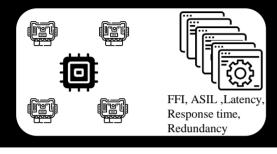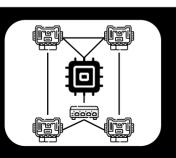**Inputs**

Applications (processes/threads, requirements, and properties)
Nodes (properties and requirements)

FFI, ASIL, Latency, Response time, Redundancy

Tasks, communication messages, links/a desired network topology

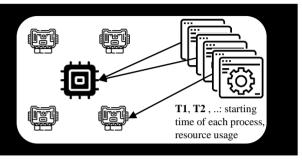**E/E Designer Framework**

System Metamodel using MDD

ILP Constraints

Apps Mapping

Message Routing

Time-triggered Scheduling

Solving & Optimization

Outputs

Application mapping and TT scheduling

T1, **T2** , ..: starting time of each process, resource usage

Message routing creation, communication tasks TT scheduling, and path dependency

Task●	ST

Single, homogeneous redundant, redundant, and multicast routings
optimization
E-E latency, response time, LOR, cost