PROFESSIONAL DETAILS

Fullname Mohammed Hassan Arif

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Phone 07504777984

Gender male

Birth Date 1980-11-21

Address Iraq - Duhok

Nationality Iraqi

- Duhok Technical Institute
- Information Technology

LANGUAGE

- **Kurdish** (Native)
- **Arabic** (Native)
- **English** (Proficient)
- **German** (Beginner)

SOCIAL LINKS

Google Scholar Link

EDUCATION

Nov, 2013

Master degree (MSc) in Wireless communication systems

Electronic & Electrical Engineering department (EEE)

University of Sheffield

Aug, 2003

Bachelor degree (BSc) in Electrical Engineering / Electronics & Communication

Electronics & Communication

University of Mosul

TITLE

Nov, 2016

Assistant Lecturer

PROFESSIONAL EXPERIENCE

Aug, 2015 - Oct, 2019

Assistant Lecturer

DPU-Duhok Technical Institute

Duhok

1- Teaching Programing Fundamentals by C++, C# for the first stage. 2- Teaching Computer Architecture and Organization for the first stage. 3- Supervise Students' final year graduation project on embedded systems applications such as air pollution detection, smart agriculture, home security. 4- Database system administrator of E-Learning. 5- Labs IT Senior Engineer (Hardware and software maintenance of Labs including servers and networks, 2015-2018). 6- Scientific committee member of IT department. 7- Supervisor of trainers who train the Students during summer training course (2016-2017). 8- Students' Projects discussion committee head (2017-2018). 9- Assistant Head of IT Department (2016 -2017). 10- Exams committee member (2016-2017).

Apr, 2005 - Aug, 2015

Radio Network Planing and Optimization Senior Engineer

Newroztelecom Company

Duhok

Network design and optimization for more than 250 LTE sites, 100 WiMAX sites, 200 CDMA sites in Duhok , Nineveh Plains and Sinjar. Support and supervise a team of 5 people in the following tasks details: 1- Perform RF network planning for 4G,3G and 2G (LTE , WiMax ,CDMA 1x, EVDO Rev A & B) for different bands (450,800,1900 MHz and 2.5 GHz).Cells, Small cells and Cell on Wheel (COW) planning for the new areas & high traffic zones. Design the Networks' Coverage, Capacity, Path loss and link budget calculations with using Atoll software. 2- Optimizing the network coverage, capacity, throughput and other performances. Preparing system capacity upgrading plan, modifying the existing network configurations and sites according to demands and cities expansion. Perform software/hardware parameters optimization for different layers (Physical, MAC, and RLC layers). 3- IP planning for the sites according to the geographical clusters. 4- Cooperate with marketing dept. to decide the regions that need new services, discuss the coverage & capacity demands, determine the Traffic Models and data speed

quality. Estimate the number of future users based on data analysis. 5- Checking Systems Key Performance Index (KPI) & traffic Statistics, analyze radio quality problems, optimizing the KPI, preparing daily, weekly and monthly reports. 6- Perform the survey mission for new sites areas and collecting the required information about the areas' Geography and Morphology, negotiate with sites 'owners, preparing reports about the candidate sites and update the database accordingly. 7- Updating GIS database with the parameters that related to RF. 8- Handling Subscribers' complaints. 9- Technical Guidelines for design and achievement of projects. 10- Radio Network Dimensioning, Nominal Cell Plan, Evaluating/Approving Candidate Sites, preparing network engineering parameters for the new and the existing sites (e.g. antenna azimuth/tilt, Frequency Plan, Handoff parameters, PN/Scrambling Code Plan, power parameters, Neighbor list …. etc.). 11- Perform drive tests and analyzing the results, using software like TEMS Investigation & Discovery, Actix, Pilot Panorama, Pioneer, Navigator, Nemo and QUALCOMM QXDM. 12- Plan repeater's requirements like isolation calculations, donor cells, heights, etc. to expand and optimize the coverage in the weak areas. 13- Analyze the interference causes and determine the source of external inference. 14- Checking and testing the Network specification and RF performance for any new wireless modems and terminal and delivering reports about these products. 15- Dealing with system software such as "Huawei: U2000, M2000, Airbridge", "Nokia: NetAct ","Alcatel-Lucent: NPO, 5620 SAM Client, WPS, NEM, TrueCall". 16- Dealing with BTS such as "Huawei: DBS3900, LTE Small Cell BTS3202E"," Nokia: Flexi LTE BTS","Alcatel-Lucent: 9412 eNodeB, LTE Small Cell 9764 MCO".

