



# **Advanced VLSI Design : 2021-22**

## **Lecture 12 C**

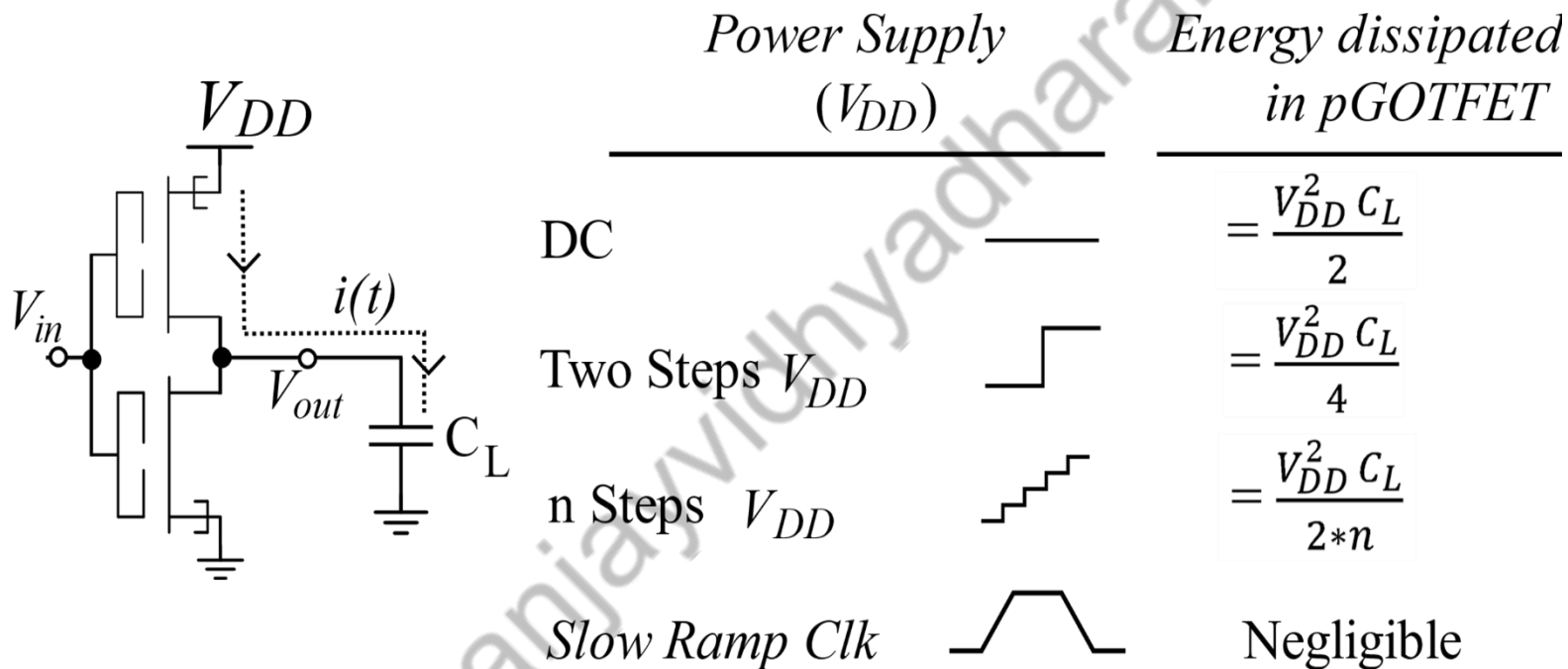
### **Low Power VLSI Design – Part-3**

