### POLITECNICO DI MILANO - SEDE DI COMO

## MODEL IDENTIFICATION AND ADAPTIVE SYSTEMS

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Academic year 2017/18 Final Exam – June 20, 2018

## Answer the following questions:

- 1) Explain the model reference approach to adaptive control (MRAC).
- 2) Illustrate the Filtered-e LMS (FeLMS) algorithm.
- 3) Illustrate the role of the innovation in the Kalman filter.
- 4) Describe the architecture of an artificial neural network.

### **Instructions:**

- Report your name and identification number on the top right corner of the first page.
- Use separate pages for answers to different questions (one page for each question).
- Books, course slides, notes are not allowed, as well as the use of communication devices (e.g. smartphones).