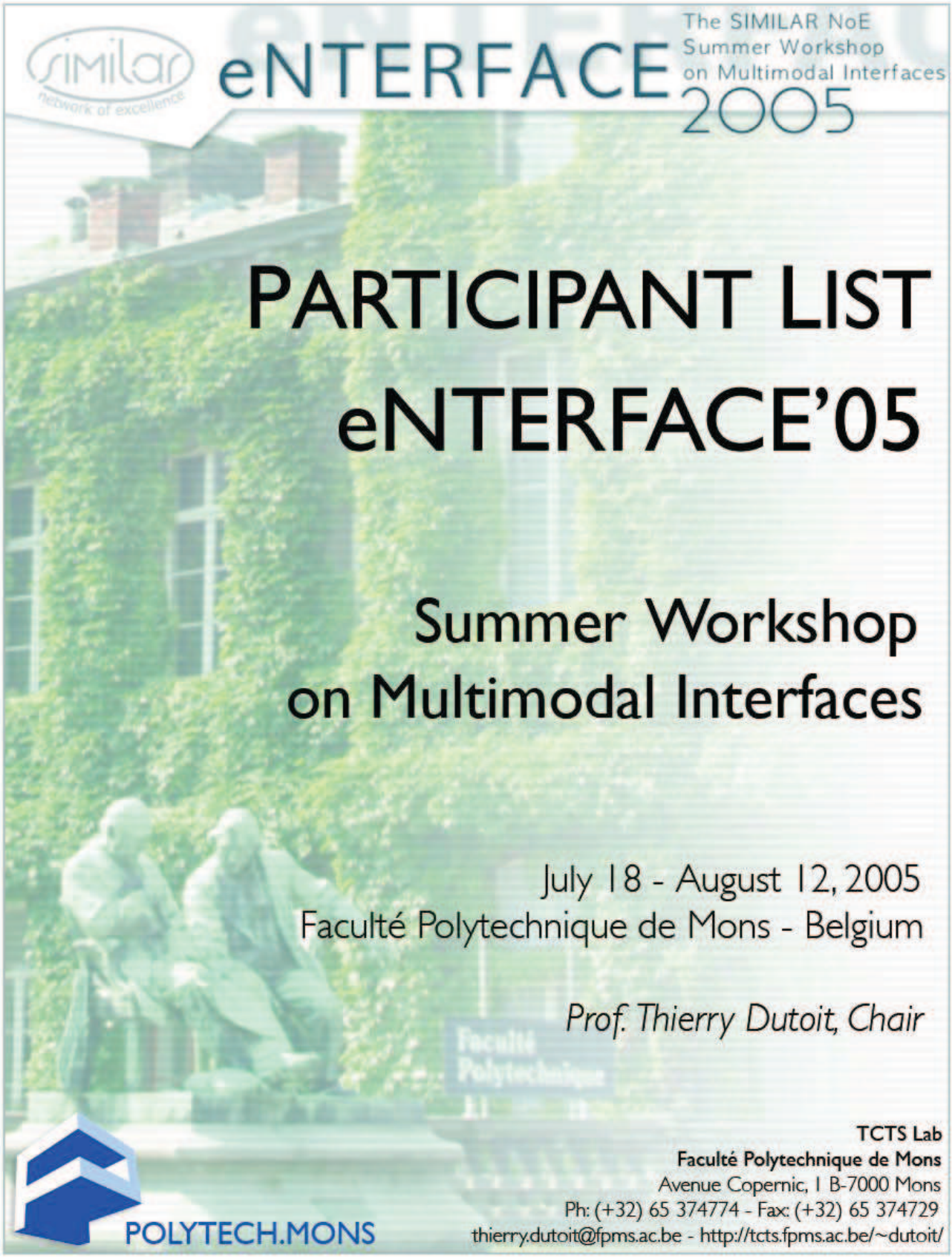
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eNTERFACE
The SIMILAR NoE
Summer Workshop
on Multimodal Interfaces
2005
PARTICIPANT LIST
eNTERFACE'05
Summer Workshop
on Multimodal Interfaces
July 18 - August 12, 2005
Faculté Polytechnique de Mons - Belgium
Prof. Thierry Dutoit, Chair
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Oya Aran
Burak Arslan
Serdar Kemal Balci
Alexandre Benoit
Olivier Bernier
Laurent Bonnaud
Andrew Brouse
Alice Caplier
Sébastien Carbini
Ana Huerta Carrillo
Julien Castet
Feride Çetin
Guillaume Chanel
Roberto Barra Chicote
Christophe d'Alessandro
Nicolas D'Alessandro
Maria Dimiccoli
Jean-Julien Filatriau
Alexander Refsum Jensenius
Alexey Anatolievich Karpov
Irene Kotsia
Sylvain Le Beux
Rémy Lehembre
Eloísa Ibáñez León
Vjekoslav Levacic
Benoit Macq
Mateï Mancas
Olivier Martin
Frederico Matta
Jordi Adell Mercado
Konstantinos Moustakas
Phillipe Ngo
Quentin Noirhomme
Ferda Ofli
Yannis Pantazis
Felipe Calderero Patino
Hannes Pirker
Stephan Raidt
Mehmet Emre Sargin
Arman Savran
Sascha Schimke
Raphaël Sebbe
François Severin
Juraj Simko
Cédric Simon
Yannis Stylianou
Céline Mancas-Thillou
Pedro Larroy Tovar
Daniela Trevisan
Dimitrios Tzovaras
Athanasios Valsamakis
Jean Emmanuel Viallet
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Yelena Yasinnik

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Oya Aran

Curriculum Vitae
Date of Birth: December 20, 1978 (Turkey)

Academic Background

- **PhD student**(September, 2002 - present)
  Bogazici University, Department of Computer Engineering
  Supervisor: Prof. Dr. Lale Akarun
  Stage: Thesis
  Research areas: Hand Gesture Recognition, Machine Learning, Computer Vision
- **MS in Computer Engineering** (September, 2000 - July, 2002)
  Bogazici University
  Supervisor: Prof. Dr. Ethem Alpaydin
  Thesis : "Incremental Neural Network Construction Algorithms for Training Multilayer Perceptrons"
- **BS in Computer Engineering** (September, 1996 - July, 2000)
  Bogazici University
  Supervisor: Prof. Dr. Lale Akarun
  Project: Multimedia Earthquake Education, A Game for Kids

Teaching Experience

- **Research and Teaching Assistant**, Bogazici University , TR

Introduction to Computing, C Programming	(Spring 2003 – present)
Digital Design	(Spring 2001, Spring 2002)
Introduction to Computing, Pascal Programming	(Fall 2002)
Object Oriented Programming	(Fall 2001)
Software Engineering	(Fall 2000, Fall 2001)

Industrial Experience

- **ALARKO A.S**. (January 2000 – October 2000)
  Worked as application supervisor for constitution of CRM, OLAP applications.
- **ELIAR A.S.** (March 1997 – October 1997)
  Worked as a programmer in the project of "Automation systems for fabric dyeing"

Publications

- Aran, O., Alpaydin, E., "An Incremental Neural Network Construction Algorithm for Training Multilayer Perceptrons", ICANN'03, Istanbul, June 2003.
- Incremental Neural Network Construction Algorithms for Training Multilayer Perceptrons, MS Thesis

Conference /Summer School Talks

- ICANN, Istanbul, Turkey (June, 2003)
- MLSS'04, Berder Island, France (September, 2004)

Languages

- Turkish (native), English (fluent, TOEFL: 257), German (little)

Preferred Projects

1. **Combined Gesture-Speech Analysis and Synthesis** (Coordinators : Profs. Murat Tekalp, Engin Erzin, Yucel Yemez, Mehmet Emre Sargin, Koc University Multimedia, Vision and Graphics Lab, Istanbul).
2. **Speech Conductor** (Coordinator : Prof. C. D'Alessandro, LIMSI-CNRS, Paris)
3. **A Multimodal (Gesture+Speech) Interface for 3D Model Search and Retrieval Integrated in a Virtual Assembly Application** (Coordinator : Prof. Dimitrios Tzovaras ITI-CERTH, Thessaloniki).

List of skills to offer for these projects

My current research, in connection with the SIMILAR project, is on developing applications for controlling windows programs through a gesture interface. My PhD thesis topic is also on a related area, which is the vision based recognition of dynamic hand gestures. I took courses on Speech Processing, Pattern Recognition, Machine Learning, 3D Computer Vision which provide the necessary background for the projects in the eNTERFACE workshop. In these courses, I worked on some projects which are related to the projects in the workshop such as analysis and synthesis of musical voice, motion recognition. I mainly use C/C++, Matlab for programming but can adapt to any programming language in a short time. I believe that I can contribute much to these projects as well as the workshop's contribution to me.

Possibility to bring a laptop? with wireless connection?

I will be able to bring a laptop with wireless connection

Oya Aran

PhD Student
Bogazici University
Computer Engineering Department

Burak Arslan, PhD

-Researcher at TCTS FPMS
-Works in DREAMS and SIMILAR projects.
-topics of interest:
   Acquisition and analysis of biomedical signals
   Biomedical instrumentation
   Brain-Computer-Interfaces
-may help in biomedical instrumentation&measurement issues

Serdar Kemal Balci

Haznedar m. Sakarya s.
No:21/10 34160
Gungoren/IST/Turkey

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Education

2001-present Bogazici University Istanbul, Turkey
B.S. in Electrical and Electronics Engineering
GPA 4.00/4.00

2004, Fall University of Illinois at UC Urbana, IL
Electrical and Computer Engineering as a Junior Exchange Student
GPA 4.00/4.00

Research Interests

2005 - present Bogazici University (BUSIM/VAV Lab) Istanbul, Turkey
Signal / Image processing, detection, identification and classification with an emphasis on biomedical applications. In particular
- Morphology/Shape representations in minimal spaces, e.g. CT/MRI 2D/3D data processing/analysis
- Registration, motion estimation, tracking, segmentation

PDE based methods:
- Level Set Methods

Projects Involved

2004, Fall University of Illinois at UC Urbana, IL
Worked in Brian Cunningham's research group to get familiar with high sensitivity plastic biosensors based on detection of changes in optical density on the surface of a narrow bandwidth guided mode resonant filter. Implemented a replicator which is designed to be used in the laboratory for sub-micron microreplication of a master sensor surface structure on sheets of plastic film.

2002–2004 Bogazici University (ISL) Istanbul, Turkey
Robotics, Motion Control of a Vision Guided Robot at Intelligent System Laboratories (ISL) of Bogazici University. Designed a pcb card to incorporate the cable connections of motor drivers, ADC card and encoders of a robot into a single layout.

Internship

Summer 2004 Arcelik Consumer Electronics Istanbul, Turkey
Design and Control of an Electronic Control Card of an Oven with a dot matrix display

Computer Skills

C/C++/Java Object oriented programming, Matlab, Opengl, MFC

Honors

August 2001

Ranked as 2nd in the university entrance examination in Turkey (OSS) out of 1,500,000 examinees.

Alexandre BENOIT
benoit@lis.inpg.fr
27 avenue Jeanne d'Arc
38100 GRENOBLE, FRANCE
☎ *(+33)6 89 71 12 12*

Second year PhD student in image and signal processing

University studies

2003-2006	PhD in image and signal processing at the Laboratoire des Images et des Signaux (Image and Signal processing Lab, aka "LIS") - Grenoble, France. Subject : "Head pose estimation in order to recognize facial expressions"
2002-2003	Diplôme d'Etude Approfondi – Grenoble, France Advanced Research Diploma in Signal and Image processing, Speaking and Telecommunications analyzing done during the last year of the engineering studies.
2000-2003	Polytech'Grenoble – Grenoble, France Industrial Computing and Instrumentation engineering specialized in Image and Signal Processing.
1998-2000	Institut Universitaire de Technologie-Grenoble, France A two year university level diploma in Physic Measurement specialized in Instrumental techniques.

Engineering skills

Engineering	Have done high level studies in signal processing, including image processing.
Computing	Am familiar with C/C++ programming languages on windows and Unix operating systems, Currently use Matlab for research activities Have frequently used CAD applications such as AutoCAD, Maya and Blender.
Automation	Have extensive knowledge in automation for continuous and discreet systems
Languages	French : native language English : good level, TOEIC : 862 points Basic German
Other Information	Full clean driving license

Interest and leisure activities

- **Sports** : am keen on windsurf, in line skates, snowboard, hiking…
- **And also** : video/photo editing, cooking…

CURRICULUM VITAE

BERNIER Olivier

Address: FTR&D TECH/IRIS/VIA Technopole Anticipa, 2 Av. Pierre Marzin, 22307 Lannion Cedex, FRANCE
Tél. : +33 (0)2 96 05 26 20
e-mail : olivier.bernier@francetelecom.com

1995-2005	**France Télécom/ R&D Division** Senior Scientist: Computer Vision, Statistical Learning and their application to Human Machine Interfaces
1988 - 1995	**France Télécom/CNET** Research Engineer

1986-1988	Ecole Nationale Supérieure des Télécommunications, Paris, France
1983-1986	Ecole Polytechnique, Palaiseau, France

SELECTED RECENT PUBLICATIONS

Agnès Just, Sébastien Marcel & Olivier Bernier
"HMM and IOHMM for the Recognition of Mono- and Bi-Manual 3D Hand Gestures"
BMVC 2004 Kingston University, London, September 2004

Sébastien Carbini, Jean Emmanuel Viallet and Olivier Bernier
"Pointing Gesture Visual Recognition for Large Display"
Pointing'04 ICPR Workshop Cambridge, United Kingdom, August 2004

Sébastien Carbini, Jean Emmanuel Viallet and Olivier Bernier
"Pointing Gesture Visual Recognition by Body Feature Detection and Tracking"
ICCVG (International Conference on Computer Vision and Graphics 2004), Warsaw, Poland, September 2004

Agnès Just, Sébastien Marcel & Olivier Bernier
"Recognition of Isolated Complex Mono- and Bi- Manual 3d Hand Gestures"
FGR 2004, Seoul, Corea, May 2004

J.E. Viallet and O. Bernier
"Face Detection for Video Summaries",
CIVR'2002 the Challenge of Image and Video Retrieval, London, July 2002

Olivier Bernier and Daniel Collobert
"Head and Hands 3D Tracking in real Time by the EM algorithm"
RATFG-RTS Workshop of ICCV 2001, Vancouver, Canada, July 2001.

Raphaël Féraud, Olivier Bernier, Jean-Emmanuel Viallet and Michel Collobert
"A Fast and Accurate Face Detector Based on Neural Networks"
IEEE Transactions on pattern analysis and machine intelligence Vol 23 No 1, January 2001.

Laurent Bonnaud

Laurent Bonnaud was born in 1970.
He graduated from the École Centrale de Paris (ECP) in 1993.
He obtained his PhD from IRISA and the Université de Rennes-1 in 1998.
Since 1999 he is teaching at the Université Pierre-Mendès-France (UPMF) in Grenoble and is a permanent researcher at the Laboratoire des Images et des Signaux (LIS) in Grenoble.
His research interests include segmentation and tracking, human motion and gestures analysis and interpretation.

ANDREW BROUSE
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CURRICULUM VITÆ

Education

University of Plymouth Computing, Communications and Electronics	Ph.D. candidate	2005 - current
McGill University Music Technology	MA	1997 - 2001
York University Interdisciplinary Visual Arts	MFA	1990 - 1992
University of Guelph Art History and Studio	BA	1989 - 1990
Ontario College of Art Experimental Art	AOCA	1982 - 1985

Employment (Academic)

Bath Spa University, Creative Music Technology Lecturer for Interactive Sound Design	winter/spring 2005
Concordia University, Faculty of Fine Arts Lecturer in Computation Arts	fall 2004
McGill University, Faculty of Music Lecturer in Music Technology	1999 - 2004
York University, Faculty of Fine Arts Instructor and Teaching Assistant	1990 - 1992

Employment (Technical)

McGill University, Web Communications Group Programmer and Systems Administrator	2001 - 2002
galerie Oboro, Artist-Run Media Centre Director of Research in New Technologies	1999 - 2001
centre intercultural Strathearn, Technician, Acting Technical Director	1995 - 1996

Personal information: Alice CAPLIER, permanent researcher at the LIS (Image and Signal Laboratory) Lab of Grenoble, France

Education:

1991 : graduated from Ecole Nationale Supérieure des Ingénieurs électriciens de Grenoble.
1992 : DEA signal image speech from the National Polytechnical Institut of Grenoble
1995 : Phd from the National Polytechnical Institut of Grenoble at LTIRF laboratory
(Subject : MRF model from motion detection in image sequences: spatio-temporal approach and real time implementations)

Research experience (field + short summary of work done):

I am working in the field of human behaviour analysis and interpretation. In particular, my works concern the analysis and recognition of facial expressions analysis, of the rigid and non rigid head movements involved in the non verbal communication process, of global human postures and of Cued Speech gestures (gestures involved in the communication process with hard of hearing people). The developed approaches consist in a first step of low level information extraction in video sequences and in a second step of information fusion based on the belief theory.

Main Publications (in relation with the workshop themes):

GIRONDEL V., CAPLIER A.,BONNAUD L., ROMBAUT M., "Belief theory-based classifiers comparison for static human body postures recognition in video", International Journal of Signal Processing IJSP, Vol. 2, n°1, pp-29--33, 2005.
EVENO N., CAPLIER A., COULON P.Y. - Automatic and Accurate Lip Tracking. *IEEE Transactions on Circuits and Systems for Video technology .* Vol.14, N°.5, may 2004, pp.706-715.
HAMMAL Z., COUVREUR L., CAPLIER A., ROMBAUT M. –Facial expression recognition based on the belief theory : comparison with different classifiers.- 13th ICIAP, Cagliary, Italy, September 2005.
HAMMAL Z., BOZKURT B., COUVREUR L., UNAY D., CAPLIER A., DUTOIT T. - Quiet versus agitated: vocal classification system- *EUSIPCO2005*, Antalya, Turkey, September 2005
BENOIT A., CAPLIER A.- Motion Estimator Inspired from Biological Model for Head Motion Interpretation. - *WIAMIS*, Montreux, Suisse, April 2005
BENOIT A., CAPLIER A. - Motion Head Nods analysis: interpretation of non verbal communication gestures - *ICIP2005*, Genova, Italy, September 2005
GIRONDEL V., BONNAUD L., CAPLIER A., M. ROMBAUT - Real Static Human Body Posture Recognition in Video Sequence Using the Belief Theory. - *ICIP2005*, Genova, Italy, September, 2005

BENOIT A., CAPLIER A. - Biological Approach for Head Detection and Analysis - *EUSIPCO2005*, Antalya, Turkey, September 2005.
CAPLIER A., BONNAUD L., MALASSIOTIS S., STRINTZIS M. - Comparison of 2D and 3D Analysis For Automated Cued Speech Gesture Recognition – SPECOM, St Petersbourg, Russia, September 2004.
HAMMAL Z., CAPLIER A. - Eyes and eyebrows parametric models for automatic segmentation
-*IEEE Southwest Symposium on Image Analysis and Interpretation*, USA, March, 2004.
GIRONDEL V., CAPLIER A., BONNAUD L. - Real Time Tracking of Multiple Persons by Kalman Filtering and Face Pursuit for Multimedia Applications *IEEE Southwest Symposium on Image Analysis and Interpretation*, USA, March, 2004.

