

# Curriculum Vitae



## 1. Personal Data

- a. Name: Ibrahim Khider Eltahir Khider
- b. Place of Birth and Date: Wadshommo-Elhasaheisa 1974
- c. Nationality: Sudanese
- d. Religion: Muslim
- e. Martial Status: Married

## 2. Present Address:

Sudan University of Science and Technology

College of Engineering, Department of Electronics

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## 3. Education:

Ibn Khaldoon Higher Secondary School -Elhasaheisa

1991-1993

## 4. Qualification:

Huazhong University of Science and Technology, China

2005-2008

PhD, Communication engineering and Information Systems

University of karray, Sudan

2000-2002

M.Sc in Communication Engineering

Sudan University of Science and Technology ,Sudan

1994-1999

B.Sc in Electronics Engineering (with First Class)

## 5. Thesis Title:

Studies and Investigation on an Integrated Mobility Models for Mobile Adhoc Network in Urban Area

## 6. Areas of Interest:

1. Mobile, Wireless and wired distributed systems and networking.
2. Digital Signal Processing and Data Communication.
3. Cooperative wireless networks, wireless mesh networks and Cognitive radio.

4. Vehicular mobile Ad hoc NETWORKS and mobility models design.
5. Wireless system based IOT
6. Visible Light Communication and Optical Fiber
7. AI for communication Networks

## **7. Professional Experience:**

- **Full Professor** at School of electronics Engineering from June February 2023 Up to Now
- **Associate Professor** at School of electronics Engineering from June 2013 Up to January 2023
- **Assistant Professor** at School of electronics from July 2009 Up to May 2013.
- **Lecturer** at School of electronics engineering from May 2002 Up to June 2013.
- **Teaching Assistant** at School of electronics Engineering from August 2000 Up to May 2002.

## **8. Teaching Experience:**

### **Courses Taught:**

#### **A) Undergraduate**

- Analogue Electronics Circuits.
- Digital Electronics Circuits and Sequential Circuits Design.
- Electronic measurements devices.
- Microprocessors Systems.
- Real time systems.
- Electromagnetic fields.
- Antenna Theory and Design
- Analogue and Digital Communication.
- Microwave Systems.
- Antenna and propagation.
- Radar Systems.
- Data Communication

- Computer networks
- Electronics Communication.
- Digital Signal Processing.
- Digital Image Processing.
- Satellite Communication,
- Wireless Networks Systems (mobile and ad hoc).
- optical fiber communication,
- Communication Systems.
- Communication networks and Switching.
- Telephone network, ISDN, DSL, CATV.
- Introduction to computers
- Computer Applications (C,Matlab,C++,java,python)
- Engineering Mathematics
- Industrial Management
- AI for communication Networks
- Probability and Statistics

## **B) Postgraduate**

- Wireless Networks Systems ( Wireless ad hoc, satellite communication, cordless phone, TETRA, Pager,).
- Communication Systems, Communication networks ,Traffic Theory and Switching.
- Telephone network, ISDN, ATM, DSL, CATV, Fiber Optic.
- Computer networks (OSI, TCP/IP, WAN, LAN).
- SCADA Network. And Wireless sensor network
- Mobile Communication(GSM,CDMA,WCDMA,UMTS,LTE,5G)

- Antenna Theory and Design.
- Digital Signal Processing
- Wireless BroadBand

## **9.Supervision of Postgraduate Students**

- a. Sudan University of Science and Technology:  
No of M.Sc Students **(21)** , No of PhD Students **(8)**
- b. Other Universities:  
University of Gezira No of PhD Students **(1)**  
University of Bahri No of PhD Students **(1)**  
University of Khartoum No of M.Sc Students **(3)**  
University of Science and Technology No of M.Sc Students **(3)**  
Future University No of M.Sc students **(4)**

## **10.Research Projects:**

Group Research Member in Electronic Systems Research Centre, Sudan University of Science and Technology from 2009 upto 2012

## **11.Administrative Experience**

**Head of Communication Engineering Department** from March 2011 up to September 2014.

## **12.Professional Memberships:**

- IEEE membership.
- IEEE communications Society membership.
- IEEE Robotics and automation Society membership.
- Sudanese Engineering Association.
- Sudanese Engineering Council.
- Arab Computer Society, Doha, Qatar.
- Java Application Programming for Integrated Networks (Sun Microsystem.).  
International Association of Engineers (IAENG), Hong Kong.

