SONIA CENCESCHI

Nationality: Italian

Mobile: +39 389 4694079

E-mail: sonia.cenceschi@supsi.ch

Skype: Sonia.Cenceschi LinkedIn: soniacenceschi



February 2019 PhD (cum Laude) in Information Engineering

Thesis: "Speech analysis for Automatic Prosody Recognition" Politecnico di Milano (Italy) – Italian Government Scholarships

November 2012 Master degree in Electronic Music and Sound Technologies

Thesis: "Study of the perceptual and semantic divergence of digital audio processed by restoration algorithms"

Conservatory of Music G. Verdi, Como (Italy) – Grade: 102/110

February 2008 Bachelor degree – Civil and Environmental Engineering

Thesis: "Acoustic analysis of the Lux Theatre" University of Pisa (Italy) – Grade: 88/110

July 2010 SaMPL summer school - Audio Conservation and Restoration

Information Engineering University of Padua & Conservatorio "C. Pollini"

October 2015 Classical guitar

Conservatory of Music G. Verdi, Como (Italy) Reached level: Pre-academic

EMPLOYMENT HISTORY

09/2018 - Ongoing SUPSI University - Digital Forensics Services, Lugano, Switzerland.

Research and project development activities.

02/2015 - Ongoing Audio Forensics Expert - Professional activity, Italy and Cantone Ticino.

LEAs expert. Audio Digital Expert for the criminal sector at the Court of Como.

2017 – 2018 SUPSI University – Digital Forensics Services, Lugano, Switzerland.

Periodical professional collaborations as Speech analysis expert in digital forensics courses.

06/2018 – 10/2018 Politecnico di Milano – ARCSLab, Milan, Italy.

Research collaboration on Lend Your Voice project for speech analysis and recordings.

10/2017 – 12/2017 University of The Basque Country – SPIN Lab, Bilbao, Spain.

Study and design of an automatic algorithm for the detection of the focus in Italian speech.

05/2017 SAiLR Workshop Software for Likelihood Ratio Calculation – Netherlands Forensic Institute, The Hague.

SaiLR software for analysis and implementation of Likelihood Ratios.

04/2015 - 09/2015 Politecnico di Milano - ARCSLab, Milan, Italy.

Assistant professor in speech analysis. Courses: "Accessibility: models and applications" and "Natural Language

Processing".

04/2015 – 09/2015 Politecnico di Milano – ARCSLab, Milan, Italy.

Study and design of prosodic analysis applications in second language acquisition for people with dyslexia or

earing loss

01/2014 – 04/2015 University of York – Linguistic Department, York, UK.

Deepening audio forensics techniques and methodologies with J P French professionals.

PUBLICATIONS

A proposal for the scientific disclosure of speech analysis in audio forensics. Cenceschi S., Trivilini A., Den-

icolà, XIII AISV National conference on Voice Science. [conference proceedings] https://urly.it/311p6

Collecting Italian spontaneous social media speech: the WAsp2 project. Cenceschi S., Trivilini A., Sbattella L., Tedesco R., XIII AISV National conference on Voice Science. [conference proceedings] https://urly.it/311p6
Speech and language processing for critical interactions: (Computational Analysis of) Emotion, motivation, and personality in forensics, clinics, and education. Sbattella L., Tedesco R., Cenceschi S., Springer Brief book,

Polimi series. [ongoing work]

Verso il riconoscimento automatico della Prosodia. Cenceschi S., Sbattella L., Tedesco R., STUDI AISV N°2:

La fonetica sperimentale nell'insegnamento e nell'apprendimento delle lingue straniere (Pisa, Italy). [chapter in

book] https://urly.it/311p7

 $\textbf{Towards Automatic Recognition of Prosody.} \ Cenceschi \ S., Sbattella \ L., Tedesco \ R., Speech \ Prosody \ Conference$

2018 (Poznan, Poland). [paper in conference proceedings] https://urly.it/311p8

Influence of semantics on the perception of corrective focus in spoken Italian. Cenceschi, S., Sbattella, L., Tedesco, R., ExLing Workshop 2018 (Paris, France). [paper in conference proceedings] https://urly.it/311pb

