#### **CURRICULUM VITAE**

# 1. PERSONAL DATA

Name: Hamdy Ahmed Abd El-Khalek Ashour

Date of Birth: 13/5/1969

Place of Birth: Alexandria, Egypt

Nationality: Egyptian

Contact Address: Department of Electrical and Control Engineering, Arab Academy for

Science & Technology, P.B.1029 Miami, Alexandria, Egypt

Tel (home): +2-03-5714709 Tel (Mobile): +2-01008202338 Fax: +2-03-5622915

Email: <a href="mailto:hashour@aast.edu">hashour@aast.edu</a> or <a href="mailto:hashour@aast.edu">hamdy135@gmail.com</a>

# 2. ACADEMIC/PROFESSIONAL PARTICULARS

# (a) Field of Specialization:

-Electrical Machines, -Power Electronics, -Electric Drives, -Electrical Vehicles, -Renewable Energy and -System Automation

# (b) Academic Qualifications

- **B.Sc.** Faculty of Engineer, Alexandria University, Department of Electrical Engineer, Alexandria, Egypt, 1992.
- **M.Sc.** Faculty of Engineer, Alexandria University, Department of Electrical Engineer, Alexandria, Egypt, 1996.
- **Ph.D**. Heriot-Watt University, Department of Computing and Electrical Engineer, Edinburgh, United Kingdom, 1999.

Associate Prof. 1-12-2004
Full Professor. 1-12-2008

#### (c) Academic Honors and Awards

- ORS, PhD Scholarship Heriot-Watt University, Department of Electrical Engineering, Edinburgh, United Kingdom, 1996.
- An honor prize for extinguish publication, Arab Academy for Science and Technology, Alexandria, Egypt, 2015.

### (d) Membership of Professional Bodies

- Member of the Egyptian Engineering's Syndicate, since 1993
- Member of Association of Energy Engineering (AEE), USA
- Member The Institute of Electrical and Electronic Engineers (IEEE), USA

# (e) Language Proficiency

- Arabic, is the mother tongue
- English, frequently speaking and writing



#### 3. CAREER DETAILS

## (a) Academic Positions Held

- **Teaching assistant**, Department of Electrical and Control Engineering, Arab Academy for Science & Technology, Egypt, (1994-1996).
- **PhD with Teaching assistant**, Heriot-Watt University, Department of Electrical Engineering, Edinburgh, United Kingdom, 1996-1999.
- Lecturer, Department of Electrical and Control Engineering, Arab Academy for Science & Technology, Egypt, (1999-2004).
- Assistant Professor, Department of Electrical and Control Engineering, Arab Academy for Science & Technology, Egypt, (2004-2008).
- **Full Professor**, Department of Electrical and Control Engineering, Arab Academy for Science & Technology, Egypt, since 2008 till now.

# (b) Professional/Industrial Positions Held

 Vice Dean for Industrial Relations, College of Engineering, Arab Academy for Science & Technology, Egypt, (2010-2012).

# (c) Administrative Positions Held

• **Head of Department of Electrical and Control Engineering**, College of Engineering, Arab Academy for Science & Technology, Egypt, (2012-2016).

#### 4. TEACHING

# (a) Summary of Courses Taught

Course Code, Course Name, Number of Times Taught, Evaluation

## -Undergraduate

- EE418, Automatic Control Systems, 3 Times,
- EE419, Modern Control Engineering, 2 Times
- EE515, Computer Control of Dynamic Systems, 2 Times,
- EE512, Industrial Automated Systems I, 10 Times,
- EE518, Industrial Automated Systems II, 4 Times,
- EE329, Electrical Power and Machines, 3 Times,
- EE422, Electrical Machines III, 3 Times,
- EE521, Special Electrical Machines, 2 Times
- EE424, Electric Drives I, 3 Times,
- EE522, Electric Drives II, 3 Times,
- EE323, Power Electronics I, 6 Times.
- EE423, Power Electronics II, 6 Times,

# -Postgraduate

- EE704, Digital System Design, 1 Times,
- EE705, Electrical Measurement Systems, 1 Time,

- EE710, Advanced Automated Systems, 2 Times,
- EE724, Advanced Electric Drives, 2 Times,
- EE725, Advanced Power Electronics, 3 Times,
- EE727, Advanced Electrical Machines, 2 Times,
- EE728, Industrial Power Conversion Systems, 1 Times,
- EE725, Renewable Energy, 1 Time,
- EE718, Process Control, 1 Time,
- EE743, Green Buildings Design, 1 Time,