Skills I can bring to the eNTERFACE projects:

Facial expressions recognition, head motion analysis, yawing and blinking analysis, gaze estimation

Other activities and Hobbies:

Sports : mountain bike, orienteering, mountaineering, skiing,

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sebastien.carbini@rd.francetelecom.com

25 years – Single

SECOND YEAR PhD STUDENT IN MULTIMODAL INTERFACE

RESEARCH EXPERIENCES

Since October 2003:	PhD Multimodal speech-gesture interface, France Telecom R&D 22300 Lannion, France. Supervisors: J. E. Viallet and P.Y. Coulon.
March - June 2003:	Lip segmentation with active shape and appearance model Laboratoire d'Images et Signaux, Grenoble, France
April - September 2002:	Integration of real time lips analysis softwares (visual C++) Laboratoire d'Images et Signaux, Grenoble, France

PUBLICATIONS

1) S. Carbini, J.E. Viallet, O. Bernier, "*Reconnaissance de gestes de pointage dans le cadre d'interaction avec un grand ecran*", CORESA, Lille, France, 24-25 may 2004.

2) S. Carbini, J.E. Viallet, O. Bernier, "*Pointing Gesture Visual Recognition for Large Display*", Pointing'04 ICPR Workshop, Cambridge, United Kingdom, 22 August 2004.

3) S. Carbini, J.E. Viallet, O. Bernier, "*Pointing Gesture Visual Recognition by Body Feature Detection and Tracking*", ICCVG (International Conference on Computer Vision and Graphics 2004), Warszawa, Poland, 22-24 September 2004. **Best Paper Presentation Award**.

4) S. Carbini, J.E. Viallet, O. Bernier, "*Simultaneous Body Parts Statistical Tracking for Bi-Manual Interactions",* ORASIS, Fournol, France, 24-27 may 2005.

5) S. Carbini, J.E. Viallet, L. Delphin-Poulat, "*MOWGLI: Multimodal Oral With Gesture Large display Interface",* GW (Gesture Workshop), Berder Island, France, 18-20 may 2005.

6) S. Carbini, L. Delphin-Poulat, L. Perron, J.E. Viallet, "*From a Wizard of Oz Experiment to a Real Time Speech and Gesture Multimodal Interface*", (prospective submission) Special issue of Signal Processing (ELSEVIER) on Multimodal Human Computer Interfaces, January 2006.

EDUCATION

2002 – 2003:	D.E.A. Signal, Image, Speech and Telecommunications in Grenoble, France (equivalent to M. S.)
1999 – 2002:	Engineer degree in industrial computer science and instrumentation, speciality: image and signal processing, delivered by "Polytech Grenoble" in Saint. Martin d'Hères, France.

SKILLS

Languages:	French, English (TOEIC level 2+), Italian (Spoken, Read).
Programming:	C, C++, Java, Matlab, Linux and Windows environments.
Areas of Interest:	Multimodal Interfaces, Gesture Interfaces, Image processing, Computer science, Speech processing, Neural networks.
Teaching experiences:	C++ and Assembly language at the Computer Science Department, I.U.T. of Lannion, France, (2003-2005).
Music:	Jazz guitarist.

CARBINI Sébastien

Preferred projects to be work on

1. (P7). A Multimodal (Gesture+Speech) Interface for 3D Model Search and Retrieval Integrated in a Virtual Assembly Application.
2. (P6). Speech Conductor.
3. (P3). Biologically-driven musical instrument.

Wireless connection laptop available

Projects Related Skills

Multimodality

Design and development of a Speech and Gesture Multimodal interface:

- Including multimodal feedback.
- No user specific calibration, learning or background.
- Interaction with large display: user can move freely without wearing any equipment.

Application context dependant fusion of speech and gesture.

Image processing

Body parts detection

Current work:

- Head detection by a Neural Network.
- Hands detection as skin-colour moving zone in front of the head.
- Arm detection as continuous depth zone in front of the head and including the hand.

Previous work:

- Lip segmentation with Active Contour Models and Active Appearance Models. Models parameters calculated by Principal Component Analysis (P.C.A.).

Body parts tracking

Current work:

- Statistical tracking: Head and hands are tracked simultaneously and are modelled by 3d Gaussian functions, exponential functions and colour histograms.
- Model parameters adaptation with Expectation Maximisation (E.M.) algorithm.

Previous work:

- Lucas-Kanade tracker: tracking of key points on the lip edge.

Bimanual continuous gesture recognition

Estimation of pointed location based on head and hands tracking.
Control of a third axis (zoom) or object selection with the second hand.

- Suited both for left handed and right handed person, without prior knowledge.
- Suited for interacting moving user in the field of the camera.

Speech recognition

Vocabulary and syntax definition. Push to talk controlled by gesture.
Selection among N best using recognition score, gesture and application context.

Music

Jazz guitarist (10 years practice).
Harmony theory, solfa, scales, arpeggio.

Ana Huerta Carrillo

Birth: 10 - 02 - 1981
Nationality: Spanish
E-mail: ana.huerta[]gmail.com
Group: Speech Technology Group
Departament: Electronic Engineering at ETSIT
University: Technical University of Madrid

EDUCATION

(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: "**Visual Environment for Designing Gestures using a 3D Avatar**".
Supervisor: Rubén San-Segundo.
Speech Technology Group. Dept. Electronic Engineering. UPM.

MUSIC:

Currently: MASTER OF MUSIC (Speciality PIANO). Music Professional Conservatory of Madrid.
(1989-2004): BACHELOR OF MUSIC (Speciality PIANO). Music Professional Conservatory of Móstoles and Music Professional Conservatory of Getafe.
(1992-1997): Elemental studies of percussion and accordion. Music Elemental School of Fuenlabrada.

LANGUAGES:

ENGLISH: Advanced level: reading, writing and speaking.
FRENCH: Intermediate 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, 3DSMax, Toon3D, OpenGL, Lightwave, Coold3D, Voacap (tool for HF communications).

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 (2001- 2005): Mobile phone seller for the Vodafone company.

OTHERS:

(1997-1999): Collaborating Volunteer in the MYDIAN association: aid of disable children.
(2003-2005): Experience working as a music teacher.

PREFERRED PROJECTS AND SKILLS TO OFFER

1. Biologically-driven musical instrument
Skills to offer for this project:
• High experience in music: bachelor level and currently studying the master level.
• Knowledge of artificial simulation of human senses.
• C and C++ programming.
• 3D graphics programming with OpenGL.
• Experience characterizing kinematics of 3-D human movements.

2. Multimodal Caricatural Mirror
Skills to offer for this project:
• Knowledge of artificial simulation of human senses.
• C and C++ programming.
• 3D graphics programming with OpenGL.
• Knowledge of 3D programs: 3DS max, Lightwave and Cool3D.

• Experience characterizing kinematics of 3-D human movements.

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

Skills to offer for this project:
• Knowledge of artificial simulation of human senses.
• C and C++ programming.
• 3D graphics programming with OpenGL.
• Knowledge of 3D programs: 3DS max, Lightwave and Cool3D.
• Experience characterizing kinematics of 3-D human movements.

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: Visual Environment for Designing Gestures using a 3D Avatar.
Author: Ana Huerta Carrillo
Supervisor: Prof. Rubén San Segundo Hernández
Speech technology Group (GTH). Dept. Electronic Engineering at ETSIT
Description: The project consists of the implementation of an environment to create and develop animations with virtual 3D avatars. We have considered two main utilities: the first one is to define and create avatar positions, and the last one is to generate animations from the defined positions.
The system is used in two ways, as an independent system or as a part of another complex system.
• As a part of a complex system: Our system will be able to play animations, from the data provided by a complex system: natural Language to gesture sequence translator. The avatar represents the gestures belonging to the Spanish Sign Language.
• As an independent system: providing a visual environment to design avatar animations in a easy way. It will include the definition of high level parameters for describing hand and arm movements. It will ready for speech therapists.

Julien CASTET

13 bis rue de Strasbourg
38000 Grenoble

Date of birth : 06/04/1981
Place of birth : Aureillhan, France
Driving license

Phone : 06.08.67.28.08
e-mail : julien.castet@free.fr

Education

2005 MASTER Research Art Science and Technologies ,
Polytechnics National Institut of Grenoble (038) France

2004 MASTER Physics and Applications,
University Luminy of Marseille (013) France

2003 LICENCE Electronics Electrotechnical and Automatic (EEA), mention AB,
University Paul Sabatier of Toulouse (031) France

2002 DEUG Sciences de la Matière,
University Paul Sabatier of Toulouse (031) France
1e degree: option Applied Math and Data processing, mention AB
2e degree: option EEA

1999 A-levels SCIENTIST, mention AB,
College Marie Curie of Tarbes (065) France

English / German : good skills, both written and oral

Knowledge of computer science:

Office	Windows, OS X, Linux (Latex, Word, Excel , PowerPoint, Staroffice, Openoffice…)
Programming	C, Java, Matlab (+Simulink)
Programming graphic	MAX -MSP (« externals » programming)
Automatic	Description VHDL (environment Maxplus - Altéra), Programmable automat (TSX 37 – Télémécanique - language LIST)
Electronics	Spice Lab
Music	Cubase, Protools, Acid, Genesis (Environment of Musical creation with physical model)

Work experience

1999 (1 month) Painter and decorator, Private enterprise Bombail (065)
2000 (15 days) Personal assistant of fitting a sound system, Festival Jazz de Ramatuelle (013)
2000 (3 months) Painter and decorator, Private enterprise Bombail (065)
2001 (1 month) Building supervisor, Private enterprise Bombail (065)
2002 (1 month) Fish merchant, Intermarché (040)
2003 (10 days) Farm Hand (032)
2004 (4 months) Training course, Laboratoire de Mécanique et Acoustique, National research center CNRS (013)
Subjet : Study, design and development of an expérimental prototype of musical electronic instrument inspired by guitar.
2005 (4 months) Training course, Laboratoire de L'ACROE, Association for Creation and Research on Expression Tools (038)
Subjet : Instrumentarium GENESIS , Composition development in the environment of musical creation with physical model GENESIS)

Center of interests

Music
- o Guitar experience in differents music schools (8 years)
- o Participation at a lots of concerts, and festivals with differents bands
- o Computer music experience in Musicalle (school of Toulouse)
- o Participation at singing and vocal expression lessons which lead onto a choir of improvised music (Concerts, acoustic experience)

Activités
- o Writing, Cinema, Theatre, Concert

Travels
- o Germany (lots of stay), Sénégal, Egypt, Guadeloupe, Républic of Dominican

Sport
- o Football, Montains

Musician and scientist for a lot of years, I am really interested in the utilization of new technologies for the musical creation.
Arising from a DEUG, Science of Matter, and from a Licence, Electronic Electrotechnical and Automatic, graduated in Toulouse, I have afterwards integrated the Master “Physics and Applications” (University Aix- Marseille II) in order to do an internship in the Computer Music team of the Mechanics and Acoustics Laboratory (Marseille). During this internship, entitled « Study, design and development of an experimental prototype of musical electronic instrument inspired by guitar », I discovered the impassioning links existing between musical creation and scientific research. From gesture capture to synthesis parameters, my work has covered the electronics needed for the data acquisition, signal processing, parameters mapping and real - time sound synthesis programming (Max- MSP environment). I discovered in research a really good means to be fulf il led in my scienti f ic aims.
Currently, I am doing my master internship at ACROE (association pour la création et la recherche sur les outils d’expression) in Grenoble (Claude Cadoz's team). My subject is the development of an « instrumentarium » in the environment of music creation with physical models. This project allows me to acquire solid skills in several fields of research linked to art and science : multisensorial perception, human computer interaction, real - time physical simulation and gestural interface, multimodal scenes analysis and perception, cognitive psychology, physical modeling...

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Feride Çetin

Education

- Koç University (KU)

B.S. in Computer Engineering (graduation expected June 2006) **GPA:**3.69

Language of Instruction: English (2001-Present)

- Kültür Science High School, Istanbul (1998-2001)

Work Experience

- Computer Eng. Dep., **Undergraduate Assistant** of Assist. Prof. Engin Erzin, KU (Jan 2003-Present)

Activities: Improving the Turkish Text to Speech Synthesizer I developed during my internship in summer 2004(now). Testing and taking data about signal processing for preparation of masters thesis projects and working for conferences.

- Momentum Software and Counseling AS, **Part-time Worker**, TUBITAK-MAM TEKSEB (Nov 2004-Feb 2005)

Activities: Improving the Turkish Text to Speech Synthesizer I developed during my internship in summer 2004.

- Dean of Students, **Mentorship**, KU (Fall 2004)

Activities: Guiding a group of incoming undergraduate students to help them adapt to university life

- Momentum Software and Counseling AS, **Summer Internship**, TUBITAK-MAM TEKSEB (Aug 2004)

Activities: Research about Text to Speech Processing and Developing a Turkish Text to Speech Synthesizer.

Projects at KU:

- Software Engineering Project: Design and Implementation of a computer game called Gizmoball by using Java and XML.
- Digital System Design Project: Design and Implementation of a Binary 4-Bit Multiplier by using Xilinx.
- Computer Architecture Project: Design an implementation of a single cycle 16-bit version of the MIPS processor, called WIMP-2004 by using Mux+PlusII software.

Project at Momentum AS:

- Research about Text to Speech Processing and Developing a Turkish Text to Speech Synthesizer by using Festival.

Scholarships Honors and Awards

Dean's Honor Student	Fall 2003, Spring 2004, Fall 2004
Vehbi Koç Scholar Award	Fall 2002, Spring 2003
Full Scholarship at KU Computer Eng. Department	Fall 2001-Present
FIAT, İtalian Language Education Scholarship	Summer 2003
Full Scholarship at Kültür Science High School	(1998-2001)

Skills

Languages: Turkish Native
English Fluent
Italian Good
Spanish Basic
Bulgarian Basic

Interest & Activities

- Music, Drawing, Cinema, Astronomy, Reading
- Memberships: IEEE (Computational Intelligence & Women In Engineering Soc.)
- Memberships: Computer Club KU
- Memberships: Vice chairman of IEEE Koç University Student Branch
- Memberships: Science Society – Astronomy Group KU
- Memberships: Koç Volunteers Club KU

REFERENCE

Assist. Prof. Engin Erzin , Koc University Computer Engineering Department
Tel: *+90212 3381533* ***E-mail:*** eerzin@ku.edu.tr

Skills

Languages:

Turkish	Native
English	Fluent
Italian	Good
Spanish	Basic
Bulgarian	Basic

Principal subjects/occupational skills covered:

- Computer Programming with C,
- Introduction to Engineering,
- Object-Oriented Programming with Java,
- Discrete Computational Structures,
- Probability and Statistical Methods for Engineers,
- Signals and Systems,
- Algorithms & Data Structures,
- Digital Systems Design,
- Circuit Analysis,
- Computer Architecture,
- Programming Language Concepts,
- Software Engineering,
- Database Management Systems,
- Operating Systems,
- Analog and Digital Communication Systems,
- Computer Networks

Technical Skills:

- Programming languages C and Java,
- Scheme, VHDL, Assembly Language, SQL, XML, UML
- Xilinx Foundation (Digital system design and simulation program), PSPICE (Circuit analysis and simulation program), Wavesurfer (Sound wave processing program), Festival Speech Synthesis System, PCSpim
- Windows, Linux
- Microsoft Office, FrontPage, Adobe Acrobat.

Organizational Skills:

- In Fall 2004 as a mentor I guided a group of 11 incoming undergraduate students to help them adapt to university life
- In Spring 2003 I worked for the preparation of the booklet of **SIU** 2003 (11th Signal Processing and Applications Conference) which was held in Koç University in June 2003
- Since Fall 2003, at Koç University, I am working as a teacher in a voluntary project made for giving basic information about computers and internet

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Research interest

Currently, my research interest is to detect emotional states from recordings of EEGs and other physiological signals. This research can find several applications in fields such as human-computer interfaces, brain-computer interfaces or virtual reality.

Research experience

2002 - 2003 **Research fellow in combinatorial optimisation**, collaboration between the company SABATE and the laboratory LERIA
- Optimisation of an automatic system to allow for corks classification.
- Study of a decision help tool to improve the process scheduling. Two objectives: decrease delivery delays and stocks.
- *Tools / skills:* metaheuristics, CSOP, Visual C++.

2002 **DEA (master equivalent) in vision** at LIRMM (computing, robotic and microelectronic laboratory of Montpellier).
Omnidirectional image analysis to obtain the camera displacement.
Tools / skills: signal processing, Lucas-Kanade algorithm, Matlab.

2001 **Training period in robotics** at LIRMM
Modelling of a real time code and analysis of its reliability, applied to medical robotic.
Tools / skills: C, QNX (real time UNIX for PC), Petri nets.

2000 **Virtual reality project** at IMERIR (higher engineering school in computing and robotics)
Development of a modeller that can generate a virtual environment and of a 3D engine.
Tools / skills: OpenGL, DirectX, MFC, UML.

Education

2001 - 2002 Doctoral school of Montpellier II. DEA SYAM (Automatic Systems and Microelectronics).
1999 - 2002 Engineering degree in computing and robotics. IMERIR. Perpignan (France).
1997 - 1999 University of technology in computing and industrial systems. Bourg en Bresse (France).

Computing skills

AI: metaheuristics, neural networks, modelling (CSP, graphs…)
Industrial computing: Petri nets, GRAFCET, 68xxx family
Operating systems: DOS**,** Windows 9X/NT, UNIX
Languages:, C/C++, Pascal, SQL, LISP, Assembler
Tools: VC++, Delphi, Windev, Access, Matlab
API SDK: Win32, MFC, DirectX, OpenGL
Conception methods: UML / OMT, SART, Merise

Language

French Mother tongue
English Intermediate written and spoken

List of 3 preferred projects

Here comes the list of projects that seem relevant to me by increasing order of interest:

- **Project 2: multimodal caricatural mirror**

My interest in this project concerns multimodal emotion recognition. It is well known that emotion can be expressed via several channels such as facial expressions, voice, gestures but also physiological signals (EEG, heart rate, galvanic skin response, etc.). Using physiological signals as an additional modality in a multimodal emotion recognition system will likely improve performance.

Skills: signal processing (especially for EEGs), Matlab, virtual representation (DirectX, OpenGL).

