

CURRICULUM VITAE

Personal Data:

Name: *Abdul-Rahman Al-Ali*
Rank: *Professor, Computer Science and Engineering Dept.*
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Google Scholar: https://scholar.google.com/citations?hl=en&user=mxGPV_kAAAAAJ&view_op=list_works&sortby=pubdate
Nationality Syrian and American Green Card Holder.



Education:

May 1990: *Doctor of Philosophy: Electrical Engineering Department, Minor in Computer Science*
Vanderbilt University, Nashville, TN., U.S.A.
Minor: Computer Science.
Ph.D. Dissertation Title: *"On the Theory of High Sensitivity Metal Detection*
Using a Microprocessor-Based System".
Jan. 1986: *Master of Science, Electrical Engineering Department,*
Polytechnic University, New York, Brooklyn, New York, USA, 1986.
Aug. 1979: *B.Sc. Electrical Engineering (rank 3rd /150), Aleppo University.*

Area of Teaching and Research:

- *IoT and Cyber Physical Systems: Smart Cities Applications.*
- *Embedded Systems Applications: Interfacing and Programming.*
- *Microprocessors, Microcontroller and Microcomputer interface and programming*
- *Industrial Cyber Physical Systems, Programmable Logic Controllers (PLCs), Digital Systems, SCADA Systems.*

Employment History:

Sept. 2006-Present: *Professor, Computer Engineering Program,*
American University of Sharjah, Sharjah, UAE.
Sept. 2000-Aug 2006: *Associate Professor, Computer Engineering Program,*
American University of Sharjah, Sharjah, UAE.
Sept. 2001-Fall-2003: *Coordinator/ Head/ Chairman, Computer Engineering Program,*
American University of Sharjah, Sharjah, UAE
Dec. 1995 –Aug 2000: *Associate Professor at Department of Electrical Engineering,*
King Fahd University of Petroleum & Minerals, Saudi Arabia
Sept. 1991 - Nov. 1995: *Assistant Professor at Department of Electrical Engineering,*
King Fahd University of Petroleum & Minerals, Saudi Arabia
Nov.1988 - Aug 1991: *Full-time Research & Development Engineer,*
Magnetic Separation Systems, Nash, TN. USA.
Sept.1986 - Sept 1988 (Part-time): *Instructor and teacher assistant at Vanderbilt University, Nashville, Tenn., USA.*
Sept. 1981- June 1983: *Instructor EE Department, Aleppo University, Aleppo, Syria.*

Selected Recent Conference Organization & Keynote Speaker and Invited Talks:

- Conference Chair and Keynote Speaker: that 2023 International Conference on Power and Renewable Energy Engineering will be held in Tokyo, Japan from October 2023. <http://www.pree.net/committee.html>
- Conference Chair and Keynote Speaker: The 7th International Conference on Smart Grid and Smart Cities (ICSGSC): September 22-24, 2023 | Lanzhou, China: <http://www.icsgsc.org/Organ%20Com.html>
- TPC Co-Chairs: 10th International Conference on Smart Grid and Clean Energy Technologies (ICSGCE 2022) with its Special Session on EET (Energy Efficient Technology) will be held in 14-16 Oct. 2022 at Kuala Lumpur, Malaysia. www.icsgce.org
- Conference Committee Co-chair, The 6th. International Conference on Smart Grid and Smart Cities, will be held in Chengdu, China during October 22nd-24th, 2022: <http://www.csgsc.net/Organ%20Com.html>
- Conference Committee Chair: 3rd International Conference on Power, Energy and Electrical Engineering (PEEE 2022). PEEE 2022, Barcelona, Spain during November 18-20, 2022 <http://www.peee.org/keynote.html>
- Program Chair, The 5th International Conference on Smart Grid and Smart Cities held in Tokyo, Japan June. 2021: <http://www.csgsc.net/2021.html>
- Editorial board: *International Journal of Smart Grid and Clean Energy*
<http://www.ijsgce.com/index.php?m=content&c=index&a=lists&catid=18>
- Program Chair and Keynote Speaker, the 5th International Conference on Smart Grid and Smart Cities held in Tokyo, Japan June, 2021 (<http://www.csgsc.net/speakers.html>).
- Invited Speaker on Webinar, *Sharjah Sustainable City in conversation with American University of Sharjah*, April 2021.
- Co-Chair-High schools computing competition-2020-2021.
- AUS-Smart-Cities Invited talk for AUS Ph.D. program April-2021.
- Keynote in the Arab ICT conference in Bahrain Dec 2021.
- Invited talk on "Smart Cities Application", HKBK College of Engineering, Bangalore, India Nov, 2020.
- Invited Speaker in the first faculty development center representing the CEN, Aug 2020.
- Speaker: Panel discussion on Hiring for the I4.0 Revolution, organized by AUS Alumni Office, July 2020.
- Smart-Cities-4 hours Webinar: RTA-Dubai-July-2020.
- Program Chair and Keynote Speaker 2020 The 4th International Conference on Smart Grid and Smart Cities to be held in Japan Aug. 2020.
- Program Chair and Keynote Speaker, the 3rd International Conference on Smart Grid and Smart Cities (ICSGSC 2019) and 2nd. International Conference on Energy, Electrical and Power Engineering (CEEPE 2019), held at the University of California, Berkeley, USA during June 25-28, 2019.
- Invited talk: Title: *Industry 4.0 Revolution and its Enabling Techniques: IoT, CPS and Digital Twins*, SPS Automation Middle East Conference | Messe Frankfurt. Sept 2018, Dubai, UAE
- Keynote: Title of Speech: *The Roadmap from Smart Grid to Smart Cities*, International Conference on Smart Grid and Smart Cities (ICSGSC 2018), Aug 14-16, Kuala Lumpur, Malaysia.
- Invited Speaker: *Role of Innovation in Smart Energy within a Cyber Physical Systems Context*, Dubai Innovations, Feb-2018, Dubai, UAE.
- Keynote: *Role of cyber physical systems in smart manufacturing*, the 2018 2nd International Conference on Manufacturing Technologies (ICMT 2018, Florida Polytechnic University, FL, USA during January 15-17, 2018.
- Keynote: "Smart Energy and Smart City Big Data Analytic", the 2017 International Conference on Smart Grid and Smart Cities, Singapore | July 23-26, 2017,
- Keynote: "The Roadmap from the Internet of Things to Internet of Energy", the International Conference on IT & Computer Science –ICITCS – 2017, Washington DC, USA, Date: 18-19 February 2017.
- Keynote: *Internet of Things and Cloud Computing Role in Industry 4.0*, the International Conference on IT & Computer Science – ICITCS – 2016 New York, USA Date: 28-29th October, 2016
- Keynote: *Smart Energy within the Context of Internet of Things and Cloud Computing*, 3rd Int. Conf. on Power and Energy Systems Engineering (CPESE 2016), September 8-12, 2016 | Kyushu Institute of Technology, Kitakyushu, Japan
- Invited talk: *Industry 4.0 Enabling Technologies: Industrial Internet of Things and Cloud Computing*, Industrial Engineering Dept, American University of Sharjah, UAE, April 2016.
- Keynote: *Industry 4.0 Enabling Technologies: Industrial Internet of Things and Cloud Computing*, for GCC Siemens solution partners, Dubai, UAE, Feb 2016.
- Keynote Talk: *The Role of Internet of Things in the Smart Cities Power*, the 17th International Conference on Electrical, Computer, Electronics and Communication Engineering to be held in Dubai, UAE during December 23-24, 2015.
- *The Role of Internet of Things in the Smart Grid Technology Evolution*", the Smart Grids and Smart Meters Summit - Dubai, UAE, Oct 2015.
- Keynote Speaker: *Role of Internet of Things and Cloud Computing in the Smart Grid Technology*, Germany, Oct 2015. (http://www.icsgce.com/?page=keynote_speakers/).
- Keynote Speaker: *The Role of Internet of Things in the Smart Grid Technology Evolution*, August 23-25, 2015, Bangkok, Thailand (<http://www.iced.org/kn.php>).
- Keynote Speaker: *Role of Internet of Things in the Smart Grid Technology 2015 Conference on Internet of Things and Smart City (Its 2015)*, May 25, 2015, Beijing, China (<http://www.scirp.org/conf/IoTSC/2015may/>).
- Keynote Speaker: *The Role of Internet of Things in the Smart Grid Technology*, the M2M Middle East Forum, May 12, 2015, Dubai, UAE.

