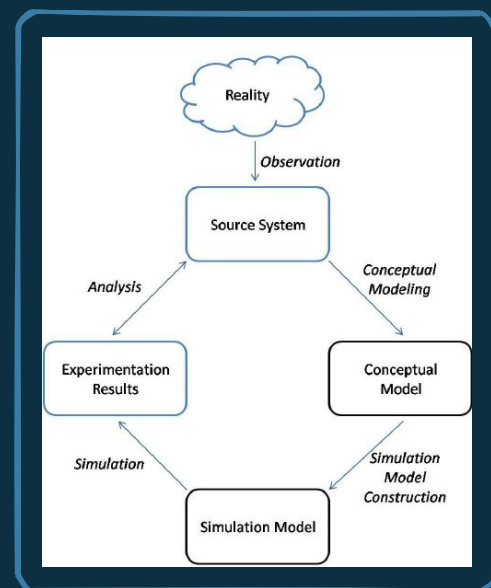


Modeling & Simulation



System ≡

Types of Systems

- Discrete ≡
- Continuous ≡
- Deterministic ≡

Simulation ≡

Types of Simulation

- Dynamic Systems ≡
- Continuous Simulation ≡
- Discrete Systems ≡

Simulation Tools

- Software ≡
- Languages ≡
- Graphics and Simulation ≡

Characteristics

- Abstraction of real-world systems
- Used for analysis, prediction, and optimization

Types of Models

- Descriptive ≡
- Analytical ≡

Model ≡

Modeling ≡

Purpose

To understand, analyze, or predict system behavior.

Modeling Tools

- Transfer Function ≡
 - Laplace Transform ≡
 - Block Diagrams ≡
- Finite State Machines ≡
- Petri Nets ≡
- Markov Chains ≡
- Queue Models ≡