- **Project 3: biologically driven instruments**

It is clear that music elicits emotions in the listener and that a composer tries to put particular kinds of emotion in his work. From this point of view, detecting emotions from biological signals and using this information to influence sound generation can be interesting. The multimodal aspect of this project is also of great interest to me.

Skills: signal processing (especially for EEGs), Matlab, music knowledge and interest.

- **Project 4: Multimodal Focus Attention Detection in an Augmented Driver Simulator**

Attention is strongly linked to emotions. For example, emotions such as boredom or interest gives direct information about attention. For this reason, detection of emotions from physiological signals can be useful to infer user's attentional state.

Skills: signal processing (especially for EEGs), Matlab.

Roberto Barra Chicote

Contact Information

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ETSI Telecomunicación
Ciudad Universitaria S/N
Madrid, 28040 SPAIN

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E-mail: barra@die.upm.es

Research Interests

Pronunciation Variation Modeling, speech emotion recognition and synthesis, far talk recognition, statistical methods and automatic processing for large datasets

Education

graduate: **Universidad Politécnica de Madrid**, SPAIN

MSc. Telecommunication Engineering, January 2005

- Master's Thesis with Honors. Topic: "Design, implementation and evaluation of strategies of use of multiple pronunciations in automatic speech recognition systems". Advisor: Javier Macías Guarasa

Undergraduated courses related to speech technology: "Digital Speech Processing" and " Digital Speech Processing Laboratory", both passed with Honor.

postgraduate: **Universidad Politécnica de Madrid**, SPAIN

Currently enrolled in the posgraduated program:"Programa de Tecnologías de la Información y las Comunicaciones"

Research Experience

Universidad Politécnica de Madrid, SPAIN

Master's Thesis **January, 2005**

"Design, implementation and evaluation of strategies of use of multiple pronunciations in automatic speech recognition systems"

Participation in research projects **February 2004 - present**

- "Design, implementation and validation of system prototype of automatic speech recognition". Framed in the project "Vocal interfaces with robot host for visits attend them or remote to exhibitions" (REF DPI2001-3652-C02-02, URBANO PROJECT; funded by Ministry of Science and Technology)
- Currently scholar of ROBINT PROJECT(REF DPI2004-07908-C02-02. Participants: DIE ETSIT UPM, DISAM-ETSII-UPM, Museo Príncipe Felipe-CAC S.A.; funded by Ministry of Science and Technology)

Degree Works **February - June, 2002**

Development of a domotic application for the Public Net of Telefónica (special Practice of the Laboratory of Digital Electronic Systems), passed with Honor.

Academic Experience

Universidad Politécnica de Madrid, SPAIN

Teaching Assistant **October - february, 2002**
In the Laboratory of Digital Electronic Circuits.

System Administration **2004 - present**
Administration and maintenance of several L.A.N.'s (Linux and Windows) in the Speech Technology

Group computer system (Grupo de tecnología del Habla) in Madrid.

Papers

J. Macías-Guarasa, R. Barra, J.M. Montero. R. San-Segundo. "Objective Evaluation Strategies in Pronunciation Variation Modeling". Submitted to the 9th European Conference on Speech Communication and Technology.

Computer Skills

- Languages: Advanced programming in C/C++, java, Unix shell scripts (bash, awk, sed, coreutils ...), Matlab.
- Applications: LaTeX, common Windows database, spreadsheet, and presentation software
- Experience with electronics simulation tools (Orcad, Protel)
- Experience in instrumentation and resolution of electrical measurements (osciloscope, analyzer of spectra, sources ...)

I'm a postgraduated student of the Technical University of Madrid. I'm member of the Speech Technology Group (Grupo de tecnología del Habla GTH) included in the Electrical Engineering Department.

My main skills that could be interesting for the projects are:

* Knowledge and experience in speech technology.

* Knowledge in prosodic analisis of emotive databases

* I'm a research in ROBINT proyect(REF DPI2004-07908-C02-02 Participants: DIE ETSIT UPM, DISAM-ETSII-UPM, Museo Príncipe Felipe-CAC S.A.; funded by Ministry of Science and Technology). pre-emotional robot: URBANO. In this project we will advanced in the robot's emotional interaction by improving the emotional speech recognition and sinthesis and the robot's head gestures.

* Advanced programming in C and other programming languages like C++ and java.
* Wide experience in programming with scripts, bash, awk, sed and coreutils of linux.

* Knowledge in recurrent programming

* Knowledde in Linux administration systems

* Illusion and dedication for those themes and learnig new things.

Christophe d'Alessandro

Christophe d'Alessandro was born in Marseille, France, on December 16, 1961.

He received the B.S. degree in Mathematics, the M.S and the Ph.D degrees in Computer Science from Paris VI University, in 1983, 1984 and 1989, respectively.

He has been a permanent Researcher at LIMSI, a laboratory of the CNRS (French National Agency for Scientific Research), since october 1989. Prior to joining the CNRS, Dr. d'Alessandro has been a Lecturer in computer science at Paris XI University from october 1987 to october 1989.

He also graduated in music, and he has been appointed in 1988 organist of the historical organ of Sainte-Elisabeth in Paris, France (titular organist since 1992).

His research interests include text-to-speech synthesis, signal processing for speech analysis and synthesis, perception and synthesis of intonation in speech and singing, voice source analysis and synthesis, speech synthesis assessment, musical acoustics, musicology.
He is a member of ASA, ESCA, IEEE, ATALA and SFA (French Acoustical Society). At LIMSI, he is the head of the Situated Perception Group since 2003. He is also involved in researches on historical instruments and music, and he is a member of the historical monument committee at the French ministry of culture (historical instruments).

Nicolas D'Alessandro

Researcher, PhD. Student (TCTS Lab - FPMs)
http://tcts.fpms.ac.be/~dalessandro/

Nicolas D'Alessandro holds an Electrical Engineering degree from the FPMs since 2004. He did his master's thesis in the Faculy of Music of the University of Montreal (supervisor: Caroline Traube). That work gathered the development of an application based on perceptual analogies between guitar sounds and voice sounds, and a study of mapping possibilities between gestures and speech production models.

He just started a PhD. thesis in the TCTS Lab of the FPMs (supervisor: Thierry Dutoit) related to the real-time control of NUU-based (Non Uniform Units) synthetizers. He is currently in charge of the MaxMBROLA project (http://www.tcts.fpms.ac.be/synthesis/maxmbrola/).

With 5 to 15 years of practice in topics like music theory, interpretation (guitar, piano, percussions, digital devices) and composition, he is particulary interested in interdisciplinary research topics in the domains of music and technology.

MARIA DIMICCOLI

Barletta (Italia), 7th November 1979

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EDUCATION

- **Polytechnic of Bari (POLIBA):** Qualification exam to Engineer profession. (July 2004)
- **Polytechnic of Bari (POLIBA):** Computer Science Engineering, specialized in Informative Systems and Applications (Oct. 1998 - Mar. 2004)
  - **Marks:** (110/110) summa cum laude
  - **Title of the thesis:** "Desciption Logics based methodology for informative interoperability between heterogeneous sources of geo-spatial metadata", supervisor Prof. E. Di Sciascio
- **University Polytechnic of Madrid (UPM):** Winner award, in 2001, of Socrátes/Erasmus scholarship at Universidad Politécnica de Madrid**.** (Oct. 2001- Sep. 2002)
- **Secondary School of Barletta:** School- leaving certificate equivalent to High School with an emphasis on sciences. (Sep. 1993 – Jul. 1998)
  - **Marks:** 60/60

FURTHER EDUCATION

Polytechnic of Bari: Cycle of seminars about: "Management of security in the informatic networks" Poliorienta ProjecT (18-21-25-28 Feb. 2004)

PROFESSIONAL EXPERIENCE

University Polytechnic of Catalonia (UPC) , PhD Student in Image Processing Group(January 2005-Present)
Polytechnic of Bari: Cycle seminars 33 hours, about programming lenguage C for mechanical engineers . Other courses (10 Oct. – 21 Dic. 2004)

RELEVANT SKILL

Operating Systems:	Linux,Windows98/2000/Xp, MS-dos;
Programming languages:	C, C++, Java, Matlab, Labview;
Other tools:	UML, Rational Rose tools, SQL, Description Logics, Oiled, MPEG7, Model checking, Temporal Logics;

LANGUAGE SKILLS

Catalan	beginner
English	good
Italian	mother tongue
French	good
Spanish	advanced

The skills I can offer to these projects are:

- knowledge in Differencial Image Analysis(PDE);
- knowledge in Morphological Image Analysis;
- experience in C programming, working with the software of the Image Processing Group at UPC.

Jean-Julien Filatriau

Jean-Julien Filatriau is research assistant at Communications and Remote Sensing Lab. (UCL) since October 2004. He is working on Tifanis tele-immersion project. In parallel, he is pursuying research on synthesis of sound textures and control of sound processus by video-based motion analysis, in collaboration with Prof. Daniel Arfib (Laboratoire de Mécanique et d'Acoustique, Marseille).

Alexander Refsum Jensenius

...
Research Fellow, PhD-student
Musical Gestures Group
Department of Music
University of Oslo
...
Visiting Researcher
Sound Processing and Control Laboratory
Faculty of Music
McGill University

I am a PhD-student in music technology working on analysis of gestures and gestural control of musical instruments.

Here is my CV:
http://www.arj.no/cv.php
and my PhD-project:
http://folk.uio.no/alexanje/

I would be interested in participating in one of these projects (in order):
1. Biologically-driven musical instrument
2. Combined Gesture-Speech Analysis and Synthesis
3. Speech Conductor

I think I can contribute knowledge about sound design and gestural control of sound synthesis to the projects, and I am an experienced Max/MSP/Jitter developer. This semester I have also worked on gesture analysis with the Vicon and Polhemus Liberty motion capture systems as a visiting researcher at McGill University.

I will bring a PowerBook running OS X.4 and a PC laptop running Windows XP and Fedora Core 3.

CURRICULUM VITAE

1. Full Name: Alexey Anatolievich KARPOV

2. Affiliation: Saint-Petersburg Institute for Informatics and Automation of the Russian Academy of Sciences (SPIIRAS), Speech Informatics Group

3. Position: PhD student (2nd year) and part-time researcher (three years experience) in SPIIRAS

4. Birth date: 17.11.1978

5. Contact e-mail: karpov@iias.spb.su, karpov_a@mail.ru

6. Education: Master of Sciences in speciality: "Computational and radio-electronic systems" in Saint-Petersburg State University of airspace instrumentation.

7. Current research: Development of the methods and algorithms for Digital Signal Processing (feature extraction, HMM creation and training) and Human-Computer Interaction (voice operated control systems, dialogue systems, multimodal systems for disabled people), programming using C++ (development of demo-versions of speech recognition software). Organization of the International Conference "Speech and Computer" SPECOM'2004 and SPECOM'2002 and INTAS Strategic Scientific Workshop "Development of perspective applications of Human-Computer Interaction for Information Society" in September 2004.
Involvement in current projects:

- EU SIMILAR Network of Excellence "The European taskforce creating human-machine interfaces SIMILAR to human-human communication" IST-2002-507609, 2003-2007;
- INTAS Project "Development of multi-voice and multi-language Text-to-Speech (TTS) and Speech-to-Text (STT) conversion system (languages: Belarussian, Polish, Russian)", № 04-77-7404, 2005-2007;
- Project of OITVS RAS (Branch of Information Technologies and Computer Systems of the Russian Academy of Sciences) «Elaboration of means of intellectual speech interface for telecommunication», 2003-2006.

8. List of main publications

1) A.L. Ronzhin, A.A. Karpov. Voice Access System for Yellow Pages Service. In Proc. of 3-rd International IEEE Conference: Sciences of Electronic, Technologies of Information and Telecommunications SETIT-2005, Tunisia, 2005.
2) A.L. Ronzhin, A.A. Karpov. Large Vocabulary Automatic Speech Recognition for Russian Language. In Proc. of Second Baltic Conference on Human Language Technologies, Estonia, 2005, pp. 329-334.
3) A.A. Karpov. Robust method for determination of boundaries of speech on basis of spectral entropy. Scientific-theoretical journal "Artificial intelligence", Donetsk, Ukraine, 2004. Vol.4. pp. 601-607.
4) A.A. Karpov, A.L. Ronzhin, A.I. Nechaev, S.E. Chernakova. Assistive multimodal system based on speech recognition and head tracking. 9th International Conference SPECOM'2004, Russia, 2004, St. Petersburg, Publishing house "Anatolya", 2004, pp.521-530.
5) A.L. Ronzhin, A.A. Karpov. Implementation of morphemic analysis for Russian speech recognition. 9th International Conference SPECOM'2004, Russia, 2004, St. Petersburg, Publishing house "Anatolya", 2004, pp.291-296.

9. Obtained scientific awards

- Award "Distinguished PhD student of the Russian Academy of Sciences 2005", February 2005;
- Award of winner of competition of personal grants for 2004 for young scientists and specialists of Saint-Petersburg and North-West of Russia, November 2004;
- Laureate of competition "Grant of Saint-Petersburg 2004" of the International Soros Science Education Program (ISSEP) in specialty Mathematics, November 2004.

10. Foreign languages

English (intermediate), German (initial)

3 PREFERRED PROJECTS TO BE WORK ON

1. A Multimodal (Gesture+Speech) Interface for 3D Model Search and Retrieval Integrated in a Virtual Assembly Application (Coordinator : Prof. Dimitrios Tzovaras ITI-CERTH, Thessaloniki).

2. Combined Gesture-Speech Analysis and Synthesis (Coordinators : Profs. Murat Tekalp, Engin Erzin, Yucel Yemez, Mehmet Emre Sargin, Koc University Multimedia, Vision and Graphics Lab, Istambul).

3. Multilingual Multimodal Biometric Identification/Verification (Coordinator : Prof. Yannis Stylianou, University of Crete)

A LIST OF SKILLS TO OFFER FOR THESE PROJECTS

- PC user: MS Office (Access, Word, Excel, PowerPoint, Visio), E-mail clients (MS Outlook, The Bat), Web-browsers (MS Internet Explorer, Netscape Navigator, Opera), Graphical systems (PhotoShop, CorelDraw, AutoCAD), MathCAD, etc;
- Programmer: MS Visual C++, Borland C++ Builder, Delphi, Telephone API, CORBA, COM, WinSockets, MS SQL Server, HTML, Assembler;
- System administrator: Windows 95/XP/2000/2003, TCP/IP, firewall, web servers (MS IIS, Apache);
- Digital Speech Processing Software: Hidden Markov Toolkit (HTK), Microsoft Speech API, CoolEdit, SPIIRAS Speech Recognition Technologies.

IRENE KOTSIA

Personal data:

- Sex: Female
- Date of birth: 4th January 1980
- Language skills: English
- Studies:
    1. Diploma in Informatics, Aristotle University of Thessaloniki, Greece 2002 (4-year course of study)
    2. PhD candidate since December 2002, dissertation subject: "Image and video digital processing", supervisor: professor Ioannis Pitas, Aristotle University of Thessaloniki (Aristotle University of Thessaloniki is a SIMILAR partner)
- E-mail: ekotsia@aiia.csd.auth.gr

Research activities:

January 2003- :

Participation in the PENED 2001 research project entitled "Virtual Reality tools for education on natural disasters", funded by the Greek Secretariat of Research and Technology. The main objective of this project is to investigate the way virtual reality tools can be used for education on natural disasters. An attempt to develop a system that will allow the trainees to develop their psychological skills that will enable them to face an emergency situation, is made. Facial expression recognition using information extracted from image sequences and audio, is attempted.

March 2004- :

Participation in the SIMILAR project, work on facial expression recognition.

Publications:

- I. Buciu, I. Kotsia, and I. Pitas, **"Recognition of facial expressions in presence of partial occlusion"**, in Proc. of *9th Panhellenic Conference on Informatics (PCI `03)*, Thessaloniki, Greece, 21-23 November 2003.
- I. Buciu, I.Kotsia, and I. Pitas, **"Facial expression analysis under partial occlusion"**, in Proc. of *IEEE International Conference on Acoustics, Speech and Signal Processing, ICASSP 2005*, Philadelphia, 18-23 March , 2005.
- I. Kotsia, and I. Pitas, **"Real time facial expression recognition from video sequences using Support Vector Machines"**, in Proc. of *Visual Communications and Image Processing (VCIP 2005)*, Beijing, China, 12-15 July, 2005.

Submitted work:

- I. Kotsia, and I. Pitas, **"Real time facial expression recognition from image sequences using Support Vector Machines"**, submitted to IEEE International Conference on Image Processing ICIP 2005.
- I. Kotsia, I. Buciu and I.Pitas, **"Facial expression recognition under partial facial image occlusion",** submitted to Elsevier Image and Vision Computing journal.
- I. Kotsia, and I. Pitas, **"Dynamic facial expression recognition in image sequences using Support Vector Machines",** to be submitted to IEEE Transactions on Video Technology journal.

Research areas/interests:

- Facial expression recognition, both from static images and image sequences. Fusion of information extracted both from audio and visual data (sound and image sequences respectively).
- Video and 3D image processing, namely facial feature detection and tracking in order to follow and recognise facial expressions as they evolve through time.
- Animation of human models. Creation of 3D human models according to the H-anim standard using MAYA software. Animation of these human models according to gait analysis data and body posture.

ENTERFACE projects to work on (in order of preference):

1. Multimodal Caricatural Mirror (Coordinator: Prof. B. Macq, UCL Louvain La Neuve). Skills to bring into the project: previous experience in facial expression recognition from static images and video sequences as well as in the animation of human models using MAYA software.

2. Multimodal Focus Attention Detection in an Augmented Driver Simulator (Coordinators: Profs. Laurent Bonnaud & Alice Caplier, INPG_LIS, Grenoble; Prof. B. Macq, TELE Lab, UCL Louvain La Neuve). Skills to bring into the project: experience in facial expression analysis from static images and video sequences.

3. Multilingual Multimodal Biometric Identification/Verification (Coordinator: Prof. Yannis Stylianou, University of Crete) . Skills to bring into the project: previous experience in fusion of audio and video information for facial expression recognition.

Le Beux Sylvain

22 Years old | French | D.o.B. : 03/06/79 | Status : single

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GOAL: eNTERFACE Workshop

Education

2004-2005 :	Master SETI at University of Paris XI, Orsay – Embedded Systems and Data Processing
2004 :	CPE Lyon (Lyon, France) engineer school diploma – MSc in Electronics, Telecommunication and Informatics
2003-2004 :	Last year specialisation : Telecommunications
2002-2003 :	One year internship at Infineon Technologies (Munich, Germany).
2000-2002 :	CPE Lyon engineer school – Electronics, Telecommunications, Informatics section
2000 :	"Concours Communs Polytehcniques" Admission
1997-2000 :	***T***hree years full time of higher education for competitive entry into the best engineering schools : _"Mathématiques Spéciales " in (Lorient, France, 1998-2000) _"Mathématiques Supérieures" in (Lorient , France, 1997-1998)
1997 :	***S***cientific bachelor with distinctions.
Until 1997 :	***F***rom Primary to High School near Rennes, France.

