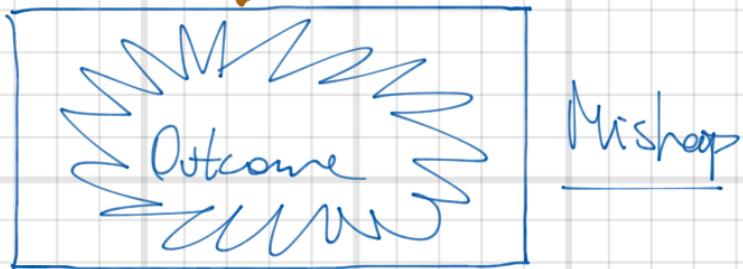
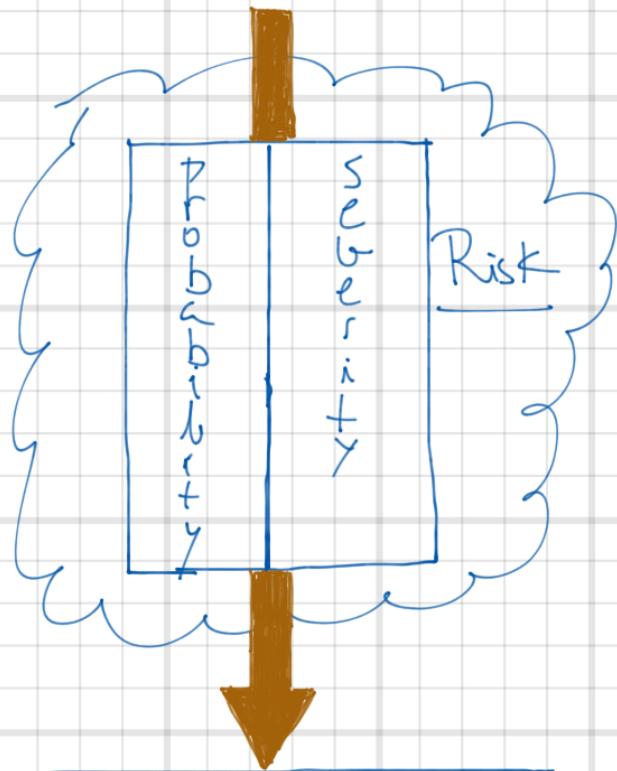


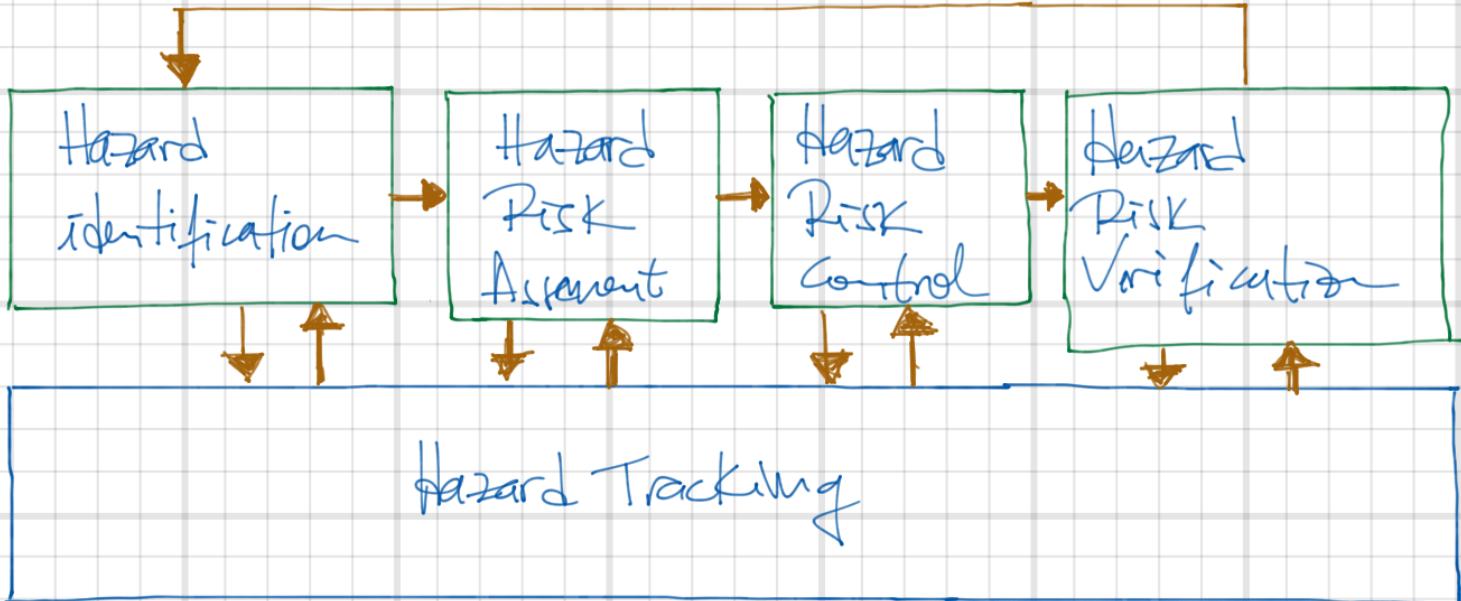
# Reviewing: "Hazard Analysis Techniques for System Safety"



