Curriculum Vitae

(A) Personal Data :

1. **Name :** AHMAD FALIH MAHMOOD
2. **Date of birth** : 29 Feb 1964
3. **Country of birth :** Mosul - IRAQ
4. **Nationality** : Iraqi
5. **Sex :** Male
6. **Tel :** +9647705164815
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(B) Academic achievements :

1) The B.Sc.(1986) in Electrical Engineering - Dept. of Electrical Engineering - College of Engineering/Mosul University (Mosul-IRAQ).

2) The M.Sc.(1992) in Electronics and Communication Engineering - Dept. of Electrical Engineering - College of Engineering/Mosul University (Mosul- IRAQ).

3) Ph.D. in computer networks- Dept. of Electrical Engineering - College of Engineering/Mosul University (Mosul-IRAQ).

(C) Academic Experience :

1) Lecturer at the Dept. of Computer Engineering, Technical College (Mosul-Iraq), since March 1993 to Aug 2000.

2) From Nov 2000 to Aug. 2006, I'm working as a lecturer with the dept. of Computer Science – Faculty of Science/ University of Benghazi, Benghazi-LIBYA.

3) From Sept. 2006 and up to date I'm with the Dept. of Computer Engineering, Technical College, Mosul-IRAQ,

4) Giving courses in the following subjects :

Microprocessor & computer architecture, Microprocessor and Microcomputer based systems, Computer programming and applications, C programming language, Pascal programming language, Digital system design, Sequential machines, Electronics, Advanced computer architecture, Engineering analysis, Numerical methods, Computer graphics, Computer interface circuits design, Computer networks protocols, Reconfigurable computing.

5) Research field of interest :

Reconfigurable computing, Fault tolerance computing systems, Parallel processing, Microprocessor & computer architecture, Digital signal processing, Computer Networks, SoC and NoC.

6) M.Sc. Thesis title : Parallel Processing System using TMS32020 Digital Signal Processors.

7) Ph.D. Dissertation title : Design and Performance Evaluation of a Reconfigurable Internet Router.

(D) Work Experience :

1) Practical experience in the operation and maintenance of the wireless devices and the radar (during the military service) from Aug 1986 to Sept 1989.
2) I worked as a researcher in the filed of signal processing at the AL-Kendy establishment, from June 1992 to March 1995 and form July 1998 to Aug 2000
3) Successfully participated in the advanced training course mobile communication held in Cairo From August 01st till August 12th, 2010, Implemented by the Staff Training Institute (STI) in cooperation with Technology Competency Center (TCC); presented by the Productivity & Vocational Training Department (PVTD) under the auspices of the Ministry of Trade and Industry

(E) Published Papers:

1- Ahmad F. Mahmood and Khaleel I. Petrus **"DSP *System based on the TMS32020 Digital Signal Processors*"** 4th Scientific Conference for Electrical Engineering, College of Engineering- University of Baghdad, 1997.
2- Ahmad F. Mahmood and Khaleel I. Petrus **"A *hypercube Multiprocessor System Based on the TMS32020 Digital Signal Processors"*** Summer Computer Simulation Conference (SCSC'98), Reno, USA,1998.
3- Ahmad F. Mahmood and Khaleel I. Petrus **"*Implementation of FFT Algorithm on Hypercube Multiprocessor System*"** International Wireless and Telecomm. Symposium/Exhibition, Shah Alam, Malaysia, 1998.
4- Ahmad F. Mahmood and Emad Y. Karyakos **"*Digital Meter for the radar Antenna direction* "**The Technical Journal, Baghdad-Iraq, Vol. 6, No.2, 1998.
5- Ahmad F. Mahmood and Yasser H. Nayeef **"*A PC-controlled Testing System for Digital ICs*"** Engineering and Technology Journal, Baghdad-Iraq, Vol. 6, No.4, 1998.
6- Ahmad F. Mahmood **" *Multiple DSP Processors-based Realtime FFT System*"** Engineering and Technology Journal, Baghdad-Iraq, Vol. 7 ,No.6, 1999.
7- Ahmad F. Mahmood **" *Single Cycle Trace Facility for the 8088 Microprocessor* "** 6th Scientific Conference for Electrical Engineering, Babylon University , Babylon-Iraq, 2000.
8- Ahmad F. Mahmood **"*A Pipelined Fault Tolerance Architecture for real time DSP Applications* "**AL-Rafiden Engineering journal, Vol. 16 , No. 4 , College of engineering, Mosul University, 2008.
9- Ahmad F. Mahmood and Shefa A. Dawood ***" Run-Time Reconfigurable FFT Engine"*** The 1st regional conference of engineering science, 5-6 NOV 2008.
10- Ahmad F. Mahmood **"*An FPGA-based Fault Tolerance Hypercube Multiprocessor DSP System*"** AL-Rafiden Engineering journal, , Vol. 18 , No. 1, College of engineering, Mosul University, 2010
11- Ahmad F. Mahmood and Shefa A. Dawood ***" FPGA-based Reconfigurable 2D-FFT system" AL-Rafiden Engineering journal, , Vol. 19 , No.3, College of engineering, Mosul University, June 2011.***
12- Ahmad F. Al-Allaf and A.I.A. Jabbar "***RED with Reconfigurable Maximum Dropping Probability***" IJCDS – International Journal for Computing and Digital Systems, vol. 8, No.1 (Jan-2019).
13- Ahmad F. Al-Allaf and A.I.A. Jabbar "***Simevents/ Stateflow base Reconfigurable Scheduler in IP Internet Router***" Int. J. Com. Dig. Sys. 7, No.5 (Sep-2018)
14- Ahmad F. Al-Allaf and A.I.A. Jabbar "***Reconfigurable Bandwidth Scheduler for multimedia Traffic in DiffServ Router***" Int. J. Com. Net. Tech. 5, No. 3 (Sept.-2017)