Work Experience

2000	**One month experience** at France Télécom (Rennes, France) supporting data transmission technicians in their work.
2002-2003 :	**One year internship** at Infineon Technologies, (Munich, Germany) in Hardware Design department. My work essentially focused on electronics boards design, VHDL programming and SHDSL and ADSL boards configuration. I also achieved FPGA, Flash Memory and CPLD configuration including registers description in XML.
02/2004-07/2004 :	**6 months internship** for Final Year Project at IRCAM, (Paris, France) in Analysis/Synthesis Team under direction of Xavier Rodet. Design of a Text-to-Speech system focusing on speech recognition (for diphones) and prosodic analysis.
04/2005-08/2005 :	**Master's Thesis** at LIMSI, (Orsay, France) under the direction of Christophe d'Alessandro. Topic : "Gestural control of speech synthesis and expressivity".

Languages

French(Native)
English (Fluent)
German (good working knowledge)
Swedish (average level)
Spanish (beginner)
Latin(5 years)

Computing

Systems :	Windows XP,98 et 2000 Pro, Mac OS-X et OS 9.2, Linux.
Languages :	Pascal,C,C++, Lisp, ProLog , Perl, Javascript, Visual Basic, SQL, Access, VHDL, HTML, XML, Shell Script, synchronous languages (Signal - INRIA).
Scientific Software :	Maple, MatLab,Simulink, Toolbox
PCB Software :	Orcad Capture & Layout, Isp Lever , ModelSim, Quartus.
Synthesis Software :	Max/MSP, Csound, Pure Data, SuperCollider.
Office :	Word,Excel,PowerPoint, FrameMaker,Visio,Open Office.

CURRICULUM VITAE
CIVIL ENGINEER
ELECTRICITY

PERSONAL INFORMATION

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Telephone	**+32 (0) 474/46.14.03**
Email	rlehembr@hotmail.com
Nationality	Belgian
Date of birth	14/12/1980

Professional and Extra Curricular Experiences

• 2004	**Louvain-la-Neuve Jazz Festival**
Function	Stage Master
• 2003	**Loulé Jazz Festival (Portugal)**
Function	Volunteer
• 2000	**Environmental Workcamp (Oradea, Romania)**
Function	Volunteer
• 1996	**New Rochelle Hospital (N.Y., USA)**
Function	Administration

Education and training

• 1998-2005	**Université Catholique de Louvain-La-Neuve (Belgium)**
Description	Civil engineering degree - Electricity - Electronics/Telecommunications
• 1997-1998	**Lycée Guebre-Mariam (Addis Abeba, Ethiopia)**
Description	Bachalaureat
• 1994-1995	**French-American School of New York (USA, NY)**
Description	Brevet des Collèges

Accomplished Projects

• 2004-2005	**Academic Report**
Title	EEG Analysis for a brain-computer interface
Description	Classification of mental tasks, based on a joint timefrequency- space decorrelation, in which mental tasks are measured via electroencephalogram (EEG) signals
Link	http://www.tele.ucl.ac.be/view-project.php?id=61
• 2003-2004	**Electronic Project : Elec 22**
Description	Conception and implementation of a Cash Point by Team of six Members

Computer

• Software	**Electronic:** Matlab – Max Plus 2 – Quartus – Eagle – MpLab **Office:** Microsoft Office Word – Excel – FrontPage– PowerPoint **Multimedia:** Adobe Photoshop – Dreamweaver – Fireworks – Flash MX – Latex
• Languages/OS	C – C++ – Pascal – Basic – Java – Javascript – HTML – Assembleur – DOS – Windows, Linux

• **Implementation**

Signal Treatment: Filtering – Edge Detection – Gradient Calculations – Wavelet Analysis – Neural Networks

Java Implementation of a virtual cash point.

Languages

• MOTHER TONGUE

French

• OTHER LANGUAGES

	Spanish	English
Reading	Base/Good/Excellent	Base/Good/Excellent
Writing	Base/Good/Excellent	Base/Good/Excellent
Oral	Base/Good/Excellent	Base/Good/Excellent

Skills

Leadership
Creativity
Polyvalent
Fast Learning
Synthetical Mind

Interests

• **Sport** Tennis – Basketball – Football
• **Hobbies** Travelling – Reading – Writing
• **Music** Guitar – Bass Guitar

ELOÍSA IBÁÑEZ LEÓN

Birth: 3.9.1981.
Address: Azucena 20, 28980 Parla. Madrid.
Mobile: +34 635 696 129
E-Mail: eloisa.i@caramail.com

Group: Speech Technology Group
Departament: 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 tecnology 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.

Vjekoslav Levačić CV

Personal Information

- Name: Vjekoslav Levačić
- Nationality: Croatian
- Date and place of birth: 27.11.1981., Čakovec, Croatia
- Email vjekoslav.levacic@fer.hr

Languages

- Croatian (native), English fluent, German beginner

Skills

- Programming languages: Java, C++, C#, C, HTML, SQL, OpenGL, Assembler
- Internet technologies: J2EE, Struts, Spring, Tapestry, PHP
- Database experience: MySQL, IBM DB2, Hibernate framework
- Development tools: Eclipse, MS Visual Studio.NET, Matlab, JBuilder, KDevelop, QT
- Operating systems: MS Windows XP family, Linux (Mandrake, SUSE)

Education

- 2000 – 2005 Faculty of Electrical Engineering and Computing*, University of Zagreb, Croatia. Currently last year student and studying with an emphasis on scientific research work under mentorship of Prof Igor S. Pandzic. My diploma thesis project is MInfo (see project participations).
- 1997 – 2001 High Music School Varaždin, piano.

Certificates

- Certificate of Achievement MOC 2152: Implementing MS Windows Professional and Server

Project participations

- **MInfo – mobile news distribution system (2005)**

  Minfo is J2EE web application that supports news delivery on client mobile terminals via SMS and MMS messages. Project is sponsored by Ministry of science, education and sports and done in co-operation with HINA, the Croatian news agency.

- **VIVIANA – Virtual news presenter (2005)**

  VIVIANA is project which goal is to implement virtual news reader that reads the news delivered from HINA, the Croatian news agency. Project uses technologies like 3D face modeling, face animation, MPEG-4 FBA, XML and JAVA.

- **CHAIRMAN – Conference management system (2004-2005)**

  Chairman is a Web-based J2EE application helps organizing conferences in terms of paper management and participant management. Project was sponsored by Ministry of science, education and sports. An international conference ISPA 2005 (Image and Signal Processing and Analysis) uses Chairman for conference management.
  Activities: Application design, team leader

- **Simple IPv6 network emulator, Ericsson summer camp 2004, Zagreb (2004)**

  The goal of the project was to build a Linux IPv6 network emulator tool. The conference paper based on this project will be presented on International Conference on Telecommunications, CONTEL 2005 in Zagreb.

- **GCC compiler structure and optimizing algorithms research. (2004)**

* Faculty of Electrical Engineering and Computing is member of Similar

- **Bluetooth kiosk (2003)**
  Kiosk presents faculty news to subscribed students on kiosk display screen.
  Activities: Database and Web design

- **Building simple compiler at course Automata, formal languages, and compiler design II (2003)**
  Activities: team leader

Interests

- Sports, playing Jazz, movies

Preferred projects I would like to work on

1. Multimodal Focus Attention Detection in an Augmented Driver Simulator
2. A Multimodal (Gesture+Speech) Interface for 3D Model Search and Retrieval Integrated in a Virtual Assembly Application
3. Multimodal Caricatural Mirror

I' m also interested in biologically-driven musical instruments.

Skills to offer for these projects

- Excellent knowledge of C++ and experience with MFC [Simple IPv6 network emulator, compiler project]
- Basic knowledge and experience with following topics (through courses and projects):
  - Pattern recognition
  - Image processing
  - Computer graphics (theory, OpenGL)
  - Virtual environments (Virtual characters) [VIVIANA]
- Experience working in a team.

Other

I am able to take laptop with wireless connection.

Benoit Macq

Benoit Macq was born in 1961.
He is currently Professor at Université catholique de Louvain (UCL), in the Telecommunication Laboratory.
Benoit Macq is teaching and doing is research work in image processing for visual communications.
His main research interests are image compression, image watermarking and image analysis for medical and immersive communications.

Matei MANCAS

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Research Engineer, PhD Student

Education :

- Matei MANCAS holds an Audiovisual Systems and Networks Engineering degree (Ir.) from ESIGETEL (France) and an Information Processing MS degree (DEA SETI) from the Université d'Orsay Paris Sud (France) since 2002.
- He is now a PhD student at the TCTS Lab of the Faculté Polytechnique de Mons (Belgium) since March 2003.

Research :

- Matei's research interests concern signal and, in particular, image processing. After a study on nonstationary shock signals in industrial tests at MBDA (EADS group), he focuses now on combining high level processing methods based on the Human Visual System (HVS) with low-level processing techniques.
- He has a high interest in image perception and medical image processing. For instance, his research is focused on tumor detection and segmentation on CT-Scan images.
- Matei is a member of the Image Processing Group and Biomedical Group of the TCTS Lab.

Publications :

- March 2005: Matei MANCAS, Bernard GOSSELIN, Benoît MACQ, 2005, "Fast and Automatic Tumoral Area Localisation Using Symmetry", Proc. of the IEEE ICASSP Conference, Philadelphia (Pennsylvania, USA).
- January 2005: Matei MANCAS, Bernard GOSSELIN, Benoît MACQ, 2005, "Segmentation Using a Region Growing Thresholding", Proc. of SPIE/IS&T, San Jose (California, USA).
- October 2004: Matei MANCAS, Bernard GOSSELIN and Benoît MACQ, "Automatic Fast Detection of Tumor suspect areas on CT Scan" , Proc. of the IEEE VIS 2004, Austin (Texas, USA).
- September 2004: Matei MANCAS, Benard GOSSELIN and Benoît MACQ, "Risk Areas Segmentation for Radiotherapy Planning using Distance Maps", Posters at SPIE Optical Imaging held at the National Institute of Health, Washington DC (Maryland, USA).
- February 2004: Matei MANCAS and Bernard GOSSELIN, "Towards an automatic tumor segmentation using iterative watersheds", Proceedings of the Medical Imaging Conference of the International Society for Optical Imaging (SPIE Medical Imaging 2004), San Diego (California, USA).
- October 2003: Matei MANCAS and Bernard GOSSELIN, "Iterative watersheds and fuzzy tumor visualization" in the Proceedings of the IEEE Visualization Conference (IEEE VIS 2003), Seattle (Washington, USA).
- June 2003: Matei MANCAS and Gilbert LE FLOC'H, "Missiles : influence des dérives dans les mesures de chocs mécaniques" in "Essais Industriels" magazine Nr. 25. Essais Industriels mainly deals with tests in technical environment and it is published by A.S.T.E. association.

Preferred project :

1. A Multimodal (Gesture+Speech) Interface for 3D Model Search and Retrieval Integrated in a Virtual Assembly Application (no 7)
2. Combined Gesture-Speech Analysis and Synthesis (no 1)
3. Multimodal Caricatural Mirror (no 2)

Skills :

Mostly image processing. I am interested in gesture recognition and descriptor extraction. Moreover, I have some experience in VTK libraries (3D objects visualization) and FLTK (Cross-platform Interface) as I made a medical images test viewer.

I have a laptop.

Olivier Martin

Olivier Martin is a research assistant at Communications and Remote Sensing Lab. (UCL) since March 2003.
He is involved in the AIDA project ("Autonomy and Intelligence for Dynamic Interactive Applications").
Co-author of several papers about "Mixed Reality Interactive Storytelling", he is now focusing his research on his PhD thesis whose subject is "Multimodal Emotion Recognition for Interactive Applications".

Federico MATTA

Personal details:

Date of birth: 09 February 1979
Current address: 3 Rue Soutrane – 06560 Valbonne Sophia Antipolis – FRANCE
Contacts: +33.4.93002915, Federico.Matta$$$eurecom.fr ($$$ = @)

Education:

1998-2004 **POLITECNICO DI TORINO, Torino, ITALY**
Engineering Program in Telecommunications Systems (equivalent to Master of Science)

2002-2003 **ECOLE SUPERIEURE EN SCIENCES INFORMATIQUES, Sophia Antipolis, FRANCE**
DEA SIC program in Multimedia: Image & Vision (equivalent to Master of Science)

INSTITUT EURECOM, Sophia Antipolis, FRANCE
Engineering Program in Advanced Telecommunication Systems

Research experience:

2004-now **DOCTORAL THESIS, Institut Eurécom (CNRS), FRANCE**
Video analysis of facial behaviour and dynamics: a 3 year thesis with Professor Jean-Luc Dugelay.

2003 **RESEARCH INTERNSHIP, Laboratoire I3S (CNRS & University of Nice), FRANCE**
2D wavelet compression methods for image and video coding: a 6 months internship in the Creative group.
Development of a new experimental allocation algorithm that presents better compression performances than standard JPEG2000. Theoretical analysis, practical implementation and testing.

2002 **RESEARCH PROJECT, Institut Eurécom (CNRS), FRANCE**
Intra AS & inter AS delay statistics over the internet: a 4 months project with Professor Keith Ross.
A traceroute based measurements for comparing intra and inter Autonomous System delays with AS lookups for finding AS numbers from IP addresses. Comprehensive statistical analysis of the results.

Publications:

2005 **Federico MATTA, Jean-Luc DUGELAY: Towards Person Recognition Using Head Dynamics**
Conference paper: ISPA 2005, Zagreb.
Abstract. This paper describes a new approach for identity recognition using video sequences. While most image and video recognition systems discriminate identities using pixel-based information, our approach exploits the head dynamics; in particular the displacement signals of few head features. Due to the lack of standard video database, identification and verification scores have been obtained using a small collection of video sequences: the results for this preliminary approach are nevertheless encouraging.

Desired project(s) to work on:

- **Main project**: 5, biometric identification / verification
- **Other attractive projects**: 2, caricatural mirror

Skills that I can bring:

- Experience on **person recognition** (identification & verification) **systems**
- Experience on **video facial analysis**, in particular head tracking
- Global knowledge on **image and video** domains
- Experience in **C/C++** programming
- Experience in **Matlab** programming

JORDI ADELL's CURRICULUM VITAE

Name: Jordi Adell Mercado
Address: C/Jordi Girona 1-3 Campus Nord D5-118 – 08034 Barcelona (Spain)
email: jadell@gps.tsc.upc.es
web: http://gps-tsc.upc.es/veu/personal/jadell/

Academic Background:_____

- Currently I am a **Phd Student** at the TALP Research Centre, Dept. Of Signal Theory and Communication of the Univertitat Politècnica de Catalunya.
- Degree on **Telecommunication Engineer** at Universitat Politècnica de Catalunya (October-2003)
- **European Master on Language and Speech** at TALP Research Centre (October-2003)
- **Summer School of the European Master** on Language and Speech held in Leuven, Belgium. (July-2002).

Projects Participation:_____

Currently:
ALIADO:Speech and Language Technologies for a Personal Assistant (http://gps-tsc.upc.es/veu/aliado/)
TC-STAR: Technology and Corpora for Speech-to-Speech Translation (http://www.tc-star.org/)
ECESS: European Network of Excellence on Speech Synthesis (http://www.ecess.org/)

Past Participation:
Espresso III: Automatically determined unit inventories for Automatic Speech Recognition(GR/R67224). At the Centre for Speech Technology Research (University of Edinburgh). (from 03/2003 to 09/2003)

Publications:_____

"*Comparative study of Automatic Phone Segmentation methods for TTS*",
Jordi Adell, Antonio Bonafonte, Jon Ander Gómez, María José Castro
ICASSP, March 2005, Philadelphia, USA

"Análisis de la Segmentación Automática de Fonemas para la Síntesis de Voz",
Jordi Adell, Jon Ander Gómez, Antonio Bonafonte, María José Castro
III Jornadas en Tecnologías del Habla, Noviembre 2004, Valencia (Spain).

"Decision Tree-based parameter tying for Linear Dynamic Models",
Jordi Adell, Simon King, Joe Frankel, III Jornadas en Tecnologías del Habla,
Noviembre 2004, Valencia (Spain).

"Els talps també parlen. Línies de recerca en síntesi de la parla al centre TALP"
I. Esquerra, J. Adell, P.D. Agüero, A. Bonafonte, H. Duxans, A. Moreno, J. Pérez, D. Sündermann, II Congrés d'Enginyeria en llengua catalana, Octubre 2004, Andorra.

"Towards phone segmentation for concatenative speech synthesis."
Jordi Adell, Antonio Bonafonte, 5th ISCA Speech Synthesis Workshop,
June 2004, pages 139-144, Pittsburgh, USA.

"LDM Clustering for the use of context-dependent models on Speech Recognition"
Jordi Adell, MSc. Thesis, Universitat Politècnica de Catalunya, September 2003.

Konstantinos Moustakas

Konstantinos Moustakas is a PhD student at the Aristotle University of Thessaloniki, Greece. He received the Diploma in Electrical and Computer Engineering from the Aristotle University of Thessaloniki, Greece in 2003. His main research interests include image and video processing, 3D content based search and retrieval, virtual reality, computer graphics and computer vision. Currently he is working on rigid and deformable object modeling and 3D search and retrieval.

Philippe NGO

Born October 22nd 1980
Single. French Driving License.
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Final Internship of Computer Engineering School

Studies:

Since September 2005:	Student in last year of computer engineering studies at the UTBM (University of Technology of Belfort Montbéliard) Speciality **I2RV** (Picture, Interaction and Virtual Reality) (www.utbm.fr)
February 2003:	DEUTEC (a two year diploma in technology) from the UTBM.
September 2000- February 2003:	Student in the common core studies at the UTBM.
1998/1999:	Medical Studies in Besançon.
June 1998:	"Bac S": Scientific High School diploma specialized in Physics and Chemistry (with Honours).
Until 1998 :	European class - Sainte Marie High school - Belfort

Skills:

Operating systems :	UNIX (debian, red hat, mandrake), SUN Microsystems (Solaris), Windows NT
Network science :	FTP, LAN, WAN, Firewall installation, Apache, ATM, MPLS, Frame Relay, creation and setting up of company's networks. Wireless networks: UMTS GSM.
Databases Management:	Microsoft Access and Mysql.
Making Internet sites:	Programming in HTML, XML, XSLT, and PHP. Fair knowledge in Macromedia groups (FLASH, Dreamweaver…), Director 8.5, Photoshop CS.
Programming	LISP (Artificial Intelligence), Pascal, C, OMT, UML, Visual Basic, Fair knowledge in C++, MFC, JAVA, Action script, Lingo, SQL, VHDL, SMA, Stereovision, OpenGL, DirectX9, Java3D.
CAD and Design softwares	CATIA V5R10, ProEngineer 2000i^2. 3dsMax 6.0, Virtools Dev 2.5.