### **Adiabatic Logic**

**By Dr. Sanjay Vidhyadharan**

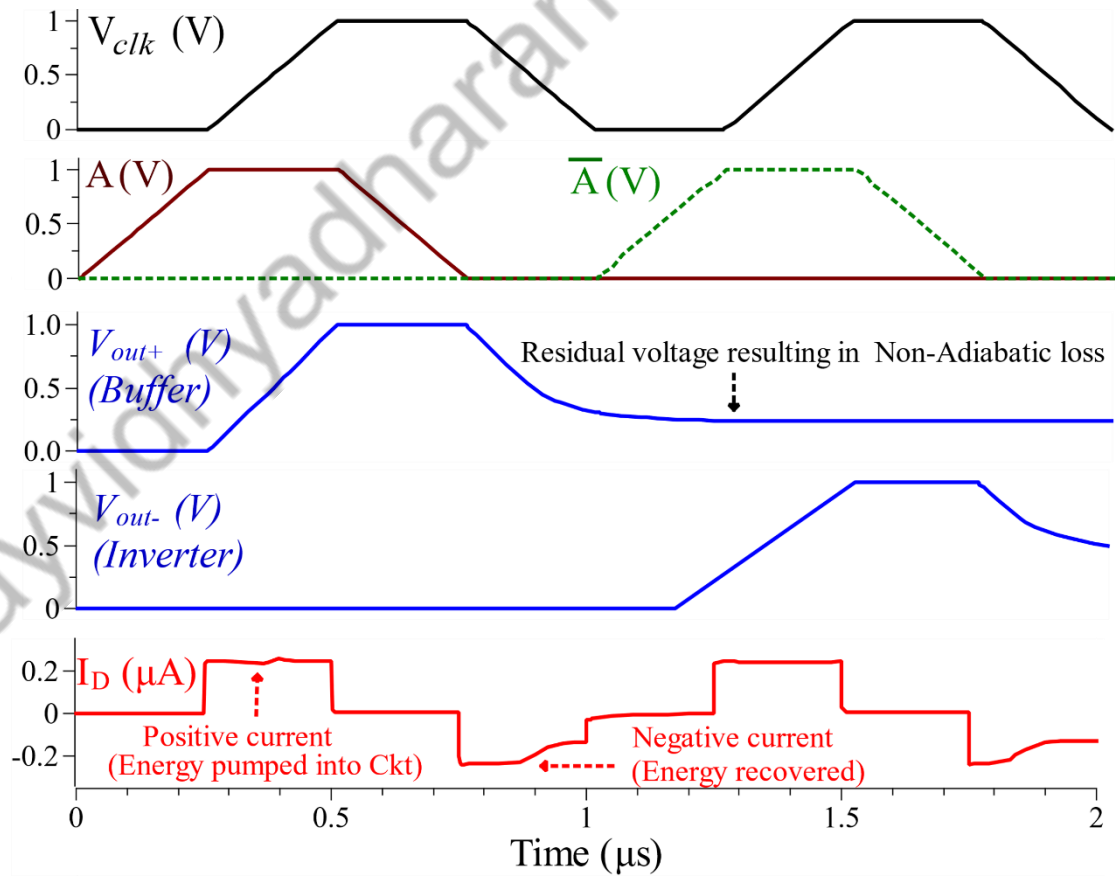
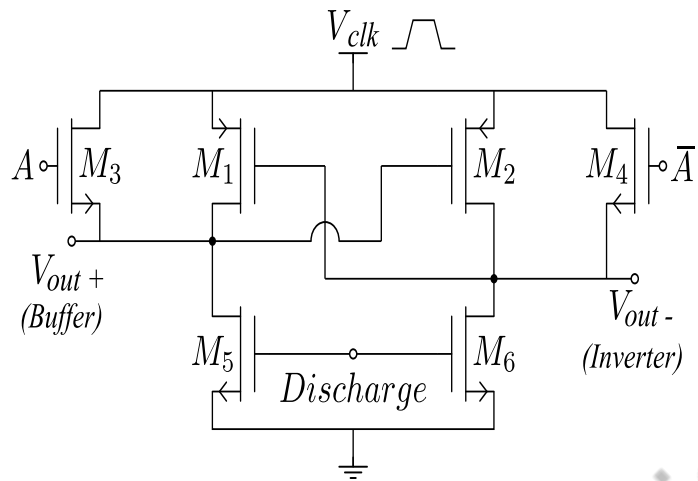
# Adiabatic Logic

