

## BIOGRAPHIC NOTE

Teaching Subject/s: Computer Network

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### Curriculum (in arabic)

### Curriculum (in italian)

### Curriculum (in english)

#### **Ahmed Salah ELDin Mohamed Ali**

Professor at Faculty of engineering, Helwan University.

Head of Electronics and Communications Department

Director of Center of Excellence for smart Educational Systems (CESES)

**Ahmed S. Ali** received the B.Sc., M.Sc., and Ph.D. degrees in electronics and communications engineering from Helwan University, Cairo, Egypt, in 1992, 1998, and 2003, respectively. He is currently working as a professor in the department of electronics and communications, Faculty of Engineering, Helwan University, Egypt. His current research interests include the area of computer networks, 6G mobile networks, wireless networks, IoT, wireless sensor networks, smart grid communication systems, and optical networks.

#### **Professional Experience**

- Professor	Helwan University, Cairo, Egypt,	Jul. 2021 - till now
- Assoc. Professor	Helwan University, Cairo, Egypt,	May 2015 – Jun. 2021
- Assoc. Professor	KAU University, Jedda, KSA,	Sep. 2006 – Jun. 2013
- Assis. Professor	Helwan University, Cairo, Egypt,	Nov. 2003 – Aug. 2006

## **Current Job**

Head of Electronics and Communications Department, Faculty of Engineering - Helwan University.  
Digital Transformation Consultant - Helwan University.  
Director of Center of Excellence for smart Educational Systems (CESES) at Faculty of Engineering.

## **Teaching Experience**

- 1.Data communications and its applications.
- 2.Computer networks.
- 3.Introduction to communications.
- 4.Communication theory and systems.
- 5.Digital communications.
- 6.Telephone engineering.
- 7.Fiber Optics.
- 8.Optical communications.
- 9.Signals and systems analysis.
- 10.Information theory.
- 11.Information security.

## **Postgraduate Teaching**

- 1- Advanced digital communication.
- 2- Advanced computer networks.
- 3- Wireless networks.

## **Students' Supervision**

- 1- Supervised/co-supervised 1 PhD and 8 MSc students and currently supervising 1 MSc student.
- 2- Supervised more than 40 undergrad projects.

## **Publications**

- 1- A. S. Ali, A. H. Elsaywy, and S. M. Ahmed “Data Compression for Arabic Text” in Proc. Of the Fifteenth National Radio Science Conference, Feb. 1998, Cairo, Egypt.
- 2- A. S. Ali, A. H. Elsaywy, and S. M. Ahmed “Performance Analysis of Data Compression Techniques for Arabic Text” in the Journal of the Egyptian Society of Language Engineering April 1999.
- 3- A. S. Ali, I. A. Ali, I. I. Ibrahim, and A. H. Elsaywy, “A Unified Lossless Intra-Switch Handover Algorithm for Mobile ATM Networks” in Proc. IEEE INES 2003, March 2003.
- 4- A. S. Ali, I. A. Ali, I. I. Ibrahim, and A. H. Elsaywy, “An Effective Lossless Inter-Switch Handover Signaling Procedure for Multimedia Transmission in Wireless ATM Networks” in Proc. Al-Azhar Engineering 7<sup>th</sup> International Conference, April 2003.