Languages:

English:	fairly good knowledge Travelled to California (USA) for 1 month in July 2001, preparing the TOEIC test.
German:	fairly good knowledge Travelled to Germany: school trip for 15 days in 1994.
Spanish:	fairly good knowledge Travelled to Spain: spending some time learning the language with my school for 15 days in 1995 and for 1 month in 1998 (as a tourist and to learn the language), preparing the DELE test level 3.
Japanese:	Notions. Internship of 6 month in Wakayama (JAPAN).
Chinese:	Notions.

Work Experience:

- February 2004 to June 2005:
  Making of a 3D animation's movie with the GANTNER's museum (Belfort - FRANCE).
- September to February 2005:
  Creation of an MFC application in order to recognize active shapes using a multi-agents system and an SDK called Teapotware.
- February 2004 to August 2005:
  6 month Internship in Wakayama (JAPAN): creation of 2 JAVA applications whose purposes are generating automatically XSLT and CSS files. This project belongs to a national project called "e-society"
- February 2004:
  Inventory of the Book department of the FNAC in Clermont-Ferrand (with Manpower)
- August 2003:
  Making Relational Database for the fire Brigade of Allier (FRANCE).
- June 2003:
  Making Relational Database for the day release education for employees provided by UTBM.
  Making internet Site for the Senzah music Band.
- January 2000:
  1 month training period as a worker in the department of Blades construction of Alstom Power Turbomachines Manufacturing (Belfort).

- August 2000 and 2001:
  2 months: Summer Job at the Belfort Hospital as a delivery person for medical material

Hobbies:

- ***Sports***: Nihon ju-jitsu, climbing, tennis, jogging, Surfing, Handball.
- ***Cultural activities***: I belong to a student rock band: SenZah.
- ***Team Activities***: Creator of the club of electronic music at the UTBM for deejaying.
- ***Involvement*** at the Movies Festival “Entrevue 19” (2004: in Belfort)
- ***Involvement*** at the **U**niversity **I**nternational **M**usic **F**estival (FIMU 2000 and 2001: Belfort)
- ***Extra-curriculum activity:*** I belong to a programmers group working on an SDK called TeapotWare.

Quentin Noirhomme

Quentin Noirhomme is research assistant at the Communications and Remote sensing laboratory (UCL). His main research interests are Brain Computer Interface, physic based model of a human brain and EEG.

Ferda Ofli

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Career Objective

To become a successful researcher in the area of signal processing

Education

2000 – Present	***Koç University College of Engineering, İstanbul, Turkey*** BS in Computer & Electrical and Electronics Engineering, 2005 GPA 3.46/4.0 Dept rank 4. Merit scholarship recipient Vehbi Koç Scholar
1993 – 2000	***Milli Piyango Anadolu Lisesi, Samsun, Turkey*** Graduated with first rank, honor of the school
1988 – 1993	***30 Ağustos İlköğretim Okulu, Samsun, Turkey*** Graduated with first rank, honor of the school

Work Experience

2/2004– present	***Koç University, İstanbul, Turkey*** **Teaching Assistant** Graded homework and tutored for 'Structure and Interpretation of Computer Programs' class in assistance of Asst. Prof. Deniz Yüret
9/2002 – present	***Koç University, İstanbul, Turkey*** **Resident Assistant (RA)** Took part in the resident assistance program at Koc University dormitories
7/2004 – 9/2004	***STMicroelectronics, İstanbul, Turkey*** **Summer Internship** Developed team projects on analog and digital design of microelectronic circuits. Wrote 160-page-long summer report on this.
9/2002 – 1/2004	***Koç University, İstanbul, Turkey*** **Mentor** Took responsibility in the mentorship program to welcome new students to the university. Helped them about any question they had related to classes, university life, etc.
9/2001 – 1/2004	***Koç University, İstanbul, Turkey*** **Research Assistant** Researched and gathered data in the Multimedia, Vision & Graphics Laboratory mainly on speech processing in assistance of Asst. Prof Engin Erzin
9/2000 – 6/2001	***Koç University, İstanbul, Turkey*** **Part-time Student** Helpdesk work in Computer & Information Technology (CIT) Office

Professional Skills

- Advanced level of English, Turkish (native), German (beginner)
- Programming languages,
    - advanced, i.e. Fortran, C, C++, Java
    - average, i.e. Lisp, Scheme, Perl, VHDL
- Design languages, i.e. UML
- Design libraries, i.e. OpenCV, IPL (Image Processing Library)
- Circuit simulation tools, i.e. Matlab, Spice, Magic, Xilinx, Max+plus, Cadence
- Operating systems, i.e. Windows 2000, NT, XP, Linux, Unix

Training

- Advanced training on effective communication skills and conflict management, presented by Dr. Sema Süvarioğlu from Pusula Training & Management Counseling, September 2002
- Seminar on drug and alcohol abuse for RA and mentor trainings, presented by Assoc. Prof. Kültegin Ögel, MD, May 2002

Activities

- Treasurer of Koç University Folklore Club, 2001 – 2003
    - Performing folk dances in festivals (4. European Youth Festival, Ankara, 2002)
- Member of Engineering Club, 2000 – 2003
- Member of Computer Club, 2001 – present
- Secretary of Computer Club, 2001 – 2002
- Member of Koç Volunteers (Koç Gönüllüleri), 2001 – present
    - Teaching high school lessons at Halk Eğitim Merkezi, Sarıyer, 2002 – 2003
- Player in volleyball team of Koç University, 2001 – present
  at Samsun DSİ Spor, 1995-1999, first rank in city and region

CURRICULUM VITAE

Name:	**Yannis Pantazis**
email:	pantazis@csd.uoc.gr
Address:	Asklipiou 4, Fortezza Heraklion, Crete 71409 **Greece**
Date of Birth:	28^{th} February 1983
Nationality:	Greek

University Education:

Diploma, 2004	Computer Science Department Univercity of Crete (Sep. 2000-Sep. 2004)
M.Sc., currently	Computer Science Department Univercity of Crete (Sep. 2004-) *supervisor: professor Y. Stylianou*

Reasearch Interests

My current research interests are digital signal processing, speech signal processing and especially speech synthesis systems. I am also interested in classification techniques and algorithms.

Publications

Discontinuity Detection in Concatenated Speech Synthesis Based on Nonlinear Speech Analysis
Eurospeech, 2005.

Nonlinear Speech Features for the Objective Detection of Discontinuities in Concatenative Speech Synthesis
Speech Processing, Recognition and Artificial Neural Networks, pages 375-383, 2005.

Felipe Calderero Patino

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EDUCATION

PhD. Student at the Image Processing Group.
Department of Signal Theory and Communications. Technical University of Catalonia (UPC).
Advisor: Prof. Ferran Marqués. November, 2004 – Present.

Student of Master of Science in Information and Communication Technologies.
Department of Signal Theory and Communications. Technical University of Catalonia (UPC).
November, 2004 – Present.

Master Degree in Electrical (Telecommunications) Engineering.
Diploma Thesis at Northeastern University (Boston):
Level Sets Applied to Inverse Problem in Electrocardiography.
Technical University of Catalonia (UPC). September, 1999 – November, 2004.

PUBLICACIONS

A Method to Reconstruct Activation Wavefronts Without Isotropy Assumptions Using a Level Sets Approach. Accepted at FIMH 2005 (Functional Imaging and Modeling of the Heart 2005). Barcelona, June 2-4, 2005.

A Level Set Algorithm for the Inverse Problem of Electrocardiography. Accepted at 38th Asilomar Conference on Signals, Systems and Computers. November 7-10, 2004. Monterrey, California, USA.

PROFESSIONAL EXPERIENCE

Image Processing Group Research Assistant,
Computers in the Human Interaction Loop (CHIL).
Project developed under the Sixth Framework Programme of the European Union.
Associate Professor Josep R. Casas
Technical University of Catalonia. From December 2004 to present.

Image Processing Group Research Assistant.
3D Posture Estimation Using Geodesic Distance Maps.
Professor Ferran Marqués.
Technical University of Catalonia. From September 2003 to December 2003.

LANGUAGES

English:	High level
French:	Middle-low level
Spanish and Catalan:	Mother tongues (bilingual)

PROFESSIONAL AFFILIATIONS

Barcelona IEEE Student Branch member since March 2002 and chairman from September 2002 to September 2003. IEEE-Buran Technical Magazine Editor Assistant, No. 18 and No.19.

Barcelona BEST Member (Board of European Students of Technology). From July 2002 to present.

HONOURS & AWARDS

Secondary Education Extraordinary Award, 1998.

Skills I can offer:

* experience in 3D gesture and position estimation, working with Prof. Marqués at UPC for 6 months;
* knowledge in Level Sets (PDE) thanks to my diploma thesis at Northeastern University in Boston;
* knowledge in Morphological Image Analysis (advanced lectures during my degree and personal interest);
* experience in C programming, working with the software of the Image Processing Group at UPC.

Hannes Pirker

Austrian Research Institute for Artificial Intelligence (OFAI)
A-1010 Vienna, Freyung 6/6/7

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Tel.: +43-1-5324621-3
Homepage: http://www.oefai.at/~hannes

Vienna, April 12th 2005

Application for Participation at the eNTERFACE'05 Workshop

Preferred Projects:

1. *Speech Conductor*
2. *Multimodal Caricatural Mirror*
3. (*Combined Gesture-Speech Analysis and Synthesis*)

Skills (and Interests):

Over the last 10 years most of my work has been connected to the topic of **speech synthesis**. I mainly dealt with problems of **prosodic modelling**, i.e. the determination of "natural" and/or "adequate" intonation and temporal structure for synthesized utterances.

Currently I am working as part of the NoE **HUMAINE** ("Human-Machine Interaction Network on Emotion"; http://emotion-research.net/), where I am dealing with the generation of expressive behaviour in Embodied Conversational Agents (or Avatars), which comprises both speech and animation.

Thus at the moment I am also concerned with the synthesis of *affective* or *emotional* speech, and I am part of the respective informal speech-synthesis "sub group" in HUMAINE.

On the other hand, in the last three years I have been working in the field of **gesture generation** in avatars, which is the basis for my interest in **multimodal-generation**. Starting from my background in speech synthesis I worked on the temporal synchronisation of gestures and speech. One of the main fields of research was the specification of **XML-based representation**- and **markup-languages** to be used for the interfacing between natural-language-generation, speech-synthesis, and gesture-animation in complex generation systems.

But up to now research in avatars in most cases is neglecting the issue of real interactivity, i.e. the kind of close-to-real time reactivity to user-input that is envisaged in some of your proposed projects. I thus would be very interested to participate in either the **Speech Conductor** or the **Multimodal Caricatural Mirror**. In both projects I would be happy to contribute my experience on prosody and gesture-and-speech synchronisation. On the other hand I am looking forward to learn more on the architecture and design of really interactive systems via collaboration in on of these projects. (In spite of its tempting title, the project *Combined Gesture-Speech Analysis and Synthesis* methodologically seems to be more biased towards analysis than to generation and thus seems to fit less perfectly with my profile).

Bring a Laptop: probably no

CV and List of Publications

Personal Data

Mag. **Hannes Pirker**
Austrian Research Institute for Artificial Intelligence (OFAI)
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A-1010 Vienna

Contact: hannes@oefai.at (+43)(01)532 4621-3
Homepage: `http://www.oefai.at/~hannes`

Year/place of birth: 1965/Wolfsberg (Austria)

Chronological CV

1971–1979	Elementary school and *Gymnasium*
1979–1984	*Höhere Technische Lehranstalt* (technical highschool) for mechanical engineering, Wolfsberg, Austria
11/1984–9/1988	Software developer (mainframes computers/ financial domain)
1988–1994	Studying Linguistics and Computer Science at Klagenfurt University, Austria
1990–1994	Studying Computational Linguistic and Computer Science at Saarbrücken University, Germany.
1991–1993	Student Assistent at the Language Technology department of the *Deutsches Forschungszentrum für Künstliche Intelligenz (DFKI)*, Saarbrücken, Germany
07/1994	Masters degree in Linguistics from Klagenfurt University
since 1994	Researcher at the Language Technology group of the *Austrian Research Institute for Artificial Intelligence (ÖFAI)*, Vienna

Professional Expertise (Excerpt. Cf.`www.ofai.at/~hannes`)

Concept-to-Speech Synthesis Prosodic modelling for speech synthesis taking syntax, semantics and information-structure into account

Prosodic Modelling Modelling "adequate" intonation in terms of phonology and phonetics (determining location and type of ToBI-tones plus rendering to concrete F_0-contours)
Modelling phone-durations by applying machine learning techniques on corpora

Speech and Gesture Coordination Generation and synchronisation of gestures, body movements and synthesized (affective) speech in avatars.

Teaching Experience

02/1999–07/1999	Klagenfurt University: Lecture on "Speech synthesis – speech recognition"
08/2003	European Summer School for Logic, Language & Information (ESSLLI 2003) Lecture on "Speech synthesis"

References

[Heine et al. 93] Heine J., Klein J., Oberhauser F., Pirker H. und Simon J.: Zur Analyse und Bewertung des SADAW-Lexikons, unpublished internal report, Siemens München, Universität des Saarlandes und Universität Stuttgart, 1993.

[Krieger et al. 93] Krieger H.-U., Pirker H., Nerbonne J.: Feature-based Allomorphy, Proceedings of the 31st Annual Meeting of the Association for Computational Linguistics, pp.140-147, 1993.

[Pirker 94] Pirker H.: Morphologie in einem merkmalsbasierten Vererbungsnetzwerk, Universität Klagenfurt, Austria, Diplomarbeit, 1994.

[Niklfeld et al. 95a] Niklfeld G., Pirker H., Trost H.: Using Two-Level Morphology as a Generator- Synthesizer Interface in Concept-to-Speech Generation, in Dybkjaer L., Proceedings of the Second Spoken Dialogue and Discourse Workshop, Centre for Cognitive Informatics, Roskilde University, 1995.

[Niklfeld et al. 95b] Niklfeld G., Pirker H., Trost H.: Using Two-Level Morphology as a Generator- Synthesizer Interface in Concept-to-Speech, in Proceedings of the 4th European Conference on Speech Communication and Technology (EUROSPEECH 95), Madrid, Spain, Vol.2,pp.1223-26, 1995.

[Alter & Pirker 97] Alter K., Pirker H.: On the specification of sentence initial F0-patterns in German, in Botinis A., et al.(eds.), Intonation: Theory, Models and Applications, University of Athens, Greece, pp.25-28, 1997.

[Pirker et al. 97] Pirker H., Alter K., Matiasek J., Trost H., Kubin G.: A System of Stylized Intonation Contours for German, in Proceedings of the 5th European Conference on Speech Communication and Technology (EUROSPEECH 97), Rhodos, Greece, 1997.

[Alter et al. 97] Alter K., Pirker H., Finkler W.(eds.): "Concept to Speech Generation Systems", Proceedings of a workshop sponsored by the ACL, Univ.Nacional de Educacion a Distancia, Madrid, Spain, July 11, Madrid, Association for Computational Linguistics, Somerset, NJ, 1997.

[Pirker 98] Pirker H.: Dauerphänomene in listenförmigen Aufzählungen, Fortschritte der Akustik, DAGA-98, Zürich, 1998.

[Pirker et al. 98a] Pirker H., Rank E., Trost H.: Generating Intonation Contours Using Tonal Specifications, in Sojka P., et al.(eds.), Text, Speech, Dialogue (TSD'98), Masaryk University, Brno, 1998.

[Pirker et al. 98b] Pirker H., Niklfeld G., Matiasek J., Trost H.: From Information Structure to Intonation: A Phonological Interface for Concept-to-Speech, in: Proceedings of COLING-ACL 98, Montreal, 1998.

[Alter et al. 98] Alter K., Matiasek J., Steinhauer K., Pirker H., Friederici A.D.: Exploiting Syntactic Dependencies for German Prosody: Evidence from Speech Production and Perception, in Schröder B., et al.(eds.), Computers, Linguistics, and Phonetics between Language and Speech, Peter Lang, Frankfurt, 1998.

[Rank & Pirker 98a] Rank E., Pirker H.: VieCtoS—Speech Synthesizer, Technical Overview, Österreichisches Forschungsinstitut für Artificial Intelligence, Wien, TR-98-13, 1998.

[Rank & Pirker 98b] Rank E., Pirker H.: Realization of Prosody in a Speech Synthesizer for German, in Schröder B., et al.(eds.), Computers, Linguistics, and Phonetics between Language and Speech, Peter Lang, Frankfurt, pp. 169-178, 1998.

[Rank & Pirker 98c] Rank E., Pirker H.: Generating Emotional Speech with a Concatenative Synthesizer, in Proceedings of the 5th International Conference on Spoken Language Processing (ICSLP'98), Sydney, Australia, 1998.

[Pirker & Loderer 1999] Pirker H., Loderer G.: "I said TWO TI-CKETS": How to talk to a deaf wizard, in Proceedings of the ESCA Workshop on Dialogue and Prosody, September 1-3, Veldhoven, The Netherlands, p.181, 1999.

[Pirker et al. 1999] Pirker H., Loderer G., Trost H.: Thus Spoke the User to the Wizard, in Proceedings of the 6th European Conference on Speech Communication and Technology (Eurospeech 99), Budapest, Hungary, Vol.3,p.1171, 1999.

[Pirker & Kramer 1999] Pirker H., Kramer S.: Listening to lists: Studying durational phenomena in enumerations, in Proceedings of the 14th International Conference of Phonetic Sciences (ICPhS-99), San Francisco, California, p.273, 1999.

[Pirker & Neubarth 2000] Pirker H., Neubarth F.: Die Modellierung von Lautdauervariationen im Österreichischen Deutsch, in Fortschritte der Akustik, Universität Oldenburg, 2000.

[Neubarth et al. 2000] Neubarth F., Alter K., Pirker H., Rieder E., Trost H.: The Vienna Prosodic Speech Corpus: Purpose, Content and Encoding, in Zuehlke W., Schukat-Talamazzini E.G. (eds.), Konvens 2000 - Sprachkommunikation, VDE Verlag, Berlin, pp.191-96, 2000.

[Bringmann et al. 2002] Bringmann B., Kramer S., Neubarth F., Pirker H., Widmer G.: Transformation-based Regression, in Sammut C., Hoffmann A. (eds.), Proceedings of the Nineteenth International Conference on Machine Learning (ICML 2002), Morgan Kaufmann Publishers, pp. 59-66, 2002.