# -Industrial Training (one week short courses)

- Electrical Hazards and Safety Rules, 1 Time,
- Alternators, 1 Times,
- Motor Control Center (MCC), 5 Times,
- Uninterruptable power supplies, 1 Time,
- Variable Speed Drives, 1 Time,
- Programmable Logic Controllers (PLCs), 8 Time,
- Supervisory Control and Data Acquisition (SCADA), 2 Times,
- Systems Automation (based on SIEMENS courses), 2 Times,
- Industrial Energy Management Technologies, 1 Time,
- Energy Management in Green Ports, 1 Time,

### (b) Participation in Academic Accreditation

- ABET, Accreditation Board for Engineering and Technology, USA, for Department of Electrical and Control Engineering, Arab Academy for Science & Technology, (2011-2016) and renewed (2016-2021).
- **IET**, Institute of Engineering and Technology, UK, for Department of Electrical and Control Engineering, Arab Academy for Science & Technology, (2011-2014).
- NAQAAE, National Authority for Quality Assurance and Accreditation of Education, Egypt, for Department of Electrical and Control Engineering, Arab Academy for Science & Technology, (2012-2017).

### (c) Research Students Supervised/Trained

• Level Number of Trainees: 300 students and engineers for different industrial training courses

• PhD Students: 1 Student

Master Students:
Undergraduate Students:
20 students for different MSc thesis and topics
200 students for different graduation projects

# (d) Participation in Thesis and Oral Examination Committees

• Master Students: 26 students for different MSc thesis and topics

## (e) Training

- A course in **Programmable Logic Controllers** (PLC), SIEMENS, Egypt, one week, 2009
- A course in **Human Machine Interface** (HMI), SIEMENS, Egypt, one week, 2009
- A course in Variable Speed Drives (VSD), SIEMENS, Egypt, one week, 2009
- A course in **Intelligent Instrumentations**, SIEMENS, Egypt, one week, 2009
- A course in Conference Preparation, AAST, Egypt, 3 days, 2012
- A course in **Time Managing**, AAST, Egypt, 3 days, 2013
- A course in Meetings Managing, AAST, Egypt, 3 days, 2014
- A course in Crisis Managing, AAST, Egypt, 3 days, 2015
- A course in Strategic Planning, AAST, Egypt, 3 days, 2016
- Certified energy management (CEM), Alexandria, Egypt, 2017
- A course in Effective Communication Skills, AAST, Egypt, 3 days, 2019

#### 5. RESEARCH

## (a) Research Interests

- Power Electronics Applications
- Electrical Machines
- Variable Speed Drives
- Electric Vehicles
- Renewable Energy
- Industrial Automation

### (b) Publications/Citations Data

Number of Publications: 67

Journals: 17

Conference Papers: 50

Edited Books: 2

Citation Source Number of Citations: 288, H-index 10 in Google Scholars, 1/11/2019

## (c) Research Grants

- "RFID automated belt conveyer system", from Siemens Company, 2010-2011, 3000EU
- "SCADA for Wind Turbine System", from Siemens Company, 2011-2012, 3000EU
- "Automated Biodiesel Unit", from Academy for Scientific Research and Technology, 2012-2013, 50000EP
- "Energy Efficient Smart Homes", from Academy for Scientific Research and Technology, 2016-2017, 35000EP
- "Design and Implementation of a Segmented Low Cost Low Speed Direct Driven Small Scale PMSF for Renewable Energy Applications", from Arab Academy for Scientific and Technology, 2017-2018, 45000EP

# (d) Participation in Regional & International Conferences

- The ICEM International Conference, Shenyang, China, 2001
- The ICCAT International Conference, Alexandria, Egypt, 2002.
- The ICCES International Conference, Ain-Shams, Egypt, 2006.
- The EUOROCON International Conference, Warsaw, Poland, 2007
- The MARLOG International Conference, Alexandria, Egypt, 2011
- The MEPCON International Conference, Alexandria, Egypt, 2012
- The REVET International Conference, Tunisia, 2012
- The MARLOG International Conference, Alexandria, Egypt, 2013
- The ISGT Asia International Conference, Malaysia, 2014
- The MEPCON International Conference, Menufia, Egypt, 2017
- The MEPCON International Conference, Cairo, Egypt, 2018
- The EEEIC International Conference, Genoa, Italy, 2019

## (e) Research Students Supervision

Has already **supervised** more than 19 engineers those have already **awarded** their **MSc** degrees:

- 1- Eng. Rania Assem EL Said, "Analysis and implementation of microcontroller based soft starters for three phase induction motors", Arab Academy for Science and Technology, Alexandria, Egypt, 2007
- 2- Eng. Samia Abd Allah Mahmoud, "Operation control of multilevel inverters for induction motors", Arab Academy for Science and Technology, Alexandria, Egypt, 2007
- 3- *Eng. Tarek Samir Aglan,* "Reduced voltage AC motor drive system for safe electric vehicle", Arab Academy for Science and Technology, Alexandria, Egypt, 2009
- 4- Eng. Ibrahim Abd Allah Mohamed, "Novel high performance transformer less uninterruptable power supply", Arab Academy for Science and Technology, Cairo, Egypt, 2009
- 5- *Eng. Ahmed Attia Abd El Ghafar,* "SCADA upgrading for ship internal system", Arab Academy for Science and Technology, Alexandria, Egypt, 2011
- 6- Eng. Amr Mphamed El Nagar, "An efficient high performance battery charging/discharging unit with power factor correction", Arab Academy for Science and Technology, Alexandria, Egypt, 2011
- 7- Eng. Inji Ibrahim Attia, "Energy consumption optimization using a home automation system", Arab Academy for Science and Technology, Alexandria, Egypt, 2012
- 8- Eng. Mohamed Sabri El Kersh, "Intelligent low cost microcontrollers based variable speed drives for energy efficient pumping systems", Arab Academy for Science and Technology, Alexandria, Egypt, 2012
- 9- Eng. Mohamed Attif El Saharti, "A sensor less maximum power point tracking technique for photovoltaic grid connected inverter", Arab Academy for Science and Technology, Alexandria, Egypt, 2012

- 10- Eng. Amr Ibrahim Abo Amin, "Load sharing realization of parallel operated synchronous generators within micro grid using microcontrollers", College of Engineering, Alexandria University, Egypt, 2012.
- 11- Eng. Fathi Mohamed Abo Kaeod, "Realization of adaptive PID controller within automated temperature process unit", Arab Academy for Science and Technology, Alexandria, Egypt, 2013.
- 12- Eng. Mohamed Ahmed El Saedani, "Realization of energy management for HVAC system based on both zones and main AHU controller", Arab Academy for Science and Technology, Alexandria, Egypt, 2014.
- 13- Eng. Mohamed Ismaiel Nassif, "Bidirectional power management over distributed generation battery less hybrid micro grids", Arab Academy for Science and Technology, Alexandria, Egypt, 2015.
- 14- Eng. Amany Ahmed Hussien, "Optimal allocation and sizing with energy management of vehicle to grid parking lots", Arab Academy for Science and Technology, Alexandria, Egypt, 2016.
- 15- *Eng. Ahmed Mohamed Hibala*, "Design and implementation of low speed, small scale, direct driven PMSG for renewable energy", Arab Academy for Science and Technology, Alexandria, Egypt, 2017.
- 16- Eng. Moaz Ahmed Abd El-Raouf, "Enhancement of tension control for industrial paper winder", Arab Academy for Science and Technology, Alexandria, Egypt, 2018.
- 17-Eng. Ayat Ibrahim Attia, "Adaptive Protection of Power System Incorporating of DG using MPSO Algorithm", Arab Academy for Science and Technology, Alexandria, Egypt, 2019.
- 18-Eng. Amany Helal Mohamed, "Enhancement of tension control for industrial paper winder Synchronous Generators Stator Earth Fault Detection, Classification and Location Using Wavelet Transform and Adaptive Neuro Fuzzy Inference System", Arab Academy for Science and Technology, Alexandria, Egypt, 2019.
- 19-Eng. Mohamed Moghrabi Ibrahim, "Design and implementation of a micro-grid energy management system based on digital control algorithm for single phase voltage source inverter", College of Engineering, Alexandria University, Egypt, 2019.

# Has already **supervised** 1 engineer who has already **awarded** the **PhD** degree:

1- *Dr. Inji Ibrahim Attia*, "Distribution network reconfiguration in smart grid system using modified particle swarm optimization", ASTON University, Birmingham, United Kingdom, 2019

# (f) Research Students Discussion Committees

Has already participated in more than 11 examination and discussion committees as an external examiner for awarded *MSC* degrees:

- 1- Eng. Mohamed Adel El Hasheem, "A grid connected photo voltaic interface system based on dual active bridge converter", Arab Academy for Science and Technology, Cairo, Egypt, 2015.
- 2- Eng. Mohamed Ahmed Abo Shal, "Non communication based integration of three phase voltage source inverters with stiff grid", Ain Shams University, Cairo, Egypt, 2015.
- 3- Eng. Ahmed Samir Abd Allah, "Modular multilevel converter modeling, modulation and balancing techniques", Alexandria University, Alexandria, Egypt, 2015.
- 4- Eng. Mohamed Saied Diab, "A modified modulation scheme for photovoltaic fed grid connected single stage three phase boost inverters", Alexandria University, Alexandria, Egypt, 2015.
- 5- Eng. Mohamed Attia Sheba, "Automated operation of superconducting magnetic energy storage with smart grids", Tanta University, Tanta, Egypt, 2016.
- 6- Eng. Hassan Mohamed Zaiton, "Cogging torque reduction techniques in magnetic gearboxes", Alexandria University, Alexandria, Egypt, 2017.
- 7- Eng. Ahmed Assem Hassan, "Optimal management for Electric vehicle aggregator agent", Ain Shams University, Cairo, Egypt, 2017.
- 8- Eng. Abd El Rahman Salah El Dien El Wakil, "Capacitor balancing and fault ride through capability for modular multilevel converter", Alexandria University, Alexandria, Egypt, 2018.
- 9- *Eng. Mohamed Anwar Afifi*, "Adaptive droop based controller for a micro grid", Ain Shams University, Cairo, Egypt, 2018.
- 10-Eng. Mohamed Adel El Hasheem, "Industrial application of fault diagnosis using artificial neural network", Arab Academy for Science and Technology, Alexandria, Egypt, 2019.
- 11- Eng. Dina Mohamed Mostafa, "Hybrid particle swarm optimization and gravitational algorithm for BLDC motor speed control", Alexandria University, Alexandria, Egypt, 2019.

