

Curriculum Vitae

Personal Information



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| Name | Fath Elrahman Ismael Khalifa Ahmed |
| Nationality | Sudanese |
| Date of Birth | 14 January 1975 |
| Place of Birth | Northern Kurdofan, Sudan |
| Gender | Male |
| Marital Status | Single |
| Languages | Arabic: Mother tongue English: Very Good |
| Health | Excellent |
| Interests | Family Activities, Foot ball, Reading. |
| Address | Eastern Deims P.O Box 72, School of Electronics, College of Engineering Sudan University of Science and Technology, Khartoum, Sudan. |
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| Objective | <i>To utilize and enhance my capabilities, knowledge and skills in a viable manner for the benefit of the organization that encourages innovation and creativity in the job process.</i> |

Qualifications

Key Qualifications: *Have an extensive background in the fields of Electronics, Digital Communications, Wireless and Mobile Communications, Radio propagation and Antennas.*

Detailed Qualifications: *Include the following Academic and Training Certificates*

Academic

- Doctor of Philosophy in Electrical Engineering (Wireless Communications), Universiti Teknologi Malaysia (UTM), Malaysia, July 2012.
- ❖ Thesis: Enhancement of Data Transmission for Mobile Multi-hop Relay Worldwide Interoperability for Microwave Access Networks
- ✓ Advisor: Assoc. Prof. Dr. Sharifah Kamilah Syed Yusof & Prof. Dr. Mazlan Abbas.

- Master of Science in Electronics Engineering (Communications), Sudan University of Science and Technology (SUST), Nov. 2006.
- ❖ Dissertation: Multicarrier Techniques for 4th Generation Mobile Systems.

- Bsc. (honor) of Engineering in Electronics Engineering (Communications), Sudan University of Science and Technology (SUST), September 2002.
- ❖ Graduation Project: Internet Protocol (IP) over Asynchronous Transfer Mode (ATM) Networks.

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| <p><i>Training & certificates</i></p> | <ul style="list-style-type: none"> ○ Short Course on Long Term Evolution (LTE) Network: From Fundamental to Advanced, Universiti Teknologi Malaysia (UTM), Malaysia, February 2011. ○ Professional Development Program on Computational Intelligence with MATLAB Practical Sessions, TEKBAK GROUP OF COMPANIES, Malaysia, September 2010. ○ Introduction to Writing for Publication in English for Postgraduates, Universiti Teknologi Malaysia (UTM), Malaysia, July 2010. ○ Introduction to Network Security Seminar, HELP University College, Malaysia, October 2006. ○ Training at Atomic Energy Research Institute in the following topics (Analogue and Digital electronic circuits design, Printed Circuits Board (PCB) design, and some electronics Computer aided design software), Sudan, Sep. 2000. |
| <p><i>Working Experience</i></p> | |
| <p>July 2012 up to date.</p> | <ul style="list-style-type: none"> ● Assistant Professor at Sudan University of Science and Technology (SUST) www.sustech.edu - College of Engineering. Work responsibilities include supervision of graduation projects, master thesis and teaching various subjects to undergraduate and Postgraduates students. |

Nov. 2006- July 2012

- Lecturer at Sudan University of Science and Technology (SUST) www.sustech.edu - College of Engineering. Work responsibilities include supervision of graduation projects and teaching subjects to undergraduate students such as:
 - Introduction to Mobile Communications.
 - Wave Propagation and Antenna.
 - Fiber Optic Communication Systems.
 - Digital Communications.
 - Communications Security.
 - Analog Communications.
 - Transmission Lines.
 - Computer Programming and Applications.

Nov. 2006- Nov.
2008

- Part time Lecturer at the following universities and colleges:
 - ✓ BLUE NILE University, Department of Electrical Engineering (communication section). Teaching different subjects in addition to supervision of projects in Communication Engineering.
 - ✓ College of Electrical Engineering (communication section). Teaching different subjects in addition to supervision of projects in Communication Engineering.

Oct. 2002- Nov.
2006

- Teaching Assistant at Sudan University of Science and Technology (SUST) - Department of electronics. Work responsibilities include instruction and assistant in the area of:
 - ✓ Computer programming (Basic, Pascal, Assembly, C).
 - ✓ Computer Engineering (Microprocessor, digital and analogue circuits).
 - ✓ Communication engineering (Analog comm., Digital comm., Satellite comm., Wave propagation and antenna, mobile comm.).

Research Interests: *The current research interests are in the area of resource allocation, WiMAX and LTE networks, Multi-hop Systems, Computational Intelligence and Wave Propagation and Antenna Design.*

Key Skills:

- ❖ Advanced proficiency levels with programming software such as (Assembly, Pascal, Embedded C, C++ and Visual basic).
- ❖ Advanced proficiency levels with simulators such as (MATLAB, NCTUNS, NS-2, OPNET, etc.....).