[Piwek et al. 2002] Piwek P., Krenn B., Schröder M., Grice M., Baumann S., Pirker H.: RRL: A Rich Representation Language for the Description of Agent Behaviour in NECA, in Marriott A. et al. (eds.), Embodied Conversational Agents: Let's Specify and Compare Them!, Workshop Notes, Autonomous Agents & Multiagent Sytems 2002, University of Bologna, Bologna, Italy, 2002.

[Krenn et al. 2002] Krenn B., Pirker H., Grice M., Baumann S., Piwek P., Deemter K.van, Schröder M., Klesen M., Gstrein E.: Generation of multimodal dialogue for net environments, in Busemann S. (ed.), KONVENS 2002, Deutsches Forschungszentrum für Künstliche Intelligenz (DFKI), Saarbrücken, Germany, pp.91-98, 2002.

[Neubarth et al. 2002] Neubarth F., Pirker H., Trost H.: Learning duration, in Busemann S. (ed.), KONVENS 2002, Deutsches Forschungszentrum für Künstliche Intelligenz (DFKI), Saarbrücken, Germany, pp.123-130, 2002.

[Pirker & Neubarth 2003] Pirker H., Neubarth F.: Some Questions and Answers on the Prosodic Correlates of Information Structure, in Sole M.J. et al., Proceedings of the 15th International Congress of Phonetic Sciences (ICPhS-2003), August 3-9, Barcelona, Spain, pp.1807-1810, 2003.

[Krenn & Pirker 2004] Krenn B., Pirker H.: Defining the Gesticon: Language and Gesture Coordination for Interacting Embodied Agents, in Proceedings of the AISB-2004 Symposium on Language, Speech and Gesture for Expressive Characters, Convention of the Society for the Study of Artificial Intelligence and the Simulation of Behaviour, 30.-31.3., University of Leeds, UK, 2004.

[Apel et al. 2004] Apel J., Neubarth F., Pirker H., Trost H.: Have a break! Modelling pauses in German speech, in Buchberger E.(ed.), *KONVENS 2004*, Österreichische Gesellschaft für Artificial Intelligence (ÖGAI), Vienna, Austria, pp.5-12, 2004.

Curriculum Vitae

Stephan Raidt, Master of Science in Electrical Engineering (M.Sc.E.E)

Education:

Since 2004 **Doctoral Thesis**, INP-Grenoble, Institute of Speech Communication - ICP, Grenoble, France
'Communication face-à-face entre un locuteur réel et un clone parlant. Contact visuel et monstration multimodale dans un univers virtuel. '
- **mutual attention, face-to-face conversation, eye gaze, deixis, embodied conversational agent**

1998 – 2004 **Electrical Engineering studies**, Technische Universität Dresden, Germany
specialization: Information and Communication Technology; acoustics and speech communication
- **Master of Science in Electrical Engineering (M.Sc.E.E)**
  Degree: **Good**

1995 – 1998 **Apprenticeship**, theoretical and practical formation, Physical Institute, Universität Tübingen, Germany
- **maintenance and construction of electrical equipment**
  Degree: **Good**

Practical Experience:

2003 **Klippel GmbH**, transducer diagnostics & control systems, Dresden, Germany
8 months internship: **Loudspeaker Analysis**
- **Master Thesis: "Estimation of Linear and Nonlinear Loudspeaker Parameters"**

2003 **IBM**, European Speech Research, Mannheim, Germany
3 months internship: **Speech Synthesis**
- programming of an auditory test as a web site
- localizing voiced parts of speech
- domain specific speech synthesis

2002 **INP-Grenoble**, Institute of Speech Communication - ICP, Grenoble, France
6 months, assistant student: **Speech Synthesis**
- **Comparing two systems for generation of prosody**
  - recording and labeling of a speech corpus (spoken mathematical formula)
  - implementation of IGM (prosody model by H. Mixdorff)
  - parameter extraction from text and speech data analysis
  - training of a neural network
  - numerical and subjective evaluation

2001 **Technische Universität Dresden**, Institute of Acoustics and Speech Communication, Dresden, Germany
assistant student: **Labeling of Speech Data**

2000 **Klippel GmbH**, transducer diagnostics & control systems, Dresden, Germany
assistant student: **Loudspeaker Analysis**

Publications

Raidt, S.; Bailly, G.; Holm, B.; Mixdorff, H.:
Automatic generation of prosody: Comparing two superpositional systems.
Speech Prosody 2004, international conference, 23.-26. March 2004, Nara, Japan

Bailly, G.; Elisei, F.; Raidt, S.
Multimodal Face-to-Face Interaction with a talking face: Eye Gaze, Mutual Attention and Deixis.
Human Computer Interaction - HCI International 2005, 22.-27. July 2005, Las Vegas, USA – accepted

Application for eNTERFACE 2005

Stephan Raidt, ICP, Grenoble, France

I would like to apply for the participation in one of the following projects of the eNTERFACE Workshop:

- **Combined Gesture-Speech Analysis and Synthesis**
- **Multimodal Focus of Attention in an Augmented Driver Simulator**
- **A Multimodal Interface for 3D Model Search and Retrieval Integrated in a Virtual Assembly Application**

The topic of my doctoral thesis is the face-to-face communication of a human interlocutor with a talking head as an animated conversational agent. My major interests are:

- **mutual attention**: use of facial movements and eye gaze for the attraction and maintenance of the attention of a human interlocutor, the interpretation of his gestures to identify his focus of attention, analysis and modeling of turn taking cues during a conversation
- **audiovisual scene analysis**: tracking of eyes, gaze direction and facial movements, localization and identification of a speaker through video and audio analysis
- **audiovisual scene synthesis:** synthesis of speech, eye movements and facial movements, incorporation of the real and the virtual world into an integrative field of interaction
- **deixis**: directing the attention of a human interlocutor by the means of speech, head and eye movements of the talking head

My thesis supervisors are Gérard Bailly (ICP) and Laurent Bonnaud (LIS) as a second supervisor, who is also one of the coordinators of the workshop. Both are members of SIMILAR
Currently we are putting a new experimental laboratory ('MICAL') into operation. It is equipped with two eye-tracker monitors and another orientable monitor with mounted cameras and microphones. It will be used for various experiments on human-machine interaction (e.g. impact of mutual attention and embodiment on performance and learning) and would permit to implement and continue the results of the workshop.

My literature research builds up, amongst others, on studies about

- **pointing and deixis** (Kita, Butterworth, Goldin-meadow, Kendon, Masataka, Povinelli)
- **eye movement**, **eye gaze** and **perception** (Vatikiotis-Bateson, Langton, Liversedge, Vertegaal, Baron-Cohen)
- **humanoid interactive robots** (KA 588, WE-4R, Robita, Kismet)
- **embodied conversational agents** and **talking heads** (Pelachaud, Massaro, Cassel, Beskow)

As for skills relevant to the projects, I have experience in the programming with **Matlab**, **Scilab**, **C** and **Perl** and the use of **PRAAT** as well as a profound knowledge of **speech synthesis** and **recognition, signal analysis, system analysis** and **statistics**. I work with **Windows** and **Linux** including the common text processing tools. For my experimental setup I use 'tobii technology' eye-trackers and software. For the workshop I could supply a high performance laptop with excellent multimedia facilities. My first language is German and I speak fluent English and French.

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MEHMET EMRE SARGIN

EDUCATION

2004 – Present Koc University Istanbul, TURKEY

M.S. in Electrical & Computer Engineering

- Supervisor: Prof. A. Murat Tekalp
- Co-supervisors: Asst. Prof. Engin Erzin, Asst. Prof. Yucel Yemez
- Current CGPA: 4.00/4.00
- Expected Graduation Date: July 2006

2000 - 2004 Middle East Technical University Ankara, TURKEY

B.S. in Electrical and Electronics Engineering

- Major: Telecommunications and Computer Area
- GPA:3,74/4,00 (High Honor's List)

1997 - 2000 Izmir Fen Lisesi (Izmir High School of Science) Izmir, TURKEY

- Specialized in math and science passed with high honor degree. GPA: 4.80/5,00
- Prepared a Physics Project "A new approach on obtaining aligned mono crystalline liquid crystals" for Scientific and Technical Research Center of Turkey (TUBITAK) Project Contest

LANGUAGES

English: Advanced level , German: Beginner level

SUMMER JOBS AND RELATED WORK EXPERIENCE

- September 2004 – Present

Koc University Istanbul, TURKEY
Research Assistant: Working on "Combined Gesture Speech Analysis" Project
Teaching Assistant: Introduction to Computer Programming with C
Digital Systems Design

- February 2004 – June 2004

Tubitak Bilten (Scientific and Technical Research Center of Turkey) Ankara, TURKEY
Part-Time Research Assistant: Worked on "Text Detection from Video Streams" Project

- August 2003 – September 2003

Motorola GmbH Berlin, GERMANY
Worked on manufacture, repair and test departments of TETRA radio stations.

- June 2003 – July 2003

Tubitak Bilten (Scientific and Technical Research Center of Turkey) Ankara, TURKEY
Worked on License Plate Recognition Project, experienced in image processing and MATLAB programming.

- June 2002 – July 2002

Unimedya Turknet (Internet Service Provider Company) Izmir, TURKEY
Worked on TCP-IP networks, ftp and mail servers in Linux operating system, video conference systems.

PUBLICATIONS

1. M. Emre Sargin, Engin Erzin, Yucel Yemez, A. Murat Tekalp, "Görsel-İşitsel İlintiye Dayalı Dudak Öznitelik Çıkarımı", *Proc. of IEEE Conference on Signal Processing and Communications Applications (SIU'05), Kayseri, Turkey, May 2005. (submitted for publication)*

2. M. Emre Sargin, Engin Erzin, Yucel Yemez, A. Murat Tekalp, "Lip Feature Extraction Based on Audio Visual Correlation", *Proc. of 2005 European Signal Processing Conference (EUSIPCO'05), Antalya, Turkey, September 2005. (submitted for publication)*

COMPUTER SKILLS

Operating systems: Windows 98 or higher (Administrator level), Linux (User level)

Programming languages: Turbo C, C++, Pascal

Specific knowledge: MATLAB, Cadkey (Engineering design tool), Xilinx (Logic design tool), HP Vee (Visual programming language for controlling HP instruments)

HONORS

- TUBITAK Graduate Fellowship, (2005)

- Vehbi Koc Scholarship (full graduate scholarship), Koc University, (2004).

- Best Senior Design Project Award, Electrical & Electronics Engineering, METU, (June'04).

- High Honors' List (7 times), Honors' List (once), Electrical & Electronics Engineering, METU, (2000-2004).

ARMAN SAVRAN

Personal information:

- Member of BUMM in SIMILAR, Bogazici U., Istanbul, Turkey.

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Phone: +90-212-3596414 (Dept.)

E-mail: arman.savran@boun.edu.tr

Birthday: 21/11/1981

Sex: Male

Education:

- PhD student in Electrical & Electronic Eng., Bogazici University, Istanbul (Present).
- MS in Electrical & Electronic Eng, Bogazici University, Istanbul, Turkey (2004).
- BS in Electronic & Comm. Eng., Istanbul Technical U., Istanbul, Turkey (2002).

Research experience (field + short summary of work done):

My current research is on *speech & text driven 3D face synthesis*. In this study, the purpose is to synthesize face shapes for visual speech as accurate as, and also as natural as possible from speech and/or text. Hence, in my study the approach is data-driven, i.e. based on facial motion data captured from a speaker. To capture 3D facial motions from speakers, a stereo vision based system, which employs markers (ordinary color stickers) to facilitated tracking, was developed. The system is trained with the speech and the captured motions by a codebook based technique, and then used to animate an MPEG-4 facial animation. This provides realistic coarticulation effects during synthesis. However, to make more natural synthesis, other facial signals apart from visemes (visual speech units) should be generated and fused effectively. These signals are emotions and facial gestures like head motion, eye-blinking, etc, and are often related to prosodic events in the acoustic speech. Therefore, the next step in this research is to produce these facial signals from speech, based on captured motions. Also, synthesis of these signals from textual marks is another issue in this research.

Main Publications (in relation with the workshop themes):

- Savran, A., "Speech and Text Driven 3-D Face Synthesis for the Hearing Impaired", M.S. Thesis, Bogazici University, Sep. 2004.
- Savran, A., L. M. Arslan, L. Akarun, "Speech Driven MPEG-4 Facial Animation for Turkish", SPECOM 2004, St. Petersburg, Russia, Sep. 2004.

Skills I can bring to the eNTERFACE projects:

Graduate Courses

Speech Processing, Image Processing, Computer Vision, 3D Computer Vision, Digital Video Processing, Computer Graphics, Statistical Pattern Recognition, Artificial Neural Networks, Detection & Estimation Theory, Adaptive Filter Theory, Statistical Signal Analysis.

Computer Skills

- Matlab (advanced)
- Programming Languages: C/C++ (Visual C++ .NET), Perl
- Interface APIs: wxWidgets, MFC
- Computer Graphics: OpenGL API, Cg (NVIDIA's GPU programming lang.)
- Computer Vision: OpenCV
- Speech Processing: HTK, Microsoft Speech SDK (for TTS)

Other activities and Hobbies:

- Member of IEEE Signal Processing Society & IEEE Computer Society
- Playing tennis
- Fitness
- Watching movies
- Playing computer games

Sascha Schimke

I am a PhD student at the University of Magdeburg, Germany.

As a employee of the SIMILAR project, I am working with multimodal interfaces, in particular with the handwriting and speech modality.

While a student exchange within the SIMILAR PhD twinning project, I spent a month in the lab of Professor Stylianou at the University of Crete. There he asked me to join the Summer Workshop in order to work on multimodal biometrics.

At the workshop, I would like inter alia to work in the projects 3 (Biologically-driven musical instruments) and 5 (Multilingual multimodal Biometrics).

I have experience in the domain of behaviour based biometrics (signature authentication) and in this moment I work on pen drawn sketch recognition. It's possible for me to bring a notebook to the workshop as well as some handwriting capturing devices (digitizer tablet, TabletPC).

Sascha Schimke

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Raphael Sebbe

Degrees:
Electrical Engineer from the Faculté Polytechnique de Mons, 2000
Engineer from the Ecole Supérieure d'Electricité de Paris, 2000

Pursuing a PhD thesis in medical imaging since 2002

Past Projects:
- Internship at ADII Soft SA, Mons, Belgium, Adding casted shadows rendering to their building renderer (C, OpenGL). 1 month
- Internship at Neuroplanet SA, Liège Belgium, Development of an Inverse Kinematics solver for real-time character animation. C++, OpenGL. 2months
- R&D Engineer at Babel Technologies SA, 1.5 years.
    * Brought CVS to the coding scheme in the company
    * Realized browser plugin for speech synthesis (Netscape, Mac OS 9.x)
    * Porting of Windows SDK for speech recognition and synthesis to Mac OS X and Linux. C/C++
    * Realized demonstration applications for various SDKs
    * COM components for TTS ans ASR on Windows
    * Integrated speech to the AI server, ALICE
    * Realized an SDK for hardware abstraction around NMS and Dialogic cards (phone servers)

- Research at TCTS Lab on medical image processing
    * Co-developed an image processing library
    * Segmentation methods for large data sets
    * Bézier curve modeling for thorax vessels
    * Visualisation Tools based on VTK toolkit (OpenGL, C++)

- Personal computer projects
    * Morphing software running on Mac (Cocoa, OpenGL)
    * Raytracer (C)

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Email : francois.severin@tcts.fpms.ac.be

François Severin – SUPELEC Engineer -
Civil Engineer from the Faculté Polytechnique de Mons

Personal information

- Unmarried
- Nationality : belgian
- Birthdate : 10th January 1980 Age : 25

Working experience

Feb. 2004 – Nov. 2005 : Researcher at the Faculte Polytechnique de Mons in the Circuits Theory and Signal Processing Lab, under the direction of Prof. Thierry Dutoit.
Project : "Optimized Technological Speech Synthesis" :
Research and development of "voice quality" measure and modification tools for speech synthesis that takes into account the speech dynamics.

Internships

July - Sept. 2002 : acoustical research office "Bien Entendu" (Paris, France)
Engineer internship : *development of informatic tools for acoustical measures.*

July 2001 : "Jemappes Steel Center", steel industry (Jemappes, Belgique)
Workman internship *: care service - mechanical and electrical repairs on the machines.*

Education

2002-2003 : **Faculté Polytechnique de Mons** (Belgique)
Last year of Electrical Civil Engineer ; speciality : "Multimedia ".
Academic report : denoising in Automatic Speech Recognition.

2000-2002 : **Ecole Supérieure d'Electricité (Supélec)** of Gif-sur-Yvette (France)
to obtain a double diploma (TIME - Top Industrial Managers in Europe - network).
First and second year of Electrical Engineering student.

1998-2000 : **Faculté Polytechnique de Mons**
Civil Engineer Candidate
Grade : Distinction.

1992-1998 : diplôme de l'enseignement secondaire
Course choices : latin - greek - mathematics.

Professionnal education

Summer schools : *"Building Synthetic Voices : Theory and Practice in Producing Spoken Output"*, by Dr. A.W. Black, 30th May - 3rd June 2005, Universitat Politecnica de Catalunya, Barcelone, Spain.

"Non Linear Speech Processing : Algorithms and Analysis", 13th - 18th Sept. 2004, Vietri Sul Mare, Italy.

Publications

B. Bozkurt, F. Severin, T. Dutoit, *An Algorithm to Estimate Anticausal Glottal Flow Component from Speech Signals*, in *Advances in Nonlinear Speech Modeling and Applications*, LCNS, *Springer Verlag (2005).*

F. Severin, B. Bozkurt, T. Dutoit, *HNR Extraction in Voiced Speech, Oriented towards Voice Quality Analysis,* in *Proc. EUSIPCO 2005, 4-8th September, Antalya, Turkey* (accepted for publication).

Languages

- French : mother tongue.
- English : very fluent - Cambridge First Certicicate in English (1998) - daily practised with foreign colleagues.
- German : middle level.
- Dutch : middle level.

Informatics

- Langages : C, C++, Perl, Pascal.
- Development : Matlab, Labview.
- O.S. : Windows, Linux, Mac.

Associative activities

- 2000-2002 : member (Vice-President) of the "Forum Social" (now "Esperance en Beton"): *students association in Supelec organising the "Bouge la science !" day, where 300 students and 300 school boys from "Prioritary Education Zones" of the outskirts of Paris, meet around the sciences in an amusing way.*
- 2000-2003 : unpaid school help in the outskirts of Paris and Mons.
- 2004-2005 : scouting : leader of the "Pionniers" section of the scouts of Binche (Belgium).

Hobbies and personal interests

- Badminton and rugby in a club.
- Music : singing (choral) and amateur piano.