#### 6. SERVICE

## (a) Membership of Conference Committees

 The main organizer of a one day workshop for *Engineering Ethics*, AAST, Alexandria, Egypt, 2012

### (b) Service as Reviewer

#### Journals

- ASME Journal American Society of Mechanical Engineers, since 2016
- IET Science, Measurement and Technology, since 2016
- IET Electric Power Applications, since 2015
- ETEP International Transactions on Electrical Energy

- Journal of Circuits, Systems, and Computers (JCSC), since 2015
- Elsevier Ain Shams Engineering Journal (ASEJ), 2014
- Elsevier Alexandria Engineering Journal (AEJ), 2014

#### Conferences

- IECON- 42nd Annual Conference of the IEEE Industrial Electronics Society, Florence, Italy. 2016
- EEEIC-16th International Conference on Environment and Electrical Engineering. Florence, Italy. 2016
- MEPCON -17TH International Middle East Power Systems Conference, Helwan, Egypt, 2016
- MEPCON -19TH International Middle East Power Systems Conference, Menufia, Egypt, 2018
- MEPCON -21TH International Middle East Power Systems Conference, Tanta, Egypt, 2019

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# (c) Invited Presentations at Scientific Meetings/Workshops

- "SCADA for renewable energy applications", UTM university, Johor Bahro, Malaysia, 2014
- "Embedded and Automated System Technologies", IEEE student branch, a work shop, Alexandria, Egypt, 2013
- " *Bidirectional Converters For Renewable Energy Applications*", IEEE workshop on power electronics and renewable energy, Aswan, Egypt 2017
- ""Industrial Energy Management ", one day workshop at Ministry of Military Production, Cairo, Egypt, 2018
- " Automated Energy Audit ", ERESMUS workshop, Cairo, Egypt, 2018
- "Net Zero Energy Buildings and Their Effects On Smart Grid", Smart Grid Workshop, Aswan, Egypt, 2019.

#### (d) University Service

• Consultant for uninterruptible power supply (UPS) maintenance and specifications for AAST, from 2014 to 2016

## (e) Service to Profession/Industry

• Consultant for "Fox Power Electronics, Company", Alexandria, Egypt, (2005-2011)

#### 7. LIST OF PUBLICATIONS

# (a) International Refereed Journals (Published)

- [1] "SHUNT EXCITED DOUBLY SALIENT 8/6 SWITCHED RELUCTANCE MACHINE", H. A. Ashour, D. S. Reay and B. W. Williams, The IEE Proceeding on Electrical Power Applications, Vol. 147, 2000.
- [2] "EXPERIMENTAL DRIVE FOR A CNC MILLING MACHINE USING A PC", H. A. Ashour and A. F. Amer, The Engineering Research Journal, Shebin, Egypt, 2002.
- [3] "EMBEDDED CONTROL OF A BOOST UNITY POWER FACTOR SUPPLY WITH A DC MOTOR LOAD", H. A. Ashour, A. A. Khalil and Y.G.Desouky, The Engineering Journal, Alexandria, Egypt 2002.
- [4] "DATA ACQUISITION BASED COMPUTER NUMERICAL CONTROLLED (CNC) MILLING MACHINE", H. A. Ashour, M. M. Farid and A. F. Amer, The Engineering Research Journal, Shebin, Egypt, 2002.
- [5] "AN INTERACTIVE MULTIMEDIA EDUCATIONAL PROGRAM CONCERNING ROTATING MAGNETIC FIELD AS A PART OF AC ELECTRICAL MACHINE TEACHING COURSES", H. A. Ashour, The Journal of AAST, Alexandria, Egypt 2004.
- [6] "TRANSIENT AND STEADY STATE ANALYSIS OF HIGH EFFICIENCY SINGLE-PHASE INDUCTION MOTOR", Y. G. Dessouky and H. A. Ashour, The Engineering Journal of Mansoura Univerity, Mansoura, Egypt 2004.
- [7] "PERFORMANCE CONTROL OF THREE-PHASE INDUCTION MOTOR OPERATED FROM A SINGLE-PHASE SUPPLY", H. A. Ashour and Y. G. Dessouky, The Engineering Journal of Ain-Shams Univerity, Cairo, Egypt 2005.
- [8] "OPERATION ANALYSIS OF LOAD DISTRIBUTION SYSTEM FED FROM THREE BACKUP SOURCES BASED ON PROGRAMMABLE LOGIC CONTROLLER", H. A. Ashour, The Journal of AAST, Alexandria, Egypt, 2006.
- [9] "DRIVING THE UNIVERSAL MOTORS THROUGH A UNIVERSAL PULSE-WIDTH-MODULATED CONVERTER", H. A. Ashour, The Engineering Journa of Alexandria Univ., Egypt, 2006.
- [10] "GENERATION OF DSC-BASED TRUE SINUSOIDAL PWM SIGNALS WITH THE LEAST NUMBER OF VARIABLES FOR SINGLE-, TWO- AND THREE-PHASE INVERTERS", Walid. A. M. Ghoneim and H. A. Ashour, The Engineering Journal of Mansoura Univerity, Mansoura, Egypt 2008.
- [11] "SCADA UPGRADING FOR SHIP INTERNAL SYSTEM MONITORING", Ahmed Abd-El-Ghafar and H. A. Ashour, The MARLOG International Conference, Alexandria, Egypt, 2011.
- [12] "TRANSFORMERLESS UNINTERRUPTIBLE POWER SUPPLY WITH REDUCED POWER DEVICE COUNT", M. I. Marei, I. Abdallah, H. A. Ashour, Journal of Electric Power Components and Systems, 2011.
- [13] "A NOVEL DC-BUS SENSOR-LESS MPPT TECHNIQUE FOR SINGLE-STAGE PV GRID-CONNECTED INVERTERS" M.A. Elsaharty, H. A. Ashour, E. Rakhshani, E. Pouresmaeil and J. P. S. Catalão, Energies Scientific Journal, 2016.
- [14] "PARALLEL OPERATED ROTARY FREQUENCY CONVERTERS WITHIN A SHIP MICRO-GRID SYSTEM", H.A. Ashour, World Academy of Science, Engineering and Technology, International Journal, 2016.

- [15] "RADIAL DISTRIBUTION NETWORK RECONFIGURATION FOR POWER LOSSES REDUCTION USING A MODIFIED PARTICLE SWARM OPTIMIZATION" Inji Ibrahim Atteya, Hamdy A. Ashour, Nagi Fahmi, Danielle Strickland, CIRED-Open Access Proceedings Journal, 2017.
- [16] "ADAPTIVE PROTECTION SCHEME FOR OPTIMALLY COORDINATED RELAY SETTING USING MODIFIED PSO ALGORITHM", Ayatte Ibrahim Atteya, Amani Mohamed El Zonkoly, Hamdy Ahmed Ashour, Journal of Power Technologies, 2017.
- [17] "DETAILED DESIGN PROCEDURES FOR PMSG DIRECT-DRIVEN BY WIND TURBINES" ", Ahmed Hebala, Walid AM Ghoneim and Hamdy A. Ashour, Journal of Electrical Engineering & Technology, Springer, 2019.

