POLITECNICO DI MILANO - SEDE DI COMO

MODEL IDENTIFICATION AND ADAPTIVE SYSTEMS

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Final Exam – July 25, 2016

Answer the following questions:

1) Discuss the properties of the Self Tuning Control scheme with Recursive Least Squares (RLS) and deterministic ARX models.

2) Illustrate the on-line estimation of the secondary path based on the simultaneous estimation of both the primary and secondary paths.

3) Describe the role of the Hankel matrix in subspace identification methods.

4) What is the SRR index and how is it used for the model selection of polynomial NARX models? What are its advantages/disadvantages compared to the ERR index?

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.