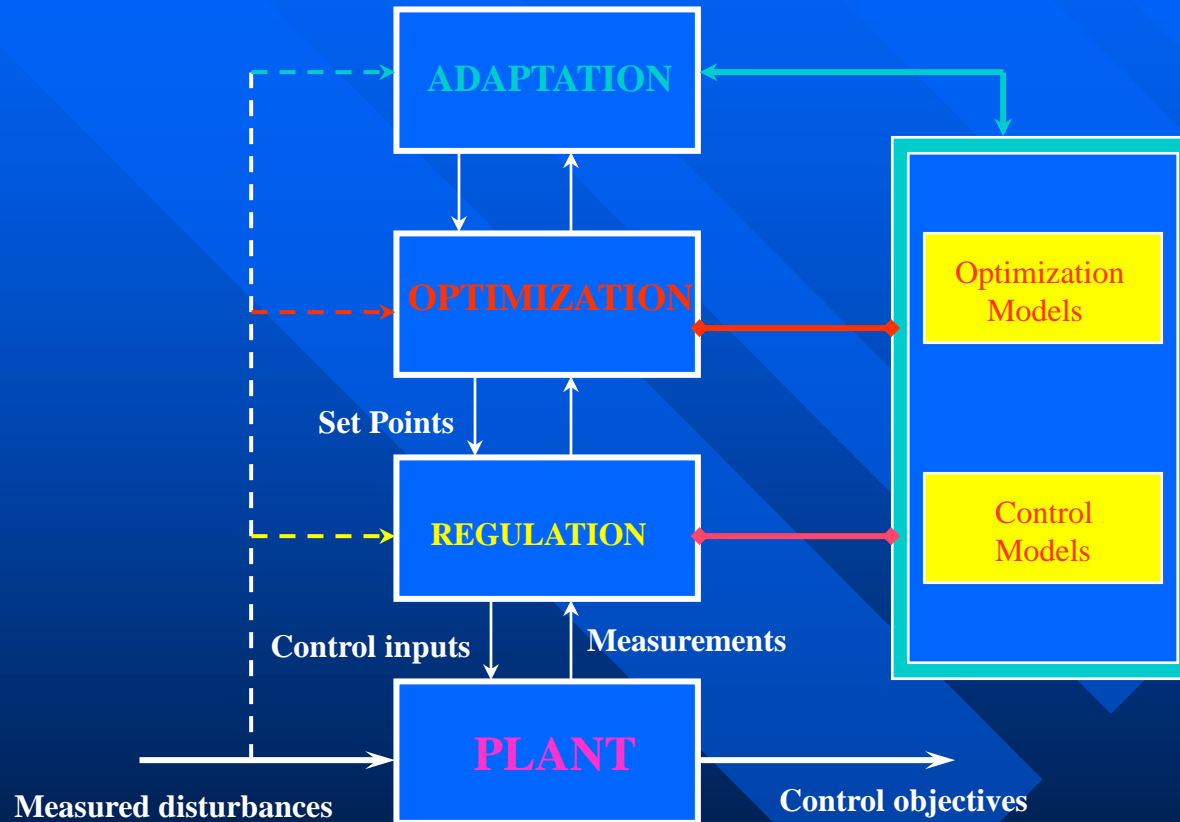


# PROCESS CONTROL AND COMPUTATIONAL BIOLOGY RESEARCH TOPICS

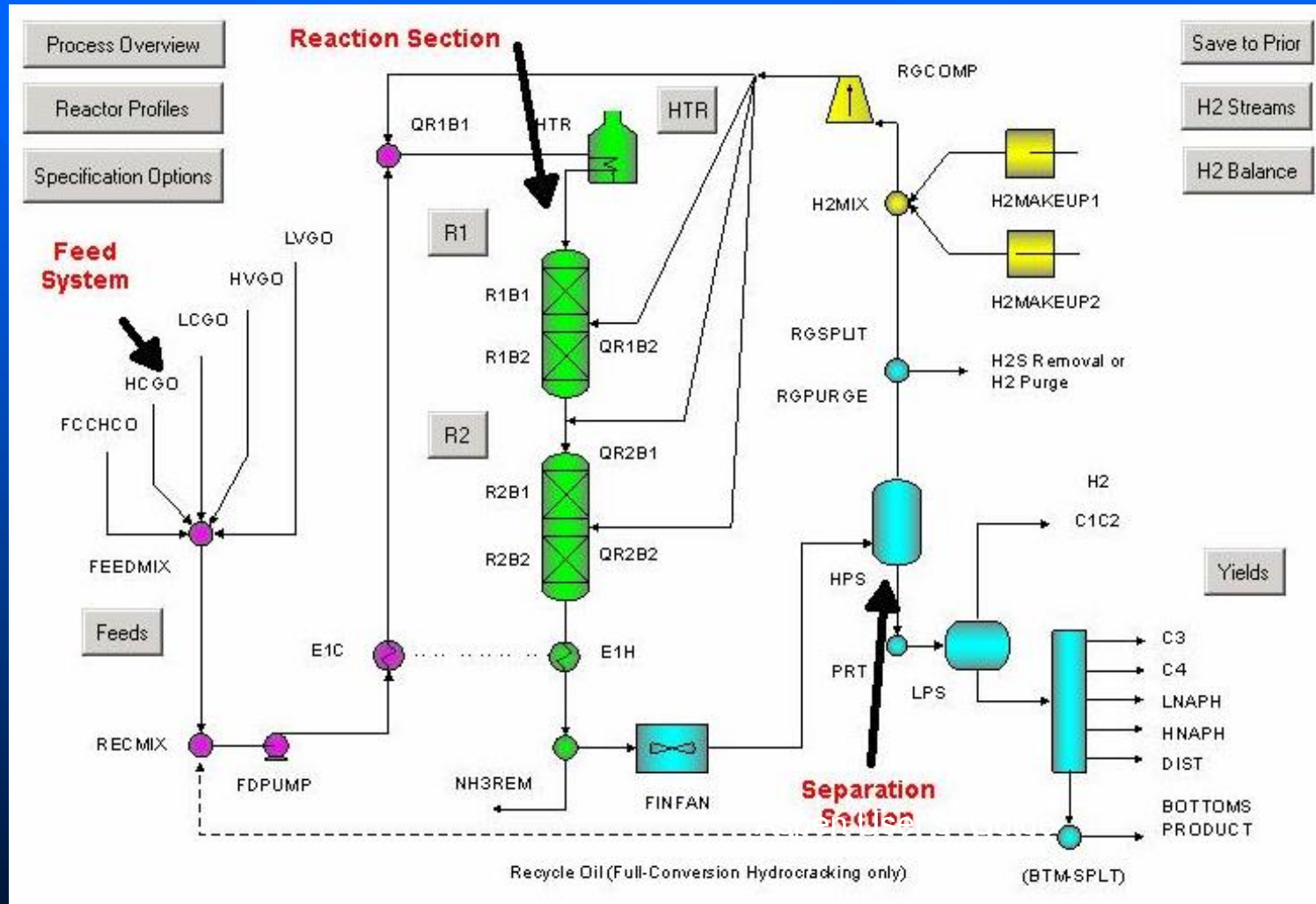
Prof. Yaman Arkun

# PROCESS CONTROL PROJECT 1:

## INDUSTRIAL APPLICATION OF REAL TIME OPTIMIZATION AND CONTROL (Joint work with TÜPRAŞ Advanced Control Group)



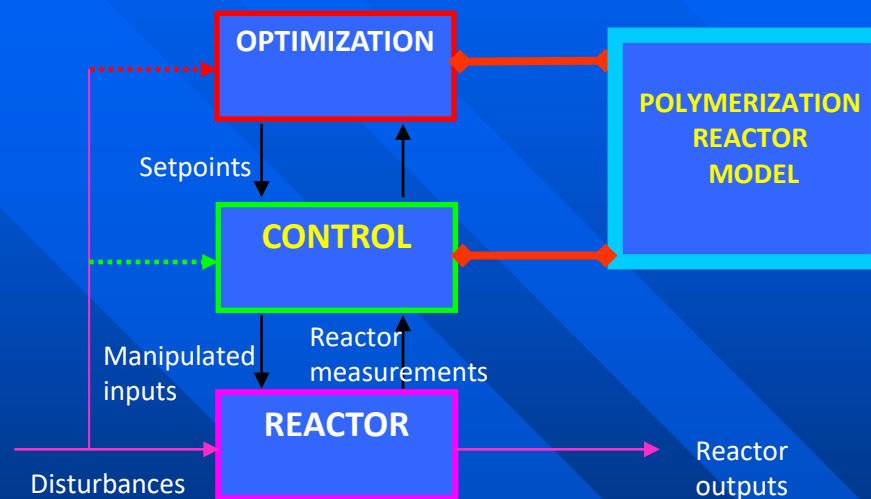
# Real-time Optimization and Control of a Hydrocracker Unit (Joint work with TÜPRAŞ Advanced Control Group)



## PROCESS CONTROL PROJECT 2:

### *Development of a Dynamic Model and Model