

## CURRICULUM VITAE

Personal Information			
<b>Full Name</b>	Ali Zafari	Nationality	Iranian
<b>Date of birth</b>	19 Jul 1983	Sex	Male
<b>Place of Birth</b>	Iran		
Contact Information			
<b>Email (Primary)</b>	azafari@iauneka.ac.ir		
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<b>Google Scholar</b>	<a href="https://scholar.google.com/citations?user=ejiD14EAAA&amp;hl=en">https://scholar.google.com/citations?user=ejiD14EAAA&amp;hl=en</a>		
<b>LinkedIn</b>	<a href="https://www.linkedin.com/in/ali-zafari">https://www.linkedin.com/in/ali-zafari</a>		

### EDUCATION

- 2012 - 2017** Ph.D. degree in Electrical Engineering-Power system from Semnan University, Semnan, Iran  
**Thesis Title:** Design and Control of Active Filters in Novel Hybrid Structures
- 2006 - 2008** Master degree in Electrical Engineering-Power system from Islamic Azad University, Najafabad Branch, Isfahan, Iran  
**Thesis Title:** Analysis of Voltage Flicker Phenomenon and Review of its mitigation Methods Using FACTS Devices
- 2001 - 2006** Bachelor degree in Electrical Engineering-Control system from Sahand University of Technology of Tabriz, East Azerbaijan, Iran

### EMPLOYMENT

- 2010 -2017** Lecturer at Islamic Azad University (IAU)
- 2017-Present** Assistant Professor at IAU
- 2013- Present** Designer and supervisor of Construction Engineering Organization, Mazandaran, Iran

### EXECUTIVE RECORDS

- 2019 - Present** Senior Member of Research council of the University
- 2015** Member of the Start-up Committee of the IAU, Neka Branch incubator
- 2014 -2016** Head of the Department of electrical engineering at IAU, Neka Branch
- 2012 - 2015** Head of Young Researchers & Elite Club at IAU, Neka Branch

## HONORS & AWARDS

- 2020** Outstanding paper award at 2nd of Global Power, Energy and Communication Conference, GPECOM2020, October 20-23, 2020 in Ephesus, Izmir Turkey
- 2020** Invited Editor of journal and keynote speaker at conferences
- 2011 & 2013 & 2017** Top researcher of the Department of Engineering at Islamic Azad University (IAU), Neka Branch
- 2016** Receiving a scholarship from the “Ministry of Science, Research and Technology” for a sabbatical leave at Polytechnic University of Madrid (UPM)
- 2012** 2th rank in the national doctoral exam
- 2012** Receiving a scholarship from the “Ministry of Science, Research and Technology” for Ph.D. in Babol Noshirvani University of Technology (BUT)
- 2012** Receiving the “Certificate of Appreciation” from the superior presidency of the Young and Elite Researchers Club
- 2011** Selected paper at “International Journal of Electrical, Computer, Energetic, Electronic and Communication Engineering” for publication in “International Journal of Electrical, Computer, Energetic, Electronic and Communication Engineering”
- Since 2010** Receiving several “Certificates of Appreciation” as a lecturer and researcher from IAU
- 2008** Selected paper at “International Conference on Electrical Engineering Design and Technologies (ICEEDT'08)” for publication in “Journal of Electrical Systems”, (JES)-(ISI-Q3)

## PROFESSIONAL QUALIFICATIONS

- 2016** Visiting Researcher in the “Center of Industrial Electronics (CEI)” at Polytechnic University of Madrid for 6 months under supervision of professor Pedro Alou
- 2013-Present** Supervising several theses as case studies in industry
- 2013- Present** Design of electrical installations
- 2012- Present** Doing Several Research projects
- 2012-2015** Member of the “Young and Elite Researchers Club” at IAU
- 2011- Present** Presenting specialized seminars and workshops in industry with the "Energy" subject.
- 2011- Present** Reviewer of papers in valuable journals
- 2010-Present** Attending several specialized workshops with the subject of research and teaching skills held by IAU. (with the certificate)
- 2008-Present** Working at Power Electronics Lab
- 2008-Present** Teaching bachelor and Master courses
- 2008-2011** Member of the “Iranian Association of Electrical and Electronics Engineers (IAEEE)”