Name: Juraj Simko
Born: 18 March 1970
Nationality: Slovakia
Address: Computer Science Department, Computer Science Buildings, UCD, Dublin 4, Ireland
E-mail: juraj.simko@ucd.ie

EDUCATION

1988-1993 Comenius University, Bratislava, Slovakia
Faculty of Mathematics, Physics, and Computer Science
MSc. in Theoretical Computer Science

1990-1993 Comenius University, Bratislava, Slovakia
Faculty of Philosophy
Philosophy (completed BA level by examination; the BA degree wasn't awarded in Slovakia at that time)

2004-ongoing University College Dublin, Ireland
Computer Science Department
PhD study in Cognitive Science (not yet completed)

TEACHING EXPERIENCE

1993-1994 Comenius University, Bratislava, Slovakia
Faculty of Mathematics, Physics, and Computer Science
Assistant Lecturer; Algebra

1994-1999 Slovak Technical University, Bratislava, Slovakia
Dpt of Mathematics, Faculty of Chemical and Food Technology
Assistant Professor; Calculus, Statistics, Computer Science

WORK EXPERIENCE

1999-2004 Microsoft EPDC, Dublin, Ireland
Microsoft International Language Services department
Terminologist; involved in localization process, machine translation projects, process optimizing

PUBLICATIONS

Metrizable and R-metrizable betweenness spaces, Proc. Amer. Math. Soc. 127 (1999), 323-325
Linear and R-linear betweenness spaces, Math. Slov. (2001)

RESEARCH INTERESTS

Cognitive Science: Speech acquisition, Speech perception and production, Speech Timing, Limitations of formal systems
Mathematics: Foundations of Mathematics, Mathematical Logic, Model Theory, Gödel Theorems
Philosophy: Logic, Analytic Philosophy, Philosophy of Mind

CURRICULUM VITAE

CIVIL ENGINEER

ELECTROMECHANICAL

MECHATRONIC

PERSONAL INFORMATION

Name	**Cédric SIMON**
Address	**9, rue du Try-Martin, 1348 Louvain-La-Neuve**
Telephone	**+32 (0) 472/29.12.46**
Email	cedric_simon@hotmail.com
Nationality	Belgian
Date of birth	06/26/1979

Professional and Extra Curricular Experiences

• 2004	**Private Lessons**
Function	Math, Physics all levels
• 2003	**Bedimo S.p.r.l**
Function	supply management
• 2001	**VIMEX A. C. NGO (Puerto Vallarta, Mexico)**
Function	Protection of sea turtles

Education and training

• 1998-2005	**Université Catholique de Louvain-La-Neuve (Belgium)**
Description	Civil engineering degree - Electromechanical - Mechatronic
Grade	Distinction
• 1997-1998	**Longmont High School (USA, CO)**
Description	Senior year-World Education Program
Grade	High Distinction
• 1996-1997	**Institut St-Dominique (Rome, Italy)**
Description	Bachalaureat
Grade	Distinction

Accomplished Projects

• 2004-2005	**Academic Report**
Title	EEG Analysis for a brain-computer interface
Description	Classification of mental tasks, based on a joint timefrequency- space decorrelation, in which mental tasks are measured via electroencephalogram (EEG) signals
Grade	Distinction
Link	http://www.tele.ucl.ac.be/view-project.php?id=61
• 2003-2004	**Mechatronic Project : Elme 22**
Title	'Pacman'
Description	Conception and implementation of a Tennis Robot with Position Recognition by Team of four Members
Grade	Distinction
Link	http://www.lei.ucl.ac.be/elme22

Computer

• Software

Electronic: Matlab – Max Plus 2 – Quartus – Eagle – MpLab
Mechanic: Matlab – Mechanical Desktop – Autocad 2000
Office: Microsoft Office Word – Excel – FrontPage– PowerPoint – Visio
Multimedia: Adobe Photoshop – Dreamweaver – Fireworks – Flash MX – Latex

• Languages/OS

C – C++ – Pascal – Basic – Java – Javascript – HTML – Assembleur – DOS – Windows, Linux

• Implementation

Signal Treatment: Filtering – Edges Detection – Gradient Calculations – wavelet analysis – CSP – ICA – neuronal network classifiers

Java Implementation of a virtual cash point.

VHDL Implementation of an Algorithm for a position recognition system with lasers

Languages

• MOTHER TONGUE

French

• OTHER LANGUAGES

	Italian	English
Reading	Base/Good/Excellent	Base/Good/Excellent
Writing	Base/Good/Excellent	Base/Good/Excellent
Oral	Base/Good/Excellent	Base/Good/Excellent

Skills

Leadership
Creativity
Polyvalent
Fast Learning
Synthetical Mind

Interests

• Sport Tennis – Swimming – Snowboarding – Volley Ball
• Hobbies Juggling – Open Water Diving – Travelling – Reading – painting
• Music Jembe – Guitar

Yannis Stylianou

Phone: +30 2810 39 17 14
Fax: +30 2810 39 16 01
E-mail: styliano@ics.forth.gr

Professor Yannis Stylianou is an Associate Researcher in the Telecommunications & Networks Laboratory of the Institute of Computer Science, FORTH. He is also Associate Professor at University of Crete, Department of Computer Science. He received the Diploma of Electrical Engineering from the National Technical University, NTUA, of Athens in 1991 and the M.Sc. and Ph.D. degrees in Signal Processing from the Ecole National Superieure des Telecommunications, ENST, Paris, France in 1992 and 1996, respectively. From 1996 until 2001 he was with AT&T Labs Research (Murray Hill and Florham Park, NJ, USA) as a Senior Technical Staff Member. In 2001 he joined Bell-Labs Lucent Technologies, in Murray Hill, NJ, USA. Since 2002 he is with the Computer Science Department at the University of Crete and the Institute of Computer Science, FORTH.

He was Associate Editor for the IEEE Signal Processing Letters and since 2004 he serves on the Management Committee for the COST Action 277: “Nonlinear Speech Processing”. He holds 8 patents and has many publications in edited books, journals and conference proceedings. Prof. Stylianou participates in the SIMILAR Network of Excellence (6th FP).

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CÉLINE MANCAS-THILLOU
Faculté Polytechnique de Mons, Belgium

DEGREES

MS Master Degree in Applied Sciences, Faculté Polytechnique de Mons, Belgium, with the highest Honors. 2004

MS Engineer Degree (Ir), ESIGETEL, Fontainebleau, France. Major of specialization. 2002

___ Preparatory studies for entrance into engineering schools, in addition to DEUG MIAS, equivalent to a 2-year college diploma in mathematical science, France. 1997-1999

___ Scientific Baccalaureate degree, equivalent to the freshman year in a U.S. university, in maths and physics, France. Graduated with Honors. 1997

RESEARCH EXPERIENCE

FACULTÉ POLYTECHNIQUE DE MONS, BELGIUM : PhD Student, Research on character segmentation and recognition for a Picture-to-Speech application. Work deals mainly with degraded characters, as those taken by a camera. 2003–Present.

DASSAULT SYSTÈMES, FRANCE : Intern, Realization of a prototype of world-stabilized augmented reality for Teleconference, to integrate virtual objects in video. It implies viewer's creation, camera's calibration, and registration of the virtual world. 2002 (6 months).

ESIGETEL, FRANCE : Intern, Creation of a talking face with analysis of phonemes and visemes. The speech processing was made by Matlab. Development on an audio basis in order to synchronize the movements of the avatar lips with the sound digitally reconstituted. 2002 (3 months).

WORK EXPERIENCE

ECE, FRANCE : Assistant, Courses about PDAs for students in engineering school. 2003-2005.

ESIGETEL, FRANCE : Assistant, Courses about augmented reality for students in engineering school. Management of a three-student team for a project about augmented reality. 2003-2005.

HYSYS, FRANCE : Computer Science Consultant, Mission at Heidelberg, an international society for printing presses. Reporting on web server of devices errors. JSP Technologies, Tomcat server, SQL Server Database. 2002.

THOMSON ELECTRONICS, OH, USA: Intern, Web based design and analysis, implemented in ColdFusion and SQL Server using MDX language, data warehousing with direct data mart access using OLEDBC/MOLAP for real time computation and shared use by three distant factories in the United States, France, and Poland. 2001.

LANGUAGES

French	Mother tongue
English	Fluent - TOEFL + 3 months in US in summer 2001 for an internship
German	Scholarship knowledge

Pedro Larroy Tovar

Pedro Larroy Tovar. Born 3rd of August in 1981 in Zaragoza (Spain).

Studying 4th course of Telecom Engineering at UPC (Technical University of Catalonia, Barcelona, Spain).

Currently doing the following assignments:

- Speech processing. (Pitch estimation, HMM,N-grams)
- Antenas (Basic antenas, Array antenas/agrupations, apertures)
- Microwave Engineering (S parameters, Hybrids, PIN Schotkey diodes, amplifiers)
- Telematic Laboratory III (Computer simlation of markov chains, servers, etc. with SES/Workbench)
- Electronic Instrumentation (Error measures, automated lab equipment control with LabView and HP instruments with GPIB and VISA bus: Oscilloscope, multimeter, fn. generator, etc.)
- Emitters and receptors (Study of the RF front-end, SFDR, Noise, PLL, FM receptor, frequency Synthetisers, etc.)
- Communications Lab II. (Work with DSP, fft, fir, adaptative filters, adpcm)
- Data mining. Assignment from CS. (Decsion trees, Neural network, knowledge discovery, Clustering. Using Synera and Weka software for practice)

Very good background in math, signal processing communications and networking, especialist in networking and quality of service.

Excellent knowledge about Linux, PERL, C, Web services, databases & SQL, embedded systems, Unix system administration, networking, routing, TCP/IP and QoS.

Special nterests in speech processing, artificial intelligence, pattern recognition, human interaction, etc.

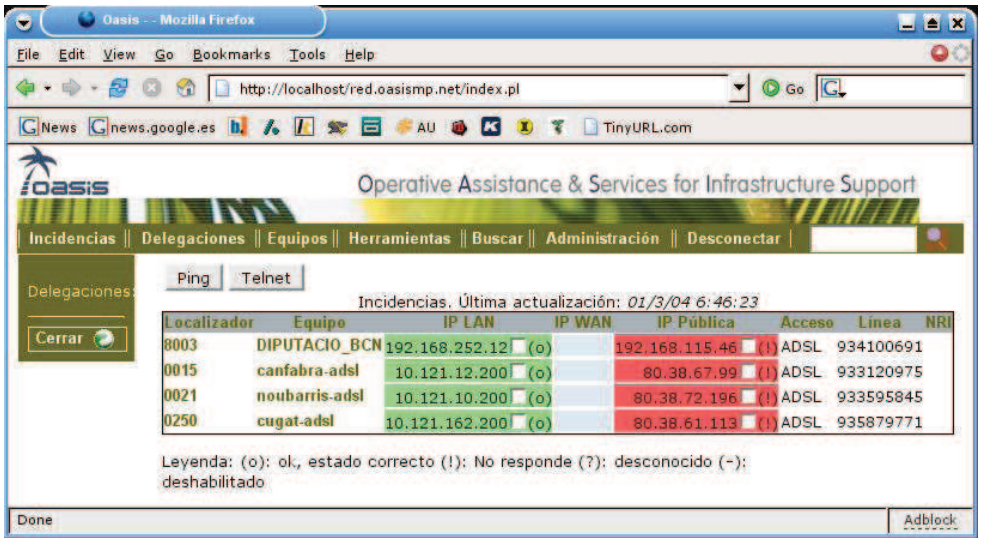
Worked as a consulting engineer for Osiatis S.A in the design and programming of a network monitoring system and internal content management platform system from 1st of Dic 2003 To 27th of Feb 2004.

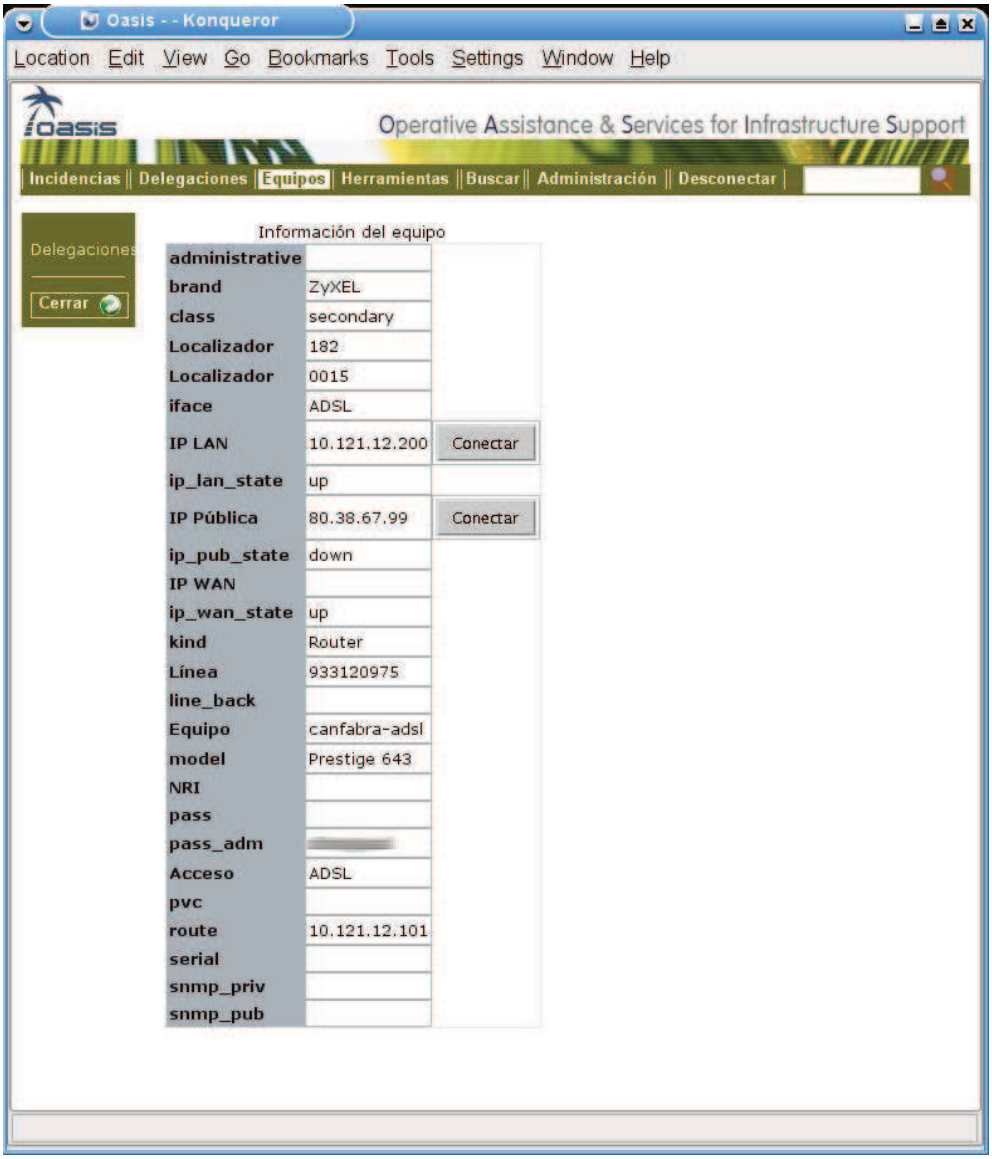
The work consisted in the design and development of a router management system to monitor mainly Cisco routers from the delegations of the different entities which services where managed by Osiatis S.A.
This system had a custom made application which had the following components:

- Web interface for monitoring router state, view network failures, add routers, dump/restore the database, and perform diagnostic operations such as test a host for reachability, port scan, and integrated java telnet console.

- Monitoring daemon which sends alerts by email and SMS in case of network element failure.

The application was programmed in PERL language with mySQL database engine and the APACHE webserver with mod_perl acceleration and SSL encryption with the corresponding SSL certificate infraestructure for secure operation in insecure networks. The software was set up in a Dell Poweredge dual Xeon server running the Debian GNU/Linux operating system.





Worked as networking engineer in the setup of a wireless 802.11b MAN in the city of Barcelona for “La Mercé 2002” festival with Grubit S.A. (http://www.bcn.es/sensefils/)

Consisting in managing the routing, quality of service (QoS) and the IP infraestructure of a wireless network which linked “Virreina” palace with Catalonia square and with “Villaweb” which provided the internet backbone for the connection.

In the “Virreina” palace, there where a set of public browsing kiosks sponsored by the townhall of Barcelona running Linux which provided internet and information about the festivities events to the public. Those were linked with Yagi antenas running up “Las Ramblas” with two hops to Catalonia Square in which there was a stand sponsored by Sony and Fnac for public browsing and testing Sony Vaio Laptops.

I spent most of the time managing the QoS and routing of the central router to warrant good speed and fair bandwith usage.

Worked as programmer to develop a real state application for Fincas Serrablo S.A to

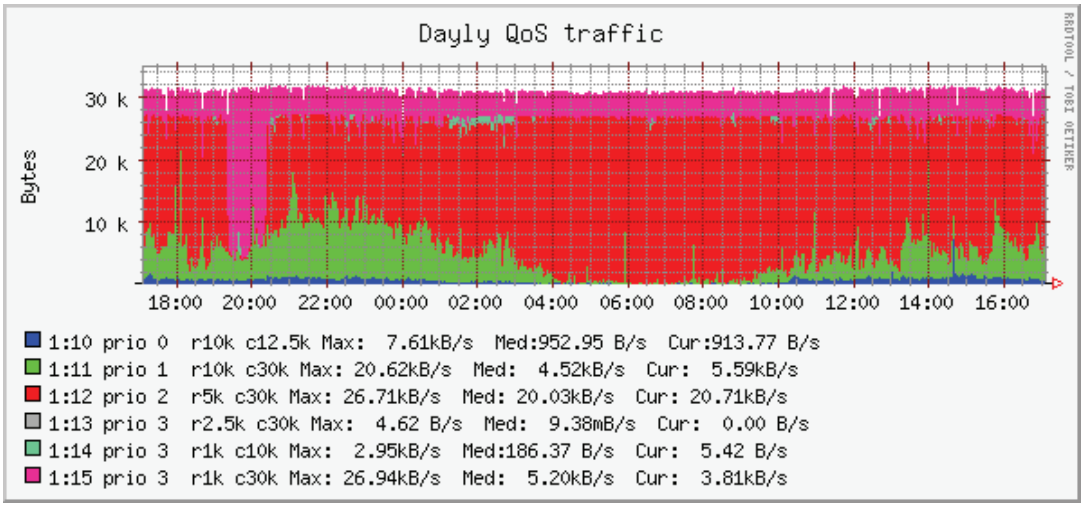
manage business data.

This application also was developed with PERL/mySQL/Apache, and consisted in a web inteface to manage a web portal of real state entities that were offered or managed by Fincas Serrablo S.A.

