

CS288 Mini-Project

Fast Fourier Transform

8-point Radix-2 Decimation In Frequency
Fast Fourier Transform

Team Members

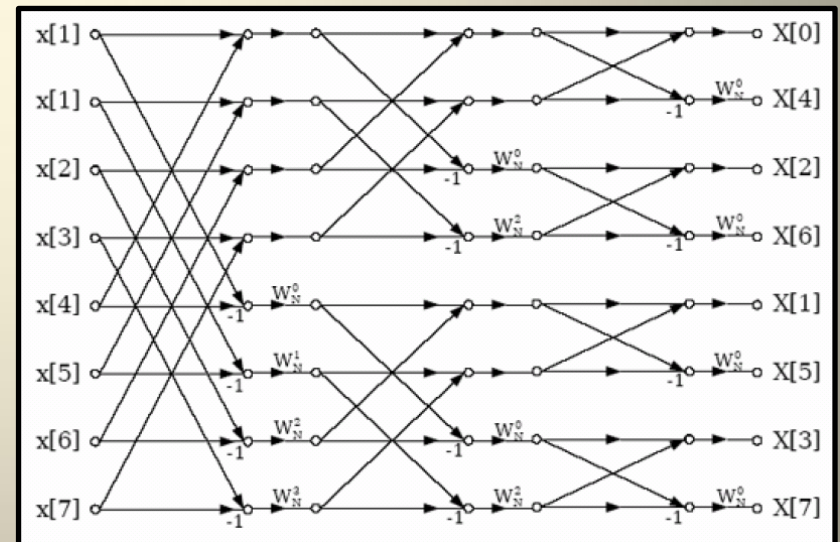
Navin Chandak **35%**

Alok Yadav **30%**

Rohan Prinja **30%**

Mandagiri Sai Krishna **5%**

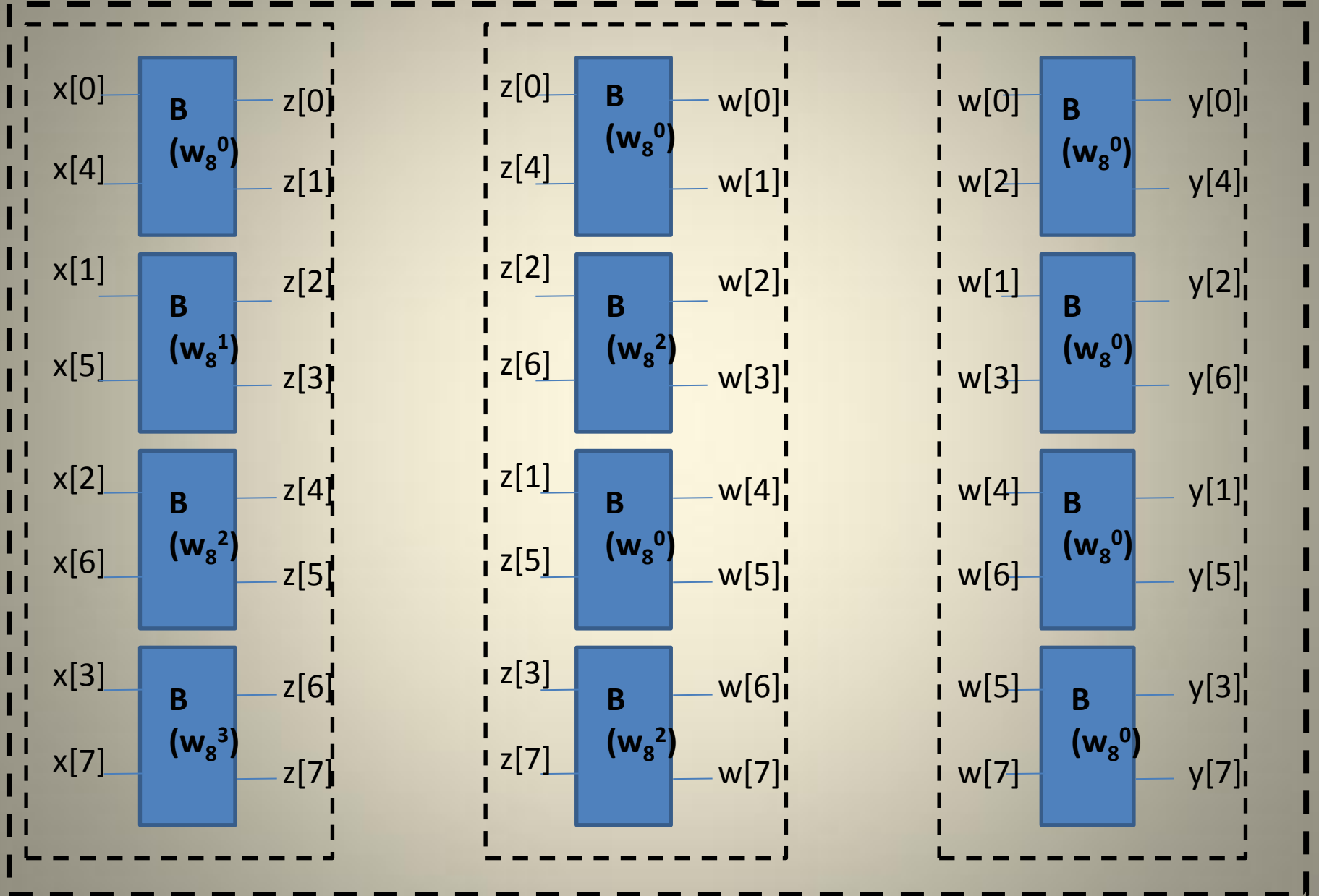
Shirish Kumar Namdeo **0%**



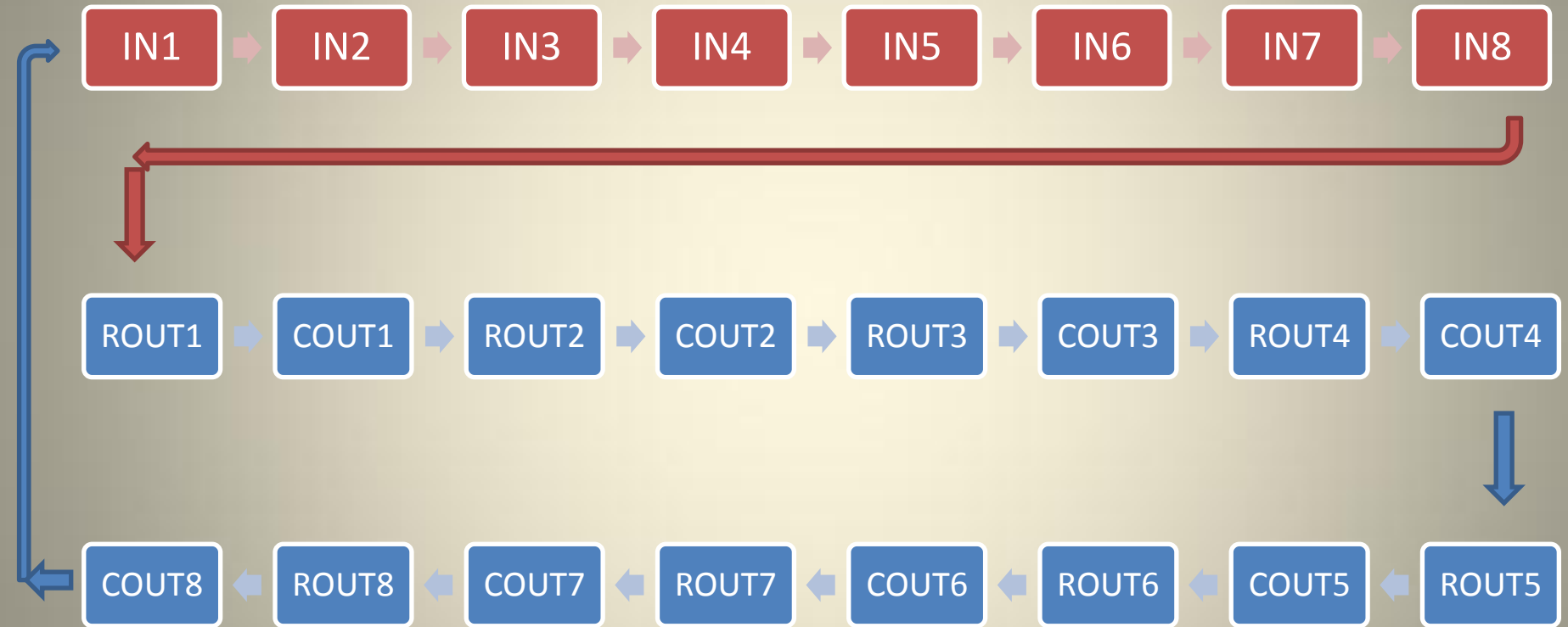
Input/Output

- **Input:** each value : **16**-bit floating point number. Integral part-> **4** bits, Decimal part-> **3** bits (for both real and imaginary parts), Sign bit -> **1** bit
- **Output:** each value : **32**-bit floating point number. Integral part -> **7** bits, Decimal part-> **8** bits, Sign bit -> **1** bit (for both real and imaginary parts)
- Overall input taken in **8** stages.
 - **First stage** : first input.
 - **Second stage** : second input.
 - **...and so on**
- Similarly, overall output displayed in **16** stages.
- Push button used for transition between stages (may revise this)

Block Diagram



State Diagram



Transitions -> press of the push button
Between IN8 and ROUT1, small delay (push button disabled)
After delay over, push button enabled again

Division of Labor

- **Navin Chandak (35%)**
 - Helped with combinational logic
 - Wrote/helped with state logic
- **Alok Yadav (30%)**
 - Helped with combinational logic
 - Wrote state logic
- **Rohan Prinja (30%)**
 - Wrote combinational logic
 - Doc/comments + pres.
- **Mandagiri Sai Krishna (5%)**

Thank you!