- *Keynote Speaker: Cloud Computing Paradigm as Smart Grid Enabling Technology, 5th International Conference on Computer and Communication Engineering Sept, 2014. Kuala Lumpur, Malaysia.*
- *Keynote Speaker: Cloud Computing Paradigm as Smart Grid Enabling Technology, the 4th International Workshop on Computer Science and Engineering, Aug 2014, Dubai, UAE.*
- *Plenary Session Keynote Speaker- Smart Grids Enablers: “Cloud Computing Paradigm as Smart Grid Enabling Technology”, 2014 IEEE Innovative Smart Grid Technologies (ISGT) Conference- Asia, May 2014.*
- *Keynote Speaker: SCADA Role within the Smart Grid Context, UAE Engineering Society, Dubai, UAE, April 2014.*
- *Keynote Speaker: Role of the Cloud computing in the Smart Grid, 2013 6th International Conference on Advanced Computer Theory and Engineering (ICACTE 2013), 17-18 August 2013, Male, Maldives.*
- *Keynote Speaker: “Role of Information Technology in the Smart Grid” Emerging Trends in Computer International Conference on Science & information Technology, 30th March, 2013 at Kuala Lumpur, Malaysia.*
- *Keynote Speaker: Role of information Technology in the Smart Grid”, Waste International Conference, 2013 Dubai, UAE*
- *Keynote Speaker: SCADA Role within the Smart Grid Context” at the (IEEE International Conference on Smart Grid and Clean Energy Technologies, Oct. 2012), Hong Kong.*
- *Invited talk “SCADA in the Smart Grid Contest”, 2nd Annual SCADA MENA 2012. Abdul Dhabi, 10 - 13 June 2012.*
- *Keynote Speaker on “Smart Grid” at the IEEE Innovative Smart Grid Technologies Conference (ISGT), Dec 17-20, 2011.*
- *Invited talk on Smart Grid and session moderator role for Smart Grid Panel Sessions, The Saudi Water & Power Forum, Dec-2-4, 2011.*
- *Invited talk and moderator for day, Smart Electricity World MENA 2011, the largest smart electricity, smart grid and smart metering conference in the Middle East, Nov., 2011.*
- *Invited talk on “Smart Grid”, Al Ghurair University, UAE, April 2011.*
- *Invited talk on “Smart Grid a Roadmap to Energy Sustainability”, Dubai Global Energy Forum, April 2011.*
- *Invited talk on “Recent Development in Wireless Patients Monitoring System”, Aleppo Medical Association, Feb 2011.*
- *Invited talk on “Embedded Systems Technology”, University of Technology, Malaysia, Feb, 2010*

Teaching Experience:

Courses Taught at AUS and KFUPM (1991-Present)

*Digital systems, Microprocessors,
Embedded Systems Design & Apps.
Electronics-I*

*Advanced Embedded Systems (Grad. Level),
Information Technology (Grad. Level),
Advanced Embedded Systems (Grad. Level)
Cyber Physical Systems (Grad. Level)*

*Microcontrollers: Programming and Interfacing
Computer Applications in Industry.*

Electronics-II

*Industrial Cyber Physical Systems
Embedded Systems for Mechatronics (Grad. Level),
Real-time systems (Grad. Level)
Microprocessor Engineering (Grad. Level)*

Courses Taught at Vanderbilt University, U.S.A. (1986-1988):

*Introduction to Microprocessor and Digital Logic
Electronics-I*

Courses Taught at Elkins Institute of Tech., Nashville, Ten, USA, and (spring 1987):

Hands-on Electronics

Digital and Microprocessor systems

Courses Taught at Aleppo University, Aleppo, Syria (1981-1983):

Electrical Circuits -I (Instructor, 1981-1983).

Electrical Circuits II (Instructor, 1981-1983).

Electrical Circuits Labs I & II (Lab Instructor, 1981-1983).

Training courses for Oil and Gas Industry GCC Area 1995-Present:

*PLC: Architecture, programming, interface, communications, troubleshooting and documentations.
RTUs and SCADA for industry 1995-to-Present.*

Laboratory Development

At AUS (2000-Present):

- *Digital Systems Lab*
- *Microprocessors Lab*
- *Microcontrollers Lab*
- *Embedded Systems Lab*
- *Industrial Computer Application Lab (acquisition systems and programmable logic controllers)*
- *Embedded Systems lab for Mechatronics (Grad. Level).*
- *Cyber Physical Systems (Grad. Level).*

At KFUPM (1991-2000):

- *Microprocessor lab, 1992.*
- *16-microprocessor applications lab for EE 429, 1994.*
- *32-bit microprocessor lab equipped with eight 32-bit PCs equipped with 8-data acquisition unit for the use in EE 502 (Real-time systems), 1994.*

- *Programmable Logic Controllers Lab equipped with 10 PLCs. I have written the lab manual for it, 1996.*
- *I have upgraded the Programmable Logic Controller Lab with Siemens S7, 1998.*

Selected Senior Projects:

- *IoT-Based Smart Bridge Monitoring System*
- *IoT-Based Redelivery Bike Tracking and Monitoring System*
- *COVID-19 Early Monitoring and Warring System.*
- *IoT-Smart Farm Irrigation system*
- *IoT-Smart Campus Mobility System*
- *IoT-Smart Store Shelf System.*
- *IoT-Based Vehicles Collusions Recording System.*
- *IoT-Dual Mode Smart Home Automation System.*
- *IoT-Smart Bus Stop.*
- *IoT-Based Patient Fall Detection in Hospitals.*
- *IoT-Based Smart Shopping System.*
- *IoT-Based Universal Smart Home Management System.*
- *IoT-Based Environmentally Friendly Smart Bus Stop.*
- *IoT-Based Smart Utilities Meter.*
- *Smart Traffic Lights Coordination in Smart City.*
- *IoT-Based Energy Management Systems for Smart Home.*
- *Mobile-based ta Audio-to-Text Smart Home Control System.*
- *Configurable ZigBee-based Smart Home Appliances Control System for People with Multiple Disabilities.*
- *Smart Streets lights using LEDs.*
- *Smart Plug for Smart Homes.*
- *PLC-based AC energy management system for students' dorms.*
- *Distributed GIS distribution transformers Smart Street Lighting using LEDs*
- *Distributed GIS-Based Smart Meters for energy billing systems*
- *Renewable Energy Integration to Smart Homes.*
- *GIS-Based Monitoring System for Distributed Transformers.*
- *Distributed Energy Management System for Air-conditioning systems.*
- *Smart Grid Gateway for Smart Home.*
- *Integrating Renewable Energy Resources to Smart Homes.*
- *Wireless Multi-Objects Tracking Systems.*
- *A Wireless Patient Monitoring System using Zigbee.*
- *E-Waste Recycling System.*
- *AMI for Smart Grid, Smart-Home for Smart Grid.*
- *Wireless Distributed Load-Shedding Management System WiFi-Based RFID Parting Lot.*
- *Wireless Air Pollution Monitoring System.*
- *Wireless Automobile Emissions Detector*
- *Assessing the Feasibility of Using RFID Technology in Airports.*
- *RFID-Based Tracking Systems*
- *Wireless energy meter, Wireless Billing System*
- *GSM-GPS-Based Wheel-Chair*
- *Wireless Traffic Controller, Wireless Oil&Gas Monitoring System*
- *Personal Digital Assistant Wireless connectivity for Medical Database.*
- *Tele-home automation system Web Enabled Pictorial database for medical database.*
- *Developing CISCO IP phone services using XML over HTTP.*
- *Web-based hospital, Cyber Medical Center*
- *The E- Supermarket System*
- *PDA-Based Medical Records system.*
- *Web-Based Machine Health Monitoring and Control Systems*
- *GSM-Based Mobile Patient Monitoring Device*
- *On-line Medical Doctor*
- *Home Automation via the World Wide Web.*
- *GPS-GSM Vehicle Tracking System*
- *Web-Based Health Monitoring System*
- *Smart Energy Meter*
- *Microprocessor-Based Arabic Clock and Hijri calendar, Programmable function generator.*
- *Microprocessor-Based Self-Tuned Oscillator, Microprocessor-Based Maximum Power Transfer.*
- *Microprocessor-Based Power Factor Correction, Microprocessor-Based Metal Detector.*
- *Microprocessor-Based Plastic Sorter, Microprocessor-Based TV Games Monitoring System.*
- *Microprocessor-Based Maximum Power Delivery Controlled, Microprocessor-Based Motor Drive*
- *Microprocessor-Based Traffic Light Controller, PLC-Based Traffic Controllers*
- *Microcontrollers-Based Power Factor Correction, PLC-Based Power Factor Correction*
- *Microcontroller-Based Constant Power Delivery, Microcontroller-Based Power Facto Correction*

- *Microcontroller-Based Distance Relay, Micontroller-Based Instant Reaction meter.*
- *PLC-Based Motor Protection, PLC-Motor Stator*
- *PLC-Based Home Appliances system, PLC-Based DC-Chopper Control Circuit*
- *Home Network (Class project), Microcontroller-Based Automatic Irrigation systems.*

Master Thesis and Project (P) Supervisor at AUS/ KFUPM:

Student Name	Degree	Role	Period
<i>Lina Al Barri</i>	<i>MS</i>	<i>Co-Advisor</i>	<i>Sp22-Prsnt</i>
<i>Eman Al Shaik</i>	<i>MS</i>	<i>Advisor</i>	<i>F20-SP-2022.</i>
<i>Saqib Sharyar</i>	<i>MS</i>	<i>Advisor</i>	<i>2020-2021.</i>
<i>Ragini Gupta</i>	<i>MS</i>	<i>Advisor</i>	<i>2017-2018</i>
<i>Moamin J.M. Albayed</i>	<i>MS(P)</i>	<i>Advisor</i>	<i>2015-2016</i>
<i>Ehab Al Khatib</i>	<i>MS</i>	<i>Member</i>	<i>2015-2016</i>
<i>Amro Al-Radaideh</i>	<i>MS (P)</i>	<i>Advisor</i>	<i>2013-2014</i>
<i>Ban Al-Omr</i>	<i>MS</i>	<i>Advisor</i>	<i>2012-2013</i>
<i>Jumana Al-Dimor</i>	<i>MS</i>	<i>Advisor</i>	<i>2011-2012</i>
<i>Ali Gazi</i>	<i>MS (P)</i>	<i>Co-Advisor</i>	<i>2009-2010</i>
<i>Abdul Gahger</i>	<i>MS (P)</i>	<i>Advisor</i>	<i>2009-2010</i>
<i>Y. Al-Sarcal</i>	<i>MS (P)</i>	<i>Advisor</i>	<i>2006-2007</i>
<i>Jamila Al Mazam</i>	<i>MS (P)</i>	<i>Advisor</i>	<i>2006-2007</i>
<i>Khalid Darwish</i>	<i>MS (P)</i>	<i>Advisor</i>	<i>2005-2006</i>
<i>Ziyad Saedi</i>	<i>MS. (P)</i>	<i>Advisor</i>	<i>2005-2006</i>
<i>Yahya Tachwalai</i>	<i>MS</i>	<i>Advisor</i>	<i>2005-2006</i>
<i>M. Hadi</i>	<i>MS</i>	<i>Co-Advisor</i>	<i>2004-2005</i>
<i>M Al-Atarsh</i>	<i>MS</i>	<i>Member</i>	<i>2003-2004</i>
<i>Mr. Assad</i>	<i>MS</i>	<i>Member</i>	<i>2004-2005</i>
<i>M. Khan</i>	<i>MS</i>	<i>Member</i>	<i>99-2002</i>
<i>M. Hamdan</i>	<i>MS</i>	<i>Member</i>	<i>99-2001</i>
<i>A. Al-Dubas</i>	<i>MS</i>	<i>Co-Chairman</i>	<i>97-98</i>
<i>M Suhail</i>	<i>MS</i>	<i>Co-Chairman</i>	<i>96-97</i>
<i>M. Al-Gahatani</i>	<i>MS</i>	<i>Member</i>	<i>95-97</i>
<i>S. M. Abed</i>	<i>MS</i>	<i>Member</i>	<i>95-96</i>
<i>M. Syani</i>	<i>MS</i>	<i>Member</i>	<i>94</i>
<i>A. Farooqia</i>	<i>MS</i>	<i>Member</i>	<i>94</i>
<i>A. M. RANA</i>	<i>MS</i>	<i>Member</i>	<i>91-92</i>
<i>W. T. Faddah</i>	<i>MS</i>	<i>Member</i>	<i>91-92</i>
<i>F. Shafi</i>	<i>MS</i>	<i>Member</i>	<i>93-94</i>
<i>R. A. Twain</i>	<i>MS</i>	<i>Co-Chairman</i>	<i>93-94</i>
<i>M.H. Khan</i>	<i>MS</i>	<i>Co-Chairman</i>	<i>93-94</i>
<i>Al-Saif Foud</i>	<i>MS</i>	<i>Chairman</i>	<i>92-93</i>
<i>Saeed Al-Qatri</i>	<i>MS</i>	<i>Chairman</i>	<i>92-93</i>

Industrial Experience 1988-1991, Nashville, TEN, USA:

- *Full-time Research and Development Engineer in the area of Digital, Microprocessor and Microcontroller-Based systems at Magnetic Separation Systems, Inc., Nashville, TN., U.S.A. All the following projects were internally funded by the above-mentioned company for the period of my work with them (Sept. 1988- Aug.1991):*
- *I am the co-designer of the following commercial systems in the USA (Sept. 1988- Aug.1991):*
 - *Microprocessor-Based High sensitivity Steel Staple Detector. The system is commercially available. USA Patent has been filed.*
 - *Microprocessor-Based Plastic Sorter. It is commercially available in the US and Europe. US Patent has been awarded (US PATENT #5,318,172, June 7, 1994).*
- *Project engineer for the construction of the following systems: USA (Sept. 1988- Aug.1991):*
 - *Three microprocessor-based metal detection systems sold to West Germany.*
 - *One microprocessor-based metal detection system sold to Japan.*
 - *Several Systems sold to Companies in the U.S.A. such as FireStone and Hiel.*

Professional Development Activities:

I have participated in conferences organizations and technical programs committees:

- *Technical program co-chair, the IEEE international conference on smart grid and smart cities, Tokyo, Japan- during AY 2020-2021.*
- *Technical Program-Co-Chair, IEEE- 2021 9TH International Conference on Smart Grid and Clean Energy Technologies.*
- *MTR master program poster competition committee.*
- *Program Chair and Keynote Speaker 2020 The 4th International Conference on Smart Grid and Smart Cities held in Japan August 2020.*
- *Program Chair, the 3rd. International Conference on Smart Grid and Smart Cities (ICSGSC 2019) and 2nd International Conference on Energy, Electrical and Power Engineering (CEEPE 2019), held at the University of California, Berkley, USA during June 25-28, 2019.*
- *Conference Chair, the 2018 IEEE International Conference on Smart Grid and Smart Cities Kuala Lumpur, Malaysia, Aug 14-16, 2018.*
- *Smart City Track Chair: 2018 IEEE International Conference on Electronics Technology (ICET 2018)*
- *May 23-27, 2018 | Chengdu, China.*
- *Chair: AUS-du School Computing Competition (AdSCC), April 15, 2018, American University of Sharjah, UAE.*
- *Conference Chair: 2018 2nd International Conference on Manufacturing Technologies ICMT 2018, January 15-17, 2018 | Florida Polytechnic University, FL, USA.*
- *Conference Co-hair, the 2017 IEEE International Conference on Smart Grid and Smart Cities (ICSGSC 2017 Singapore, July 23-26, 2017.*
- *Co-chair, 3rd Int. Conf. on Power and Energy Systems Engineering (CPSE 2016), September 8-12, 2016 | Kyushu Institute of Technology, Kitakyushu, Japan*
- *Conference chair, the International Conference on Industrial Informatics and Computer Systems (CIICS), UAE, 2016,*
- *TPC Co-Chairs, 2015 International Conference on Smart Grid and Clean Energy Technologies and 2015 International Workshop on Communications and Smart Grid, 0-23 October 2015, Offenburg, Germany.*
- *Conference chair, the International Conference on Computer Engineering (ICOCE 2015), Oct, UAE, 2015.*
- *Conference cochair, the 2015 International Conference on Renewable Energy and Development, Bangkok, Thailand, August 23-25, 2015.*
- *Conference chair for two International conferences: the 2014 International conference on Smart Grid and Clean Energy, and the 4th International Workshop on Computer Science and Engineering (WCSE 2014).*
- *Role of Cloud Computing in the Smart Grid, Keynote Speaker, 2013 International Conference on Control, Robotics and Cybernetics, August 2013, Malé, Maldives.*
- *Role of information and communication networks in the smart grid, Chief Guest and Keynote Speaker, International Conference on Emerging Trends in Computer Science & Information Technology, March 2013, Malaysia.*
- *SCADA within the Smart Grid Context, 2013 International Conference on Smart Grid and Clean Energy Technologies, Oct 2012, Hong Kong.*
- *SCADA within the Smart Grid Context, MENA Workshop, Abdu Dhabi, June 2012.*
- *Smart Grid Evolution, spring 2012, Sharjah University.*
- *2011 IEEE International Conference on Smart Grid and Clean Energy Technologies (IEEE ICSGCE Sept., 2011, Chengdu, China).*
- *Invited Speaker, "Smart Grid a Roadmap to Sustainable Energy, Dubai Global Energy Forum, April 2011*
- *Technical session chair, International conference on sustainable systems and environment tomorrow. March 201.*
- *Invited Speaker, Wireless Patients Monitoring Systems Technologies, Syria Medical Sociality., Feb 2011*
- *Invited speaker, Smart Grid, International Conference on Trends in Information Technology and Applications Program, Dec 2010*
- *Attended, International conference on microprocessors and embedded systems, Philippine, Dec, 2010*
- *Invited Speaker, 2010, Industrial I Networks Architecture and Security, Syria computer Society, Oct 2010.*
- *Track chair n the 5th IEEE-GCC conference, Kuwait, 2009.*
- *Co-chair, Students' Poster Session in the 2008 IEEE International Conference on Innovations in Information Technology, UAE, 2008.*
- *Technical Committee member, International Engineering Sciences Conference IESC 2008, Syria.*
- *Organizing committee, International Conference on Nanotechnology and Its Applications, 2007.*
- *Organizing committee and local chair, International Symposium on Mechatronics, 2007.*
- *Tutorial chair, IIT'06- IEEE Conference.*
- *Associate Chair (Co-Chair) of the organization committee of the 2nd AUS- Int. Symposium on Mechatronics April '05.*
- *Tutorial Chair, 3rd GCC IEEE conference, Jan 2006.*
- *Technical committee member in three international conference:*
- *Second IEEE-IFIP Int. Conference on Wireless and Optical Communications Networks WOCN 2005, March, 2005.*
- *the 3th IEEE Int. Conference on computer systems and applications., Jan 2005,*
- *Session Chair, ICMSAO, March 2005.*
- *Organized the IEEE workshop on Status of Next Generation Cellular and Wireless Local Area Network Services and Current Research Activities, Dec 2004, UAE-IEEE section.*
- *10th IEEE International Conference on Electronics, Circuits and Systems, 2003.*

- 1st IEEE International Conference on Information & Communication Technologies, April 2004:
- 12th IEEE Mediterranean Electro-Technical Conference May 2004.
- Web-CT Workshop.
- Black Board Workshop.
- Attended several IEEE seminars.
- Attended G77 conference, Dubai, 27-30 Oct. 2002.
- Attended University City personal network conference, November, 2003.
- Attended 1st IEEE-GCC conference, " Bahrain May 2003.
- Gave One-Day PLC workshop, AUS, May 2003.
- Attended 1st IEEE-GCC conference, " Bahrain May 2003.
- Attended University City personal network conference, November, 2002.
- Attended G77 conference, Dubai, 27-30 Oct. 2002.
- UAE information technology in Education conference, Dubai, May 2002
- Mathematical Analysis and Applications Conference, May 2001
- Sharjah private high school information technology exhibition & student competition, 2001,
- Workshop on the changing role of engineering education in the information age- innovation and tradition, Sharjah April, 26, 2001.
- On-line learning conference, at the HCT, University City, Sharjah, May 2001.
- International NAISO Congress on Information Science Innovation, ISI'2001, March 17-21, 2001.
- Sharjah international energy conference, Sharjah, Feb. 2001.
- Melecon-2000, May 31, 2000, Cyprus. IEC-2000, May, 2000, Al-Ain, UAE,

Selected Committees at AUS (2000-Present):