Publications and Activities

- Fath Elrahman Ismael, Sharifah K. Syed-Yusof, Mazlan Abbas, and Norsheila Faisal, ***QoS aware Transmission Control Scheme for Multi-hop WiMAX Networks***, International Journal of Communication Systems (IJCS) (accepted to be published) (IF of 0.409).
- Fath Elrahman Ismael, Sharifah K. Syed Yusof, Mazlan Abbas, Norsheila Faisal, N.Muazzah and R.Rashid, ***Frame Structure for MMR WiMAX Networks***, International Journal of Physical Science (accepted for publication) (IF of 0.51).
- Fath Elrahman Ismael, Sharifah K. Syed Yusof, Mazlan Abbas, and Norsheila Faisal, ***Hop aware ARQ for MMR WiMAX Networks***, European Journal of Scientific Research (accepted for publication).
- Fath Elrahman Ismael, Sharifah K. Syed Yusof, Mazlan Abbas, and Norsheila Faisal, ***Hop Aware Scheduling Algorithm for TCP Performance Enhancement in MMR WiMAX Network***, Accepted to be published at Journal Teknologi, UTM, Malaysia.
- Fath Elrahman Ismael, Sharifah K. Syed-Yusof, and Norsheila Faisal, ***Bandwidth Grant Algorithm for Delay Reduction in IEEE 802.16j MMR WiMAX Networks***, International Review on Computers and Software (I.RE.CO.S), Vol. 5,N. 2, March 2010.
- Adnan Shahid Khan , N.Fisal , N.N.M.I. Ma'arof , F.E.I. Khalifa ,M. Abbas ,***Security Issues and Modified Version of PKM Protocol in Non-transparent Multihop Relay in IEEE 802.16j Networks***, International Review on Computers and Software - January 2011 (Vol. 6 N. 1 P(104-109)). (Scopus-IF 6.14).
- Fath Elrahman Ismael, Sharifah K. Syed Yusof, and Norsheila Faisal, ***An Efficient Bandwidth Demand Estimation for Delay Reduction in IEEE 802.16j MMR WiMAX Networks***, International Journal of Engineering (IJE), Vol.3 Issue 6, Jan. 2010.

- Fath Elrahman Ismael, Sharifah K. Syed-Yusof, and Norsheila Faisal, ***Reduction of the Bandwidth Request Delay in IEEE 802.16j MMR WiMAX Networks*** , ICAC SIS 2009, Jakarta 7 to 8 December 2009, ISSN:2006-1796, p 295-299.
- Fath Elrahman Ismael, Sharifah K. Syed Yusof, Mazlan Abbas, Adnan Shahid Khan, and Norshiela Faisal, ***Throughput Enhancement in MMR WiMAX IEEE 802.16j Networks***, 3rd International Graduate Conference on Engineering, Science, and Humanities, Johor Bahru, 2-5 Nov. 2010.
- Fath Elrahman Ismael, Sharifah K. Syed Yusof, Mazlan Abbas, Adnan Shahid Khan, and Norshiela Faisal, ***TCP Packet Loss Reduction for MMR WiMAX Networks using Cross Layer Design***, 3rd International Graduate Conference on Engineering, Science, and Humanities, Johor Bahru, 2-5 Nov. 2010.
- Adnan Shahid Khan, N. Faisal , N.N.M.I. Ma`arof , F.E.I. Khalifa, M. Abbas, ***Security Zone and Key Derivation Management in Centralized Security Control in Wimax Multihop Relay System***, In Proceedings 3rd International Graduate Conference Of Engineering Science, and Humanity, 2010, (IGCESH2010), UTM, Johor Bahru, Malaysia, 2-4 November 2010.
- Adnan Shahid Khan , N. Faisal , Hashim E. A. Elshafie, Fath.E.I. Khalifa , M. Abbas , Masoumeh Shaneshin, ***An Overview of Security Challenges of Next Generation Mobile Wimax IEEE 802.16m Technology***, In Proceedings 3rd International Graduate Conference of Engineering Science, and Humanity, 2010, (IGCESH2010), UTM, Johor Bahru, Malaysia 2-4, November 2010.
- Adnan Shahid Khan ,N. Faisal ,N.N.M.I. Ma`arof ,Fath.E.I. Khalifa ,M. Abbas , Hashim E. A. Elshafie, ***Provisioning of Public Key Infrastructure (PKI) and Security Issues in IEEE802.16m Networks***, In Proceedings 3rd International Graduate Conference Of Engineering Science, and Humanity, 2010, (IGCESH2010), UTM, Johor Bahru, Malaysia, 2-4 November 2010.

Referees

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