Based Optimization and Control of a Semibatch Acrylonitrile-Vinyl Chloride Copolymerization Reactor*

**Yaman Arkun and Seda Kızılel**  
(Sponsored by AKSA)

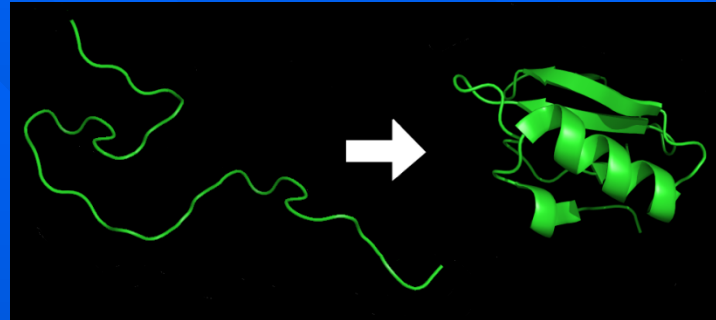


### TASKS

1. Development of dynamic semibatch reactor model.
2. Prediction of polymer properties.
3. Computation of optimal operating conditions.
4. Design of nonlinear model predictive controllers.
5. Implementation on AKSA's industrial units.

# COMPUTATIONAL & QUANTITATIVE BIOLOGY RESEARCH

## PROTEIN FOLDING



## SYSTEMS BIOLOGY