Committee Name	Academic Year
College Guidelines Development for Faculty Promotion and Rolling Contracts	SP-22-SP2023
Dept Faculty Hiring Committee	Fall-2022-SP-2023
University Faculty Evaluation and Rolling Contract Committee	2018-2020
College of Engineering Dean search Committee	Spring-2019-Fall-2019
Faculty Hand Book Committee	Fall 2018-Spring 2019
Mechatronics Master Program Executive Committee	2016-Spring-2019
Chaired CSE Faculty Search Committee	2017-2018
Member of CSE task force for 128-Curriculum Committee	2017-2018
FERC-CEN-Representative, AUS	Spring 2018
Petrofac scholarships Committee	2015-Prresent
Chaired the CSE faculty search committee	2015-2016
Representative of the CSE department in the Faculty Personal Committee	2015-2016
Member of Head search committee	2015-2016
AUS-petrofac scholarship committee chair, college of Eng.	2014-2016
University Undergraduate Curriculum Committee (UUCC), Member	2014–2015
University Undergraduate Curriculum Committee (UUCC), Member	2013–2014
Sheikh Khalifa Presidential Scholarship Committee, Chair in the College and member in University.	2013-2014
Faculty Personal Committee, College of Engineering, Dept Rep.	2013-2014
Sheikh Khalifa Presidential Scholarship Committee, Chair in the College and member in University.	2012-2013
Chair and co-founder of the 2012 IEEE International Conference on Computer Systems and Industrial Informatics (ICCSII'12)	2011-2012
University Undergraduate Curriculum Committee (UUCC), Member	2011–2012
Sheikh Khalifa Presidential Scholarship Committee, Chair, College and member, University.	2011-2012
Sheikh Khalifa Presidential Scholarship Committee, member, Univ.	2010-2011
Sheikh Khalifa Presidential Scholarship Committee, Chair, College.	2010-2011
Faculty Personal Committee, College of Engineering, Dept Rep.	2010-2011
Faculty Personal Committee, College of Engineering, Chairman	2009-2010
Sheikh Khalifa Presidential Scholarship Committee, member	2009-2010
Gardaute Program Committee, Memembr	2009-2010
UAE-Accreditation committee, Dept.	2008-2009
Faculty Personal Committee, College of Engineering, Chairman	2008-2009
5th GCC-IEEE Conference, March, 2009, Kuwait, Track Chair	2008-2009

<i>Innovations in Information Technology Conference, 2008, UAE.</i>	2008-2009
<i>Sheikh Khalifa Presidential Scholarship Committee, member</i>	2008-2009
<i>Dept. Heads' evaluation guidelines Committee, Member</i>	2008-2009
<i>Faculty Personal Committee, College School of Business, Member</i>	2007-2008
<i>Sheikh Khalifa Presidential Scholarship Committee, Chairman</i>	2007-2008
<i>Sheikh Khalifa Presidential Scholarship Committee, Chairman</i>	2006-2007
<i>Middle States Accreditation Committee, Member</i>	2006-2007
<i>AUS-Graduate Program Committee: Graduate programs and graduate studies evaluation committee.</i>	2006-2007
<i>Faculty Personal Committee (School of Engineering): Promotion and rolling Contract.</i>	2006-2007
<i>Faculty Personal Committee (School of Art and Science): Promotion and rolling Contract.</i>	2006-2007
<i>Sharjah Schools IT competition, Technical Chair</i>	2006-2007
<i>UAE-IEEE Executive: Award Chair</i>	2005-2006
<i>Tutorial Chair, The 2006 IEEE International Conference on Invitation in Information Technology, Dubai</i>	2006
<i>Local Organization Chair, the 4th IEEE international conference on computer systems and applications AUS, Sharjah, 2006</i>	(Fall-2005, Spring 2006)
<i>Tutorial Chair, 3rd GCC IEEE conf., March 20 -24, 2006. Bahrain</i>	(Fall-2005, Spring 2006)
<i>UAE-IEEE Exe-Committee</i>	Fall-2005, Spring 2006)
<i>Mechatronics' graduate program admission committee</i>	Fall'05 & Spring'06
<i>Mechatronics' group committee</i>	Fall'05 & Spring'06
<i>3rd-AUS-Mechatronics Conference: Organizing committee</i>	Fall'05 & Spring '06
<i>Admission office: Gulf Education exhibition</i>	Spring 2006
<i>ABET (Alumni Survey): Organized COE Posters for the Engineering Day.</i>	2004-2005
<i>Degree Audit Committee</i>	Spring 05
<i>Students Advising</i>	
<i>Faculty Personal Committee " FPC- SOE"</i>	2000 & 2004-2005
<i>E-learning committee</i>	2004-2005
<i>Feasibility Study of future concentration areas task force</i>	Fall 2004
<i>Mechatronics' curriculum committee</i>	2004-2005
<i>Degree Audit Committee</i>	Sept 2001-Fall-03
<i>Program Head: UAE Accreditation for the COE program.</i>	Sept 2001-Fall-03
<i>Curriculum Committee</i>	Sept 2001-Fall-03

Committees at KFUPM (1999-2000) :

<i>Committee Name</i>	<i>Academic Year</i>
<i>Text Book</i>	1999-2000
<i>Computer Utilization</i>	1999-2000
<i>Seminars & research</i>	1997-1998
<i>Lab. Supervision</i>	1997-1998
<i>Computer Utilization</i>	1997-1998
<i>Seminars & research</i>	1996-1997
<i>Special Function</i>	1996-1997
<i>Lab. Supervision</i>	1996-1997
<i>Computer Utilization</i>	1994-1995
<i>Seminars & research</i>	1994-1995
<i>Graduate Admission</i>	1994-1995
<i>Planning</i>	1993-1994
<i>Curriculum</i>	1993-1994
<i>Best Advisor Award</i>	1992-1993
<i>Excellence in teaching Award</i>	1992-1993
<i>Laboratory Supervision</i>	1992-1993
<i>Curriculum</i>	1992-1993
<i>Health, Safety & Security</i>	1992-1993
<i>Computer Utilization</i>	1991-1992
<i>Technical Committee of Int. Conference. on Microelectronics</i>	1991-1992-1993

Other Professional activities:

- *Founder of the High Schools IT competition since 2001. We have run this competition for about 8 times during the last 14 years. The outcome was many schools update their IT curriculum. An average of 15 schools per year participated in such competition with average of 200 students with 40 IT high schools' teacher.*
- *2011-2015: External Examiner, College of Engineering, Al Huraira University, Dubai, UAE.*

Awards:

- *1st Place Award: Smart Campus Mobility- CEN-CSE Senior Design Projects 2020 Competition, CEN 2020 Senior Design Projects Competition*
- *1st Place Award: Smart Retail Shelf- CEN-IEN Senior Design Projects 2020 Competition, CEN-Senior Design Projects 2020 Competition*
- ***2020 winners of the IEEE Consumer Electronics Society Chester Sall Award for the First-place best paper in the IEEE Transactions on Consumer Electronics, IEEE Consumer Electronics Society Chester Sall Award.***
- *Best paper award, International Conference on Recent Advances in Science, Technology & Engineering*
- *UAE Special Recognition Energy Award, IoT-Based Smart Energy Meter, Water, Oct, 2017.*
- *First place award: smart utility meter, the Future Generation Undergraduate category of the Middle East Electricity Award, March 2017. Team: Students: Mais Haj Hassan, Mohammed Abdelsalam, Mustapha Ezzeddine, and Mohannad Baseet, Advisors: A. R. Al-Ali and Dr. Taha Landolsi*
- *The second-place award in Renewable Energy Competition, "Project: Renewable Energy Based Smart Irrigation System, Awarded by Arab-German Young Academy of Sciences and Humanities, Jan, 2017. Team: Students- Mohammed Shihab, Sheehan Fernandes and Khalil Ailabouni, Advisors: Dr. A. R. Al Ali and Dr. Shayok Mukhopadhyay*
- *Smart Gird for Smart Home, AUS senior projects competition.*
- *A Wireless Patient Monitoring System using Zigbee.*
- *The first-place award in the student poster competition at the Fifth International Conference on Innovations in Information Technology 2008 held December 16-18 at UAE University in Al Ain.*
- *Four students' projects awards: two times made in the Arab world-.*
- *The GCC Environmental Award in the category of the "Best Academic or Research Institute in the Environmental Field for the Year.*
- *Winner of Environmental Design Competition, UAE.*
- *Winner of the Microsoft Software Engineering Award, the IEEE Computer Design competition, 2006, W.D.C, USA.*
- *Winner of the BP AMCO best project award.*
- *Winner of the Best teacher award, AUS.*
- *Winner of the best teacher award, KFUPM, Saudi Arabia.*

