

ELOÍSA IBÁÑEZ LEÓN

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Group: Speech Technology Group
Department: Electronic Engineering at ETSIT
University: Technical University of Madrid
Nationality: Spanish



EDUCATION:

MAIN:

1999: Honors list in high school.
1999-2005: Signal Processing Specialty (Image, Audio and Speech) Telecommunication engineering. Technical University of Madrid.
2005: Currently doing the Master Project:
Title: **"System for translating natural Language into Spanish Sign Language"**.
Supervisor: Rubén San-Segundo.
Speech Technology Group. Dept. Electronic Engineering. UPM.

LANGUAGES:

FRENCH:

1995-2000: Advanced level: reading, writing and speaking.
5th level at the Official School of Languages.
1999: Winner of a French course in Nice offered by the French Embassy in Madrid.

ENGLISH: Advanced level: reading, writing and speaking.

COMPUTING SKILLS:

OPERATIVE SYSTEMS:

Linux, Windows98/NT/2000/XP

PROGRAMMING LANGUAGES:

C, C++, Java.

TOOLS:

Matlab, Maple, Office97/2000, Microsoft Project, Khoros, Cantata, Microsoft Visual Studio, MKSS, Servivox, SAP (software for project management).

PUBLICATIONS:

I have contributed to the followings publications:

- **"Proposing a Speech to Gesture Translation Architecture for Spanish Deaf-mute People"**. R. San-Segundo, et al. Submitted to the Journal of Visual Languages and Computing.
- **"Generating Gestures from Speech"** R. San-Segundo, et al. Proc. of the International Conference on Spoken Language Processing (ICSLP'2004). Isla Jeju (corea). October 4-8, 2004. (ISSN: 1225-441x).

PROFESSIONAL EXPERIENCE:

VODAFONE (2004-2005): Mobile phone seller for the Vodafone company.

MENTOR PROJECT (2003-2004): Participation in the Mentor Project of the School of Telecommunication Engineering (ETSIT). The project aim is to orientate and help the new students (ERASMUS and first year students). (<http://mentor.etsit.upm.es/>).

MONITOR AT THE LMEL (2001-2002): The LMEL is the laboratory of electronic measurements, a subject offered by ETSIT: collaborate with instructors in the management and teaching of the course.

OTHERS:

Experience working as a waitress.
Experience working as a teacher.

PREFERRED PROJECTS AND SKILLS TO OFFER

1. A Multimodal (Gesture+Speech) Interface for 3D Model Search and Retrieval Integrated in a Virtual Assembly Application

Skills to offer for this project:

- C and C+ programming.
- Experience working with Speech Recognition systems.
- Experience working with Natural Language Understanding systems: based rules and stochastic systems.
- High knowledge of the gestures belonging to the Spanish Sign Language.

2. Combined Gesture-Speech Analysis and Synthesis

Skills to offer for this project:

- C and C+ programming.
- Experience working with Speech Recognition systems.
- Experience working with Natural Language Understanding systems: based rules and stochastic systems.
- High knowledge of the gestures belonging to the Spanish Sign Language.

3. Multimodal Caricatural Mirror

Skills to offer for this project:

- C and C+ programming.
- Experience working with Speech Recognition systems.
- Experience working with Natural Language Understanding systems: based rules and stochastic systems.
- High knowledge of the gestures belonging to the Spanish Sign Language.

BRIEF SUPERVISOR CV: Rubén San Segundo

Rubén San-Segundo received his MSEE degree from Technical University of Madrid in 1997, and Ph.D. degrees from the same university in 2002. Ruben visited *The Center of Spoken Language Research* (CSLR) at the University of Colorado (Boulder), as visiting student. During these stays, he worked in the DARPA Communicator project.

From Sep. 2001 through Feb. 2003, Rubén worked at the Speech Technology Group of the Telefónica I+D. During this period, he worked in confidence estimation for speech recognition, acoustic modelling of speech, and he was involved in the design of several services considering these technologies. Ruben has collaborated in the definition of proposals for new research projects. Currently, Rubén is professor at the department of Electronic Engineering at ETSIT of UPM and he is member of the Speech Technology Group (GTH).

BRIEF MASTER PROJECT DESCRIPTION

Title: System for translating Natural Language into Spanish Sign Language.

Author: Eloísa Ibáñez León

Supervisor: Prof. Rubén San Segundo Hernández

Speech technology Group (GTH). Dept. Electronic Engineering at ETSIT

Description:

This project consist of developing a system for translating Natural Language into gestures for deaf-mute people. There are a 3D animated agent to play the gestures. The proposed architecture is made up of 4 modules: speech recogniser, semantic analysis (natural language understanding), gesture sequence generation and gesture playing.

This project focus on the three first modules.

- The first module converts the speech utterances into text words: speech recognition.
- The semantic analysis module carries out a semantic evaluation of the sentence, extracting the main concepts related to the task domain.
- Finally the gesture sequence generation module processes the semantic analysis output and assigns a sequence of gestures to the semantic concepts.

The tool used to made up this project is SERVIVOX: a platform for voice applications development. This system has been developed by the GTH. The purpose is to adapt and improve the modules for speech recognition and semantic analysis, and also the complete development of the third module.