Giuseppe Loseto

Ph.D. | Assistant Professor, LUM University "Giuseppe Degennaro"

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> Design and development of 15+ research prototypes exploiting semantic technologies in mobile and embedded platforms
> Participation, coordination and management of 20+ national and international ICT projects
> Experience in teaching technical and scientific subjects

💼 Work Experience

Current Sep 2021	**Assistant Professor, LUM University "Giuseppe Degennaro", Italy** Department of Management, Finance and Technology > Member of the Bachelor's Degree committee in Business Engineering
Current Jul 2021	**Co-founder & Software Engineer, donkeyPower S.r.l., Italy** Academic spin-off of the Polytechnic University of Bari
Aug 2021 Jan 2013	**Post-Doc Research Fellow, Polytechnic University of Bari, Italy** Department of Electrical and Information Engineering – Information Systems Research Group > Research and development of knowledge-based applications for mobile and embedded platforms exploiting *Semantic Web* and *Internet of Things* technologies > Supervisor of 30+ B.Sc. and M.Sc. theses on Semantic Web and Internet of Things > Support to 20+ national and international ICT projects
Jul 2020 Oct 2019	**Senior Researcher, ITS Logistica Puglia, GE.IN.LOGISTIC Foundation, Italy** Scientific coordination of the "WP T2 – PORTS Sea Lab" activities related to *PORTS* project (Partnership for the Observation and study of new Routes and Transnational Seahighways) funded by "Interreg IPA CBC Italy-Albania-Montenegro Programme".

📖 Teaching Activity

Current Sep 2021	**Academic Teaching Activities, LUM University "Giuseppe Degennaro', Italy** > *Fundamentals of Computer Science*, Bachelor's Degree in Business Engineering, specialising in "Digital Management" > *Artificial Intelligence for business*, Master's Degree in Economics and Management, specialising in "Data science and digital transformation" > *Enabling technologies for a Digital Public Administration*, 2nd Level Specializing Master in Digital Transformation of the Public Administration
Current Jan 2013	**Academic Teaching Activities, Polytechnic University of Bari, Italy** > *Databases and Information Systems*, B.Sc. in Computer and Automation Engineering > *Information Systems - Module II*, M.Sc. in Business Engineering > *Databases and Business Intelligence*, 2nd level Specializing Master in in Data Science > *Data Management and Business Intelligence*, 2nd Level Specializing Master in Data Science
Mar 2015 Nov 2013	**Teaching Activities for ICT training courses, , Italy** > *Management and configuration of computer networks* – Centro Studi Levante, Molfetta (IT) > *Database modeling and implementation* – IPSSAR Alberghiero, Molfetta (IT) > *Introduction to e-commerce* – Programma Sviluppo, Bari (IT) > *Languages for DBMS : SQL* – Centro Studi Levante, Molfetta (IT) > *Software development and algorithms* – Gruppo Musa Scuole, Andria (IT) > *Databases and Information Systems* – Centro Studi Levante, Molfetta (IT)

🎓 EDUCATION

2010–2012	**Ph.D. in Information Engineering**, Polytechnic University of Bari, Italy	
Thesis	*Knowledge representation techniques and technologies for smart devices in intelligent buildings*	
	Design of an enhancement to ISO/IEC 14543-3 **EIB/KNX** standard for building automation exploited to develop a distributed HBA systems grounded on Semantic Web technologies.	
2007–2009	**Master's Degree in Computer Engineering**, Polytechnic University of Bari, Italy	
	Curriculum Information Systems and Networks (110/110 cum laude)	
Thesis	*Development of concept contraction algorithms using Java-based object-oriented database*	
	Redesign of non-standard inferences for mobile devices (based on **J2ME**) exploiting a **DB4O** OODBMS.	
2003–2006	**Bachelor's Degree in Computer Engineering**, Polytechnic University of Bari, Italy	
Thesis	*A mobile resource registry for semantic-based composition*	
	Development and optimization of non-standard inference services (based on Description Logics) exploiting a mobile RDBMS (**Oracle 10g Lite**) for mobile devices based on **J2ME**.	

🏛 SCIENTIFIC PROFILE

> **Research Interests** : Semantic Web of Things, Semantic-enabled resource discovery, Machine Learning in IoT platforms.
> Co-author of **40+ scientific papers** in international books, journals (IEEE Transactions on Industrial Informatics, Semantic Web Journal) and conferences (ESWC'11, ISWC'16, SAC'17, TheWebConf'18, ISWC'21). Full list of publications on Google Scholar.
> Member of Editorial Boards (Sensors, Journal of Low Power Electronics and Applications)
> Member of Program and Local Committee (ISWC P&D 2021, HUSO 2020-21, UBICOMM 2019-21, IoTBDS 2017-21, SEMAPRO 2017-21, MobiSPC 2019-20, SMC 2019, IUPT 2013-18, I-CiTies 2017, UCIOT 2017, IWASI 2015)
> Reviewer for international journals and conferences

🖥 SELECTED RESEARCH PROJECTS

PHYSICAL SEMANTIC WEB   2016–2018

🔗 swottools/physicalweb   🔗 github.com/sisinflab-swot/physical-semantic-web   🔗 Demo @TheWebConf 2018

Enhancement of the Google Physical Web framework exploiting Semantic Web technologies. Developed toolkit includes : (i) a Java SE library containing basic data structures; (ii) a mobile client for Android devices; (iii) libraries to advertise and discover PSW beacons using Node.js through embedded devices (*e.g.,* Raspberry Pi, Intel Edison); (iv) a ROS-based project exploiting the PSW framework for robot interaction.

`Java` `Android` `OWL` `Node.js` `BLE` `Eddystone` `Raspberry Pi` `Android Things` `ROS`

LDP-CoAP : LINKED DATA PLATFORM FOR THE CONSTRAINED APPLICATION PROTOCOL   2015–2017

🔗 swottools/ldp-coap   🔗 github.com/sisinflab-swot/ldp-coap-framework   🔗 Presentation @ISWC 2016

Mapping of both W3C LDP and W3C LDN specification for RFC 7252 Constrained Application Protocol (CoAP) to publish Linked Data on the WoT. The Java-based framework is based on a LDP-enhanced version of the Eclipse Californium library.

`LDP` `LDN` `CoAP` `Java` `Android` `Raspberry Pi`

MAFALDA : MAtchmaking Features for mAchine Learning Data Analysis   2015–2018

🔗 github.com/sisinflab-swot/mafalda   🔗 Paper @Semantic Web Journal 2018

Framework for data mining on sensor streams, amenable to resource-constrained contexts. It merges an ontology-based characterization of data distributions with non-standard reasoning for a fine-grained event detection by treating the typical classification problem of ML as a resource discovery. Prototypical Android app developed for road and traffic monitoring and real-time driver assistance.

`Java` `Android` `OWL` `Weka` `Raspberry Pi`

More information about other developed projects available on sisinflab.poliba.it/swottools

🌐 LANGUAGES

Italian	●●●●●
English	●●●●○

➕ OTHER ACTIVITIES

> Member of W3C LDP-Next Community Group
> Oracle Academy representative for the Polytechnic University of Bari (2015-21)

🏆 AWARDS

> **Google IoT Technology Research Award 2016** for the project "Physical Semantic Web"
> **KNX Award 2012 Nomination** for the project "Semantic Web of Things at Home with KNX" (category *Special*)
> **Best Poster Award** at ESWC 2011, the 8th Extended Semantic Web Conference