Research Grants at the AUS

- *Long-term assessment of Photo-voltaic Generation in UAE: Environmental impacts and mitigations, 2-Years Faculty research grant-2018-2019.*
- *A Comparison of Big Data Architectures for Smart Energy, 2-Years Faculty research grant-2017-2018.*
- *Artificial Intelligence sensor-fusion based system for plastic recycling and classification*
- *Aqua Engineering for plastic recycling.*
- *Siemens for Bulding remote monitoring and control Gas and Oil wells using PLC-based system.*
- *Wireless PLC-based System for Oil and Gas Well Monitoring and Control.*
- *Development of a Web-Based Traffic Information System in Sharjah.*
- *Machine-Health Tele-Monitoring and Diagnosis System.*

Books

- **Book**
K. Tawel, A. R. Al-Ali and N Mabrooka: Computers and the Internet, 2000. Three thousand copies were printed (in Arabic language 154 pages).
- **Book (Out of a Master Thesis):**
Y. Tachwali, Y. Al-Assaf, A.R. Al-Ali Sensor Fusion Based Plastic Bottles Classification System", ISBN 978-3-639-14924-1, Accepted, May, 2009, (<http://www.vdm-publishing.com/>).
- **Book Chapter:**
A. R. Al-Ali, T. Ozkul and T Landolsi, "A Preliminary Study Toward Wireless Integration of Patient Information System", International Journal of Healthcare Information Systems and Informatics, Book Chapter, spring 2009, (<http://www.igi-global.com/articles/details.asp?ID=6508>).

Patents:

1. **US Patent #:** 5,318,172, June 1994
 - Kenny; Garry R. (College Grove, TN); Morgan; David R. (Hardin, KY); Al-Ali; Abdul R. (Dahran, SA) Process and apparatus for identification and separation of plastic containers, USA patent 5,318,172, June 1994, Magnetic Separation Systems, Inc. (Nashville, TN).
2. **EUR Patent #:** EP0554850, 1993-08-11
 - KENNY GARY R DR (US); AL-ALI ABDUL R (SA); MORGAN DAVID R (USA), Method and apparatus for classifying and separation of plastic containers

Selected Journal Publications:

1. E Shaikh, **AR Al-Ali**, S Muhammad, N Mohammad, F Aloul, Security Analysis of a Digital Twin Framework using Probabilistic Model Checking, , *IEEE Access*, Early access, 2023.
2. Jayroop Ramesh , Sakib Shahriar, **A. R. Al-Ali**, Ahmed Osman, Mostafa F. Shaaban, Machine Learning Approach for Smart Distribution Transformers Load Monitoring and Management System, *Energies 15 (Energies)*, 2022, pp 1-19.
3. S Dhou, A Alnabulsi, **AR Al-Ali**, M Arshi, F Darwish, S Almaazmi An IoT machine learning-based mobile sensors unit for visually impaired people, *Sensors 22 (14)*, 2022, pp 1-20.
4. S Shahriar, J Ramesh, M Towheed, T Ameen, A Sagahyroon, **AR Al-Ali**, NICE: Narrative Integrated Career Exploration Platform, *Frontiers in Education 7*, 1-10, 2022.
5. S Shahriar, **AR Al-Ali**, Impacts of COVID-19 on Electric Vehicle Charging Behavior: Data Analytics, Visualization, and Clustering, *Applied System Innovation*, 1-12, 2022
6. Jumanah Al-Dmour, Assim Sagahyroon, **A.R. Al-Ali**, Salah Abusnan, A fuzzy logic–based warning system for patients’ classification, *Health Informatics Journal*, November 6, 2017.
7. M. J. Albayed, **A. R. Al-Ali**, M. F. Shaaban, “Online Fuzzy Logic Base Algorithm for Electricity Price Prediction”, Accepted Sept 2017, *Journal of Electronic Science and Technology*, 2017.
8. Raafat Aburukba, **A. R. Al-Ali**, Mohammed Rashid, and Rizwan Hassan, Internet of Things Cloud Framework for Smart Home, *Journal of Electronic Science and Technology*, Vol. 14, No. 4, pp. 319-327, Dec '16.
9. Ban A. Alomar, **A. R. Ali-Ali**, and T. Landolsi, “WiMAX Multiple Hops Architecture in Smart Grid Communications,” *Journal of Communications*, vol. 11, no. 9, pp. 805-812, 2016.
10. **A. R. Al-Ali**, Internet of Things Role in the Renewable Energy Resources, *Energy Procedia*, *Energy Procedia 100*, pp.34-38, Dec 2016.
11. Ban A. Al-Omar, Taha Landolsi, **A. R. Al-Ali**, Evaluation of WiMAX Technology in Smart Grid Communications, *Journal of Communications*, Vol. 10, No. 10, pp. 804-8011, 2015.
12. **Al-Ali, A.R.** and Aburukba, R., “Role of Internet of Things in the Smart Grid Technology”, *Journal of Computer and Communications*, 3, pp. 229-233, May 26, 2015.
13. Hafeez, Ayesha, Nourhan H. Kand, Ban Al-Omar, T. Landolsi, **A.R. Al-Ali**, "Smart Home Area Networks Protocols within the Smart Grid Context." *Journal of Communications* 9, no. 9 665-671, (2014).
14. A. H. Osman, **A.R. Al-Ali**, Haroon Khalil, Kiran Prem V., Mursalin Haider, Mishal Eskande, “Distributed Air-Conditioning Energy Management System within the Smart Grid Context” *Journal Of Electronic Science And Technology*, Vol. 12, No. 1, pp. 7-12, March 2014.
15. Fadi Aloul, **A. R. Al-Ali**, Rami Al-Dalkya, Mamoun Al-Mardinia, Wassim El-Hajjb, “Smart Grid Security: Threats, Vulnerabilities and Solutions”, *International Journal of Smart Grid and Clean Energy*, vol. 1, no. 1, pp. 1-6, 2012.
16. Ban Al-Omar, **A. R. Al-Ali**, Rana Ahmed, Taha Landolsi, Role of Information and Communication Technologies in the Smart Grid, *Journal of Emerging Trends in Computing and Information Sciences Volume3, Issue 5*, pp. 707-716, 2012.
17. **A. R. Al-Ali**, Ayman El-Hag, Mujib Bahadiri, Mustafa Harbaji, Yousef Ali El Haj, “Renewable and Storage Energy Integration for Smart Grid Housing”, *Journal Of Electronic Science And Technology*, Vol.10, No.1, March 2012, pp 7-14.
18. Omran, Hesham, Albasha, Lutfi, **Al-Ali, A. R.**, “Design and Implementation of a Low Cost Multiple Range Digital Phase Detector Design and Implementation of a Low Cost Multiple Range Digital Phase Detector”, *International Journal of Electronics*, Available online: 17 Jan 2012.
19. **A. R. Al-Ali**, Imran A. Zualkernan, Assia Lasfer, Alaa Chreide, and Hadel Abu Ouda, “GRPS-Based Distributed Home-Monitoring Using Internet-Based Geographical Information System”, *IEEE Transactions on Consumer Electronics*, Volume: 57 Issue:4, 2011, pp. 1688 – 1694.
20. A. Sagahyroon, F. Aloul, **A. R. Al-Ali**, M. S. Bahrololoum, F. Makhsoos, and N. Hussein, Monitoring Patients’ Signs Wirelessly, *Journal of Medical Imaging and, Health Informatics*, Vol. 1, I. 3, 2011, pp 252-255.
21. **A. R. Al-Ali**, Imran Zualkernan, Fadi Aloul, “Mobile GPRS-Sensors Array for Air Pollution Monitoring”, *IEEE Sensors Journal*, Vol. 10, No. 10, Oct. 2010, pp 1666-1670.
22. Taha Landolsi, **A. R. Al-Ali**, Tarik Ozkul, and Mohammad A. Al-Rousan, “Wireless Distributed Load-Shedding Management System for Non-Emergency Cases, *International Journal of Electrical and Electronics Engineering Vol.4. Issue 7*, 2010, Pages: 453-460. (It was accepted as a conference and then selected as a journal).

