Reconocimiento de Escritura (RES)

Part 0 – Introduction to the handwriting recognition problem

March-26 12:30-13:30 (Thursday)

Part I - Acquisition and preprocessing of text images

March-27 10:00-14:00 (Friday)
I.1 Document Image Processing
I.1.1 Introduction & motivation
I.1.2 Image acquisition, analysis and enhancement
I.1.3 Layout analysis: text block and line detection and extraction

March-27 15:00-17:30 (Friday)
I.4 Practical session

April-20 10:00-12:00 (Monday)
I.2 Text line image normalization
I.2.1 Geometric normalizations: skew, slope, slant, warping and size

Part II - Cursive handwriting text recognition (HTR)

April-21 10:00-14:00 (Tuesday)
II.1 Introduction to (cursive) on/off-line HTR
II.2 Preprocessing and feature extraction for on/off-line HTR
II.3 HTR: Modelling and decoding

April-24 10:00-12:30 (Friday)
II.4 Practical HTR session

Part III - Morphological Models for HTR

May-22 10:00-14:00 (Friday)
III.1 Basic approaches for dynamic Bayesian networks
III.2 Markov chains and basics of HMM modelling
III.3 HMM modelling for handwriting recognition
    1.1 context-dependent models
    1.2 context independent models

May-22 15:30-19:30 (Friday)
III.4 Practical session
III.5 Recurrent neural networks: basics
III.6 Bi-directional recurrent networks (BLSTM) for handwriting recognition

Part IV - Word graphs, word spotting and interactive HTR

April-27 10:00-13:00 (Monday)
IV.1 Word graphs
IV.2 Word spotting

April-28 10:00-13:00 (Tuesday)
IV.3 Interactive off-line HTR
IV.4 Multimodal interactive off-line HTR