- 5- A. S. Ali, I. A. Ali, I. I. Ibrahim, and A. H. Elsway, “Fast, Optimized and Scalable Combined Rerouting Protocol Based on Decision Criteria for Multimedia Communication in Mobile ATM Networks” in Proc. IEEE MMS’ 2003, May 2003.
- 6- A. S. Ali, I. A. Ali, I. I. Ibrahim, and A. H. Elsway, “Design of Soft Handover Protocol for Mobile ATM Networks” in Proc. Of the 46<sup>th</sup> IEEE International Midwest Symposium on Circuits & Systems, December 2003.
- 7- A. S. Ali, I. A. Ali, I. I. Ibrahim, and A. H. Elsway, “Grouped Dynamic Multicast Tree (GDMT) Algorithm for Mobile Networks” in the Journal of Engineering Sciences (JES), Faculty of Engineering – Assiut University, vol. 32, no. 1, Jan. 2004.
- 8- H. W. Gomma, A. S. Ali, and A. M. El-Garhy “Derivative Derived predictive Generalized Control (DDGPC) for unreliable communication links in networked control systems” in the Journal of Engineering Sciences (JES), Faculty of Engineering – Assiut University, Nov. 2005.
- 9- I. I. Ibrahim, A. S. Ali, and A. F. Ghanim “Mobility prediction algorithm in wireless networks” in the Journal of Engineering Sciences (JES), Faculty of Engineering – Assiut University, Jan. 2006.
- 10- M. M. Eissa, A. S. Ali, M. E. Masoud, and K. M. Abdel-Latif “ A New Protection Scheme for Short Transmission Lines Using IEEE 802.11 Protocol”. IEEE 11th International Conference on Transmission & Distribution Construction, Operation and Live-Line Maintenance, 2006. ESMO 2006.
- 11- I. I. Ibrahim, A. S. Ali, and A. M. Abd El-Haleem “ Online QoS Multicast Routing Algorithm with Minimum Interference” in the Journal of Engineering, Faculty of Engineering – Ain Shams University, March. 2006.
- 12- I. I. Ibrahim, A. S. Ali, and A. M. Abd El-Haleem “ Performance evaluation of On line QoS Multicast Routing Algorithm with Minimum Interference” in the 17<sup>nd</sup> International Conference on Computer Theory and Applications (ICCTA) 2006, Alexandria, Egypt, pp 70-76, Sept. 2006.
- 13- I. I. Ibrahim, A. S. Ali, and A. F. Ghanim “Bandwidth Reservation Algorithm for Wireless Cellular networks” in the 2<sup>nd</sup> International Computer Engineering Conference ICENCO 2006, Cairo Univ., Egypt, Dec. 2006.
- 14- A. A. Abdelwahab, A. S. Ali, and M. Mamdouh “ DCT and Block Based Algorithm for Compound Document, Images Segmentation.” in the 2<sup>nd</sup> International Computer Engineering Conference ICENCO 2006, Cairo Univ., Egypt, Dec. 2006.
- 15- M. K. Ahmed, A. S. Ali, and R. A. Youssef “A Novel Video-Based Approach for Eye – Gaze Estimation by Approximating the Eyeball as a Sphere” in the 2<sup>nd</sup> International Computer Engineering Conference ICENCO 2006, Cairo Univ., Egypt, Dec. 2006.

- 16- A. S. Ali, M. M. Eissa, E. Masoud, K. M. Abdel-Latif “Efficient Protection Scheme for Short Transmission Lines Using Wi-Fi Technology” in the International Conference on Communication, Computer & Power (ICCCP) 2007, Sultan Qaboos Univ., Muscat, Oman, Feb. 2007.
- 17- M. K. Ahmed, A. S. Ali, and R. A. Youssef “Reliable High Speed Iris Detection for Video based Eye Tracking Systems.” In the International Multi Conference of Engineers and Computer Scientists, Hong Kong, march 2007.
- 18- I. I. Ibrahim, A. S. Ali, and A. M. Abd El-Haleem “Source Specific QoS based Multicast Routing for IP Networks” in the 17<sup>nd</sup> International Conference on Computer Theory and Applications (ICCTA) 2006, Alexandria, Egypt, pp 70-76, Sept. 2007.
- 19- K. M. Abdel-Latif, M. M. Eissa , A. S. Ali, O.P. Malik and M. E. Masoud “Protection Of Parallel Transmission Lines Using Wi-Fi Protocol” Power and Energy Society General Meeting - Conversion and Delivery of Electrical Energy in the 21st Century, 2008 IEEE.
- 20- K. M. Abdel-Latif, M. M. Eissa , A. S. Ali, O.P. Malik and M. E. Masoud “Laboratory Investigation of Using Wi-Fi Protocol for Transmission Line Differential Protection” IEEE TRANSACTIONS ON POWER DELIVERY, VOL. 24, NO. 3, JULY 2009.
- 21- M. M. Elmesalawy, A. S. Ali, and H. Gabbar, “A Grouped Scheduling Technique in LTE Supporting AMI Communications for Smart Grids”, International Conference on Smart Energy Grid Engineering (SEGE 2014), pp 75 (1-8), UOIT, Oshawa, Canada, 11-13 August 2014.
- 22- A. S. Ali, “The Narrator: A Smart Data Offloading System for Interactive Navigation in Museums”, The 10th International Computer Engineering Conference (ICENCO 2014), Cairo, Egypt, December 2014.
- 23- M. M. Elmesalawy and A. S. Ali, “A Grouped System Architecture for Smart Grids Based AMI Communications over LTE”, International Journal of Wireless & Mobile Networks (IJWMN) Vol. 7, No. 6, pp 55-70, December 2015.
- 24- A. S. ELkomy, M. M. Elmesalawy, A. S. Ali and I. A. Ali, “Partial Contention Free Random access Protocol for M2M communications in LTE Networks”, Journal of Wireless Networking and Communications, Vol. 6, No. 3, pp 66-72, July 2016.
- 25- A. S. ELkomy, M. M. Elmesalawy, A. S. Ali and I. A. Ali, “An Improved LTE RACH Protocol for M2M Applications”, Journal of Mobile Information Systems, Vol. 2016, Aug. 2016.
- 26- Ahmed S. Ali and Fatty M. Salem, “A Robust Distributed Authorization Scheme for Availability Enhancement in VANET”, the 12th IEEE International Conference on Computer Engineering and Systems (ICCES 2017), pp 592-599, Cairo, 19-20 Dec. 2017.
- 27- K. M. Naguib, A. S. Ali, and K. R. Mahmoud “Group Mobility-Based Optimization of Cache Content in Wireless Device-to-Device Networks” in the 14th International Computer Engineering Conference ICENCO 2018, Faculty of Engineering, Cairo Univ., Egypt, Dec. 2018.