23. Zualkernan, I.A.; **Al-Ali, A. R.**; Jabbar, M.A.; Zabalawi, I.; Wasfy, A. "InfoPods: Zigbee-based remote information monitoring devices for smart-homes", *IEEE Transactions on Consumer Electronics*, Vol 55. Issue No. 3, 2009, Page(s): 1221-1226.
24. S. Da'na, A. Sagahyoon, A. Elrayes, **A. R. Al-Ali** and R. Al-Aydi, "Development of a monitoring and control platform for PLC-based applications", *Journal of Computer Standards & Interfaces*, Vol. 30, Issue 3, March 2008, Pages 157-16.,
25. Y. Tachwali, Y. Al-Assaf, **A.R. Al-Ali**, "Automatic multistage classification system for plastic bottles recycling", *Resources, Conservation and Recycling*, *Resources, Conservation and Recycling* 52, pp 266–285, 2007
26. Taha Landolsi, **A. R. Al-Ali**, Yousef Al-Assaf, "Wireless Stand-alone Portable Patient Monitoring and Logging System, *Journal of Communications*, VOL. 2, NO. 4, pp. 65-70, June 2007.
27. **A.R. Al-Ali**, M. A. Jarrah, R. Dhaouadi, "Microcontrollers-Operated Anthropomorphic Manipulator with Haptic Feedback", *Journal of Robotics and Computer Integrated Manufacturing*, Volume 23, Issue 1, pp 63-70. 2007.
28. **A. R. Al-Ali**, "Wireless Distributed Energy Billing System", *International Journal of Computers and Applications*, Vol. 28, No. 4, pp. 1956-1964, 2006.
29. **A. R. Al-Ali**, T. Ozkul and T Landolsi, "A Preliminary Study Toward Wireless Integration of Patient Information System", *Int. J. of Healthcare Information Systems and Informatics*, Vol.1 Issue 4, pp. 1-14, October-December.
30. M. AL-Rousan, **A. R. Al-Ali**, A. Eberlein., "Remote Patient Monitoring and Information System", *Int. Journal of Electronic Healthcare*, Volume 2 - Issue 3, pp231-249, 2006.
31. **A. R. Al-Ali**, A. O. Salam, L. Al-Zohlof, M. Manna and R. Zakaria, "Cyber Medical Center", *Journal of Computer Methods and Programs in Biomedicine*, Vol. 80, Dec 2005, pp. S85-S9.
32. M. AL-Rousan & **A. R. Al-Ali**, "An Innovative m-Utility Management and Billing System", *Journal of Enterprise Information Management*, Vol. No. 2, 2006, pp. 136-147.
33. **A.R. Al-Ali**, M. Al-Rousan and T. Ozkul, "Implementation of experimental communication protocol for health monitoring of patients", *Journal of Computer Standards & Interfaces*, Volume 28, Issue 5, June 2006, Pages 523-530.
34. **A. R. Al-Ali** & M. AL-Rousan, "Java-based Home Automation System", *IEEE Transaction on Consumer Electronics*, Volume: 50, Issue: 2, May 2004, Pages: 498 – 504.
35. **A. R. Al-Ali**, S. Rehman, S. Al-Agili, M. Al-Omri and M. Al-Fayez, "Usage of Photovoltaic in an Automated Irrigation System, *International Journal of Renewable Energy*, Vol. 23, 2001, pp. 17-26.
36. El-Amin, **A. R. Al-Ali**, M.A. Suhail " Direct load control using Programmable Logic ", *Electric Power Systems Research Journal*, V 25, N 2, Dec 1999, pp.211-216.
37. Islam, M. H. Al-Rahsed, **A. R. Al-Ali** & M. Kassas, "Microcontroller-Based Unit Power Factor". *AJSE*, V. 24, N. 2B, Oct. 1999. pp 249-260.
38. **A. R. Al-Ali**, A. Akkad & A. Assaf, "Arab Scientists Contribution in Computer Engineering and Science," *Islamic Research Journal*, Vo. XXXIII, No.2, April, 1998, pp. 129-151.
39. **A.R. Al-Ali**, M. T. Abuel-ma'atti, " Bipolar Programmable Capacitor", *Electronics World & Wireless World*, July 1995, pp. 602.
40. M. Guizani, **A. R. Al-Ali**, " PC-Compatible Optical Data Acquisition Unit", *International Journal Of Infrared & Millimeter Waves*, Vo. 16, No. 3, 1995, pp. 653-661.
41. M.T. Abuelma'atti, **A. R. Al-Ali**, & M. Ahsan," Programmable Current -Conveyor-Based Oscillator Employing Grounded Resistor & Capacitors", *Active and Passive Electronic Components*, Vol. 8, 1995, pp. 259-269.
42. **A.R. Al-Ali**, "Microcontroller-Based Energy Meter", *AJSE*, Vol. 20, No.3, July 1995, pp. 511-518.
43. M.T. Abuel-ma'atti, **A.R. Al-Ali**, and U. Baroudi, "A Novel Method for SSB Generation", *Modeling, Measurement and Control, A*, Vol. 60, No. 3, 1995, pp. 1-4.
44. M.T. Abuel-ma'atti, **A.R. Al-Ali**, and A.M. Shabra, "OTA-Based Multiplying Digital-to-Analog Converter", *Modeling, Measurement and Control, A*, Vol. 60, No. 3, 1995, pp. 11-13.
45. **A.R. Al-Ali**, M. T. Abuel-ma'atti, and A.M. Shabra, "Digital Multiplication Using Analog Multiplier", *Modeling, Measurement and Control, A*, Vol. 60, No. 3, 1995, pp.15-19.
46. **A.R. Al-Ali**, M.T. Abuel-ma'atti, and M. A. Sayani, "Microprocessor Controlled Function Generator", *Modeling, Measurement and Control, A*, Vol. 60, No. 3, 1995, pp.5-10.
47. **A.R. Al-Ali**, M.T. Abuelma'atti and S. Yens, "Digitally Programmable Integrator and Differentiator, *Active & Passive Electronic Components*, Vol. 17, Nov. No.1, 1995, pp 261-268.
48. **A. R. Al-Ali**, M.T. Abuelma'atti & A. Habra," An OTA-Based Digital-to-Analog Converter ", *Active & Passive Electronic Components*, Vol. 16, No. 3-4, 1994, pp 141-143.
49. **A.R. Al-Ali**, M.T. Abuel-ma'atti & R. Tirana, "Programmable OTA-Based Multi-Function Active Filter", *Active & Passive Electronic Components*, Vol. 16, Nov. 1, 1994, pp. 21-27.
50. M.T. Abuelma'atti, **A.R. Al-Ali**, S.S. Byhalia and S.T. Ahmed, " Digitally Programmable Partially Active-R Sinusoidal Oscillator", *Active & Passive Electronic Components*, Vol. 17, No.2, 1994, pp. 83-89.
51. M.T. Abuelma'atti, **A.R. Al-Ali** & A. Al-Doha, "A Novel Sinusoidal Frequency Divider". *IEEE Transactions on Instrumentation & Measurement*, Vol. 43, No. 4, August. 1994, pp. 680-683.
52. **A.R. Al-Ali**, M.T. Abuelma'atti & A. Naves, "Self-Tuned Programmable Active-R Square Wave Generator", *IEEE Transactions on Instrumentation & Measurement*, Vol. 43, No. 3, June 1994, pp. 499-500.
53. M.T. Abuelma'atti, **A.R. Al-Ali** & M. Lahloub, "New Microprocessor Controlled CCM-Based Oscillator with Grounded Capacitors & Resistor", *Electronic Engineering*, Vol. 66, May 1994, Pp. 30.

