Substitute Lecture for:
Real Time Software Design II
Dr. H. Cecotti / S. W. Lee

Lecture announcement for Summer Semester 2008
Vorlesungsankündigung für das Sommersemester 2008

Course label / Veranstaltungskennziffer: 01-038

Lecture/Vorlesung:     Monday  8:00 – 10:00,  Room: N1250, NW1
                        Friday  8:00 – 10:00,  Room: N1250, NW1

First lecture / Erste Vorlesung:  02 June 2008

Contents

• Part I (S. W. Lee): Machine Learning Theory: Kernel Methods
  o Math warm-up: Matrix Algebra
  o Linear Methods for Pattern Analysis/Classifications
  o Kernel Methods (I) – Theoretical Backgrounds and Basic Tricks
  o Kernel Methods (II) – Derivation of Nonlinear Methods
  o Manifold Learning and its relation to Kernel Methods

• Part II (S. W. Lee): A Study of Similarity for Pattern Classification

• Part III (H. Cecotti): Neural Networks
  o Introduction
  o History
  o Single Neuron
  o Supervised Learning
  o Unsupervised Learning
  o Prospects

• Part IV (H. Cecotti): Hidden Markov Model
  o Introduction
  o Definition – Stochastic Model
  o Techniques
  o Models
  o Applications

Contact:

Dr. H. Cecotti
Room N1150
Tel: 218 – 3580
cecotti@iat.uni-bremen.de

S. W. Lee (Ph. D. Student)
EECS, KAIST, BSCL, Korea
bigbean@ctrsys.kaist.ac.kr