Europass
Curriculum Vitae

Personal information

First name / Surname	**Fabrizio Santi**

Desired employment / Occupational field	**Research & Development** **Remote Sensing**

Work experience

Dates	February 2015-ON
Occupation or position held	Assegnista di ricerca
Main activities and responsibilities	Study and development of target detection techniques in the framework of the H2020 project "Galileo based passive radar system for maritime surveillance - SpyGLASS"
Name and address of employer	DIET Dept. University of Rome 'La Sapienza'

Dates	February 2014 –January 2015
Occupation or position held	Assegnista di ricerca
Main activities and responsibilities	Study on techniques for active and passive multi-dimensional radar imaging
Name and address of employer	DIET Dept. University of Rome 'La Sapienza'

Dates	January 2014
Occupation or position held	PostDoctoral researcher
Main activities and responsibilities	Processing of passive GNSS-based SAR images
Name and address of employer	DIET Dept. University of Rome 'La Sapienza'

Dates	March 2013
Occupation or position held	Early stage researcher
Main activities and responsibilities	Processing of multi-channel ISAR data
Name and address of employer	DIET Dept. University of Rome 'La Sapienza'

Dates	November 2010 → October 2012
Occupation or position held	Early stage researcher
Main activities and responsibilities	Study on Distributed ISAR techniques (research project funded by Selex Galileo)
Name and address of employer	DIET Dept. University of Rome 'La Sapienza'

Education and training

Dates	November 2010 → June 2014
Title of qualification awarded	Ph.D
Principal subjects/occupational skills covered	Remote Sensing – active and passive multi-channel SAR/ISAR imaging
Name and type of organisation providing education and training	Università degli studi di Roma, 'La Sapienza'

(ai fini della pubblicazione in ottemperanza all'art. 15 del D. Lgs: 33/2013)

Dates	April 2013 → September 2013
Title of qualification awarded	Visiting research student
Principal subjects/occupational skills covered	GNSS-based bi/multi-static SAR
Name and type of organisation providing education and training	University of Birmingham (UK), School of Electronic Electrical and Computer Engineering

Dates	January 2008 → September 2010
Title of qualification awarded	Telecommunications engineering, Master Degree
Principal subjects/occupational skills covered	Radar theory and technology, Radar images processing, Space radar systems, Digital transmission, Multimedia Communications
Name and type of organisation providing education and training	Università degli studi di Roma, 'La Sapienza'
Final Grade	110 cum laude /110

Dates	September 2004 → December 2007
Title of qualification awarded	Telecommunications engineering, Bachelor Degree
Name and type of organisation providing education and training	Università degli studi di Roma, 'La Sapienza'
Final Grade	108/110

Mother tongue	**Italian**
Other language	**English**

Self-assessment	Understanding				Speaking				Writing	
European level (*)	Listening		Reading		Spoken interaction		Spoken production			
	B2	intermediate	B2	intermediate	B2	intermediate	B2	intermediate	B2	intermediate

(*) Common European Framework of Reference for Languages

Social and organisational skills and competences	-Extremely organised person -Good abilities for synthetic and global views over concrete situations -End-oriented work capacity -Problem-solving attitude -Team-working attitude
Technical and computer skills and competences	-Windows o.s. -Microsoft Office tools -good knowledge of MATLAB -basic knowledge of C++ and Java programming -basic knowledge of SAR dataset processing software (PolSARpro, Next ESA SAR Toolbox)
Driving licence	Category B

Publications

International Journals

J8. Z. Li, F. Santi, D. Pastina, P. Lombardo, "Passive Radar Array with Low-Power Satellite Illuminators Based on Fractional Fourier Transform", IEEE Sensors Journal, vol. 17, no. 24, pp. 8378-8394, Dec. 2017.

J7. H. Ma, M. Antoniou, D. Pastina, F. Santi, F. Pieralice, M. Bucciarelli, M. Cherniakov, "Maritime Moving target Indication Using Passive GNSS-Based Bistatic Radar", IEEE Transactions on Aerospace and Electronic Systems, 2017, in press.

J6. F. Santi, D. Pastina, M. Bucciarelli, "Estimation of ship dynamics with a multiplatform radar imaging system", IEEE Transactions on Aerospace and Electronic Systems, vol. 53, no. 6, pp. 2769-2788, Dec. 2017.

(ai fini della pubblicazione in ottemperanza all'art. 15 del D. Lgs: 33/2013)

J5. Z. Li, F. Santi, D. Pastina, P. Lombardo, "Multi-frame fractional Fourier transform technique for moving target detection with space-based passive radar", IET, Radar, Sonar & Navigation, vol. 11, no. 5, pp. 822-828, May 2017.

J4. F. Santi, M. Bucciarelli, D. Pastina, M. Antoniou, M. Cherniakov, "Spatial resolution improvement in GNSS-based SAR using multistatic acquisitions and feature extraction", IEEE Transactions on Geoscience and Remote Sensing, vol. 54, no. 10, pp. 6217-6231, Oct. 2016.

J3. F. Santi, D. Pastina, "A parasitic array receiver for ISAR imaging of ship targets using a coastal radar", Hindawi International Journal of Antennas and Propagation, Volume 2016 (2016), Article ID 8485305.

J2. F. Santi, M. Antoniou, D. Pastina, "Point Spread Function Analysis for GNSS-Based Multistatic SAR", IEEE Geoscience and Remote Sensing Letters, vol. 12, no. 2, pp. 304-308, Feb. 2015.