54. **A.R. Al-Ali** & *M. Guizani*, "Design of A Data Acquisition Unit Using Photonic Devices", *International Journal of Infrared and Millimeter Waves*, Vol.15, No. 3, March 1994, pp 605-617.
55. *M.T. Abuelma'atti* & **A.R. Al-Ali**, "Modeling Tunnel Diode for Computer Aided Design", *International Journal of Infrared & Millimeter Waves*, Vo. 14, June 1993, Pp. 1293-1298.
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57. *Z Solatidehkordi, J Ramesh, AR Al-Ali, A Osman, M Shaaban*, An IoT deep learning-based home appliances management and classification system, *Energy Reports* 9, 503-509 Volume 9, Supplement 3, May 2023, Pages 503-509
58. *E Shaikh, N Mohammad, A Al-Ali, S Muhammad*, A Probabilistic Model Checking (PMC) Approach to Solve Security Issues in Digital Twin (DT), the *IEEE 2023 Intel Conference on Intelligent Data Communication Technologies* Jan, 2023 pp 192-197.
59. *F Elwy, R Aburukba, AR Al-Ali*, Role of Fog Computing in Smart Spaces, 2022 *IEEE International Conference on Edge Computing and Communications*, June 2022, pp 69-76.
60. *J Ramesh, AR Al-Ali, AA Nabulsi, A Osman, M Shaaban*, Deep Learning Approach for Smart Home Appliances Monitoring and Classification, The 2022 *IEEE International Conference on Consumer Electronics (ICCE)*, 1-8
61. *J Ramesh, R Aburukba, AR Al-Ali*, "Big Data and IoT System for Utility Power Planning using Commercial Cloud Database", *IEEE International Conference on Electrical, Communication and Compute*, Istanbul, Turkey. June 2020.
62. *Bashayer Almarzooqi, Maryam Alsaedi, Ahmad Alnabulsi, A. R. Al-Ali, Assim Sagahyoon*, "IoT-Based Vehicle Accident Monitoring and Reporting System", *International Conference on, Recent Advances in Science, Technology & Engineering*, on 6-7, Istanbul, Turkey. Jan 2020.
63. *M Kamal, M Atif, H Mujahid, T Shanableh, AR Al-Ali, AA Nabulsi*, "IoT Based Smart Bus Stops", the 3rd. *IEEE International Conference on Smart Grid and Smart Cities*, University of California, Berkeley, USA, June 2019.
64. *Omar Hamdan, Hassan Shanableh, Inas Zaki. A. R. Al-Ali, Tamer Shanbleh*, IoT Based Interactive Dual Mode Smart Home Automation, Accepted, *IEEE International Conference on Consumer Electronics-Jan. 11-13, 2019, Las Vegas, USA*.
65. *Areej Essa, Tariq Al-Shoura, Ahmad Al Nabulsi, A. R. Al-Ali, and Fadi Aloul*, Cyber Physical Sensors System Security: Threats, Vulnerabilities, and Solutions, *International Conference on Smart Grid and Smart Cities (ICSGSC 2018)*, Kuala Lumpur, Malaysia, Aug 14-16, 2018.
66. **A. R. Al-Ali**, *T. Landolsi, M. H. Hassan, M. Ezzeddine, M. Abdelsalam, M. Baseet*, An IoT-Based Smart Utility Meter, *International Conference on Smart Grid and Smart Cities (ICSGSC 2018)*, Kuala Lumpur, Malaysia, Aug 14-16, 2018.
67. **A. R. Al-Ali**, *R Gupta, AA Nabulsi*, Cyber Physical Systems Role in Manufacturing Technologies, 2018 *International Conference on Manufacturing Technologies AIP Conference Proceedings* 1957 (1), Orlando, FL, USA, 15-17 Jan, 2018.
68. **A. R. Al-Ali**, "The Roadmap from the Internet of Things to Internet of Energy", the *International Conference on IT & Computer Science*, Washington DC, USA, Date: 18-19 February, 2017.
69. **A. R. Al-Ali**, *Internet of Things and Cloud Computing Role in Industry 4.0*, the *International Conference on IT & Computer Science*, New York, USA Date: 28-29th October, 2016.
70. *Raafat Aburukba, A. R. Al-Ali, Taha Landolsi, Mohammed Rashid, and Rizwan Hassan*. "IoT Based Energy Management for Residential Area." 2016 *IEEE International Conference on Consumer Electronics-Taiwan*, May 27-29, 2016, pp. 1-2.
71. *Raafat Aburukba, A. R. Al-Ali, Nourhan Kandil, and Diala Abu Damis*. "Configurable ZigBee-based Smart Home Appliances Control System for People with Multiple Disabilities." In *IEEE International Conference on Industrial Informatics and Computer Systems*, Dubai, Date: March 13-15, 2016.
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74. *Amro Al-Radaideh, A. R. Al-Ali, Salwa Bheiry, Sameer Alawnah*, "Wireless Sensor Network Monitoring System for Highway Bridges", *IEEE International Conference on Electrical and Information Technologies (ICEIT'15)*, March 2015, Morocco, pp. 119-124.
75. *A. H. Osman, A. R. Al-Ali, Haroon Khalil, Kiran Prem V., Mursalin Haider, Mishal Eskander*, "Distributed Air-Conditioning Energy Management System within the Smart Grid Context", 2013 *International Conference on Smart Grid and Clean Energy Technologies*, 11-13 October 2013 · Kuala Lumpur, Malaysia.
76. **A. R. Al-Ali**, *I. A. Zualkernan, Rasha Salman, Veira Dyab, Zain Aljawhari*, "GPRS-GIS Based Multi-Objects Tracking System", *International Conference on Emerging Trends in Computer Science & Information Technology*, March 2013, Kuala Lumpur, Malaysia.
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82. **A. R. Al-Ali**, Khalid Mohamed Bukalla, Omar Al Ghamdi, Suhail Khalifa AlHumairi, "E-Waste: The Coming Danger, Case Study: GCC E-Waste Management System", *Middle East Waste Summit*, May 2010, Dubai, UAE.
83. Taha Landolsi, **A. R. Al-Ali**, Tarik Ozkul and Mohamad AL-Rousan *Wireless Distributed Load-Shedding Management System for Non-Emergency Cases*, the 2010 International Conference on Power Systems Engineering to be held in Penang, Malaysia from Feb. 24th- 26th, 2010.
84. Amiri, N. Al-Jawhari, E. Sharif, **A. R. Al-Ali**, F. Aloul, A. Sagahyoon, "Wireless RFID Controlled Parking Lot", *1st Undergraduate Research Conference on Applied Computing*, May, 2009, Dubai.
85. **A. R. Al-Ali** & M. Jarrah, *Embedded Systems for Mechatronics*", *THE 5th IEEE GCC Conf.*, March, 2009, Kuwait.
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