They are NOT chance events

Hazards are created during DESIGN

## Hazard management



## Seven types of Hazard Analysis

- A type defines:
  - Purpose
  - Timing (of the analysis)
  - Scope
  - Level of detail
  - System coverage
- It does NOT specify How to perform the analysis
- I identify all hazards may require more than one type.
- Use all to ensure complete hazard coverage.

# Hazard types, primary analysis technique and their relationships.

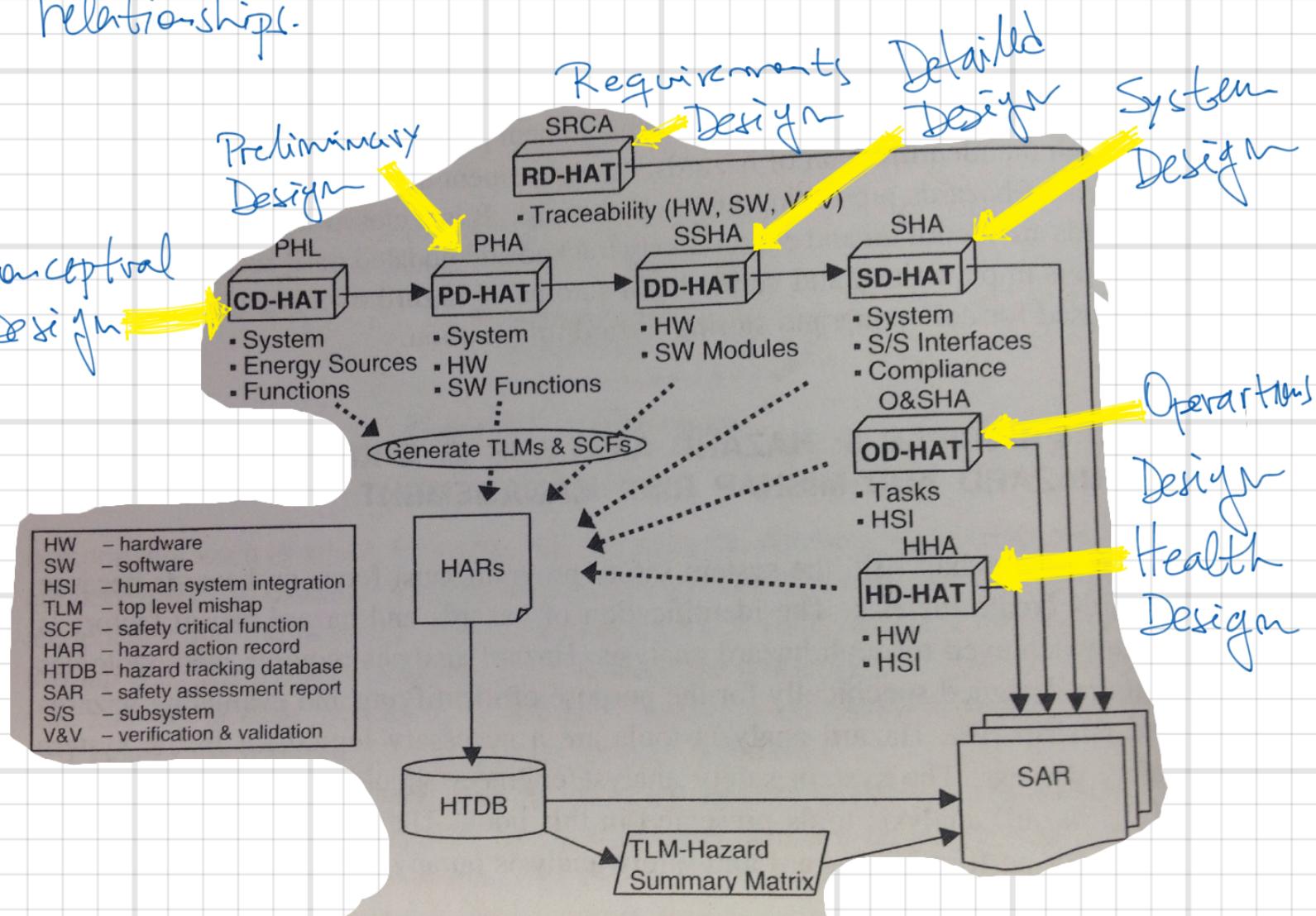
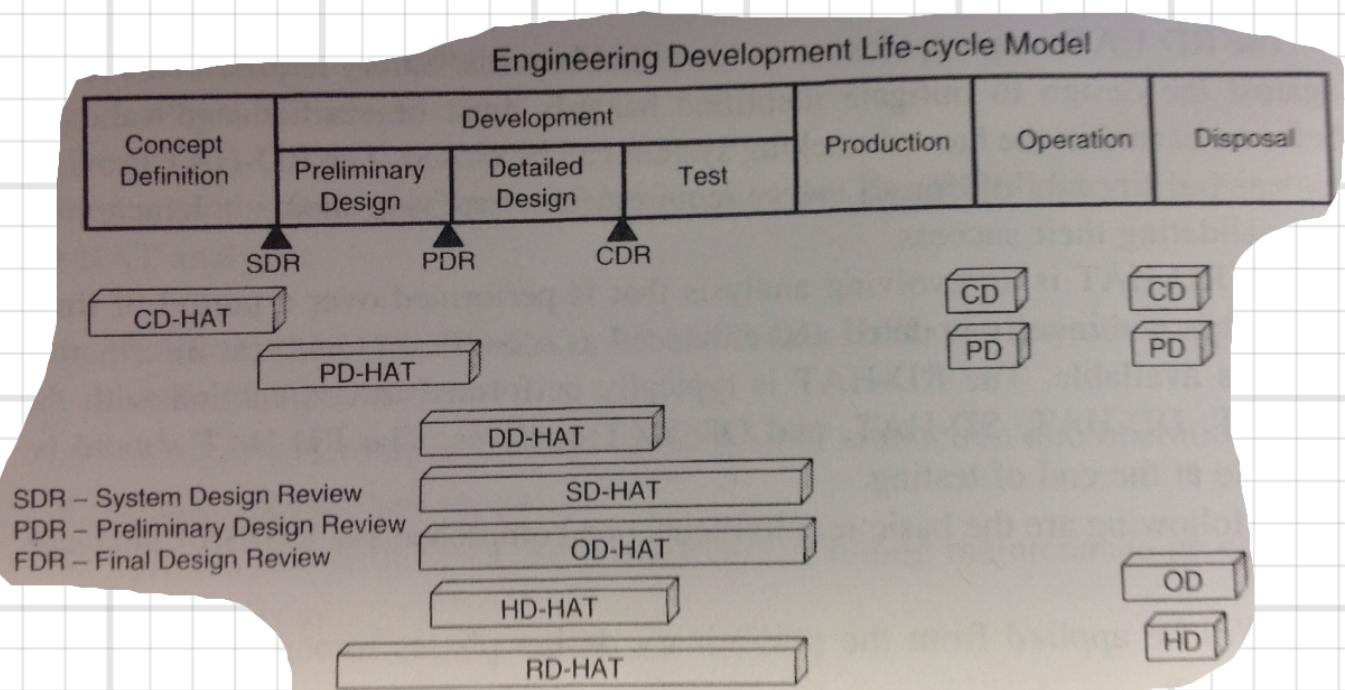


Figure 26.4 Hazard analysis type relationships.

**TABLE 26.1 Analysis Techniques Applicable to the Analysis Types**

Analysis Type	Primary Analysis Technique	Major Supporting Techniques
CD-HAT	PHL	None
PD-HAT	PHA	FuHA BA SWHA HAZOP
DD-HAT	SSHA	FMEA Bent Pin BA FaHA Barrier MA FuHA Peli Net PNA FTA SCA SWSA Software safety assessment
SD-HAT	SHA	Markov PNA Event Tree SCA SWSA FTA MORT Management Oversight Risk Tree SCA CCA BPA CCFA
OD-HAT	O&SHA	None
HD-HAT	HHA	O&SHA
RD-HAT	SRCA	None



**Figure 3.3** Overall timing of hazard analysis types.

PHL:

- Design concept
- Operational concept
- Major components planned for use in the system
- Major system functions
- Software functions

# WP2010 Fault Tree:

