**Industrial Automation – Second project**

Mathematical Programming: definition of the problem.

* Sets
  + i,j = 1, …, N Jobs
* Parameters
  + processing time of the job
  + weight of the job
  + due date of the job
  + M Big-M coefficient
* Decision variables
  + =
  + starting time of the job
  + completion time of the job
  + tardiness
* Cost function
  + min
* Constraints
  + Completion time definition
  + Tardiness definition
    - =
  + Big-M one job at a time
  + J1 before J3
  + J9 before J10