SKILLS

Proficient Skills:

• Microcontrollers & Wireless sensors design and configuration (IoT) such as Waspmote, Raspberry PI and Arduino. Apply these devices in applications like Smart Cities, Smart Agriculture, Home Security...etc. • Microsoft Office: Word, Excel, Excess, Microsoft Project, PowerPoint, Outlook and Visio. • Computer Networking, IT works, CST Microwave Studio, Energia IDE, CircuitMaker for PCB design, C++, C#, MATLAB, MS-DOS, UNIX, Kali Linux, SQL applications in Oracle & Microsoft SQL server, Databases, MapInfo and Google earth software.

MEMBERSHIP

Jan, 2019 - Current

E-Learning (Moodle) Committee Member

E-Learning (Moodle) Committee Member

DPU - Duhok Technical Institute

PUBLICATION JOURNAL

May, 2019

Dual-band Millimeter-Wave Microstrip Patch Array Antenna for 5G Smartphones

IEEE Xplore Digital Library/ Published in: 2019 International Conference on Advanced Science and Engineering (ICOASE)

In this paper, we present a low-profile design for dual-band microstrip patch antenna array that works at millimeter wave band with resonance frequencies of 28 GHz, 24.9 GHz and bandwidths of 0.9 GHz, 0.3 GHz respectively. The design was simulated by CST software, where the peak gain of 8.42 dBi is achieved using a small array antenna size of dimensions “9mm* 8mm* 0.64mm” [Length*Width* Height]; this model can be a promising candidate for future 5G smartphones. Two series of substrates materials have been investigated and RO3210 has been selected due to its good performance with this design.

CONFERENCE

Apr, 2019 - Apr, 2019

2019 International Conference on Advanced Science and Engineering (ICOASE)

Iraq, University of Zakho - Duhok Polytechnic University As Presenter

Participate and Present our paper that titled " Dual-band Millimeter-Wave Microstrip Patch Array Antenna for 5G Smartphones"

WORKSHOP

Apr, 2019 - Apr, 2019

Using Remote Lab in Engineering Education

University of Zakho As Guest

Using Remote Labs in Engineering Education: A Practical Workshop with VISIR The content of the training workshop: Introduction to the VISIR remote lab; Experiments with simple electrical circuits (resistors' associations) Experiments with Operational Amplifiers; Experiments dealing with the bandwidth of test and measurement instruments (harmonics). Expected outcomes and impact After attending the training module, trainees will be expected to: Be able to use the VISIR remote lab for experimenting electrical and electronic circuits; Understand the limitations of real test & measurement instruments; Distinguish a remote lab (i.e. VISIR) from (online) simulations. Time duration: 2 Hours

Jan, 2019 - Jan, 2019

1-Prepare and Evaluate the assignments and reports of Students / 2- Research Publication

Duhok Polytechnic University- Azadi Hall As Guest

Presented by Dr. Sideeq Ameen

SEMINAR

May, 2019

Cognitive Technology

Information Technology -Duhok Technical Institute, DPU-Duhok Technical Institute As Presenter

May, 2019

Virtual Reality

Information Technology -Duhok Technical Institute, DPU-Duhok Technical Institute As Presenter

May, 2019

Software Defined Network

Information Technology -Duhok Technical Institute, DPU-Duhok Technical Institute As Presenter

Apr, 2019

High Speed Parallel RC4 Key Searching Brute Force Attack Based on FPGA

Information Technology -Duhok Technical Institute, Technical Session in ICOASE2019 Conference - DPU-College of Engineering - Hall 2 As Attend

Apr, 2019

Influence Maximization Problem Approach to Model Social Networks

Information Technology -Duhok Technical Institute, Technical Session in ICOASE2019 Conference - DPU-College of Engineering - Hall 2 As Attend

Apr, 2019

Multi- Component Current Control of a Single Phase Power Converter: A Model Predictive Approach

Information Technology -Duhok Technical Institute, Technical Session in ICOASE2019 Conference - DPU-College of Engineering - Hall 2 As Attend

Apr, 2019

Dual-band Millimeter-Wave Microstrip Patch Array Antenna for 5G Smartphones

Information Technology -Duhok Technical Institute, Technical Session in ICOASE2019 Conference - DPU-College of Engineering - Hall 4 As Attend

Apr, 2019

Optimum Design for Campus Network with Efficient Rate of Delay and Throughput

Information Technology -Duhok Technical Institute, Technical Session in ICOASE2019 Conference - DPU-College of Engineering - Hall 4 As Attend

Apr, 2019

Land Use Land Cover Change in Zakho District, Kurdistan Region, Iraq: Past, Current and Future

Information Technology -Duhok Technical Institute, Technical Session in ICOASE2019 Conference - DPU-College of Engineering - Hall 4 As Attend