

SAFETY CRITICAL ADV AUTO SYS
AEL ZG621

Situational Learning (Brake By Wire)
Fault Tree Analysis (FTA)

Sidheswar Ghosh: 2023HT65255

Brake By Wire FTA

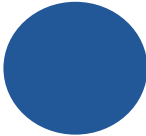
Sidheswar Ghosh | November 17, 2024



Top or intermediate event



Priority AND gate



Basic event



Exclusive OR gate



Conditional event



AND gate



House/external event



OR gate



Undeveloped event

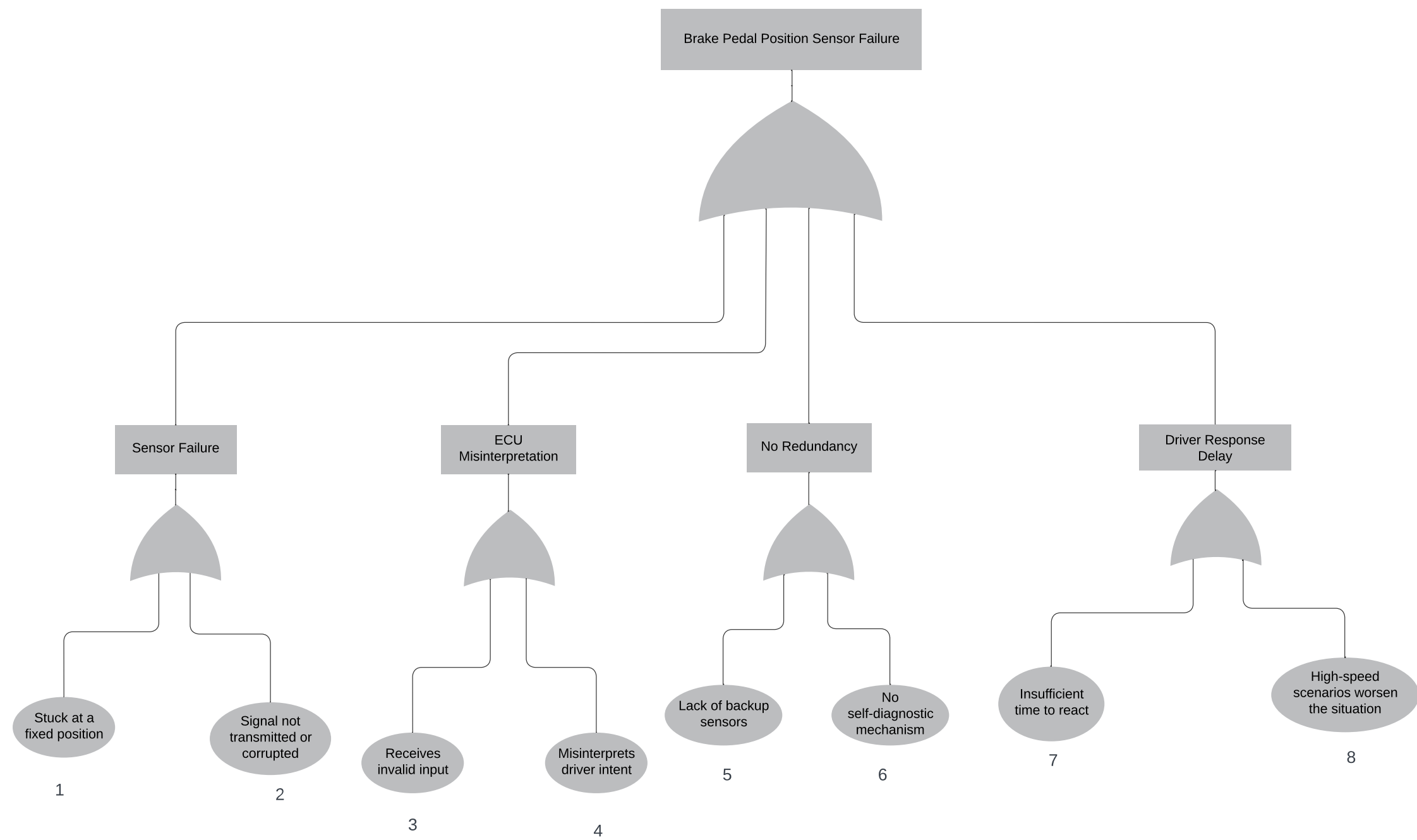


Inhibit gate



Transfer

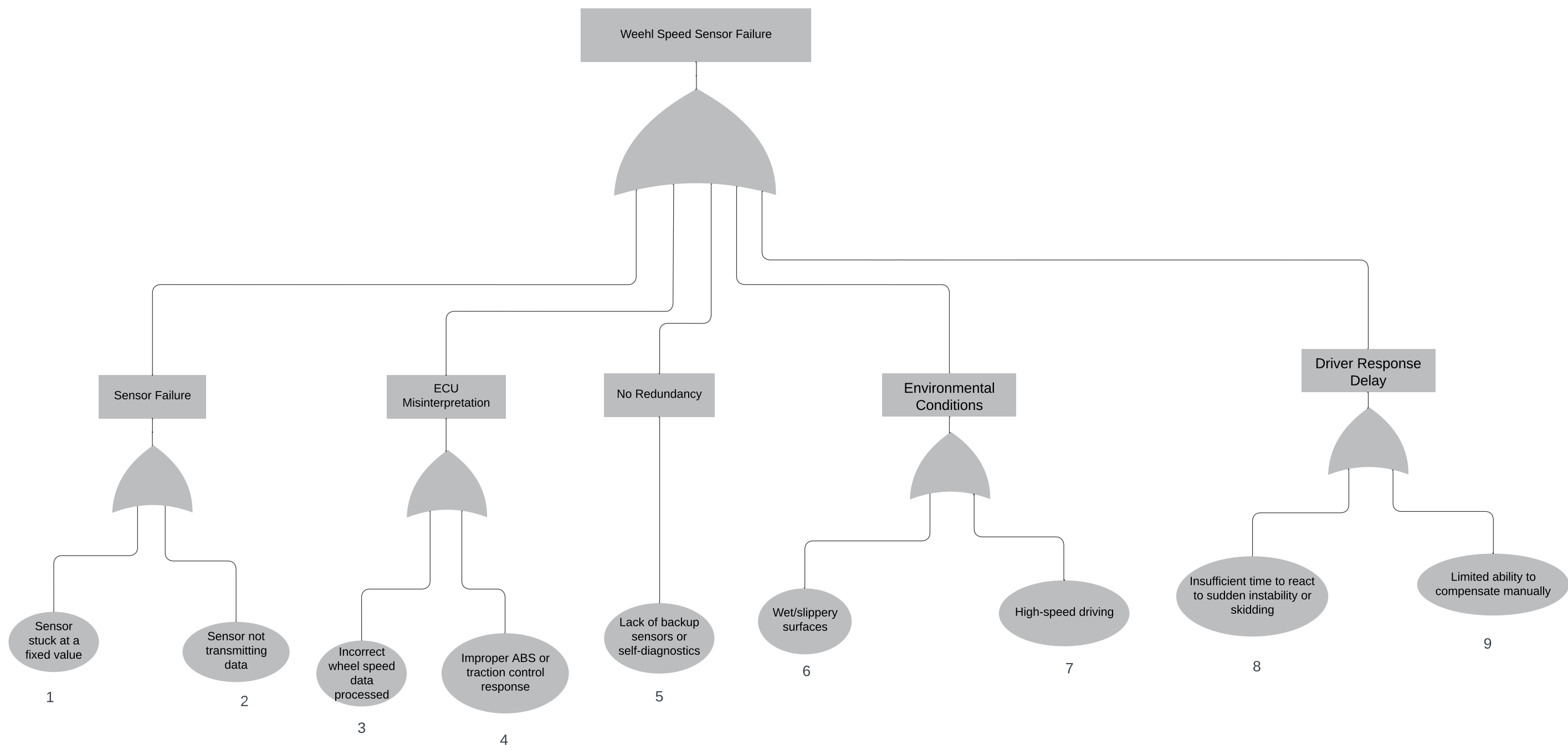
FTA: Brake Pedal Position Sensor Failure



