

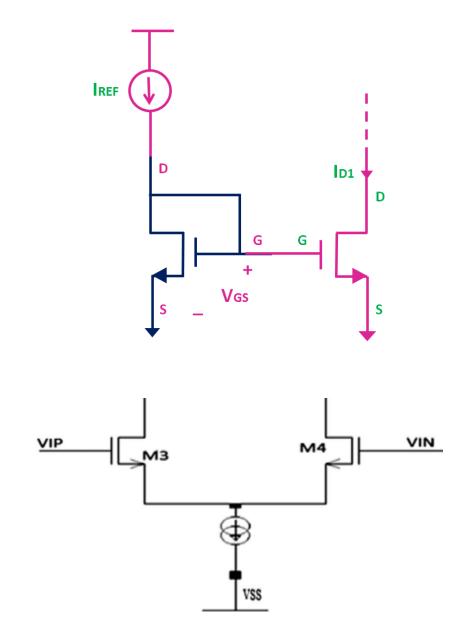
- Op-amp
- Interdigitated
- Common centroid



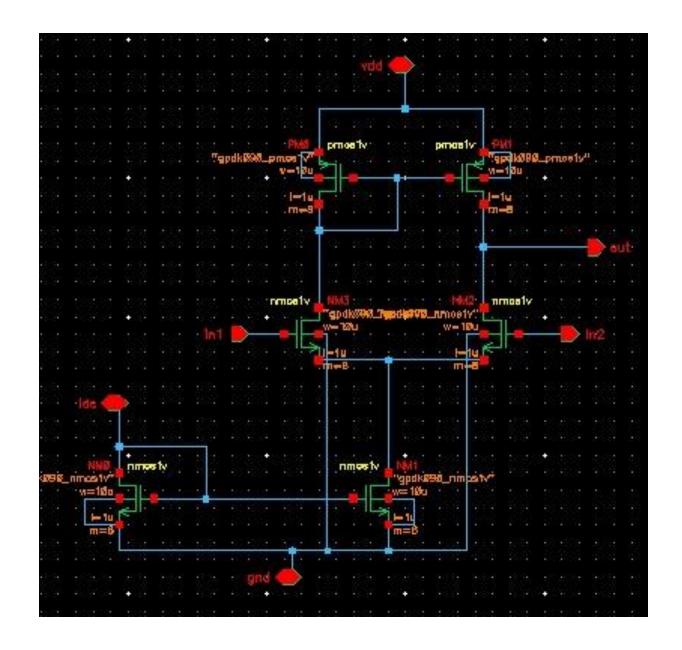
## Layout method

• Current mirror – Interdigitated

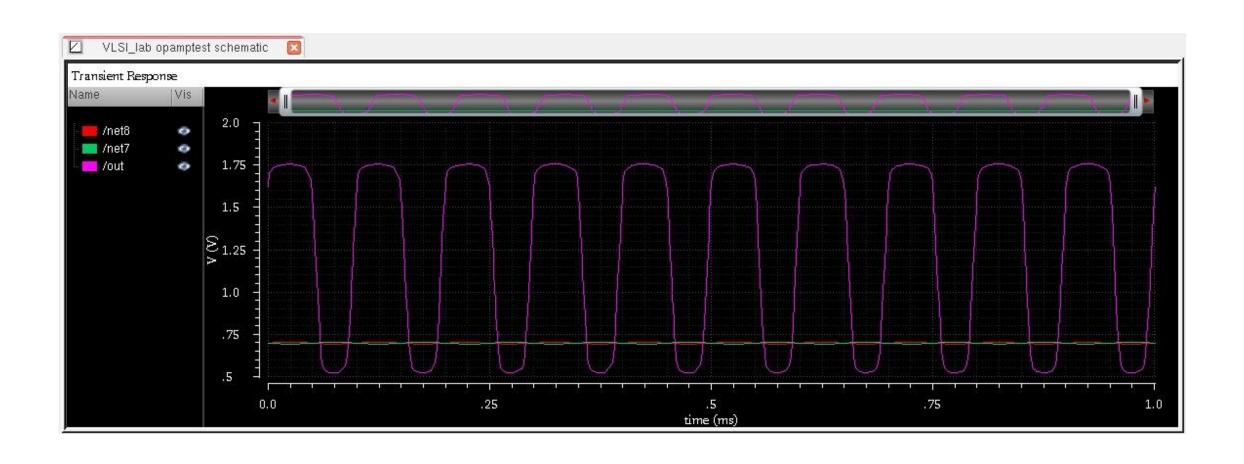
• Differentiator - common centroid



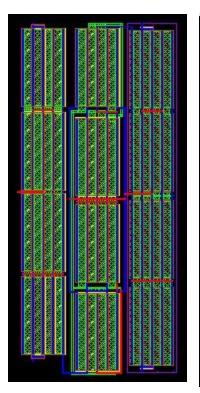
# Schematic



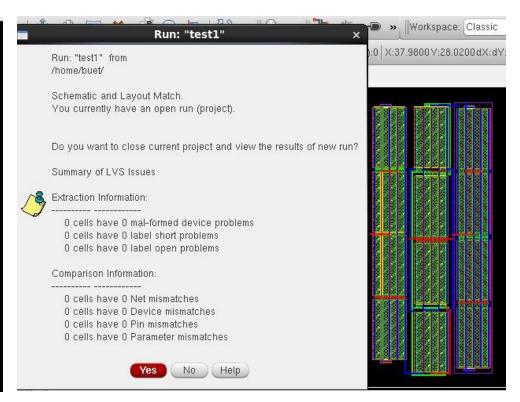
#### Transient output



#### **LAYOUT**





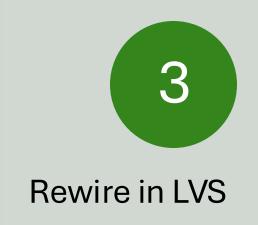


#### Faced Problem and solve

Latch-up error

2

Metal to metal Spacing error



# Thank you

