
MOHAMMAD TALA'T

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Biography

With a B.Sc. in Communication Engineering from Princess Sumaya University for Technology (2010), an M.Sc. in Electrical Engineering from Chung Hua University (2015), and a Ph.D. from National Chiao Tung University (2020), my expertise lies in wireless networks, sensor networks, green energy optimization for 5G, and AI. I specialize in applying deep learning techniques and decision theories, including Markov Decision Processes (MDPs), to enhance network performance and resource allocation.

Teaching Assistant

Fall 2019

Matlab Programming: Teach University students

- The basics of programming in MATLAB.
- Thinking about mathematical/engineering problems in which students learned how to solve the problems by writing Matlab programs and build functions.
- Different implementation such as dynamic programming and reinforcement learning.

Education

Sep. 2015- Aug. 2020

Ph.D. Electrical Engineering and Computer Science International Graduate Program

National Chiao Tung University, Hsinchu, Taiwan.

Ph.D. Dissertation:

Advanced Energy and Data Resource Allocation for Small Cell Networks

Mar. 2014- Jul. 2015

M.S. of Science Degree in Electrical Engineering

Master Thesis:

Hybrid Energy Utilization for Harvesting Base station in 4G LTE

Chung Hua University, Hsinchu-Taiwan,

Ranked the 1st among the class.

Oct. 2005- Aug. 2010

Bachelor of Science Degree in Communication Engineering

Princess Sumaya University, Amman-Jordan.

Graduation Project:

Wireless data transmission using FDM techniques

Employment History

May 2022-Oct. 2022

Telecom Solution Engineering GRROUNDHOG TECHNOLOGIES, Taipei, Taiwan.

- Lead pre-sales for mobile geo-location solutions, driving a 20% sales increase by spearheading client engagement and crafting compelling proposals.
- Efficiently managed Proof of Concepts (PoCs), offering technical guidance to ensure successful project delivery and alignment with product development goals.
- Demonstrated expertise in RF engineering and mobile network analytics through engaging presentations and effective communication, contributing to team success and client satisfaction.
- Provided support for project delivery and product development.

Apr. 2021–Mar. 2022

Perpetual Development Engineering CEFINTY CORPORATION, Taipei, Taiwan.

- Conducted product research and development, including building RESTful APIs for front-end engineering
- Utilizing Service Design Software to create new services

Oct. 2011- Oct. 2012

Communications Engineering ORANGE S.A. · Amman, Jordan.

- Technical support (troubleshooting);
 - Answer phones, customer requests, and complaints related to internet and fixed phone connections.
- Roaming engineering;
 - Register new agreement for different SIM cards which are not its home network, test, and launch agreement.

Professional Skills

■ Work skills:

- Extensive knowledge of operating systems such as GSM, and 5G networks.
- Design of Antennas for RFID Application.
- Technical experience in mmWave test measurements.
- Expert understanding of mobile web development, optimization, and telecommunications technology.
- Detail-oriented both in the execution of tasks and the reporting of job statuses.
- Good time management skills.
- Strong oral communication skills, with a recognized talent for explaining technical concepts in everyday terms.
- Works well both autonomously and in groups including excellent working relationships and collaboration skills.
- Ability to well communicate and explain technical concepts to users/customers.

- Excellent research and analytical skills including written and verbal communication skills.

■ **Coursework:**

- Encoding and Encryption
- Wireless sensor/wireless ad hoc networks
- Wireless Telecommunications
- Satellite communication
- Queuing theory
- Digital Communications
- Cloud-Based 4G/LTE/5G Networking and Applications
- Wired/Wireless Networking Infrastructure Integration and Applications
- Computer Networks and Applications
- Digital Signal Processing
- High-Speed Networking and RF design

■ **Computer skills**

- Programming: Assembly, C/C++, HTML5, Verilog and VHDL
- Engineering and mathematics: MATLAB
- Environments: Windows and MacOS operating systems
- Design tool: Autocad, and Lucidchart tool for drawing, designing flowchart and different diagram models

■ **Languages skills**

- Mother tongue: Arabic
- Very good command of English both written, and spoken
- Elementary Turkish/ Mandarin Chinese

■ **Other Skilled Activities:**

- Mobile maintenance
- Design of Antennas for RFID Application
- Cisco Certified Network Associate (CCNA)
- Global System for Mobile Communications (GSM)
- Published several international conferences and journal papers
- Reviewer for several IEEE journals
- Interactive learning and teaching skills
- Participate in different extraordinary activities; team skills including planning and evaluation

Patent

Patent Title: Method and Storage Device for 5G Small Cell Renewable Energy Networks

Inventors: Chih Min Yu, Mohammad Tala't, Jianping Lin

Certificate Number: 6066298

Patent Number: ZL 2020 1 0277257.7

Application Date: April 10, 2020

Patentee: Sunshine College

Address: Longding Road, Economic and Technological Development Zone, Fuzhou City, Fujian Province, China, 350015

Authorization Date & Number: June 20, 2023- CN 111641974 B

Publications List

1. C. -M. Yu, **M. Tala't**, L. -H. Shen and K. -T. Feng, "A Novel Fairness Allocation Strategy With Minimum Mainlobe Interference for mmWave Networks," in IEEE Internet of Things Journal, 2022.
2. C. -M. Yu, **M. Tala't**, L. -H. Shen, K. -T. Feng, E. Talat and M. -L. Ku, "A New Resource Allocation Strategy for Avoiding Interference in mmWave Networks," Global Conference on Consumer Electronics (GCCE), 2021.
3. C. Yu, **M. Tala't**, L. Shen and K. Feng, "A Multi-objective Model Checking for Transmission Policy Optimization in Hybrid Powered Small Cell Networks," IEEE Access, 2020.
4. C. Yu, **M. Tala't**, C.-H. Chiu, and C.-Y. Huang, "Joint Balanced Routing and Energy Harvesting Strategy for Maximizing Network Lifetime in WSNs", Energies, 2019.
5. **M. Tala't**, L. Shen, C. Yu, and K. Feng, "Optimal Transmission Policy for Maximizing Green Energy Utilization in Small Cell Networks", VTC, 2019-Spring.
6. **M. Tala't**, C. Yu, and K. Feng, "Green Energy Optimization for Small Cell Networks", APWCS, 2018.
7. C. Yu, **M. Tala't**, K. Feng, "On Hybrid Energy Utilization for Harvesting Base Station in 5G Networks", Wiley-Energy Science & Engineering, 2019.
8. **M. Tala't**, C. Yu, M. Ku, and K. Feng, "On Hybrid Energy Utilization in Wireless Sensor Networks", Industrial Energy Efficiency, 2018.
9. **M. Tala't**, C. Yu, and K. Feng, "A Survey: Green Energy for Cellular Base Station and Small Cell", IT-DREPS, 2017.
10. **M. Tala't**, C. Yu, and K. Feng, "On Hybrid Energy Utilization for Harvesting Base Station in 4G LTE"- Asia Pacific Wireless Communications Symposium," APWCS, 2017.

References

Available upon request