The influence of lexicon, phonotactics and intonational components on the comprehension of spoken italian utterances. Cenceschi, S., Sbattella, L., Tedesco, R., Speech and Language, SAGE Journal (submitted). *[journal*

paper] https://urly.it/311q1

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2017	Similarities and differences on the legal application of forensic phonetics in Italy and in Brazil. Sigales Gonçalves J. S., Cenceschi S., International Association of Forensic Linguists conference 2017 (Porto, Portugal). [conference paper] slides: https://urly.it/311pd
	The definition of a descriptive space of prosodic forms: The CALLIOPE model. Sbattella L., Tedesco R., Cenceschi S., XII AISV National conference on Voice Science. [conference paper] https://urly.it/311pg
	Speech improvement for intellectual disabilities and autism: an experimental study on technological
	supports. Sbattella L., Tedesco R., Imperatori Gelosa A, Cenceschi S., Cordaro G., Rubino G., EDULEARN
	conference 2017 (Barcelona, spain). [conference paper] abstract: https://urly.it/311pj
2016	Crises during forensic examinations: observations and measurements in Italian spontaneous speech.
	Sbattella L., Tedesco R., Cenceschi S., International Association for Forensic Phonetics and Acoustics Conference,

Sbattella L., Tedesco R., Cenceschi S., International Association for Forensic Phonetics and Acoustics Conference, 2016 (York, UK). [conference poster] https://urly.it/311pm
Acoustic and grammatical characterization of crisis-related babblings in Italian persons undergoing

Acoustic and grammatical characterization of crisis-related babblings in Italian persons undergoing Courts-of-Law examinations. Sbattella L., Tedesco R., Cenceschi S., ITG Conference on Speech Communication 2016 (Paderborn, Germany). [conference paper] abstract https://urly.it/311pq

BaO: the BAby Orchestra – an interactive game. Cenceschi S., Treccozzi M. T., CIM Music Informatics Conference 2016 (Cagliari, Italy). [conference paper] https://urly.it/311py

Potentialities and gaps of sound engineering applied to phone-calls interceptions. Cenceschi, S., SUPSI University, Digital Forensics Lab, Conference for students and law professionals (Lugano, Swiss). *[conference – invited speaker]* https://urly.it/311pz

Study of the perceptual and semantic divergence of digital audio processed by restoration algorithms. Cenceschi S., Klauer G., The International Computer Music Conference ICMC-SMC 2014 (Athens, Greece). [conference paper] https://urly.it/311p-

Role and techniques of recovery for dissemination purposes of historical documents and the research of a predictive strategy of digital restoration. Cenceschi S., Praise of the digital - De Martino 2015 Institute Journal (Florence, Italy). [Italian journal]

KaSPAR: a prosodic multimodal software for dyslexia. Sbattella L., Tedesco R., Cenceschi S., ICERI Conference 2014 (Sevilla, Spain). [conference paper] https://urly.it/311pa

AWARDS	
10/2018	Investigation & Forensic Awards - premio Eccellenza, settore Informatica e Telefonia forense
06/2018	Studentship – "Andrea Paoloni"
	Associazione Italiana Scienze della Voce: conferences funds
07/2016	Polisocial award 2015 – Winner as member of the ARCSLab group Polimi
	Financing of the two-year project LYV-Lend Your Voice (January 2017 – December 2018).
06/2017	Studentship – "Andrea Paoloni"
	Associazione Italiana Scienze della Voce: conferences funds
12/2014	Professionality Project "Ivano Becchi" - Banca del Monte di Lombardia
	Funds for a specialization period in a foreign country
06/2013	"Lombardy Start project" for planning and economic management
	Business Plan evaluation and free training course for her Audio Forensics Business (CENCOR).

FOREIGN LANGUAGES

2015

2014

English B2 – Studied since primary school; used at work and in social life

Spanish A2 – Excellent comprehension; used at work and in social life

COMPUTER SKILLS

Basic Software Microsoft Office, OpenOffice, LibreOffice

Speech analysis PRAAT

Sound analysis iZotope RX / Speech analyzer etc. / Max/MSP

Sound editing Audacity, Pro Tools etc.

Programming language Python, R

Como chamber of commerce and Industry

INTERPERSONAL SKILLS

Fast learner in acquiring new skills - Proactive and flexible - Good problem-solving and analytical skills - Solid multitasking and organizational abilities - At ease with multicultural environment - Able to operate constructively in a team - Hardworking and result oriented - Capable of working effectively in stressful conditions under tight deadline - Able to manage tasks independently.

VARIOUS

Guitar player, passionate reader and walker – Driving license, A/B