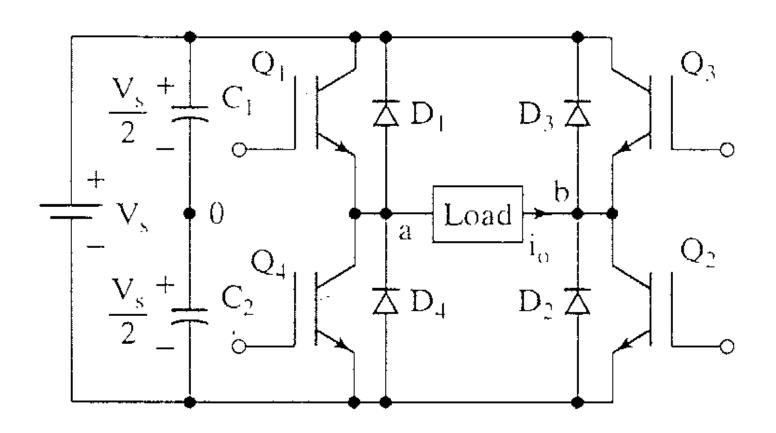
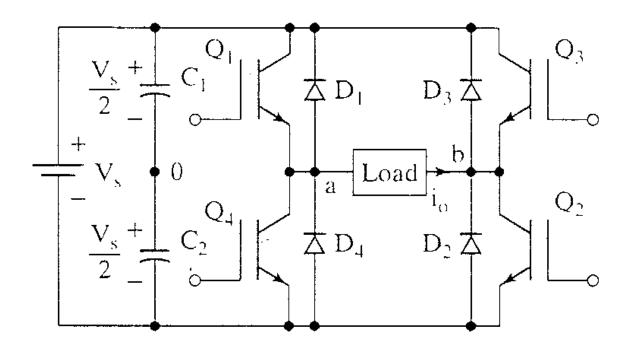
#### Single-phase full-bridge inverter

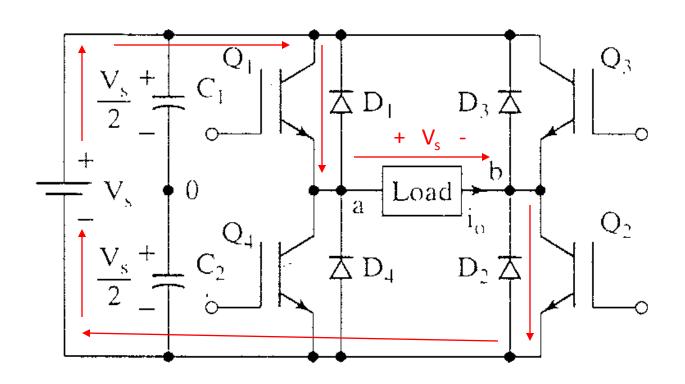


#### **Operational Details**

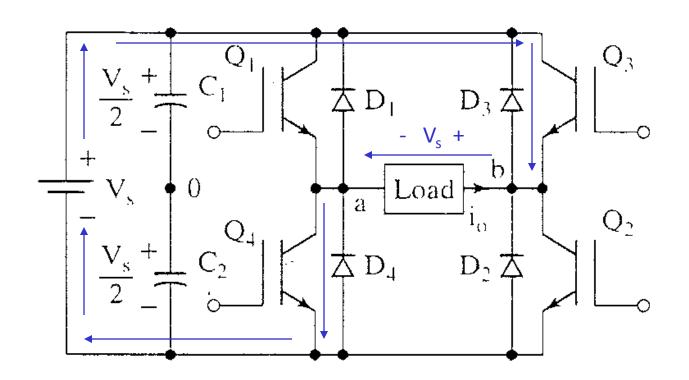


- Consists of 4 choppers and a 3-wire DC source
- Q<sub>1</sub>-Q<sub>2</sub> and Q<sub>3</sub>-Q<sub>4</sub> switched on and off alternately
- Need to isolate the gate signal for Q<sub>1</sub> and Q<sub>3</sub> (upper)
- Each pair provide opposite polarity of V<sub>s</sub>across the load

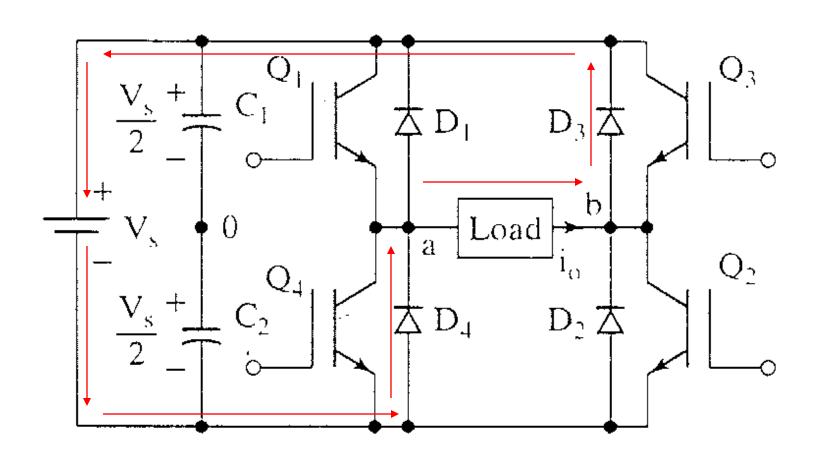
# $Q_1-Q_2$ on, $Q_3-Q_4$ off, $v_o = V_s$



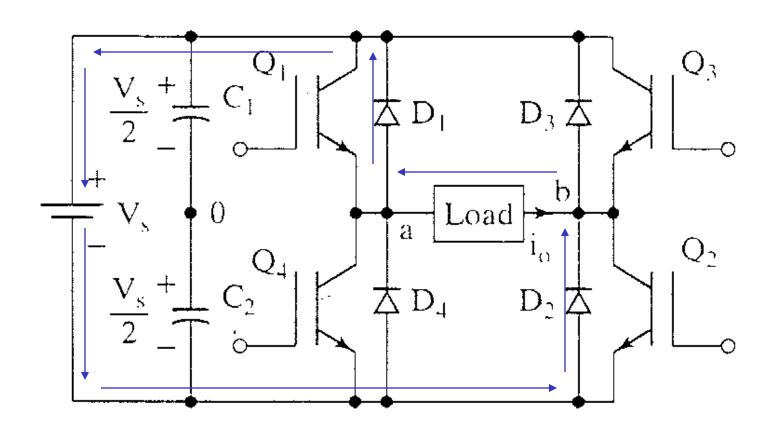
### $Q_3-Q_4$ on, $Q_1-Q_2$ off, $v_o = -V_s$



### When the load is highly inductive $Turn Q_1-Q_2 off - Q_3-Q_4 off$



# Turn $Q_3$ - $Q_4$ off – $Q_1$ - $Q_2$ off



#### Load current for a highly inductive load

