

Curriculum Vitae

Full Name: Hassan Hadi Saleh Alazzawi

Date of birth: 8/12/1970

Address: Baquba city, Diyala Province, Iraq. Pin code -10053

Cell Phone: (+964) 7712090384



Certification: Ph.D. in Information Technology

General specialty: Computer Science

Specialty: Network & Communication

Scientific Title: Assistance Professor

Date of Obtaining: 1/12/2019

Affiliation: University of Diyala - Physical Education and Sports Sciences college (Al-Muradiya. Baquba city, Diyala Province, Iraq. Pin code – 32001)

Email: Hassan.hadi@gmail.com; Hassan.hadi.saleh@uodiyala.edu.iq

Other Information

Mother Language: Arabic - **Foreign Language:** English

Qualification and degrees:

Hassan H. S Al-Azzawi received the B.Sc. in Computer Science, University of technology, 2000 and M.Sc. degree from UOITC, IRAQ, 2013. He received the Ph.D. degree in Wireless Communication from Software Dept., Babylon University, Iraq in 2020. He has published several scientific papers in national, international conferences and journals. He is working as Associate Professor in University of Diyala.

Academic and scientific experience

Programming Language: visual basic, C language, Pascal, python

Database: Access, Visual Fox pro.

Others: Math lap, AutoCAD, sumo, 3dmax

Subjects of Teaching

Advance Computer Technology
Computer Graphics
Artificial intelligence
Neural Network
Network
Office application
Computer skills
Datamining
Image processing

Responsibility

- Staff member and Lecturer in College of Physical Education and Sports Sciences / Diyala University from 2008 to yet now.
- Responsible for the Computer and Internet Division

Conferences

- 2019 International Conference on Advanced Science and Engineering (ICOASE ...
- 2019 1st AL-Noor International Conference for Science and Technology (NICST ...
- 2018 1st Annual International Conference on Information and ...
- IOP Conference Series: Materials Science and Engineering 928 (3), 032050
- IOP Conference Series: Materials Science and Engineering 928 (3), 032012
- The First International Scientific Conference, Faculty of Physical Education ...
- Journal of Physics: Conference Series 12089
- 1st international conference on computing and emerging sciences- icces20
- 2018 1st Annual International Conference on Information and Sciences (AiCIS ...

Publication List

- Wireless network slicing: a survey
- survey\ towards a sustainable information and communication technologies (ict) in iraq
- interference mitigation in the vehicular communication network using mimo techniques
- implementation of electronic system particularly to candidates applying for admission to peass colleges
- are an electronic sports phenomena will become a sport for the future? Some of opportunities and risks
- implementing an electronic management system for managing graduate students' information in iraqi universities
- the impact of social media on academic performance enhancement: a case study of iraqi students
- deep learning with network of wearable sensors for preventing the risk of falls for older people
- capacity enhancement for the vehicular network using spatial multiplexing
- design and implementation a web-based collaborative e- learning model: a case study - computer science department curriculum
- solving course timetabling problem based on the edge coloring methodology by using jedite
- increasing security for cloud computing by steganography in image edges
- improving communication reliability in vehicular networks using diversity techniques
- critical and important factors related with enhancing wireless communication using mimo technology
- a survey on vanets: challenges and solutions
- a survey of routing algorithms in vehicular networks
- create a system special for the labor market and implementing it in the interactive touch screen to display the outcomes of diyala university.

Professional Memberships

Member of University Lecturers Association

Acknowledgments:

- Twenty Gratitude & Appreciation letter from the Dean of College, (2008-2020).
- Fourteen Gratitude & Appreciation letter from the President of University of Diyala, (2008- 2020).
- Six Gratitude & Appreciation letter from the Minister of Higher Education and Scientific Research (2010-2021).

Master's thesis Title:

Enhancing Wireless Communication For Multi Input Multi Output (MIMO) Using Orthogonal Frequency Division Multiplexing (OFDM) Technology

Supervisor

Prof. Dr. Sukaina Hassan hashim

2013

Abstract: Wireless networks have quickly become part of everyday life. Wireless Local Area Networks (LANs), cell phone networks, and personal area networks are just a few examples of widely used wireless networks. However, wireless devices are ranged and data rate limited. The key issue in wireless communication is multi-path propagation. The multi-path propagation occurs when signal bounces buildings, walls and other obstacles and arrives at the receiver at different times and from different paths. If the time difference is large enough, the receiver gets confused and can't interpret the signal causing retransmissions and therefore reducing the data rate of the 802.11 networks. Institute of Electrical and Electronics Engineers (IEEE) 802.11n takes the advantages of multi-path propagation to increase data rates. This Thesis concentrates on particular aspect that is, enhancing wireless communication obtained by optimizing Physical layer (PHY).

Orthogonal Frequency Division Multiplexing (OFDM) is an attractive and promising technique to mitigate the Inter-symbol interference (ISI), and used in the area of high data rate. In an OFDM signal the bandwidth is divided into many narrow sub-channels which are transmitted in parallel. OFDM was the first factor simulated, several simulation were carried out to verify its benefits and drawbacks. Multiple-Input Multiple-Output (MIMO) technology is the important factor, produce a better performance on two different angles (Spatial Multiplexing (SM), Spatial Diversity(SD)), SM increases network capacity by splitting a high rate signal into multiple lower rate streams and transmitting them through the different antennas. Simulation of channel capacity was done to assess the performance of capacity relating with Single-Input Single- II Output (SISO), Single-Input Multiple-Output (SIMO), Multiple-Input Single-Output (MISO), and MIMO. In SD, Many techniques can be used to improve system performance in fading channels. The results obtained are; build high performance PHY layer achieved from appropriate setting to OFDM parameters. In addition to use of MIMO combined with various techniques have been proposed as a way to fulfill the demand for increasing the capacity and the performance of wireless communication systems, due to its ability to achieve higher data rates without increasing the transmission power and bandwidth.

PhD dissertation title:

Improving Vehicular Ad-hoc Network Communication based on Diversity
Techniques

Supervisor
Prof. Dr. Saad Talib aljebori
2020

Abstract With the increasing number of people who drive cars and vehicles, there is a corresponding increase in the number of deaths caused by accidents. The Internet of vehicles (IoV) is created due to the correlation between vehicles and Internet of Thing (IoT). Vehicular Ad hoc NETWORK (VANET) is made through implementing the principles of Mobile Ad hoc NETWORKS (MANETs) in the vehicle's domain. One of the major challenges in designing a communication system is to overcome the effects of a wireless channel while ensuring high power and spectral efficiencies at the same time. Since information data is transmitted via the wireless medium, the transmitted signal will certainly suffer from the harmful effects of two different factors: mobility and multipath fading. In the multipath propagation environment, waves coming from various paths combine with various delays and varying attenuation. To support communication between vehicles, reliable wireless communication techniques are needed. Communication reliability and low transmission time is very significant and hard to obtain by employing the conventional model using Single Output Single Input (SISO) system. Generally, the designers of wireless communication system faced several challenges. Represented by limited spectrum and space time fluctuating situation. Furthermore, there is an increasing requirement for larger data rates, improved service quality, and increased network capacity. Main focus of work is on studying, analyzing and simulating challenges and issues related to implementing MIMO system in VANET to solve problems with the orientation towards IEEE 802.11p standard. The first subject to be addressed is the improved channel reliability of VANET using diversity techniques and the new proposed hybrid techniques. It's given a significant improvement of BER performance against traditional methods. The second subject is to enhance the channel capacity of VANET using SM.