J1. D. Pastina, F. Santi, M. Bucciarelli, "MIMO Distributed Imaging of Rotating Targets for Improved 2-D Resolution", IEEE Geoscience and Remote Sensing Letters, vol. 12, no. 1, pp. 190-194, Jan. 2015.

Conference proceedings

C17. F. Pieralice, D. Pastina, F. Santi, M. Bucciarelli, "Multi-transmitters ship target detection with GNSS-based passive radar", Radar 2017, International Conference on Radar Systems, Belfast (UK), 23-26 Oct. 2017.

C16. F. Santi, D. Pastina, M. Bucciarelli, "Maritime moving target detection technique for passive bistatic radar with GNSS transmitters", IRS 2017, 18th International Radar Symposium, Prague (CZ), 28-30 June 2017.

C15. F. Pieralice, F. Santi, D. Pastina, M. Bucciarelli, H. Ma, M. Antoniou, M. Cherniakov, "GNSS-based passive radar for maritime surveillance: Long integration time MTI technique", 2017 IEEE Radar Conference, Seattle, WA, USA, 8-12 May 2017.

C14. H. Ma, M. Antoniou, M. Cherniakov, D. Pastina, F. Santi, F. Pieralice, M. Bucciarelli, "Maritime target detection using GNSS-based radar: Experimental proof of concept", 2017 IEEE Radar Conference, Seattle, WA, USA, 8-12 May 2017.

C13. Z. Li, F. Santi, D. Pastina, P. Lombardo, "Satellite-based PCL for moving target detection using Keystone transform and FrFT", RADAR 2016 - CIE International Conference on Radar, Guangzhou, China, 10-13 October 2016.

C12. F. Santi, M. Bucciarelli, D. Pastina, M. Antoniou, M. Cherniakov, "Passive multi-perspective GNSS-based SAR using CLEAN technique: an experimental study", EUSAR 2016, Hamburg, Germany, 6-9 June 2016.

C11. F. Santi, M. Bucciarelli, D. Pastina, M. Antoniou, M. Cherniakov, "Passive multistatic SAR with GNSS transmitters and using joint bi/multi-static CLEAN technique", 2016 IEEE Radar Conference, Philadelphia, PA, USA, 2-6 May 2016.

C10. F. Santi, M. Bucciarelli, D. Pastina, M. Antoniou, "CLEAN technique for passive bistatic and multistatic SAR with GNSS transmitters", RADAR 2015 - IEEE Radar Conference, Arlington, Virginia (USA), 10-15 May 2015.

C9. F. Santi, M. Bucciarelli, D. Pastina, "Multi-sensor ISAR technique for feature-based motion estimation of ship targets", RADAR'14, International Radar Conference 2014, Lille, France, 13-17 Oct. 2014.

C8. F. Santi, M. Antoniou, D. Pastina, D. Tzagkas, M. Bucciarelli, M. Cherniakov, "Passive multi-static SAR with GNSS transmitters: preliminary experimental study", EuRAD 2014, Rome, Italy, 8-10 Oct. 2014.

C7. F. Santi, M. Antoniou, D. Pastina, D. Tzagkas, M. Bucciarelli, M. Cherniakov, "Passive multi-static SAR with GNSS transmitters: first theoretical and experimental results with point targets", EUSAR 2014, Berlin, Germany, 2-5 June 2014.

C6. F. Santi, D. Pastina, P. Lombardo, "ISAR while-scan mode for coastal surveillance", RADAR 2014 - IEEE Radar Conference, Cincinnati, Ohio (USA), 19-23 May 2014.

C5. F. Santi, D. Pastina, M. Bucciarelli, "Multi-sensor ISAR techniques for motion estimation of pitching, rolling and yawing targets", RADAR 2013 - IEEE Radar Conference, Ottawa, Ontario, Canada, 29 April - 3 May 2013.

C4. F. Santi, M. Bucciarelli, D. Pastina, "Target rotation motion estimation from distributed ISAR data", RADAR 2012 - IEEE Radar Conference, Atlanta, Georgia (USA), 7-11 May 2012.

C3. D. Pastina, F. Santi, M. Bucciarelli, P. Lombardo, "2D-MIMO SAR/ISAR imaging of moving targets with reconfigurable formation of platforms", EUSAR 2012, Nuremberg, Germany, 23-26 April 2012.

C2. D. Pastina, F. Santi, M. Bucciarelli, "Multi-angle distributed ISAR with stepped-frequency waveforms for surveillance and recognition", RADAR 2011 - CIE International Conference on Radar, Chengdu, China, 24-27 October 2011.

C1. F. Santi, P. Lombardo, D. Pastina, "Oil spill detection using a coastal high-resolution radar", RADAR 2011 - IEEE Radar Conference, Kansas City, Missouri (USA), 23-27 May 2011.

(ai fini della pubblicazione in ottemperanza all'art. 15 del D. Lgs: 33/2013)

Additional information

Prize for the best 2010 Italian thesis on remote sensing by the IEEE Geoscience and Remote Sensing South Italy Chapter (title: "Rivelazione oil spill con radar VTS in banda X", supervisor: Prof. Pierfrancesco Lombardo)

Attendance to the 3rd International Summer School on Radar/SAR, Bonn, Germany, 8-15 July 2011.

Fabrizio Santi serves as a reviewer for a number of international technical journals, including:
- IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing
- IEEE Transaction on Aerospace and Electronic Systems
- IET Radar, Sonar and Navigation
- IEEE Transaction on Geoscience and Remote Sensing

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