### **13.EDITORIAL ACTIVITIES**

Invited reviewer, Computer Communication Journal (Elsevier),UK.

Invited reviewer, Wicom Conference, IEEE, china.

6Invited reviewer, ICC Conference, IEEE,china.

Advisory Committees, International Conference on Robotic Automation System, Malaysia.

Associate Editor, International Journal of Wireless Communication, India.

Editor, MASAUM Journal Of Computer Science, New Jercey, USA.

Technical Editor, Information Technology Journal, USA.

Editor, Journal of applied sciences, USA.

Committee member for Assessment and evaluation at electronics Dept.

Committee member for curriculum development in under graduate and post graduate programme,

Electronics Dept, SUST.

Technical program committee member, International Conference on Communications, Signals and Coding, Istanbul, Turkey, October 2012

Technical Program Committee International Conference on Sensor Network and Mobile Computing,Tainan,China,September 2013.

Editorial Board in Inteligent Computing and Industry Design

Technical Program Committee International Symposuim in computer science and Artificial Inteligent Hong Kong ,December 2018.

Technical Program Committee,ICNCSS2021 [The 2nd International Conference on New Computational Social Science] ,October 2021

Scientific Board, Editor,International Conference on Power Electronics & Sustainable Development (ICPESD),Jamshedpur, India, 2022.

Program Committee First International Conference on Advanced Communications and Digital Networks , Iraq Baghdad 2025

### **14.Educational Preparation Courses program include the following subjects:**

- Philosophy and development of higher education.
- Distance education.
- Teaching methods.

- Technological skill in university teaching.
- Assessment and evaluation in higher education.
- Counselling and guidance.
- University educational systems.
- Principles of curriculum development in higher education.
- Educational psychology.
- Research methods.
- The legislation of higher education.
- Quality and assurance in higher education.
- University of administration.
- Educational functions of the university.
- Teaching ethics.
- Training in higher education.
- Scientific writing.
- Micro-teaching.

### **15.Computer Skills:**

Knowledge in programming Languages: pascal, basic,C, Java, Intel Family Assembly.

Knowledge in Matlab.

Knowledge in Network tools: Network Simulator Version-2 (NS-2).

Knowledge in Microsoft office (word, excel, access and power point).

Knowledge in Multisim software

Knowledge in Python

### **16.Language**

-Fluent in Arabic and English

-chinese basic

### **17. Awards and Grants**

Sudanese Government Scholarship 2005 to 2009.

Hubei province government Scholarship china 2006.

## 18.Extra-Curricular Activities:

- Member of the Housing Committee **Jabra** 2018 upto 2020
- Academic Activities with electronics engineering Society
- Member of Sawa Charity Association 2021 upto Now
- Member of orphan sponsorship Group 2018 upto Now