Reliabiligy Block Diagram: Brake Pedal Position Sensor Failure



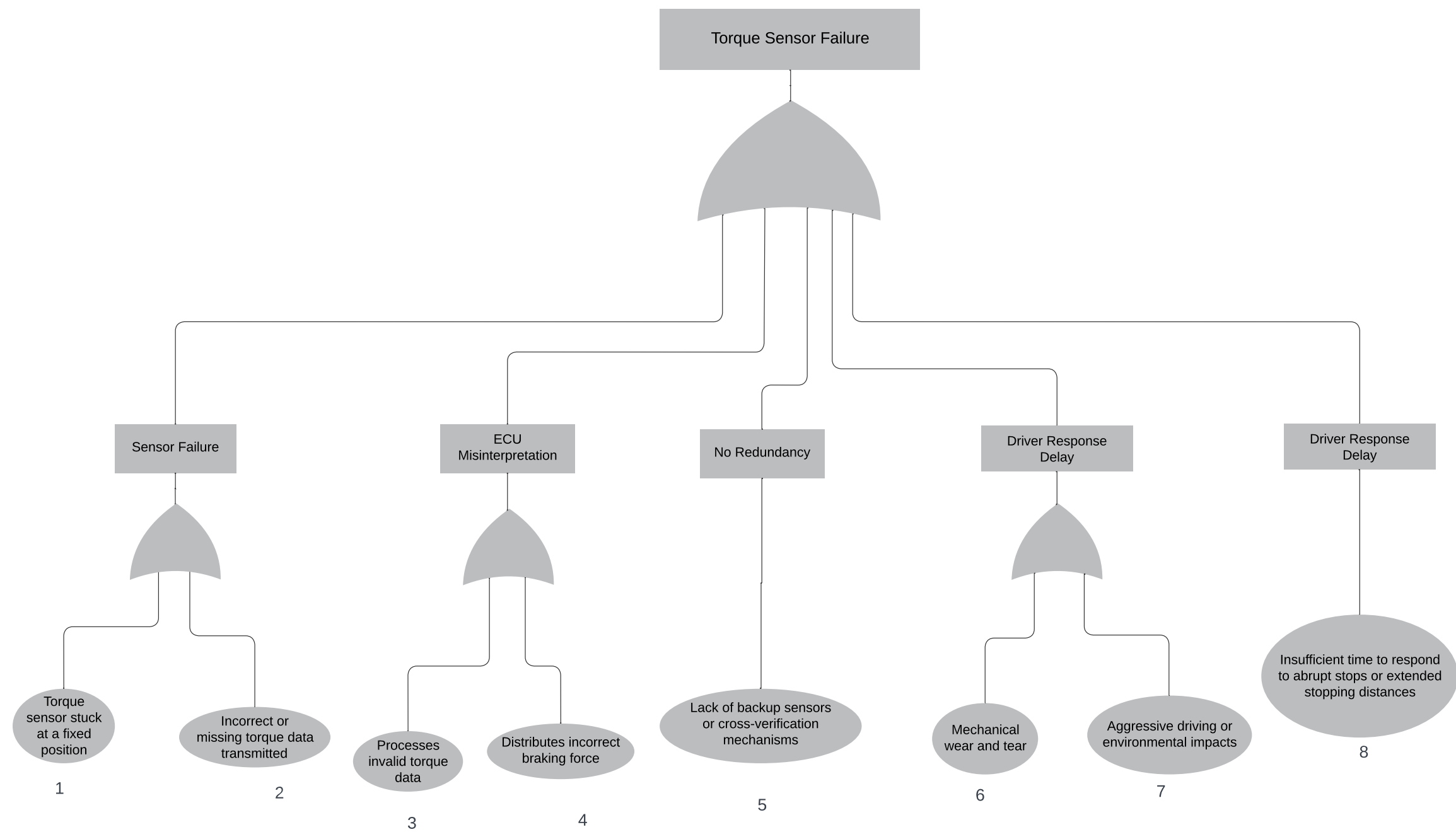
FTA: Wheel Speed Sensor Failure



Reliabiligty Block Diagram: Wheel Speed Sensor Failure



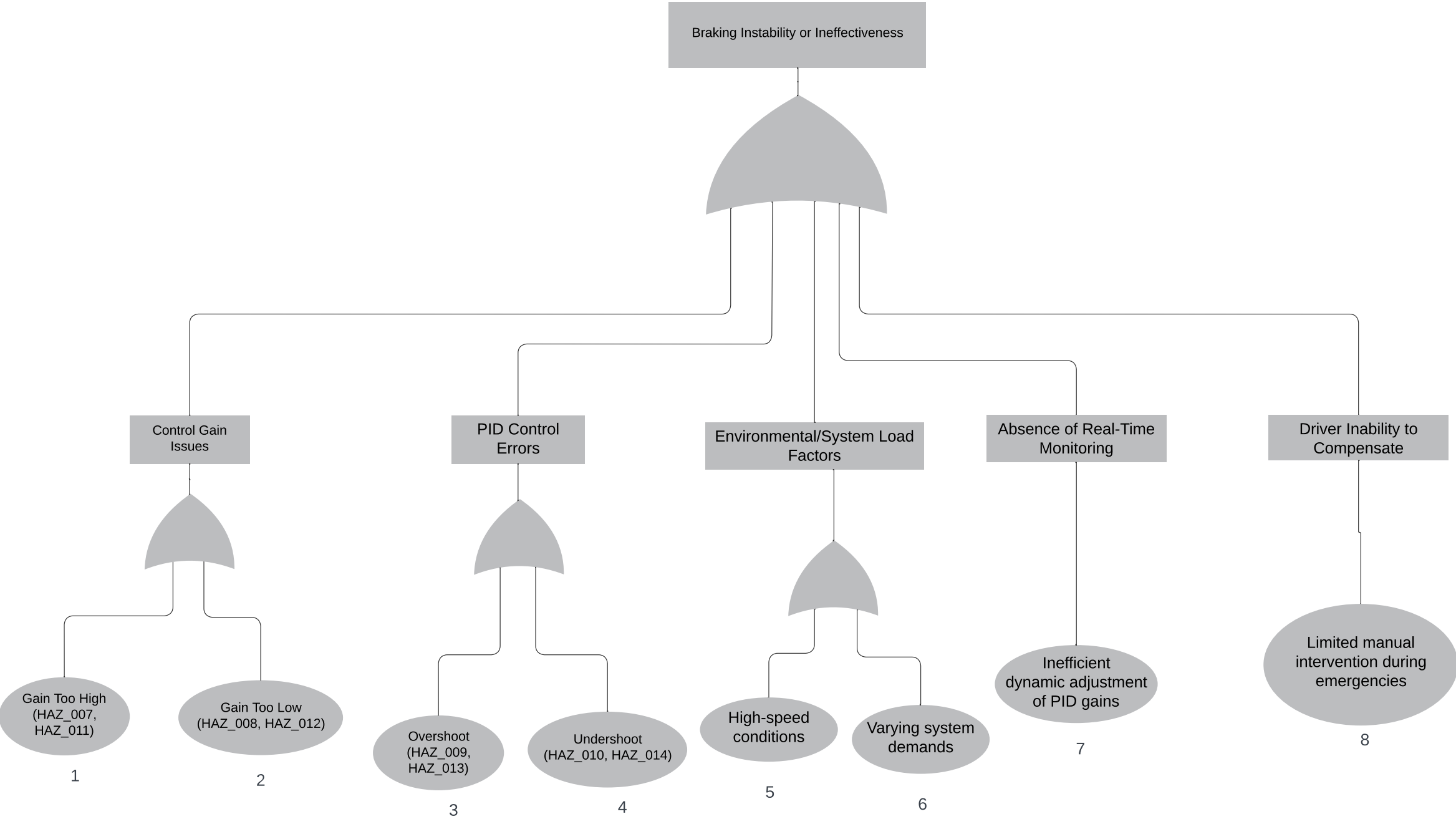
FTA: Torque Sensor Failure



Reliabiligy Block Diagram: Torque Sensor Failure



FTA: PID Malfunction (Braking Instability or Ineffectiveness)



Reliability Block Diagram: PID Malfunction (Braking Instability or Ineffectiveness)

