

procedura selettiva di chiamata per n. 1 posto di **Ricercatore a tempo determinato - Tipologia A** presso il Dipartimento di Ingegneria informatica, automatica e gestionale “Antonio Ruberti”, Facoltà di Ingegneria dell’informazione, informatica e statistica Settore Scientifico-disciplinare ING-INF/05 Settore Scientifico-disciplinare ING-INF/05, Settore concorsuale 09/H1 di cui al bando emanato con D.D. n. 1128/2022, codice concorso 2023RTDAPNRR099

## Ala Arman Curriculum Vitae

Place Roma  
Date 30.01.2023

### Part I – General Information

Full Name	Ala Arman
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### Part II – Education

Type	Year	Institution	Notes (Degree, Experience,...)
University graduation	2006	Azad University (Najaf Abad branch), Iran	Bachelor’s degree in Computer Engineering (Software branch)
Post-graduate studies	2012	Royal Institute of Technology (KTH), Stockholm, Sweden <sup>1</sup>	Master’s degree in Software Engineering of Distributed Systems
PhD	2018	Università degli Studi di Milano, Crema, Italy <sup>2</sup>	PhD in Computer Science
Specialty			
Pre-doctorate training			
Licensure 01			
Licensure 02			

### Part III – Appointments

#### IIIA – Academic Appointments

Start	End	Institution	Position
08/2022	Present	Sapienza University of Rome <sup>3</sup>	Assegno di Ricerca
06/2018	05/2022	Università degli Studi di Firenze <sup>4</sup>	Assegno di Ricerca

#### IIIB – Other Appointments

<sup>1</sup> Thesis supervisor: Prof. [Vladimir Vlassov](#)

<sup>2</sup> Supervisor: Prof. [Pierangela Samarati \(SPDP Lab.\)](#)

<sup>3</sup> Supervisor: Prof. Massimo Mecella

<sup>4</sup> Supervisor: Prof. [Paolo Nesi \(DISIT Lab.\)](#)

Start	End	Institution	Position
09/2008	07/2009	SepanoDp Co., Isfahan, Iran	Software Engineer
06/2005	02/2006	Isfahan University of Technology, Isfahan, Iran	System Analyst

**Part IV – Teaching experience**

Year	Institution	Lecture/Course
2012-2013	Azad University (Najaf Abad branch), Iran	Undergraduate Lecturer (Courses: Programming Languages (Design & Implementation), Computer Simulation, Software Engineering, Software Engineering, Software Engineering Lab., Data Structure)

**Part V - Society memberships, Awards and Honors**

Year	Title
2022	Reviewer (Journal: Pervasive and Mobile Computing, Elsevier)

**Part VI - Funding Information [grants as PI-principal investigator or I-investigator]**

Year	Title	Program	Grant value

**Part VII – Research Activities**

Keywords                      Brief Description

Artificial Intelligence Natural Language Processing	Designing and developing a Chatbot application to support online administrative tasks

Knowledge graph	
Chatbot	

Smart Manufacturing	Originated a data warehouse for a product line of a space technology company with more than 8000 staff and branches in 9 countries, by setting up meeting with stakeholders, extracting user stories, and utilizing data modeling techniques such as star schemas and ERDs (also, writing a paper on the applicability of Industry 4.0 principles to the space industry)
Industry 4.0	
Space 4.0	

Smart City	Devised and implemented DORAM, mainly in Java and node.js, in the context of the regional MOSAiC project, coordinated with 4 main stakeholders, a tool to perform the analysis of alternative scenarios, as what-if analysis, when the transport service offer and the mobility demand changed in the scenario, adopting a fast-computation strategy, and validated in the Tuscany region with more than 150000 inhabitants, 30 million tourists per year, 1500 stops, 25 lines, and 1100 vehicle trips
Public transportation systems	
Origin Destination Matrices	
What-if Analysis	
Demand and Offer Algorithms	