## 19.Publications:

1. Abdulla.A,**Khider.I**,Ali.E,(2025),Impact Analysis of Optical Filter Parameters on the Flatness of Optical Frequency Comb Lines,Optical Fiber Technology Journal,Elsevier.
2. **Khider. I**, Hassan. M, Hamid. K and Hassan, (2025), Enhancing 6G NOMA Performance with HRL-Driven mMIMO CR and RIS Integration, international conference on Advanced Communication and Digital Networks(ACDN),Springer.
3. **Khider. I**, Ibrahim. R, (2005),Assessment and analysis the performance of Multi-Hop Internet of Underwater Things Networks, UofKEJ, Vol. 13(1)
4. Ali.E A, Saeed.R, **Khider.I**, Barakat.M, Saeed.M,(2025),Theoretical Framework for Efficient UV-Relay Selection in IoUT Using Hybrid NN-GA Model with MCDM Approach,5th International Conference of Emerging Smart Technologies and Applications (eSmarTA),IEEE.
5. Abdulla.A,**Khider.I**,Ali.E,(2025),Advanced Techniques for Optical Frequency Comb Generation Using Optical Modulators: Comprehensive Survey,Optical Fiber Technology Journal,Elsevier.
6. Ibrahim.R,**Khider.I**,Edam.S and Mukhtar.T, (2025),Comperhensive Strategies for Enhancing SD-WAN:Integrating Security,Dynamic Routing and Quality of Service Management,IET Networks Journal,WILEY.
7. Ali.E, Saeed.R, **Khider.I**, (2024),Depth based Stable Election Routing Protocol for Heterogeneous Internet of Underwater Things (IoUT) Energy Efficiency,Journal of Computers and Electrical Engineering ,Elsevier.
8. Ali.E,Saeed.R,**Khider.I**,Othman.O,Mohammed.S,Mamoun.M,(2024),Hybrid Optimization of Developed DEEC Protocol for Enhanced Energy Efficiency in IoUT, 9<sup>th</sup> IEEE International Conference On Mechatronics Engineering(ICOM) Accepted,Kuala Lumpur,Malaysia.

9. Ali.E, Saeed.R, **Khider.I**, (2024).A Stable Energy Balancing Based Clustering Routing Protocol for IoUT using Meta-heuristic Technique ,4<sup>th</sup> IEEE international Maghreb Meeting of the Conference on Sciences and Techniques of Automatic Control and Computer Engineering(MI-STA),Tripoli Libya
10. Ayad.S and **Khider.I**. (2024) ,Implementation of deep learning models in FPGA development board for recognition accuracy enhancement. Bulletin of Electrical Engineering and Informatics Journal .
11. **Khider.I**, Wahab.L, Haydar.H. (2024),Integrating LSTM, Transformer, and LightGBM for Enhanced Predictive Modeling: A Mechanistic Approach,JISADS2(1)
12. **Khider.I**, Wahab.L, Haydar.H. (2023),Impact Of Using Fiber Delay Scheme On Burst Loss Ratio And Delay Using Offset Time Algorithm For Optical Burst Switching Networks,JISADS2(1).
13. Ali.E, Saeed.R, **Khider.I**, Abdelhag.M,Alsaqour.R,Mokhtar.R(2023)Energy Efficient CH Selection Scheme Based on ABC and Q-Learning Approaches for IoUT Applications ,Systems Journal 11(529)
14. **Khider.I**, Wahab.L, Haydar.H. (2023). Impact of Fuzzy Offset Time on Delay and Burst Loss Ratio for Optical Burst Switching Networks. *International Journal of Engineering and Advanced Technology*. 12(3).
15. . Ali.E, Saeed.R, **Khider.I**, Khali.O (2023). A systematic review on energy efficiency in the internet of underwater things (IoUT): Recent approaches and research gap. *Journal of Network and Computer Applications*. 211.Elsevier
16. **Khider.I**, Hamid.K, Eltayeb.H. Mohammed.Y (2022) Performance evaluation of Quality of Service in 5G Network, *JSUST(Engineering Sciences)* 1(6).
17. Ayad.S and **Khider.I**. (2022). Accuracy Enhancement of Automatic Modulation Recognition Using Deep Learning Paradigm. *Journal of Communications*. 17(12).
18. Ayad.S and **Khider.I**. (2022). Comparison of Automatic Modulation Classification Techniques. *Journal of Communications*. 17(7).
19. Kamal.A and **khider.I**. (2022). A survey on Delay Time in Smart Grid Communication Networks using D2D. *GSJ*. 10(4).
20. Abdullah.L, **Khider.I**, Al-Shargabi.M and Haider.A (2022). Performance Analysis Comparison of optical burst switching network contention resolution techniques. *IJECS*. 25(3).