- 28- Ahmed S. Ali K. M. Naguib, and K. R. Mahmoud, “Optimized Resource and Power Allocation for Sum Rate Maximization in D2D-Assisted Caching Networks”, the 14th IEEE International Conference on Computer Engineering and Systems (ICCES 2019), Cairo, 19-20 Dec. 2019.
- 29- A. S. Ali, K. M. Naguib, and K. R. Mahmoud “Optimal Caching Policy for Wireless Content Delivery in D2D Networks” Journal of Network and Computer Applications, vol. 150, Jan. 2020. <https://doi.org/10.1016/j.jnca.2019.10246>.
- 30- Fatty M. Salem and Ahmed S. Ali, “SOS: Self-organized secure framework for VANET” International Journal of Communication Systems, vol. 33, Issue 7, Jan. 2020. DOI: 10.1002/dac.4317.
- 31- A. S. Ali, K. M. Naguib, and K. R. Mahmoud “Enhancement for Content Caching and Delivery with Energy Consumption Awareness in Wireless Networks” International Journal of sensors, Wireless communications and control, Feb. 2021. DOI: 10.2174/2210327911666210126120851.
- 32- M. S. Mohamed, A. M. Bassiuny, A. S. Ali “Air handling unit Monitor and control system based on internet of things (IOT)” International Journal of Recent Technology and Engineering (IJRTE), ISSN: 2277-3878, January 2021.

## Awards

First place winner in Dell EMC Envision the future competition, 2019.

## Activities

- 1- Consultant for design work and development the tender of requirements and specifications for the digital transformation project at Helwan University.
  - 2- Leading the team that designed and supervised the implementation of the data network and the smart class rooms at the Faculty of Engineering, Helwan University.
  - 3- Participate as a key member team to design and supervise the implementation of the Information Network at Helwan University.
  - 4- Evaluation of the telecommunication status and preparing a proposed plan for the future of the telecommunication network through the national project to prepare the guiding schemes for the Egyptian villages under supervision of ministry of housing utilities and new communities.
  - 5- Four years preparing and teaching in the training courses of the graduates qualifying and preparing project under supervision of ministry of communications.
  - 6- Chairman of the Information Technology Committee, Department of Electronics and Communications Engineering, in Faculty of Engineering at Helwan University.
  - 7- Manger of the project "Center of Excellence for Smart Educational Systems (CESES)", in faculty of Engineering, Helwan University.
  - 8- Chairman of the Information Technology Committee, Department of Communication and Computer Engineering, in Faculty of Engineering at Helwan University.
- Carrying out several training courses in the field of optical networks and smart networks.

**Curriculum (in french)**

According to the D. L.gvo of 30 June 2003, n. 196 (Code on the protection of the personal data), informed about the aims of the treatment of these personal data and their recording on informatics supports, and also about the people responsible of the treatment of these data,

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