# SONIA CENCESCHI

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## EDUCATION

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| 18 February 2019 | **PhD (cum Laude) in Information Engineering**<br>Thesis: "Speech analysis for Automatic Prosody Recognition"<br>*Politecnico di Milano (Italy) – Italian Government Scholarships* |
| November 2012 | **Master degree in Electronic Music and Sound Technologies**<br>Thesis: "Study of the perceptual and semantic divergence of digital audio processed by restoration algorithms"<br>*Conservatory of Music G. Verdi, Como (Italy) – Grade: 102/110* |
| February 2008 | **Bachelor degree – Civil and Environmental Engineering**<br>Thesis: "Acoustic analysis of the Lux Theatre"<br>*University of Pisa (Italy)* |
| October 2015 | **Classical guitar**<br>*Conservatory of Music G. Verdi, Como (Italy)* Reached level: Pre-academic |
| May 2017 | **SAiLR Workshop Software for Likelihood Ratio Calculation – Netherlands Forensic Institute, The Hague.**<br>SaiLR software for analysis and implementation of Likelihood Ratios. |
| July 2010 | **SaMPL summer school - Audio Conservation and Restoration**<br>*Information Engineering University of Padua & Conservatorio "C. Pollini"* |

## EMPLOYMENT HISTORY

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| 09/2018 – Ongoing | **SUPSI University – Digital Forensics Services, Lugano, Switzerland.**<br>Postdoc researcher. Project development activities. |
| 02/2015 – Ongoing | **Audio Forensics Expert – Professional activity, Italy and Cantone Ticino.**<br>LEAs expert. Audio Digital Expert for the criminal sector at the Court of Como. |
| 2017 – 2018 | **SUPSI University – Digital Forensics Services, Lugano, Switzerland.**<br>Periodical professional collaborations as Speech analysis expert in digital forensics courses. |
| 06/2018 – 10/2018 | **Politecnico di Milano – ARCSLab, Milan, Italy.**<br>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.**<br>Study and design of an automatic algorithm for the detection of the focus in Italian speech. |
| 04/2015 – 09/2015 | **Politecnico di Milano – ARCSLab, Milan, Italy.**<br>Assistant professor in speech analysis. Courses: "Accessibility: models and applications" and "Natural Language Processing". |
| 04/2015 – 09/2015 | **Politecnico di Milano – ARCSLab, Milan, Italy.**<br>Study and design of prosodic analysis applications in second language acquisition for people with dyslexia or hearing loss. |
| 01/2014 – 04/2015 | **University of York – Linguistic Department, York, UK.**<br>Deepening audio forensics techniques and methodologies with J P French professionals. |

## PUBLICATIONS

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| 2019 | **A proposal for the scientific disclosure of speech analysis in audio forensics.** Cenceschi S., Trivilini A., Denicolà, XIII AISV National conference on Voice Science. *[conference proceedings]* *https://urly.it/311p6*<br>**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*<br>**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]* |
| 2018 | **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*<br>**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*<br>**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*<br>**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* |

| 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 |
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| | **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, 2016 (York, UK). *[conference poster]* https://urly.it/311pm |
| | **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 |
| 2015 | **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]* |
| 2014 | **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* |
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| 06/2018 | **Studentship – "Andrea Paoloni"** <br> Associazione Italiana Scienze della Voce: conferences funds |
| 07/2016 | **Polisocial award 2015** – Winner as member of the ARCSLab group Polimi <br> Financing of the two-year project LYV-Lend Your Voice (January 2017 – December 2018). |
| 06/2017 | **Studentship – "Andrea Paoloni"** <br> Associazione Italiana Scienze della Voce: conferences funds |
| 12/2014 | **Professionality Project "Ivano Becchi" - Banca del Monte di Lombardia** <br> Funds for a specialization period in a foreign country |
| 06/2013 | **"Lombardy Start project" for planning and economic management** <br> Business Plan evaluation and free training course for her Audio Forensics Business (CENCOR). <br> Como chamber of commerce and Industry |

## FOREIGN LANGUAGES

| English | ■■■■■□□□ | B2 – Studied since primary school; used at work and in social life |
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| Spanish | ■■□□□□□□ | A2 – Excellent comprehension; used at work and in social life |

## COMPUTER SKILLS

| Basic Software | Microsoft Office, OpenOffice, LibreOffice | ■■■■■■□ |
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| Speech analysis | PRAAT | ■■■■■□□ |
| Sound analysis | iZotope RX / Speech analyzer etc. / Max/MSP | ■■■■■■□ |
| Sound editing | Audacity, Pro Tools etc. | ■■■■□□□ |
| Programming language | Python, R | ■■■□□□□ |

## 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