Mustafa Khaleel Hamadani

PhD Student
Politehnica University of Bucharest, Romania

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Language: English and Arabic

Education

Politehnica University of Bucharest — Bucharest, Romania
DOCTOR OF PHILOSOPHY (PH.D) — *Expected Oct 2022*

Thesis Title: Cloud Computing Technologies for the D2D Networks

The research interests: Device-to-Device (D2D), Software-defined networking (SDN) and Network functions virtualization (NFV), - Cloud Technologies (Fog, Edge, and Cloudlet).

Politehnica University of Bucharest — Bucharest, Romania
Master in Advanced Wireless Telecommunications — *Oct 2014 - Oct 2016*

Master Thesis : Channel Equalization in Wireless Communications

Al-Rafidain Univesty College — Baghdad, Iraq
Bachelor of Computer Communication Engineering — *Sep 2007 - Sep 2011*

Experience and Training

CS50's Introduction to Artificial Intelligence with Python — Online
Harvard University — *Mar 2022 - Jul 2022*

- **Description**:

1. Introduction to Artificial Intelligence with Python explores the concepts and algorithms at the foundation of modern artificial intelligence, diving into the ideas that give rise to technologies like game-playing engines, handwriting recognition, and machine translation.
2. Through hands-on projects, students gain exposure to the theory behind graph search algorithms, classification, optimization, reinforcement learning, and other topics in artificial intelligence and machine learning

WEB for internet services — Baghdad, Sinaa Street
Network Engineer: — *Jan 2012 - May 2014*

- **Responsibilities**:
  1. Configuration and Installations the wireless equipment (Mikrotik,Ubiquiti, and Proxim).
  2. Maintenance and Servicing the RF Link Site.
  3. Monitoring the Customers link status.
- **Jobs-Skills**:
  1. IP Networking and CCNAX Knowledge.
  2. Windows Server 2012 (Active Directory) and Computer Maintenance.

Skills

- **C++ Programming Language** : C++ had been studied during the Bachelor program as a one-year course. **C++** language assisted to jump to language or simulation including **MATLAB** and **OMNeT++**. during the Bachelor study, several topic had been covered including the functional programming and Object-oriented programming.
- **OMNeT++ Simulation Tool**: **OMNeT++** is an extensible, modular, component-based C++ simulation library and framework, primarily for building network simulators. OMNeT++ was used during the PhD study to construct a simulation network of one of the Doctorate reports also a paper [1] has been published with OMNeT++.
- **CloudSim (Java)**: **CloudSim** is an open-source framework, which is used to simulate cloud computing infrastructure and services. It is developed by the CLOUDS Lab organization and is written entirely in **Java**. CloudSim was used during the PhD study to construct a simulation network of the last Doctorate report (also a chapter of thesis) also a paper [4] has been published with CloudSim .
- **Python Programming Language**: **Python** was used during the master program to construct a simulation network with **Mininet** simulation tool. Additionally, Python used as main programming language with Artificial Intelligence course to solve the projects and construct the **Machine Learning** models.
- **MATLAB**: Doctorate report (also a chapter of thesis) also a paper [3,2] has been published with **MATLAB** . Additionally, MATLAB was used during the master program to build communication network to analysis different use-cases including fading, modulation techniques, and others.

PUBLICATIONS

2022 [4] **Mustafa Khaleel Hamadani**, Eugen Borcoci, "Load Balancing Techniques for Fog Computing Integrated to D2D Networks". Politehnica University of Bucharest, Scientific Bulletin, Series C, Vol. 84, issues.2, 2022 [**Accepted**].

2021 [3] **Mustafa Khaleel Hamadani**, Eugen Borcoci."Fog Nodes Placement for D2D Networks." 2021 44th International Conference on Telecommunications and Signal Processing (TSP). IEEE, 2021. [**Accepted**, Invited to be published in an extended form for the Sensors Journal].

2021 [2] **Mustafa Khaleel Hamadani**, E. Borcoci, "Fog Computing and D2D Networks Integration," 2021 IEEE International Black Sea Conference on Communications and Networking (BlackSeaCom), 2021. [**Accepted**].

2019 [1] **Mustafa Khaleel Hamadani**, Mahdi AA. Centralised Multi-hop Routing for Device-to-Device communication: simulation and results. In2019 11th International Conference on Electronics, Computers and Artificial Intelligence (ECAI) 2019 Jun 27 (pp. 1-6). IEEE. [**Accepted**].

2019 **Mustafa Khaleel Hamadani**, Al-Alwash Husam Mahdi, Centralised Multihop Routing Techniques for Device-to-DeviceCommunication, ICN 2019: The Eighteenth International Conference on Networks, ARIA, 2019. ISBN: 978-1-61208-695-8. [**Accepted**].

2019 Al-Alwash Husam Mahdi, **Mustafa Khaleel Hamadani**, Vehicular to Grid Technologies– A Survey on Architectures and Solutions, ICN 2019 : The Eighteenth International Conference on Networks, ARIA, 2019. ISBN: 978-1-61208-695-8. [**Accepted**].

2018 Silviu-Andrei Lazar, **Mustafa Khaleel Hamadani**, Carmen-Elena Stefan, Optimization Analysis of VANET's Control Plane for Safety Application Traffic, 2018 International Conference on Communications (COMM). [**Accepted**].