## SEMINARS & WORKSHOPS

	<b>Subject</b>	<b>Audience</b>	<b>Location</b>
2019	Electrical Energy Consumption Management	Industrial workers, Technician and engineers	Electrical Distribution Company
2019	Electrical Energy Consumption Management	Industrial workers, Technician and engineers	Steel Factory
2019	Microgrid Concept in Distributed Generation-Based Active Distribution Systems	Students and faculty members	IAU
2018	Electrical Energy Consumption Management	Industrial workers, Technician and engineers	MDF Factory
2017	Electrical Energy Consumption Management	Industrial workers, Technician and engineers	Cement Factory
2016	FACTS Devices	Students and faculty members	IAU
2016	Implementation Of Shunt Active Power Filter (SAPF) For Elimination Of Current Harmonics	Students and faculty members	Center of Industrial Electronics (CEI) at Polytechnic University of Madrid
2011	Introduction of Disturbances in Power Supply Grids and Review of STATCOM Operation as a Modern Technique for Flicker Mitigation	Students and faculty members	IAU

### RESEARCH PROJECTS

	<b>Project Name</b>	<b>Contribution</b>		
		<b>Manager</b>	<b>Colleague</b>	<b>Supervisor</b>
<b>2020</b>	Determination of Optimal Topology for Sample Distribution Grid in the Presence of Distributed Generation Resources With the Aim of Voltage Drop Reduction Using GIS Data- Case Study in Mazandaran, Iran			✓
<b>2020</b>	Optimal Design of Photovoltaic-Wind and Battery Hybrid System in a Sampled Distribution System by Using Biography- Based Algorithm- Case Study in Mazandaran, Iran			✓
<b>2019</b>	Design of Thyristor Switched capacitor (TSC) for sample 230 KV transmission line with the aim of voltage profile improvement- Case Study in Mazandaran, Iran			✓
<b>2019</b>	Criteria For Selection Of Current Source Converter (CSC) Or Voltage Source Converter (VSC) in Active Power Filter (APF) Structure	✓		
<b>2018</b>	The Feasibility Study Of Installation Of Thyristor Controlled Reactor (TCR) In 230 Substation For Voltage Regulation-Case Study In Dehak, Mazandaran, Iran			✓
<b>2017</b>	Optimization of tilt angle of Solar Panels – Case Study in Mazandaran, Iran			✓
<b>2015</b>	Determination of Optimal Bidding Strategy For Power Generation at Electricity Market Using an Agent-Based Method		✓	

2014	Chaos System Control Using Fractional Order Strategy Considering Stochastic Parameter	✓
2012	Optimal Operation of Induction Furnace Considering Its Capacitor Design Based On Bacterial Foraging Algorithm	✓
2011	Energy Consumption Management at Islamic Azad University Of Neka Branch	✓

## PUBLICATIONS

Year	Title	Publisher	Quality
2021	<a href="#">Passivity ANFIS-Based Control for an Intelligent Compact Multilevel Converter</a>	IEEE Transactions on Industrial Informatics (TII)	<a href="#">Q1</a> Impact Factor: 9.112
2020	<a href="#">Design and Control of a Novel hybrid Active Power Filter based on Load Harmonic Currents Separation with the aim of DC-link voltage minimization in voltage source converter</a>	Iranian Electric Industry Journal of Quality and Productivity (IEIJQP)	Research Scientific journal and indexed by Islamic world Science citation Center (ISC)
2019	<a href="#">Criteria for Selection of Current or Voltage Source Converter in Shunt Active Power Filter Structure</a>	Emerald World Journal of Engineering	<a href="#">Q3</a> Impact Factor: 0.5
2019	<a href="#">A Novel Structure of Efficient Hybrid Filter Based on Separation of the frequency reference current for Compensation Harmonic and Reactive power in Distribution Network</a>	Iranian Electric Industry Journal of Quality and Productivity (IEIJQP)	Research Scientific journal and indexed by Islamic world Science citation Center (ISC)
2019	<a href="#">Loss Analysis in a Unified Shunt Active Filter Based on VSC and CSC (VCSC Scheme)</a>	Tabriz Journal Of Electrical Engineering (TJEE)	Research Scientific journal and indexed by Islamic world Science citation Center (ISC)
2017	<a href="#">A novel structure of hybrid active power filter based on voltage-current source converter (VCSC-HAPF)</a>	Wiley International Transactions on Electrical Energy Systems	<a href="#">Q2</a> Impact Factor: 1.692
2017	<a href="#">Conceptual design of an efficient unified shunt active power filter based on voltage and current source converters</a>	Elsevier Energy	<a href="#">Q1</a> Impact Factor: 6.082
2016	<a href="#">STATCOM systems in distribution and transmission system applications: a review of power-stage topologies and control methods</a>	Wiley International Transactions on Electrical Energy Systems	<a href="#">Q2</a> Impact factor: 1.692
2014	<a href="#">Calculation of optimal induction heater capacitance based on the smart bacterial foraging algorithm</a>	Elsevier International Journal of Electrical Power & Energy Systems	<a href="#">Q1</a> Impact Factor: 3.588
2012	<a href="#">Evaluation of the performance of intelligent spray networks based on fuzzy logic</a>	Research Journal of Recent Sciences	Non ISI
2011	<a href="#">Simulation and analysis of the harmonic behavior of matrix converters as compared with conventional converters</a>	International Journal of Physical Sciences	Non ISI