21. Burbur.H, Hamid.K, Mustafa.A, Osman.T and **Khider.I**, (2022) VOIP QoS Over UMTS Network using IEEE 802e EDCA algorithm. *International IEEE Conference on Smart Information Systems and Technologies, Kazakhstan-Nur-Sultan* .
22. Osman.M, **khider.I**. (2021). Performance Evaluation of Propagation Model of Fifth Generation Milimeter Waves. *IJSER*. 12(7).
23. Mohammed.E, Bilal.K , **Khider.I**, (2018) Farm Automation based on IOT, *International Conference ICCEEE, SUDAN-Khartoum*.
24. SalahEdin.A, GasimElsid.A, Babiker.A, **Khider.I**, (2018) Call Duration Based Bandwidth Adaptation for Zero Blocking, *International Conference ICCEEE, IEEE, SUDAN-Khartoum*.
25. Gismalla.M, **Khider.I**. (2016). *Interference Reduction Between Device to Device (D2D) Communication*. [Online]. LAP LAMBERT Academic Publishing. Available at: <https://www.amazon.co.jp>
26. Gismalla.M, **Khider.I**. (2015). Interference Reduction Between Device to Device (D2D) Communication Underlying Cellular Networks. *IJSER*. 6(11).
27. Ali.E, **Khider.I**, A. Alrhman Mohammed and. (2015). Performance Analysis of Traffic Patterns over MANET Routing Protocols in Zigbee Personal Area Network. *International Journal of Computer Science and Telecommunications*. 6(1).
28. **Khider.I** and Hamid.K. (2014). Performance Analysis in Comparison of AODV and GNDA. *International Journal of Engineering, Science and Mathematics*. 3(1).
29. **Khider.I**, Abdallah.M and Hamid.K. (2014). Wireless Model for Monitoring and Controlling Water Networks and Stations in Khartoum. *International Journals of Engineering and Scientific Research*. 2(3).
30. **Khider.I**, Hamid.K Elwasila.H(2013)The impact of different MAC protocols for Network Coding in Adhoc Network, *International Journal of Scientific & Engineering Research*. 4(8).
31. **Khider.I**, Ibrahim.A, NourEldeen.M(2013)Software Define Radio Supported Reconfigurable for UMTS digital Up-convervor,*international journal of computer applications* 71(10) .
32. **Khider.I**, Hamid.Kand Khalf Allah.A.(2013)Performance Analysis of Open Loop Fractional Power Control in LTE Network". *IJECCCE* 4(1).
33. **Khider.I**, Mohammed.A,Elsheikh.N (2013)Effects of Diversity Combining Techniques and Carrier Frequency Offset on Enhancement of BER in Mobile Networks, *international journal of computer applications*71(10)..

34. **Khider.I**, Hamid.K and Elwasila.H (2013) Performance Evaluation of different topologies for Network Coding in Adhoc Network, *IJCST* 4(2).
35. **Khider.I**, Elsheikh.B(2013) Long Term Evolution Planning and Optimization based Downlink Scheduling, *international journal of computer applications* 71(10).
36. **Khider.I**, Hamid.K, Taha.S(2013)Evaluate Comparative of Cooperative Relaying Protocols in wireless communication, *International Journal of Scientific and Engineering Research* 4(8).
37. **Khider.I**, Ismael.W, Mohammed.Y, Alwaseela.H (2013)Eltigani,M, Integrated Location-Aided Routing Scheme for mobile adhoc networks , *MIT International Journal of Electronics and Communication Engineering*, 3( 2).
38. Hamid.K, **Khider.I** and Babiker.A, (2013) Performance of DS-WCDMA, *IEEE, ICCEEE, SUDAN-Khartoum*.
39. Ejack.B and **khider.I**, (2013) The importance of setting standards for the sites of communication towers. *Workshop on Environmental and health risks of the communication towers, Sudanese Standards and benchmarks, SUDAN-Khartoum* .
40. . **Khider.I**, Furong.W , Saad.A ,(2011)The effect of two realistic Radio Propagation Models for Mobile Ad hoc NETworks in Urban Area Environment Supported with station, *International Journal of Scientific and Engineering Research* 2(10).
41. Khider.I, Elfaki.S, Ibrahim.L, Yaseen.E , (2011) The High Efficiency of Slotted optical time division multiplexing. In: IEEE, ed. *ICECE,IEEE, China-Yichang 2011*.
42. **Khider.I**, Elfaki.S, Elhassan.M, Siddig.M, (2011) Evaluate the performance of Internet Protocol Television. In: IEEE, ed. *ICECE,IEEE, China-Yichang 2011*
43. Elfaki.S,**khider.I** , Omer.M, Al-Momen.F, Abdullah.A., (2011) Evaluation of Bit Error Rate in WLAN IEEE 802.11a with Radio over Fiber downlink system. In: IEEE, ed. *8th International Conference HONET,IEEE, Saudi Arabia Riyadh 2011*
44. **Khider.I**, Saad.A , Furong.W, (2010) Link analysis on Indoor and outdoor environment for Mobile Adhoc Network supported with base stations. *International conference for telecommunications, Saudi Arabia Riyadh*
45. **Khider.I**, Furong.W, Hua.Y,SAAD.A(2008) ,Study on an Integrated Mobility Model for Mobile Adhoc NETworks in Urban Areas, *The Mediterranean Journal of Computers and Networks* 4(4).
46. Thazin.E, Sacko.D, Furong.W, **Khider.I**, (2008) Autonomic Group Mobility Model for Mobile Ad hoc Networks. , *International Conferece World Congress on Engineering, UK*.
47. **Khider.I** and Saad.A, (2008) Open Research Issues in Cognitive radio. In: IEEE, ed. *IEEE,Telecommunications Forum, Belgrad-serbia* .

