

## **Sustain-FIT Matchmaking Profile – Nasibeh Mohammadzadeh**

**Host:** University of Galway (J.E. Cairnes School of Business & Economics) — Supervisors: Dr. Mona Isazad Mashinchi; Dr. Mahya Ostovar.

**Project theme (concise):** Sustainable digital identity and citizen-centric trust. The fellowship develops a practical, standards-aligned layer for improving the trustworthiness and efficiency of digital identity verification in public services. Focus areas include verifiable credentials (W3C), decentralised identifiers, privacy-by-design, and sustainability indicators (e.g., latency/energy per verification).

**What I'm looking for:** A 6-month industry secondment in Ireland (Months 28–33) to validate a working prototype in real-world enterprise settings and co-develop implementation guidance and dissemination outputs.

**Relevant sectors (broadened, not limited to blockchain):** Digital identity / IAM, privacy-enhancing technologies, cybersecurity, GovTech / eGovernment, RegTech, digital health (patient identity and consent), fintech (KYC/AML), and cloud service providers with identity capabilities.

**What the partner gains:** A lightweight, standards-based validation of trust & sustainability KPIs in identity verification; co-authored dissemination; alignment with EU frameworks (eIDAS 2.0, Digital Decade).

### **Secondment activities (illustrative):**

- Deploy and benchmark the prototype in an enterprise test environment (non production).
- Measure verification metrics (e.g., response time, fraud-reduction signals) alongside energy/latency KPIs.
- Run usability and explainability checks for non-technical users; collect feedback for improvements.
- Produce a short implementation note and a joint non-technical brief for stakeholders.

**Contact:** [nasibeh.m@gmail.com](mailto:nasibeh.m@gmail.com)

Applicant initials:	Nasibeh Mohammadzadeh
Proposal title:	Temporal Trust for Sustainable Digital Identity

## **EDUCATION**

Institution name and country:	Degree	From - To
Polytechnic University of Catalonia (UPC), Spain	PhD degree in blockchain technology Thesis: Invoice Factoring through Blockchain Technology	11/2017 – 10/2022
University of Hyderabad, India	Master degree in information technology (IT) Dissertation: Implementation of Experimental Test Bed to Evaluate Security in Cellular Networks	07/2012 – 08/2014

## **EMPLOYMENT HISTORY**

Organisation name and country:	Position	From - To
Self Employed, Spain	Independent researcher & professional development	10/2024 – 07/2025
Ceit - Technology Center, Spain	Scientific researcher	09/2023 – 09/2024
Polytechnic University of Catalonia (UPC)	Doctoral researcher	11/2017 – 10/2022
World-class Telecom Managed Services Company (NAk), Iran	Information technology services (ITS) engineer	04/2017 – 10/2017
Consulting Engineering Firm, Iran	Computer Systems Security Analyst	12/2015 – 03/2017
Huawei Technologies co ltd. , Iran	Value Added Services (VAS) Engineer	04/2015- 11/2015

## **ACHIEVEMENTS**

### **Research Contributions**

- Contributed to European-funded projects including FA5-TRANS4M-R and BEACON, focusing on decentralized identity, trust in digital infrastructures, and cybersecurity.
- Developed blockchain-based trust models incorporating dynamic credential scoring aligned with Verifiable Credentials standards.
- Authored peer-reviewed publications on blockchain security and decentralized identity verification, cited in academic research.
- Collaborated with the University of Surrey on a trust-aware fraud detection framework combining blockchain and LLMs, accepted at DependSys 2025.

### **Awards and Recognition**

- PhD with Honors from the Polytechnic University of Catalonia (UPC), awarded for original contributions to digital identity and decentralized trust systems.

### **Professional Engagement**

- Assistant Organizer at the European Symposium on Research in Computer Security (ESORICS).
- Reviewer for peer-reviewed journals covering topics in Computer Science, including security and distributed systems.

## **LIST OF MOST RELEVANT PUBLICATIONS**

### ➤ **Journals**

- **Nasibeh Mohammadzadeh**, Sadegh Dorri Nagoorani, and José Luis Muñoz-Tapia. "Decentralized factoring for self-sovereign identities." *Electronics* 10.12 (2021): 1467.
- **Nasibeh Mohammadzadeh**, Sadegh Dorri Nagoorani, and José Luis Muñoz-Tapia. "Invoice factoring registration based on a public blockchain." *IEEE Access* 9 (2021): 24221-24233.
- **Nasibeh Mohammadzadeh**, Mohsen Hallaj Asghar, and Raghu Kisore. "Implementation of Experimental Test Bed to Evaluate Security in Cellular Networks." *International Journal of Computer Science and Technology, IJCST* (2015).
- Akrami, H., & **Mohammadzadeh, Nasibeh**. "Performance Analysis of Cloud Server in Multiud Environment." *International Journal of Computer Science and Technology, IJCST* (2014).

### ➤ **Conferences**

- Saviz Changizi, **Nasibeh Mohammadzadeh**, and Mohammad Shojafar. Hybrid Telecom Fraud Detection with Machine Learning, Large Language Models, and Blockchain. *International Conference on Dependable Systems (DependSys 2025)*, Exeter, UK.
- Yasiru Rathara Witharanage, Santiago Figueroa-Lorenzo, **Nasibeh Mohammadzadeh**, & Saioa Arrizabalaga Juaristi. (2024). ChainCode: A CICD methodology for chaincode development in Hyperledger Fabric based on Kubernetes. *The 12th International Conference on Information Technology: IoT and Smart City (ICIT 2024)* (December 2024)
- Jesús Rugarcía, Santiago Figueroa-Lorenzo, Saioa Arrizabalaga, & **Nasibeh Mohammadzadeh**. (2024). Distributed blockchain-based firmware update architecture for IoT environments. *Computer Science & Information Technology (CS & IT)*, ISSN: 2231-5403, Volume 14, Number 22, November 2024.
- Asghar, Mohsen Hallaj, and **Mohammadzadeh Nasibeh**. "Design and simulation of energy efficiency in node based on MQTT protocol in Internet of Things." *2015 International conference on green computing and the internet of things (ICGCIoT)*. IEEE, 2015.
- Asghar, Mohsen Hallaj, **Mohammadzadeh Nasibeh**, et al. "Principal ingredients and framework of Internet of Things (IoT)." *2015 Twelfth International Conference on Wireless and Optical Communications Networks (WOCN)*. IEEE, 2015.
- Asghar, Mohsen Hallaj, Negi Atul, and **Mohammadzadeh Nasibeh**. "Principal application and vision in Internet of Things (IoT)." *International Conference on Computing, Communication & Automation*. IEEE, 2015.
- **Mohammadzadeh, Nasibeh**, and N. Raghu Kisore. "Experimental evaluation of security in 2g cellular networks in india." *2015 IEEE International Advance Computing Conference (IACC)*. IEEE, 2015.