europass	Curriculum Vitae	Lucia Pepa
LUCIA PEPA		
WORK EXPERIENCE		
November 2015 – October 2020	Research Fellow at the Department of Experimental and Clinical M Universita' Politecnica delle Marche (Italy)	edicine
	 Artificial Intelligence Affective computing Mobile and web technologies for e-Health Gait analysis Wearable sensors 	
November 2016 – October 2018	Software Engineer Sherlogic • Data visualization • Web dashboard design	
Academic Years 2015/16,	 Swift XAL compiler Professor Assistant on the course of "Metodi e tecniche per l'autom Prof. Leopoldo Jetto) Universita' Politecnica delle Marche (sede di Ancona) 	azione" (chair
	Exercises lessons Student reception	
Academic Years 2015/16, 2016/17	Professor Assistant on the course of "Automazione Industriale" (cha Leopoldo Jetto)	air Prof.
	 Exercises lessons Student reception 	
Academic Years 2015/16, 2016/17, 2017/18	Professor Assistant on the course of "Modellistica e ottimizzazione industriali" (chair Prof. Leopoldo Jetto) Universita' Politecnica delle Marche (sede di Fermo)	dei processi
	Exercises respons Student reception	
January 2013 – January 2015	Professor Assistant on the course of Automatic Controls (chair Prof Leo) Universita' Politecnica delle Marche (Via Brecce Bianche, Ancona, Italy)	. Tommaso
	 Exercises lessons Support on written and oral exams Student reception 	

EDUCATION AND TRAINING

November 2012 – November

PhD in Technology Enhanced Learning



Curriculum Vitae

2015	Università Politecnica	delle Marche (Italy)	I		
	 Development of tecl Development of mo Signal processing fo Statistical classificat Matlab simulation and 	nnological solutions bile and web applica or movement analys ion techniques for m nd programming	to improve motor lea ations for healthcare is on wearable devic novement recognition	arning in diseased peo es 1	pple
October 2010 - December 2012	Master Degree in Electronic Engineering (cum laude) Università Politecnica delle Marche (Italy)				
	 Maintenance of mot Mobile app program 	or competences in p ming (Objective-C,	patients with neurolo Java)	gical disorders	
October 2007 - December 2010	First Level Degree in Biomedical Engineering (cum laude) Università Politecnica delle Marche (Italy)				
	 Basic Programming Analysis and model 	(C, C++, Labview, I ling of postural contr	Matlab) rol under vestibular a	nd proprioceptive per	turbations
PERSONAL SKILLS					
Mother Language	Italian				
Other language(s)	UNDERSTANDING SPEAKING		KING	WRITING	
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C2	C1	C1	C1
		First Certifica	ate in English received i	n 2005.	
French	B2	B1	B1	B2	A2
	Replace with name of language certificate. Enter level if known.				
	Levels: A1/2: Basic user - Common European Fram	B1/2: Independent user ework of Reference for I	- C1/2 Proficient user Languages		
Organisational / managerial skills	 great attitude for team working gained through my experience in the research group at the Università Politecnica delle Marche 				
Computer skills	 Optimal programming skills: Typescript, Javascript, HTML, C#, PHP, CSS, C, C++, Objective-C, Swift, Java, SQL, Matlab, Labview. Mobile and web app programming Web Frameworks: Zend Framework, .NET Framework, Nodejs, Angular, Angularjs Good command of Microsoft Office[™] tools 				
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ADDITIONAL INFORMATION



Curriculum Vitae

Publications List of publications (author and co-author until July 2020):

A fuzzy logic system for the home assessment of freezing of gait in subjects with Parkinsons disease, Expert Systems with Applications, Volume 147, 2020, 113197, ISSN 0957-4174, https://doi.org/10.1016/j.eswa.2020.113197.

A Machine-Learning Based Emotion Recognition System in Patients with Parkinson's Disease, 2019 IEEE 9th International Conference on Consumer Electronics (ICCE-Berlin)

Smartwatch based emotion recognition in Parkinson's disease, 2019 IEEE 23rd International Symposium on Consumer Technologies (ISCT)

Multiple Instance Learning for Emotion Recognition using Physiological Signals, in IEEE Transactions on Affective Computing, doi: 10.1109/TAFFC.2019.2954118.

Upper Limbs Dyskinesia Detection and Classification for Patients with Parkinson's Disease based on Consumer Electronics Devices, Zooming Innovation in Consumer Technologies Conference (ZINC), 156-157, 2018

Reliability of a smartphone-based home monitoring of freezing of gait in subjects with Parkinson's disease, Annals of Physical and Rehabilitation Medicine 61, e437-e438, 2018

Upper and Lower Limbs Dyskinesia Detection for Patients with Parkinson's Disease, IEEE 7th Global Conference on Consumer Electronics (GCCE), 704-705, 2018

Design and Implementation of a Real-Time Upper Limbs Dyskinesia Detection System, IEEE International Conference on Consumer Electronics (ICCE), 2019

Improving gait function and sensorimotor brain plasticity through robotic gait training with G-EO system in Parkinson's disease, Annals of Physical and Rehabilitation Medicine 61, e79-e80, 2018

Real time indoor localization integrating a model based pedestrian dead reckoning on smartphone and BLE beacons, Journal of Ambient Intelligence and Humanized Computing 10 (1), 1-12, 2018

An unobtrusive expert system to detect freezing of gait during daily living in people with Parkinson's disease, 2nd International Multidisciplinary Conference on Computer and Energy Science, 12-14 July, 2017, Split, Croatia.