48. Zhang.P, Wang.F, Lai.T, Sacko D, Khider.I, (2008) Opportunistic Virtual Antenna Arrays with Optimal Relay Mobile Terminals Selection. In: IEEE, ed. *4th Wicom, IEEE, China-Dalian*.
49. **Khider.I**, Furong.W, Hua.Y(2008)Link analysis on Indoor and outdoor environment for Mobile Adhoc Network using Random Waypoint and Manhattan Mobility Model, *International journal of Advances in Systems Science and Applications* 8(3).
50. Sacko.D, Furong.W, Benxiong.H, **Khider.I**(2008),Dynamic Group Mobility Model for Hybrid Networks, *UBICC Journal*3(1).
51. **Khider.I**, Furong.W, Hua.Y and Sacko.D(2007)“Study on Indoor and outdoor environment for Mobile Adhoc Network: Random Waypoint and Manhattan Mobility Model”, *UBICC Journal* 2 (1).
52. **Khider.I**, Furong.W, Hua.Y and Sacko.D(2007) “Geographic Restriction Mobility Models: A survey”, *Journal of Applied Sciences* 7(3)..
53. **Khider.I**, Furong., Hua.Y, (2007) Study on Indoor and outdoor environment for Mobile Adhoc Network supported with base stations. In: IEEE, ed. *3rd Wicom, IEEE, China-Shanghai* .
54. **Khider.I**, (2007) The Impact of Different Radio Propagation Models for Mobile Ad hoc NETworks (MANET) in Urban Area Environment. In: IEEE, ed. *The 2nd International Conference on Wireless Broadband and Ultra Wideband Communications, Australia-Sydney*.
55. Sacko.D, Furong.W, Benxiong.H, **Khider.I**(2007) A Survey of Group Merge and Split Mobility Models.*UBICC Journal* 2(5).

## 20.Workshops and Simnars

- Introduction to network simulator version 2, Communication Software and Switch Research Centre, Huazhong university of science and technology, November2008.
- Workshop on IPv6, ITU, khartoum,sudan 24June, 2010.
- The role of IEEE in the development of technology in Sudan, NTC, October 2011.
- workshop on VSAT and Satellite Systems ”, ITU/ITSO,Khartoum, Sudan , November 2013 .
- Seminar on Space Plans and Cor-ordination,ITU,khartoum ,sudan ,2013
- Workshop on Environmental and health risks of the communication towers, khartoum ,sudan, December 2013.

## 21.BOOKs Chapters

Cognitive radio Techniques: under review

Theory and application for Adhoc network: accepted for publication

## **22. BOOKS published**

Mohamed Gismalla, Ibrahim Khider, Interference reduction between Device to Device communication, publisher lap Lambert, June 2016

## **23. Professional References:**

1- Dr. Salaheldin M. I. Edam

Assistant Professor

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