# (b) Conference Papers (Published)

- [1] "A FAST-ACTING CURRENT LIMIT FOR A PC-BASED DC DRIVE", H. A. Ashour and A. O. El-Zawawi, The MELECON International Conference, Bari, Italy, 1996.
- [2] "SLIDING MODE SPEED CONTROL OF A SHIFTED FULLY PITCHED SWITCHED RELUCTANCE MACHINE", H. A. Ashour and B. W. Williams, The ICEMS International Conference, Shenyang, China, 2001.
- [3] "IMPLEMENTATION OF A COMPUTER-BASED FUZZY-LOGIC CONTROLLER ON A THERMAL PROCESS", M. A. El-Gelil, A. F. Amer and H. A. Ashour, The ICCAT International Conference, Alexandria, Egypt, 2001.
- [4] "PERFORMANCE ENHANCEMENT OF A THERMAL PROCESS USING A DIGITAL PID CONTROLLER", M. A. El-Gelil, A. F. Amer and H. A. Ashour, The ICCAT International Conference, Alexandria, Egypt, 2001.
- [5] "POWER FACTOR IMPROVEMENT OF A BOOST CONVERTER SUPPLING A DC MOTOR", A. A. Khalil, H. A. Ashour and Y.G.Desouky, The ICCAT International Conference, Alexandria, Egypt, 2002.
- [6] "PARTIAL MODIFICATION FOR SYSTEM ENHANCEMENT OF THE CATALYST REGENERATION SYSTEM", A. K. El-Gwad, H. A. Ashour and E. E. Zakzouk, The CCA International Conference, Istanbul, Turkey, 2003.
- [7] "SIMULATION AND EXPERIMENTAL IMPLEMENTATION OF A THREE-PHASE INDUCTION MOTOR DIGITAL PROTECTION SET", H. A. Ashour and H. El-Desouki, The MEPCON International Conference, Shebin, Egypt, 2003.
- [8] "AUTOMATIC TRANSFER SWITCH (ATS) USING PROGRAMMABLE LOGIC CONTROLLER (PLC)", H. A. Ashour, The ICM International Conference, Istanbul, Turkey, 2004.
- [9] "MODELING AND IMPLEMENTING OF AN ELECTRONIC PERCENTAGE DIFFERENTIAL RELAY IMPLYING A STATIC SWITCH", H. A. Ashour, The ICEEC International Conference, Ain-Shams, Egypt, 2004.
- [10] "STEPPED SINE WAVE SUPPLY FOR POWER APPLICATIONS" H. A. Ashour and A. El-Shazely, The ICCAT International Conference, Alexandria, Egypt, 2004.
- [11] "LOW COST THREE-PHASE EMERGENCY POWER SUPPLY", H. A. Ashour and A. El-Shazely, The CIRED International Conference, Turin, Greece, 2005.
- [12] "A NOVAL REVERSABLE DC SERIES MOTOR DRIVE", H. A. Ashou, Y. G. Dessouky and A. A. Abou-Shady, The IEC International Conference, Sharm El-Shikh, Egypt, 2006.
- [13] "HIGH STARTING PERFORMANCE SEPARATELY EXCITED DC MOTOR", Y. G. Dessouky, H. A. Ashour and Amany M. El-Zonkol, The ICCTA International Conference, Alexandria, Egypt, 2006.

- [14] "COMPARISON ANALYSIS OF AC VOLTAGE CONTROLLERS BASED ON EXPERIMENTAL AND SIMULATED APPLICATION STUDIES", H. A. Ashour and Rania. A. Ibrahim, The ICCES International Conference, Ain-Shams, Egypt, 2006.
- [15] "OPERATION CONTROL OF MULTILEVEL INVERTERS FOR INDUCTION MOTORS", H. A. Ashour, Yasser G. Dessouky and Samia A. Mahmoud, The ICCAT International Conference, Alexandria, Egypt, 2007.
- [16] "IMPLEMENTATION AND ANALYSIS OF MICROCONTROLLER BASED SOFT STARTERS FOR THREE PHASE INDUCTION MOTORS" H. A. Ashour and Rania. A. Ibrahim, The EUOROCON2007 International Conference, Warsaw, Poland, 2007.
- [17] "A NEW ELECTRONIC STEP-UP/DOWN VOLTAGE STABILIZER TOPOLOGY BASED ON H-BRIDGE AC CHOPPER", H. A. Ashour, The MEPCON 08 International Conference, Aswan, Egypt, 2008.
- [18] "A SIMPLE SCADA SYSTEM FOR SOFT STARTING/STOPPING OF MULTI INDUCTION MOTORS USING A SINGLE SOFT STARTER", H. A. Ashour, The ICCAT International Conference, Alexandria, Egypt, 2008
- [19] "A NOVEL SPACE VECTOR MODULATION BASED 3-PH HIGH PERFORMANCE TRANSFORMER-LESS UPS", H. A. Ashour, Ibrahim Abdallah and Mostafa I. Marei, The ICCAT International Conference, Alexandria, Egypt, 2009.
- [20] "ENERGY SAVING THROUGH SMART HOME", Inji I. Attia and H. A. Ashour, World Congress Power Electric and Electronic Engineer, Alexandria, Egypt, 2010.
- [21] "DIGITAL HYSTERESIS CURRENT CONTROL FOR GRID- CONNECTED CONVERTERS WITH LCL FILTER", M.A.Elsaharty, M.S.Hamad and H.A.Ashour, The IECON International Conference, Melbourne, Australia, 2011.
- [21] "SCADA UPGRADING FOR SHIP INTERNAL SYSTEM MONITORING", Ahmed Abd-El-Ghafar and H. A. Ashour, The MARLOG International Conference, Alexandria, Egypt, 2011.
- [23] "TRANSFORMERLESS UNINTERRUPTIBLE POWER SUPPLY WITH REDUCED POWER DEVICE COUNT", M. I. Marei, I. Abdallah, H. A. Ashour, Journal of Electric Power Components and Systems, 2011.
- [24] " ENERGY REDUCTION WITHIN HOME AUTOMATION BASED ON PARTICLE SWARM OPTIMIZATION", Inji Ibrahim and H. A. Ashour, The MEPCON International Conference, Alexandria, Egypt, 2012
- [25] "REDUCED VOLTAGE COMBINED AC MOTOR AND DRIVE SYSTEM FOR SAFE ELECTRIC VEHICLE", Tarek Aglan and H. A. Ashour, The REVET International Conference, Tunisia, 2012
- [26] "LOAD SHARING REALIZATION OF PARALLEL OPERATED SYNCHRONOUS GENERATORS WITHIN SHIP MICRO-GRID USING MICRO-CONTROLLERS", A. I. Abu-Amin, H. A. Ashour and M.M El-Attar, The MARLOG International Conference, Alexandria, Egypt, 2013.
- [27] "MAXIMUM POWER POINT TRACKING FOR IRREGULAR IRRADIANCE OF A PHOTOVOLTAIC ARRAY", H. EI-Helw, M. Hassanein and H.A.Ashour, The EEEIC2013, International Conference, Wroclaw, Poland, 2013.
- [28] "REALIZATION OF ADAPTABLE PID CONTROLLER WITHIN AN INDUSTRIAL AUTOMATED SYSTEM", M. Abdel-Geliel, F. Qaud, H.A. Ashour, the ICCA International Conference, Spain, 2014
- [29] "PASSIVE L AND LCL FILTER DESIGN METHOD FOR GRID-CONNECTED INVERTERS", M.A. Elsaharty and H.A. Ashour, the ISGT Asia International Conference, Malaysia, 2014
- [30] "AN EFFICIENT UNITY POWER FACTOR BATTERY CHARGING/DISCHARGING UNIT", A. El-Najar, M. Abdel-Galiel and H.A.Ashour, the ISGT Asia International Conference, Malaysia, 2014