15- Ahmad F. Al-Allaf and A.I.A. Jabbar "***Reconfigurable Diffserv Based Qos Model For Real-Time Traffic***" Int. J. Adv. Res. 5(4), 639-651, April 2017

16- Ahmad F. Al-Allaf and A.I.A. Jabbar "***Reconfigurable Nonlinear GRED Algorithm***" International Journal of Computing and Digital Systems, vol. 9, No.5 (Sep-2020)

17- Emad A. Mohammed, Ahmad F. Al-Allaf, Bilal R. Altamer "***IoT-Based Monitoring and Management Power Sub-Station of the University of Mosul***" 2nd International Scientific Conference of Al-Ayen University (ISCAU-2020), IOP Conf. Series: Materials Science and Engineering 928 (2020) 022061 IOP Publishing doi:10.1088/1757-899X/928/2/022061.

18- Ahmad F. Al-Allaf and Munther Mohamed Rida **" *Design and Implementation of a Walking Stick Aid for Visually Challenged People* "** AIP conference proceedings, 2023, 2414, 060008

19- Noor M. Abdullah and Ahmad F. AL-Allaf **"*A support system for autistic children using Internet of Things technology*"** 2021 International Conference on Advanced Computer Applications (ACA), 25-26 July 2021, Maysan, Iraq, DOI: 10.1109/ACA52198.2021.9626825

20- Noor M. Abdullah and Ahmad F. AL-Allaf "***Facial Expression Recognition (FER) of Autism Children using Deep Neural Networks***" 2021 4th International Iraqi Conference on Engineering Technology and Their Applications (IICETA), 21-22 September 2021, Najaf, Iraq, DOI: 10.1109/IICETA51758.2021.9717550

21- Bashar H. Asker and Ahmad F. Al-allaf "***Detecting cheating in electronic exams using the artificial intelligence approach***" International Journal of Mechanical Engineering, Vol. 7, No. 2, February, 2022, ISSN: 0974-5823

22- Bashar H. Asker and Ahmad F. Al-allaf "***Detecting the usage of a mobile phone during an online test using AI technology***" Przeklad Elektrotechniczny Jornal, Vol. No.

23- Bashar H. Asker and Ahmad F. Al-allaf "**Head Tracking in distance exam applied on Jetson Nano 4G"** Przeglad Elektrotechniczny journal, R.98 NR 11/2022

24- Al-Allaf, A.F., Farej, Z.K. **"*Simulation-based fault-tolerant multiprocessors system*",** Telkomnika (Telecommunication Computing Electronics and Control journal), 2023, 21(2), pp. 354–363

25- Al-Allaf, A.F**. "*OPNET implementation and performance evaluation of the CoDel AQM algorithm*"** Proceedings - 2022 5th International Conference on Advanced Communication Technologies and Networking, Morocco, CommNet 2022, 2022

26- Asmaa Abdullah Hamad, Ahmed Faleh Mahmood " ***Integration of DeepSORT and RFID Technology for Enhanced Human Tracking***" NTU Journal of Engineering and Technology,25-17 : (4) 3 (2024) , DOI: https://doi.org/10.56286/ntujet.v3i4.1095

27- Sara Ahmed Hazim, and Ahmed Faleh Mahmood "***Developments in Optical Fiber Network Fault Detection Methods: An Extensive Analysis***" International Journal of Computing and Digital Systems, 2025, VOL. 17, NO.1, 1-15, DOI: http://dx.doi.org/10.12785/ijcds/1571111230

28- Sara Ahmed Hazim, and Ahmad F. Al-Allaf "***Deep Learning Approaches for Fiber Optic Fault Detection and Distance Estimation Using OTDR Traces***" International Conference on Cognitive Computing, Intelligence and Data Science Applications (CCIDSA 2024), December 27 – 28, 2024, Istanbul Aydin University, Istanbul, Turkey,December 26, 2024.

29-Sara Ahmed Hazim, and Ahmad F. Al-Allaf, "***Advancements in Fault Detection Techniques for Optical Fiber Networks: A Comprehensive Review***" The International

Conference on Arts, Humanities and Interdisciplinary Sciences (ICAHIS), December 20-21, 2024, Catania University, Italy.