MASSACHUSETTS INSTITUTE OF TECHNOLOGY

2.152/9.110 Nonlinear Control System Design

Spring 2020

TR 1:00 - 2:30 Room 1-150

Professor Jean-Jacques Slotine Room 3-338, jjs@mit.edu

Teaching Assistant: Carlos Barajas carlobar@mit.edu GRADING:

Office hours: TBD Homework

Homework 15% Midterm 35% Term Paper 50% 100%

Course Secretary: Emilie Heilig, 3-359; eheilig@mit.edu

Website: https://stellar.mit.edu/S/course/9/sp20/9.110J/

Prerequisite: Familiarity with basic linear state-space control concepts (e.g., 2.151, or 6.241, or

6.233J, or 16.33, or 16.341J; or equivalent)

Course Text

Slotine and Li Applied Nonlinear Control

Prentice-Hall

Additional Reading

Astrom and Wittenmark Adaptive Control

Addison-Wesley

Desoer and Vidyasagar Feedback Systems: Input-Output Properties

Academic Press

Goodwin and Sin Adaptive Filtering, Prediction and Control

Prentice-Hall

Isidori Nonlinear Control Systems

Springer-Verlag

Khalil Nonlinear Systems

MacMillan

Mallat A Wavelet Tour of Signal Processing

Academic Press

Narendra and Annaswamy Stable Adaptive Systems

Prentice-Hall

Vidyasagar Nonlinear Systems Analysis

Prentice-Hall