- [31] "OPTIMAL ALLOCATION, SIZING AND ENERGY MANAGEMENT OF PHEV PARKING LOTS IN DISTRIBUTION SYSTEM", A. El-Zonkoly, H. A. Ashour and A. Ahmed, The IREC International Conference, Tunisia, 2014
- [32] "BATTERY-LESS HYBRID MICRO-GRID POWER MANAGEMENT USING BI-DIRECTIONAL THREE PHASE POWER CONVERTER", M. I. Nassif, H.A.Ashour and H Desouki, The ICDCM, International Conference, USA, 2015.
- [33] "REALIZATION OF DC BUS SENSORLESS MPPT TECHNIQUE FOR A SINGLE STAGE PV GRID CONNECTED INVERTER", M.A. Elsaharty and H.A. Ashour, The CIRED International Conference, France, 2015.
- [34] " DSP-BASED SIMPLE TECHNIQUE FOR SYNCHRONIZATION OF 3 PHASE ALTERNATORS WITH ACTIVE AND REACTIVE POWER LOAD SHARING", M. I. Nassif, H.A.Ashour and H Desouki, the ICEMS International Conference, Japan, 2016.
- [35] "DISTRIBUTION NETWORK RECONFIGURATION IN SMART GRID SYSTEM USING MODIFIED PARTICLE SWARM OPTIMIZATION", Inji Atteya, Hamdy A. Ashour, Nagi Fahmi, and Danil Strickland, The ICRERA, International Conference, UK, 2016.
- [36] "A COMPARATIVE STUDY OF WINDING CONFIGURATION EFFECT ON THE PERFORMANCE OF LOW SPEED PMSG USING FEM", W.A. Ghoneim, A. Hebala, H A. Ashour, MEPCON IEEE Int. Conf. Helwan, Egypt, 2016.
- [37] "INTELLIGENT, LOW-COST AND ENERGY-EFFICIENT DRIVE FOR INDUCTION MOTOR-BASED FLUID PUMPING SYSTEMS USING GENERAL PURPOSE MICROCONTROLLERS" W.A. Ghoneim, H. A. Ashour, M. El. Quersh, EEEIC, IEEE 1 Conf. Florence, Italy, 2016.
- [38] "DSP-BASED SIMPLE TECHNIQUE FOR SYNCHRONIZATION OF 3 PHASE ALTERNATORS WITH ACTIVE AND REACTIVE POWER LOAD SHARING" ', M. I. Nassef, H.A. Ashour, H. Desouki, ICEMS, IEEE Int. Conf., Chiba, Japan, 2016
- [39] "MULTI-OBJECTIVE PARTICLE SWARM OPTIMIZATION OF WIND TURBINE DIRECTLY CONNECTED PMSG", A. Hebala, W.A. Ghoneim, H A. Ashour, MEPCON IEEE Int. Conf. Helwan, Egypt, 2017.
- [40] "OPTIMAL RELAY COORDINATION OF AN ADAPTIVE PROTECTION SCHEME USING MODIFIED PSO ALGORITHM", Ayatte I Atteya, Amany M El Zonkoly, Hamdy A Ashour, MEPCON IEEE Int. Conf. Helwan, Egypt, 2017.
- [40] "DIFFERENT DESIGN APPROACHES OF SURFACE MOUNTED HIGH PERFORMANCE PMSG", Ahmed Hebala, Walid AM Ghoneim, Hamdy A Ashour, ACCS IEEE Int. Conf. Alexandria, Egypt, 2017.
- [41] "ANALYSIS AND IMPLEMENTATION OF DISCRETE SPWM SIGNALS FOR GRID-CONNECTED INVERTER WITH LCL FILTER", Mohamed Maghraby, Hamdy A Ashour, Ahmed A Hossam Eldin, MEPCON IEEE Int. Conf. Helwan, Egypt, 2017.
- [42] "PERFORMANCE IMPROVEMENT OF AUTOMATIC TENSION CONTROL IN MULTI COORDINATE DRIVE SYSTEMS FOR INDUSTRIAL PAPER WINDER", Moaz A Abd-Eiraouf, Ahmed Ei-Shenawy, Hamdy A Ashou, MEPCON IEEE Int. Conf. Helwan, Egypt, 2017.
- [43] "SYNCHRONOUS GENERATOR STATOR EARTH FAULT CLASSIFICATION AND LOCATION USING WAVELET TRANSFORM AND ANFIS", Amany H Helal, Ehab F Badran, Hamdy A Ashour, MEPCON IEEE Int. Conf. Helwan, Egypt, 2017.
- [44] "NET-ZERO-ENERGY AUTOMATED BIO-DIESEL PRODUCTION UNIT", Waseem W Saad, Ahmed Hebala, Hamdy A Ashour, ACCS IEEE Int. Conf Alexandria, Egypt, 2017.
- [45] "DETAILED DESIGN PROCEDURES FOR LOW-SPEED, SMALL-SCALE, PMSG DIRECT-DRIVEN BY WIND TURBINES" Ahmed Hebala, Walid AM Ghoneim, Hamdy A Ashour, ICEM IES Int. Conf. Greece, 2018