Contributor to the “Linux Advanced Routing HOWTO” http://lartc.org
Maintainer of the small “debian multi mirror” open source program (http://pedro.larroy.com/debian/debian-multimirror/)

Worked as network administrator in the Pere Felip Monlau universitary dorm, where I managed QoS and routing for a network of 200 students sharing a 2Mbps ADSL internet connection. An article of the experience can be read at: http://lartc.org/howto/lartc.cookbook.fullnat.intro.html

Here we can see a daily graph of the bandwidth analisys which were developed by me with RRDTOOL and custom PERL scripts, which show how perfectly the quality of service setup is working. The served web traffic (in red) can grow but without starvating the p2p traffic (in pink). Also there is higher priority web proxy traffic of users browsing (in green), which borrows from the rest. Finally, delay sensitive services such as DNS, SSH, telnet, etc. use the high priority class 1:10 (in blue).



Honors: Regional winner of Physics Olimpiad, and also Math Olimpiad while in High School.

Contact: Pedro Larroy Tovar
pedro@larroy.com
+34670240890

Personnal details :

Daniela Gorski TREVISAN was born in Santa Maria, Brazil, on April 8th, 1974.

Education :

She graduated in Informatic at the University Federal of Santa Maria, Brazil (UFSM) in 1997. She obtained Master degree in Computer Science from University Federal of Rio Grande do Sul, Brazil (UFRGS) in 2000.

Research experience (for each : field + short summary) :

Actually she is PhD student at the Université catholique de Louvain (UCL) at the Communication and Remote Sensing Laboratory (TELE) and she is also member of the Belgium Computer-Human Interaction Laboratory (BCHI).

The subject of her thesis is Visualization and Interaction for a Multi-sources Environment dedicated to image-guided surgery systems. Her research topics are focused on human-computer interaction (HCI) field such as modelling multimodal interfaces, model based-approach, augmented and mixed reality and multimodal interfaces for image-guided surgery.

Fore more information please go to: http://www.isys.ucl.ac.be/bchi/members/dtr

Publications (in relation with the workshop themes) :
http://www.isys.ucl.ac.be/bchi/members/dtr/publications.htm

Desired project(s) to work on :
- main project : Project 4 (project leader during weeks 3 and 4)

Dimitrios Tzovaras

Dr. Dimitrios Tzovaras is a Senior Researcher Grade C (Assistant Professor) at the Informatics and Telematics Institute. He received the Diploma in Electrical Engineering and the Ph.D. in 2D and 3D Image Compression from the Aristotle University of Thessaloniki, Greece in 1992 and 1997, respectively. Prior to his current position, he was a senior researcher on the Information Processing Laboratory at the Electrical and Computer Engineering Department of the Aristotle University of Thessaloniki. His main research interests include virtual reality, haptics, computer graphics, 3D data processing, multimedia image communication, image compression and 3D content-based search. His involvement with those research areas has led to the co-authoring of over thirty articles in refereed journals and more than eighty papers in international conferences. He has served as a regular reviewer for a number of international journals and conferences. Since 1992, Dr Tzovaras has been involved in more than 20 projects, funded by the EC and the Greek Ministry of Research and Technology. Dr. Tzovaras is an Associate Editor of the Journal on Applied Signal Processing

Athanasios Valsamakis

CURRICULUM VITAE

Address: Iolkou 1, Mesambelies
Iraklio, Crete
71409
Greece.

E-mail: valsamak@csd.uoc.gr

EDUCATION

- I am currently a postgraduate student in the University of Crete, Computer Science Department.
- First degree from University of Crete, Computer Science department, April 2004, grade 7.19/10.0.

PUBLICATIONS

Claus Vielhauer, Sascha Schimke,Athanasios Valsamakis, Yannis Stylianou, *Fusion Strategies for Speech and Handwriting Modalities in HCI,* 2004.

RESEARCH INTERESTS

My current research interests are signal processing, speech signal processing, speaker identification and verification from their speech, fusion strategies with other modalities.

VIALLET Jean Emmanuel Tel. : +33 (0)2 96 05 38 28
France Telecom R&D
2 av. P. Marzin - 22307 Lannion - France jeanemmanuel.viallet@rd.francetelecom.com

PhD from Paris VI University (1985)
Senior expert at France Telecom Research & Development

1995 – 2005 : Vision, Interface and Image Analysis (27 publications)
- Automatic shooting and sound pickup videophone (3, 4, 5) and videoconference devices (8, 9),
- Indexation of still images (11, 12) and videos (15, 16, 17),
- Face based man machine interface (7, 18),
- Hand command gesture interface (10, 13, 19, 20, 22, 24) and pointing gesture interface (21, 23, 25, 27).
- Multimodal speech-pointing gesture interface (26)

1991-1995 : Conception, realization of III-V photorefractive semiconductor devices (19 publications)
1985-1991 : Modelisation and numerical simulation of semiconductor devices (21 publications)

Vision Interface and Image Analysis Publications :

VIA3. M. Collobert, R. Féraud, G. Le Tourneur, O. Bernier, J.E. Viallet, Y. Mahieux and D. Collobert, "LISTEN : a System for Locating and Tracking Individual Speakers", Second International Conference on Automatic Face and Gesture Recognition, Killington, Vermont, USA, pp 283-288, 14-16 Octobrer 1996.

VIA6. R. Féraud, O. Bernier, J.E. Viallet, M. Collobert, D. Collobert, A Conditional Ensemble of neural Networks for Face Detection, Applied to Locating and Tracking Individual Speaker", 7th International Conference on Computer Analysis of Images and Patterns, Kiel, September 1997.

VIA 7. J.E. Viallet, M. Collobert, R. Feraud, O. Bernier "Panorama : a What I Want Is What I See Contactless Visual Interface", Third IEEE International Conference on Automatic Face and Gesture Recognition, Nara, Japon; April 1998.

VIA8. O. Bernier, M. Collobert, R. Feraud, V. Lemaire, J.E. Viallet, D. Collobert « MULTRAK : a system for Automatic Multiperson Localization and tracking in real-Time », ICIP Conference, Chicago, October 1998.

VIA12. R. Féraud, O. Bernier, J.E. Viallet, M. Collobert,"A Fast and Accurate Face Detector for indexation of Faces Images", FG'2000 Conference on Automatic Face and Gesture Recognition Grenoble, 28-30 mars 2000.

VIA13. S. Marcel, O. Bernier, J.E. Viallet, D. Collobert,"Hand Gesture recognition using Input/Ouput Hidden Markov Models", FG'2000 Conference on Automatic Face and Gesture Recognition, Grenoble, 28-30 mars 2000.

VIA14. R. Féraud, O. Bernier, J.E. Viallet, M. Collobert, "A Fast and Accurate Face Detector Based on Neural Networks", IEEE Transactions on pattern analysis and machine intelligence Vol 23 No1, January 2001.

VIA17. J.E. Viallet, O. Bernier, "Face Detection for Video Summaries", CIVR 2002 the Challenge of Image and Video Retrieval, Londres, 18-19 July 2002.

VIA23. S. Carbini, J.E. Viallet, O. Bernier, "Pointing Gesture Visual Recognition for Large Display" Pointing'04 ICPR Workshop Cambridge, United Kingdom - 22 August 2004.

VIA24. A. Just, S. Marcel, O. Bernier, J.E. Viallet, "HMM and IOHMM for the Recognition of Mono- and Bi-Manual 3D Hand Gestures", Pointing'04 ICPR Workshop Cambridge, United Kingdom - 22 August 2004.

VIA25. S. Carbini, J.E. Viallet, O. Bernier, "Pointing Gesture Visual Recognition by Body Feature Detection and Tracking", ICCVG (International Conference on Computer Vision and Graphics 2004), Varsovie, Pologne, 24-24 September 2004.

VIA26) S. Carbini, J.E. Viallet, L. Delphin-Poulat, "MOWGLI: Multimodal Oral With Gesture Large display Interface", Gesture Workshop 05, Berder Island, France, 18-20 may 2005.

Preferred projects to be work on

1. (P7). A Multimodal (Gesture+Speech) Interface for 3D Model Search and Retrieval Integrated in a Virtual Assembly Application.
2. (P2). Multimodal Caricatural Mirror.
3. (P1). Combined Gesture-Speech Analysis and Synthesis.

Wireless connection laptop available

Projects Related Skills

Multimodality

Design and development of a Speech and Gesture Multimodal interface:

- Including multimodal feedback.
- No user specific calibration, learning or background.
- Interaction with large display: user can move freely without wearing any equipment.

Application context dependant fusion of speech and gesture.

Image processing

Body parts detection

Current work:

- Head detection by a Neural Network.
- Hands detection as skin-colour moving zone in front of the head.
- Arm detection as continuous depth zone in front of the head and including the hand.

Body parts tracking

Current work:

- Statistical tracking: Head and hands are tracked simultaneously and are modelled by 3d Gaussian functions, exponential functions and colour histograms.
- Model parameters adaptation with Expectation Maximisation (E.M.) algorithm.

Bimanual continuous gesture recognition

Estimation of pointed location based on head and hands tracking.
Control of a third axis (zoom) or object selection with the second hand.

- Suited both for left handed and right handed person, without prior knowledge.
- Suited for interacting moving user in the field of the camera.

Speech recognition

Vocabulary and syntax definition. Push to talk controlled by gesture.
Selection among N best using recognition score, gesture and application context.

Availability periods

1) Preferred period: August 6-12 (1 week)

2) Second best period: July 30- August 5 (1 week)

eNTERFACE Workshop Application

Name: Stephen Wilson
Email: stephen.m.wilson@ucd.ie
Telephone: +35317162404, +353863964354

Education: October 2001 – present
University College Dublin, Ireland
PhD candidate
MUSTER project (www.muster.ie)

August 2000 – June 2001
NUI Maynooth
Higher Diploma in Information Technology (2.1)

October 1994 – June 1999
Trinity College, Dublin
BA (Hons) German and English (2.1)

Project Description: Recent research within the area of automatic speech recognition (ASR) has moved away from traditional phoneme (triphone) models towards nonlinear phonological models where speech is viewed as multiple tiers of phonological or articulatory features. This trend has also recently manifested itself in the Audio-Visual Speech Recognition (AVSR) domain, where visual speech is viewed in terms of multiple streams of visual features rather than a single string of visemes. My research seeks to define a useful set of visual features that can be employed in the investigation of further research questions within the field. An existing audio-visual database (http://www.ece.clemson.edu/speech/cuave.htm) consisting of multiple speakers is hand-labelled with respect to certain visual speech gestures. This takes the form of a multi-tiered annotation structure, with separate tiers being defined for each visual gesture. The tiers include, but are not restricted to: *lip-spreading ,lip-rounding, tongue-protrusion, dental-visibility.* A parallel phonemic transcription is carried out and syllable boundaries are inserted. The outcome is a fully labelled bimodal corpus with annotations showing multi-tiered representations of visual speech gestures with complete phonemic and syllabic labelling. The annotated data is then used to automatically learn associations between phonemes and visual gestures. The associations are learned with respect to a language's phonotactics, (the legally permissable combinations of sounds), as defined by the syllables in the training corpus. The learned associations can be used to make predictions about expected visual features given phonemic input, which can then be confirmed or modified by an expert user as necessary. The modified data feeds back into the learning cycle, leading to a more refined set of associations.
The phoneme-to-visual feature mappings can then be used to augment the Time Map Model, a specific model of computational phonology, with additional tiers of information that pertain to visual speech data. The model is tested in various modes, effectively turning tiers "on" and "off" and examining the relative usefulness of the visual feature set in the task of speech recognition. The desired output is a ranked catalogue of visual features and their phonemic cognates.

Enver YAGCI

Address: Kariye Mh. Bostan Sk. No:9/18 Fatih/ISTANBUL , TURKEY
Email: enveryagci@yahoo.com

Education:

- 2003- Present : Graduate student at Systems and Control Engineering, Bogaziçi University, Istanbul, Turkey. Working as a member of BUSIM/VAVlab (http://www.vavlab.ee.boun.edu.tr) under the supervision of Assist. Prof. Burak Acar, Bogaziçi University Electrical & Electronics Engineering Department. Expected graduation date: Summer 2006.
- 2003 : Completed "Motorola Microcontroller Programmer Certificate Programme", Istanbul, Turkey
- 1998-2003: B.S. in Electrical Engineering, Yildiz Technical University, Istanbul, Turkey (Graduation GPA: 3.54/4.00)
- 1994-1998: Zeytinburnu Anadolu Dis Ticaret Meslek Lisesi, Istanbul, Turkey

Computer Skills:

- Programming Languages: Visual C++, C, Visual Basic, Turbo Pascal, Assembly
- Operating Systems: Windows 2000/XP.

Experiences / Projects:

- 2005 – Present: Participating in the SIMILAR NoE WP10 as part of the VAVlab within the BUMM group (Bogaziçi University, Istanbul, Turkey). Currently working on the development of *VAVframe* , a flexible volumetric medical data analysis and visualization framework (see http://www.vavlab.ee.boun.edu.tr for further details.)
- 2004 – Present: Electronic designer at Kaya Engineering Ltd.,Istanbul, Turkey, Responsible for designing electronic PCB boards and developing code for embedded microcontrollers in C.
- 2003: Designed a *robot waiter* using Motorola Microcontrollers and participated in *MOTOROLA Flash MCU Design Contest.* The robot was capable of navigating in a given restaurant layout using built-in sensors without any external aid (such as human guidance, guidelines, etc.) and serves the tables. The orders were collected by a central computer via user-interfaces located on each table.
- 2004: Designed a fully automatic security door as a commercial product for Kaya Engineering Ltd.,Istanbul, Turkey. It is currently available in the market. Developed an embedded software that controls the door by checking the user passwords input via a keypad and/or communicating with a RF device. The door also monitors several sensors (such as fire, earthquake alarms, etc.) to unlock the doors in case of emergency.

Awards and Scholarships:

- 2004 – Present: Granted a graduate education scholarship by TUBITAK (National Science Foundation of Turkey) for high graduation GPA and ranking 105th among 100000 applicants in the centralized Graduate Education Entrance Examination (LES).

Yelena Yasinnik

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(617) 331-8676 yelena@mit.edu

Education

Massachusetts Institute of Technology, Cambridge, MA — June '05
Candidate for Bachelor of Science degree in Mathematics, GPA 4.2/5.0

Brooklyn Technical High School, Brooklyn, NY — June '01
Math Science Institute major

Work Experience

January '02 to Present — **Research Lab of Electronics, Speech Group – MIT** — Cambridge, MA
Undergraduate Researcher. Labelled intonation in radio, lab-recorded, and spontaneous speech using Tones and Break Indices (ToBI) system. Labelled in Anvil hand gestures for preparation, stroke, hold, and relaxation, as well as labelled gestures of the head and face. Currently collaborating in research on relationship between gestures and speech, investigating alignments of "hit-like" gestures with pitch accents in speech, as well as the relationship between phrasing in speech and in hand gestures. Presented preliminary findings of this research in a four-page paper and in poster session at the *75th Annual Conference of Acoustical Society of America* in New York, as well as at *From Sound to Sense: 50+ Years of Discoveries in Speech Communication* conference at MIT. First author of a four-page paper on gesture marking of disfluencies, recently submitted to *Disfluencies In Spontaneous Speech '05* conference.

Summer '04 — **Simmons College**, Workshop on ambiguities and inconsistencies in ToBI — Boston, MA
Technical Assistant. Worked in small group to prepare content of 3-day workshop for prominent researchers in Phonology and Psycholinguistics who use ToBI to capture intonation and phrasing of speech. Used various databases (e.g. MapTask, CallHome) of labelled speech to collect examples of labelling difficulties. Met with workshop administrators weekly to classify these examples, organize them into a database, and plan workshop presentations. Provided technical assistance at workshop presentations, kept transcripts of proceedings, and contributed to discussion.

Summer '03 — **Cornell University**, Research Experience for Undergraduates — Ithaca, NY
Undergraduate Researcher. Worked in a small group on project using a nonstandard approach to look for new partition identities. Used knowledge of complex dynamics to analyze properties of fractals such as the Mandelbrot set and to express them as a number theoretic identity. Made biweekly presentations as well as a final presentation on results of the project for the program and the Cornell math department.

Summer '01 and Summer '02 — **City College of New York**, Scholars Program for High School students — New York, NY
Teaching Assistant. Assisted in coordination of program for gifted New York City high school students during initial two years of the program. Helped manage registration and general paperwork, provided academic counseling, taught advanced problem solving class, trained students for math competitions.

Publication

Yasinnik, Yelena, Margaret Renwick & Stefanie Shattuck-Hufnagel. 2004. The Timing of Speech-Accompanying Gestures with Respect to Prosody. *From Sound to Sense: 50+ Years of Discoveries in Speech Communication*, 11-13 June 2004, Cambridge, MA.
<http://www.rle.mit.edu/soundtosense/conference/pdfs/fulltext/Friday%20Posters/FA-Yasinnik-STS-MAC.pdf>.

Computer Skills

Praat, Anvil, Xwaves, iMovie, MS Word, Excel, and PowerPoint, Adobe Illustrator, Internet
Experience with, XML, Scheme, MatLab, C++, Emacs, LaTeX, general computer algorithms, Windows, MacIntosh, Linux

Language Skills

Fluent in English, Russian, Ukrainian, proficient in French

Distinctions

MIT Dean's List, Intel Science Talent Search semifinalist, New York MathFair gold medalist, high scorer in the New York State Math League

Skills

(1)Combined Gesture-Speech Analysis and Synthesis

- Familiarity with gesture research literature about phrasing in gesture, gesture units, and relationship between gesture and speech;
- Experience preparing a database;
- Experience labelling head, hand, and face gestures of 4 different speakers;
- Experience with Anvil interface for gesture labelling;
- Experience labelling lab-recorded, radio, and spontaneous speech;
- Experience with Praat interface for speech labelling;
- Tones and Break Indeces labelling system of prominence and phrasing in speech;
- Experience analyzing data in Excel and using statistical tests of significance.

(2) Speech Conductor

- Coursework in understanding, designing, proving, and analyzing performance and efficiency of computer algorithms;
- Coursework in combinatorics and discrete mathematics;
- Experience labelling landmarks using evidence in spectrogram and waveform of a speech sample;
- Some experience with programming in Scheme, C++, and XML;
- Experience labelling head, hand, and face gestures of 4 different speakers;
- Experience with Anvil interface for gesture labelling.

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

- Experience labelling head, hand, and face gestures of 4 different speakers;
- Experience with Anvil interface for gesture labelling;
- Experience labelling lab-recorded, radio, and spontaneous speech;
- Familiarity with gesture research literature about phrasing in gesture, gesture units, and relationship between gesture and speech;
- Coursework in understanding, designing, proving, and analyzing performance and efficiency of computer algorithms.