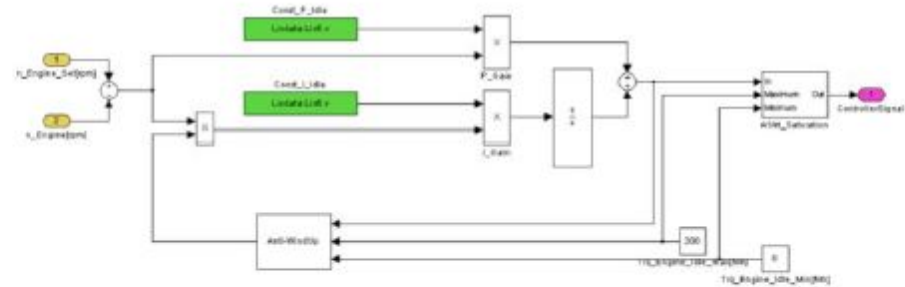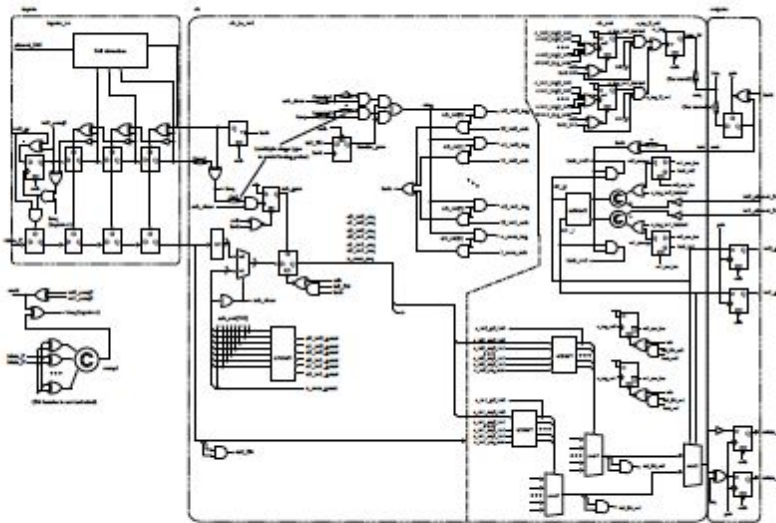# Methods and Tools for Verification of CPS

- CPS include complex computing and networking architectures.
- An example is the *network-on-chip* of *embedded control units* for automobiles being designed by Yoneda et al. w/support from Toyota.

- Requires integrated modeling formalism that includes both discrete/continuous signals updated synchronously/asynchronously.
- Must verify functional and timing correctness as well as fault tolerance in the face of both hard and soft errors.
- Abstraction and compositional reasoning key to achieve scalability.