[46] "SENSITIVITY ANALYSIS OF PARAMETERS AFFECTING THE PERFORMANCE OF RADIAL FLUX LOW-SPEED PMSG", Walid AM Ghoneim, Ahmed Hebala, Hamdy A Ashour, ICEM IES Int. Conf. Greece, 2018.

[47] "A DESIGN OF AN AXIAL FIELD PERMANENT MAGNET GENERATOR FOR SMALL-SCALE WATER TURBINES-FOCUS ON STACKING FACTOR EFFECTS ON PERFORMANCE", Walid AM Ghoneim, Mohamed Hussein, Hamdy A. Ashour, ICMSAO, Int. Conf. Bahrain, 2019.

[48] "A COMPREHENSIVE STUDY OF PROPOSED LINEAR DESIGN PROCEDURES FOR LOW-SPEED AXIAL-FIELD PMSG", Walid AM Ghoneim, Mohamed Hussein, Hamdy A. Ashour, ICMSAO, Int. Conf. Bahrain, 2019.

[49] "PRACTICAL VALIDATION OF PLC-BASED SENSOR-LESS WINDER TENSION CONTROL", Hamdy A. Ashour, Moaz A. Abd-Elraouf, Ahmed El-Shenawy, EEEIC/I&CPS, Int. Conf. Italy , 2019.

[50] "MPPT AND DEAD-BEAT CONTROL FOR POWER MANAGEMENT OF HYBRID MICRO-GRID APPLICATIONS", A. Hossam-Eldin, Hamdy A. Ashour, Maghraby, Mohamed, CIRED, Int. Conf. Spain , 2019.

## (c) Books

Authors, Title of Book/Chapter, Publisher (Country), Pages, Year

- "Automated Systems and Programmable Logic Controllers", by Prof. Hamdy Ahmed Ashour, Copyright © 2013, ISBN: 978-977-90-0924-7, Alexandria, Egypt, 2013.
- "Advanced Automated and Smart Systems: Embedded, PLC, PC-Based, SCADA, DCS and Industrial Communications", by Prof. Hamdy Ahmed Ashour, © 2017, ISBN: 978-977-726-212-5, Alexandria, Egypt, 2017.

#### 8. REFERENCES

- Prof. Barry Williams, University of Strathclyde, Glasgow, UK, <u>barry.williams@strath.ac.uk</u>
- Prof. Magdy El-Attar, Alexandria University, Alexandria, Egypt, magattar2008@yahoo.com
- Prof. Ahmed Amer, AAST, Alexandria, Egypt, <a href="mailto:aamer@aast.edu">aamer@aast.edu</a>