2011	<a href="#">Mitigation of Flicker using STATCOM With Three-Level 12-pulse Voltage Source Inverter</a>	International Journal of Electrical, Computer, Energetic, Electronic and Communication Engineering	Selected Paper in ICEPES, 2011
2010	<a href="#">A novel algorithm for determination of reactive currents in STATCOM for voltage flicker mitigation</a>	Journal of Electrical Systems (JES)	ISI-Q3, Selected Paper in ICEEDT, 2008

#### CONFERENCE PRESENTATION

	<b>Title</b>	<b>Event</b>	<b>Location</b>
2021	A Novel Reference Current Detection Algorithm (RCDA) in 9-Level PEC Converter-based Shunt Active Power Filter	22nd IEEE International Conference on Industrial Technology, IEEE ICIT2021	Valencia, Spain
2020	<a href="#">DC-Link Voltage Stability-Based Control Strategy for Grid-Connected Hybrid AC/DC Microgrid</a>	2 <sup>nd</sup> global Power, Energy and Communication Conference, GPECOM2020	Ephesus, Izmir Turkey <i>(Selected for an outstanding paper award)</i>
2019	Load-Frequency Control Via Optimal Fractional PID with Genetic Algorithm	5 <sup>th</sup> International conference on Applied Research in Electrical, Mechanical & Mechatronics Engineering	Tehran, Iran
2019	Analysis and Control of Ferroresonance Phenomenon in Voltage Transformer and Study of the Method of Reduction	5 <sup>th</sup> International conference on Applied Research in Electrical, Mechanical & Mechatronics Engineering	Tehran, Iran
2019	High gain Transformerless Boost Converter	The second international conference on interdisciplinary research in electrical engineering, computers, mechanics and mechatronics in Iran and the Islamic world	Karaj, Iran
2019	A Novel Design of optimal reactive power generation with the aim of Power Reduction in Electrical Market	The second international conference on interdisciplinary research in electrical engineering, computers, mechanics and mechatronics in Iran and the Islamic world	Karaj, Iran
2019	Control and Synchronization of Chaotic Systems and Electronic Implementation	6 <sup>th</sup> Iranian congress on electrical and computer Engineering With an applied Perspective on New Energy	Tehran, Iran
2019	Optimal PID Controller Chopper Design for DC Motor Drive via Genetic Algorithm	6 <sup>th</sup> Iranian congress on electrical and computer Engineering With an applied Perspective on New Energy	Tehran, Iran
2012	Optimal Calculation of Induction Heater Capacitance with considering of reduced losses caused by equivalent capacitive resistance Using Bacteria Foraging Algorithm	3 <sup>rd</sup> Electrical Energy Consumption and Optimization (EECO)	Ahvaz, Iran
2012	Harmonic control in nonlinear loads and its effect on the efficiency of distribution and Low voltage networks	1 <sup>st</sup> National Conference on New Ideas in Electrical Engineering (NCNIEE)	Khorasgan, Iran
2012	Harmonic Study of Power Converters Using Fourier Analysis	1 <sup>st</sup> National Conference on Mathematics and Its Application in Engineering Sciences	I.A.U, Joubar, Iran

2011	Mitigation of Flicker using STATCOM With Three-Level 12-pulse Voltage Source Inverter	International Conference on Electrical Power and Energy Systems (ICEPES)	Dubai , United Arab Emirates
2008	A Novel Algorithm for Determination of Reactive Currents in STATCOM for Voltage Flicker Mitigation	International Conference on Electrical Engineering Design and Technologies (ICEEDT)	Hammamet, Tunisia

**Note:** Several papers have been presented at Regional Conferences on Electrical Engineering in Iran

#### REVIEWING EXPERIENCE

- IET-Power Electronics
- IET Generation, Transmission & Distribution (GTD)
- Electric Power Components and Systems (EPCS)
- 5th IEEE Conference on Control Technology and Applications (CCTA)
- International Transaction on Electrical and Energy Systems (ITEES)
- IEEE Multi-Conference on Systems and Control
- Iranian Electric Industry Journal of Quality and Productivity (IEIJQP) (ISC)