Internet of Things	Defined and developed architectures, models, tools, and IoT applications, in PHP and Node-RED, in the context of the European HERIT-Data project, for data ingestion and regularization are presented to simplify and enable the automated visual representation of corresponding data, addressing the high heterogeneity of data that are available on more than 120000 IoT devices
Data warehouse	
Visual analytics	

Knowledge base	Developed, mainly in node.js, autonomously federate smart city API services in the context of the Snap4City European platform, when enhancing the former Km4City Ontology and API of the Sii-Mobility national project, which is currently in more than 8 European cities/areas
Smart city API	
Smart city services	
Federation of Smart Cities	

Cloud plan selection	Provided models and tools to help users in outsourcing applications, considering their requirements, and in Cloud solution selection, taking into account their characteristics
Application requirements	
Application Importance	

Cloud Computing	Investigated the feasibility of control-theoretic approaches to the automation of elasticity of Cloud based storages by the development of a feedback controller for distributed key-value stores
Elasticity	
Key-Value Store	
Feedback Control	

## Part VIII – Summary of Scientific Achievements

Product type	Number	Data Base	Start	End
Papers [international]	7	Google scholar	2012	2023
Papers [national]				
Books [scientific]				

Books [teaching]

Total Impact factor	6.685 <sup>5</sup>
Total Citations	49
Average Citations per Product	7
Hirsch (H) index	4
Normalized H index*	4.45 <sup>6</sup>

\*H index divided by the academic seniority.

## Part IX– Selected Publications

List of the publications selected for the evaluation. For each publication report title, authors, reference data, journal IF (if applicable), citations, press/media release (if any).

Title	Authors	Journal IF	Citations	Press/Media Release
<a href="#">Analyzing Demand with Respect to Offer of Mobility</a>	- Ala Arman - Claudio Badii - Pierfrancesco Bellini - Stefano Bilotta - Paolo Nesi	2.838	1	Applied Sciences, vol. 12, n. 18 (2022)
<a href="#">Searching for Heterogeneous Geolocated Services via API Federation</a>	- Ala Arman - Pierfrancesco Bellini - Paolo Nesi	-		22 <sup>nd</sup> International Conference on Computational Science and Its Applications (ICCSA 2022)
<a href="#">Automating IoT Data Ingestion Enabling Visual Representation</a>	- Ala Arman - Pierfrancesco Bellini - Daniele Bologna - Paolo Nesi - Gianni Pantaleo - Michela Paolucci	3.847	2	Sensors, vol. 21, no. 24 (2021)
<a href="#">Analyzing Public Transportation Offer wrt Mobility Demand</a>	-Ala Arman -Pierfrancesco Bellini -Paolo Nesi -Michela Paolucci	-	4	1 <sup>st</sup> ACM International Workshop on Technology Enablers and Innovative Applications for Smart Cities and Communities. pp. 30–37 (2019)
<a href="#">Cloud plan selection under requirements of multiple applications</a>	-Ala Arman -Sara Foresti -Giovanni Livraga -Pierangela Samarati	-	2	Security Privacy, vol. 1, n. 4 (July/August 2018)
<a href="#">A consensus-based approach for selecting cloud plans</a>	-Ala Arman -Sara Foresti -Giovanni Livraga -Pierangela Samarati	-	15	IEEE 2 <sup>nd</sup> international forum on research and technologies for society and industry leveraging a better tomorrow (RTSI 2016), pp 1–6
<a href="#">Elasticity Controller for Cloud-Based Key-Value Stores</a>	- Ala Arman - Ahmad Al-Shishtawy - Vladimir Vlassov	-	9	International Conference on Parallel and Distributed Systems— (ICPADS 2012), pp. 268–275

Roma, 30.01.2023

<sup>5</sup> 2.838+3.847=6.685

<sup>6</sup> 49 citations/(2023-2012)=4.45 (2012: the year of first publication)