## 1. Adiabatic Operation

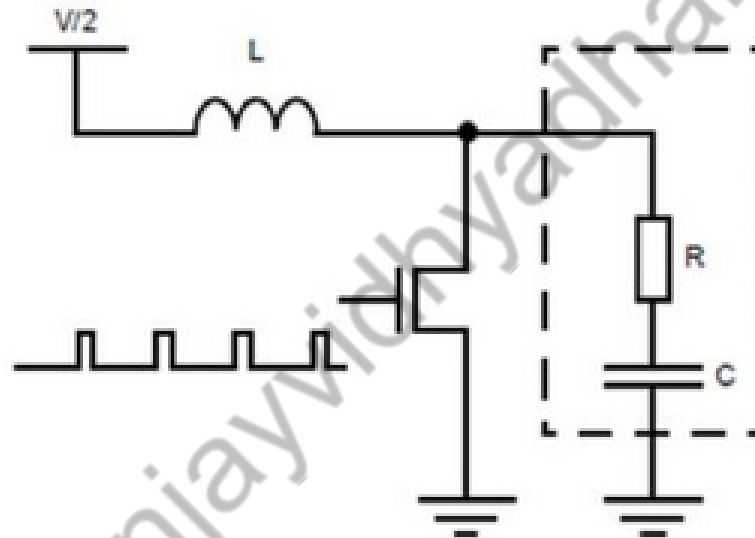


# Adiabatic Logic

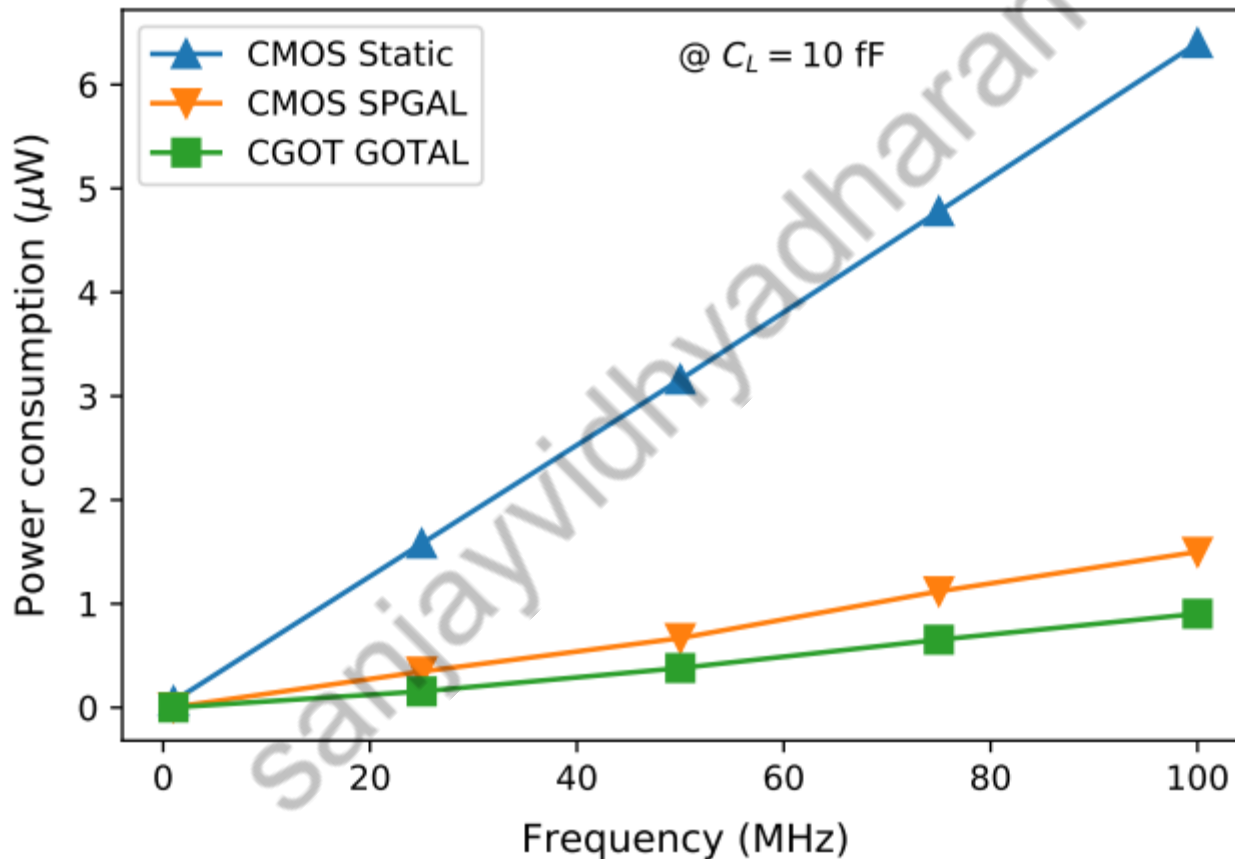
## CMOS Symmetric Pass Gate Adiabatic Logic



# Adiabatic Logic



# Adiabatic Logic vs. Static CMOS



*Sanjay Vidhyadharan et al "An advanced adiabatic logic using Gate Overlap Tunnel FET (GOTFET) devices for ultra-low power VLSI sensor applications"*



**Thank you**

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