A real-time Fuzzy Logic algorithm for freezing of gait management on a smartphone, IEEE 7th International Conference on Consumer Electronics-Berlin (ICCE), 2017

Gait parameter and event estimation using smartphones, Gait & Posture, Volume 57, 2017, Pages 217-223, ISSN 0966-6362, <u>http://dx.doi.org/10.1016/j.gaitpost.2017.06.011</u>

Real-time mental stress detection based on smartwatch, 2017 IEEE International Conference on Consumer Electronics (ICCE), Las Vegas, NV, 2017, pp. 110-111.

Multimedia experience enhancement through affective computing, 2017 IEEE International Conference on Consumer Electronics (ICCE), Las Vegas, NV, 2017, pp. 182-183.

A smart phone-based architecture to detect and quantify freezing of gait in Parkinson's disease, Gait & Posture, Volume 50, 2016, Pages 28-33, ISSN 0966-6362, <u>http://dx.doi.org/10.1016/j.gaitpost.2016.08.018</u>.

- Human Indoor Localization for AAL Applications: An RSSI Based Approach, Ambient Assisted Living: Italian Forum 2016, Eds. Springer International Publishing, 2017, pp. 239–250.
- Real Time Step Length Estimation on Smartphone, in IEEE International Conference on Consumer Electronics (ICCE), Jan 2016, Las Vegas.

An Architecture to Manage Motor Disorders in Parkinson's Disease, IEEE World Forum on Internet of Things, 14-16 Dec, 2015, Milan, Italy.

Smartphone based fuzzy logic freezing of gait detection in parkinson's disease. Mechatronic and Embedded Systems and Applications (MESA), 2014 IEEE/ASME 10th International Conference on, Sept 2014, pp 1–6

Smartphone based freezing of gait detection for parkinsonian patients. Consumer Electronics (ICCE), 2015 IEEE International Conference on, Jan 2015, pp. 212–215.

An architecture for reducing the freezing of gait during the daily life of patients with Parkinson's disease. Gait & Posture 2014; 40(Suppl 1):S2

Can the Current Mobile Technology Help for Medical Assistance? The Case of Freezing of Gait in Parkinson Disease. Ambient Assisted Living, Eds. Springer International Publishing, 2014, pp. 177–185.

Predicting freezing of gait in parkinsons disease with a smartphone: Comparison between two algorithms. Ambient Assisted Living, Eds. Springer International Publishing, 2015, pp. 61–69.

Monitoring Freezing of gait with a smartphone. 1° Clinical Movement Analysis World Conference, SIAMOC, Rome, Italy, Oct 2014

Predicting the Freezing of Gait in Parkinson's Disease with a smartphone: comparison between two algorithms for detecting FOG. III Congresso Nazionale LIMPE/DISMOV-SIN, November 2014



Curriculum Vitae

Publications	List of publications (author and co-author until July 2020):
	Step length estimation for freezing of gait monitoring in Parkinson's disease. Workshop on Mobile Networks for Biometric Data Analysis (mBiDA), Ancona, Italy, Oct 2014
	Experimental Evaluation of a Smartphone Based Step Length Estimation. 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Milan, Italy, August 25-29, 2015
	An Open Modular Node for Wireless Body Area Networks. 6th Italian Forum on Ambient Assisted Living, Lecco, Italy, May 19-22, 2015.
	An Open and Modular Hardware Node for Wireless Sensor and Body Area Networks, Journal of Sensors.
	Un'architettura per la gestione dei disturbi motori nella malattia di Parkinson. XXVI Congresso ALASS, Ancona, Italia, Settembre 2015
Presentations and Conferences	 Speaker at the following International Conferences: XIV SIAMOC National Congress, Pisa, Italy, September 2013 4th Italian Forum on Ambient Assisted Living, Ancona, Italy, October 2013 III SIRN – SIMM Regional Convention, Ancona, Italy, November 2013 5th Italian Forum on Ambient Assisted Living, Catania, Italy, September 2014 IEEE 10th International Conference on Mechatronic and Embedded Systems and Applications (MESA), Senigallia (AN), Italy, September 2014 Nuove Prospettive di Gestione nella Malattia di Parkinson in Fase Avanzata, Ancona, Italy, September 2014 1° Clinical Movement Analysis World Conference, SIAMOC, Rome, Italy, October 2014 Workshop on Mobile Networks for Biometric Data Analysis (mBiDA), Ancona, Italy, October 2014
	 IEEE International Conference On Consumers Electronics (ICCE), Las Vegas, NV, USA, January 2015 IEEE 37th Annual International Conference of the Engineering in Medicine and Biology Society, Milan, Italy, August 2015 XXVI ALASS Congress, September 2015 IEEE World Forum on Internet of Things, December 2015 2nd International Multidisciplinary Conference on Computer and Energy Science, Split, 12-14 July 2017
Seminars Held	1 st European Robotic Rehabilitation Summer School: "State of the art on the role of assistive devices and technology in the evaluation of gait and posture and its integration with rehabilitation activities."

- Seminars held at the "Università Politecnica delle Marche":
- Postural Control, March 2011