

## Conference Schedule

Events				Place	Time
Opening Ceremony				Kharazmi Hall	9:00-10:30
Break				Kharazmi Hall	10:30-11:00
Keynote Speech 1 (Dr. Garbuio)				Kharazmi Hall	11:00-12:00
Webinar from France				Moayeri Hall	
Lunch				Baharan Restaurant	12:00-13:30
<b>Oral Presentation</b>				Classroom Building Ground Floor	13:30-15
Session A1 (room 106)	Session A2 (Moayeri Hall)	Session A3 (room 108)	Session A4 (room 110)		
Break & Poster Presentation I				Classroom Building 1 <sup>st</sup> Floor	15:00-15:30
<b>Oral Presentation</b>				Classroom Building Ground Floor	15:30-17:00
Session B1 (room 108)	Session B2 (room 110)	Session B3 (room 104)	Session B4 (room 106)		
Panel A: Plagiarism- Awareness and Prevention				Amirkabir Hall	17:00-18:00
Shiraz Metro Tour and Old Shiraz Sightseeing				Shiraz Metro & Old Districts of Shiraz	18:00-19:30

Day 1: Wednesday, 13 February 2019

Events				Place	Time
<b>Oral Presentations</b>				Classroom Building Ground Floor	<b>9:00-10:30</b>
Session C1 (room 108)	Session C2 (room 104)	Session C3 (room 106)	Session C4 (room 110)		
Break & Poster Presentation II				Classroom Building 1 <sup>st</sup> Floor	<b>10:30-11:00</b>
Keynote Speech 2 (Prof. Schanen)				Amirkabir Hall	<b>11:00-12:00</b>
Lunch				Baharan Restaurant	<b>12:00-13:30</b>
<b>Oral Presentation</b>				Classroom Building Ground Floor	<b>13:30-15:00</b>
Session D1 (room 104)	Session D2 (room 106)	Session D3 (room 108)	Session D4 (room 110)		
Break				Kharazmi Hall	<b>15:00-15:30</b>
Panel B: Power Electronics Society of Iran (PESI)				Kharazmi Hall	<b>15:30-16:30</b>
Closing Ceremony				Kharazmi Hall	<b>16:30-17:30</b>

**Day 2: Thursday, 14 February 2019**

## Articles Presentation Schedule

Wednesday, 13 Feb. 2019

Session A1: **Electrical Machines Design**

Session Chairs: **Dr. Rahideh, Dr. Allahbakhshi**

	Time	Code	Title
1	13:30-13:45	EA-03-12	Design of outer rotor synchronous reluctance motor for scooter application
2	13:45-14:00	EA-01-143	Impact of Stator and Rotor Teeth Parameters on Operation and Characteristics of Flux Reversal machine
3	14:00-14:15	EA-01-46	Comparative Analysis of External-Rotor Permanent Magnet Assisted Synchronous Reluctance Motor
4	14:15-14:30	EA-01-99	Power Density Optimization Through Optimal Selection of PM Properties in a PM-SyncRM Using FEM Analysis
5	14:30-14:45	EA-01-171	A Novel Quad-Leg Transverse-Flux Permanent Magnet Linear Motor for 3-D Printer Applications
6	14:45-15:00	EA-01-69	Modified Unipolar Hybrid Permanent Magnet Vernier Machine using Halbach Array Configuration

Session A2: **Models for Optimization in Power Electronics and Drives**

Session Chairs: **Dr. Tahami, Dr. Setoudeh**

	Iran Time	France Time	Code	Title
1	13:30-13:50	11:00-11:20	PC-12-120	Axial flux machine design taking into account cooling and convection heat transfer model
2	13:50-14:10	11:20-11:40	PC-01-40	Enhance-Boost Switched-Capacitor/Inductor QZSI with High Step-up Pulse Width Modulation
3	14:10-14:30	11:40-12:00	PC-10-62	Impact of the number of phases on the power density of a multiphase inverter for electric vehicle drive
4	14:30-14:50	12:00-12:20	EA-02-18	Energy Saving of Evaporative Coolers using Permanent Magnet Brushless Motor Drive Technology
5	14:50-15:10	12:20-12:40	PC-10-63	Optimal Design of an AC Filtering Inductor for a 3-Phase PWM Inverter including saturation effect
6	15:10-15:30	12:40-13:00	EA-02-153	Improvement of Performances of a Switched Reluctance Machine by Adding a Floating Switched Capacitor

Wednesday, 13 Feb. 2019

**Session A3: Stand-alone Converters**

**Session Chairs: Dr. Mohammadi, Dr. Arabkhaburi**

	<b>Time</b>	<b>Code</b>	<b>Title</b>
<b>1</b>	13:30-13:45	PC-09-135	Boost type Partial Power Z-Source Converter
<b>2</b>	13:45-14:00	PC-09-179	Neural Network based Maximum Power Point Tracking Technique for PV Arrays in Mobile Applications
<b>3</b>	14:00-14:15	PC-09-170	Controller Design for a Wind Turbine-Based Variable Speed Permanent Magnet Synchronous Generator Using Quasi-Z-Source Inverter in Stand-Alone Operation
<b>4</b>	14:15-14:30	PC-08-190	A Transformerless Quadratic Buck-Boost Converter Suitable for Renewable Applications
<b>5</b>	14:30-15:45	PC-08-192	DTC based BLDC Motor Controlled Centrifugal Pump Fed by PI-SMC-BFO Tuning Strategy for Buck-Boost Converter in Solar PV Array Water Pumping System

**Session A4: DC-DC Converters I**

**Session Chairs: Dr. Tavakolibina, Dr. Zolghadri**

	<b>Time</b>	<b>Code</b>	<b>Title</b>
<b>1</b>	13:30-13:45	PC-07-146	Evaluation and Comparison of Conducted EMI in Three Full Bridge DC-DC Switching Converters
<b>2</b>	13:45-14:00	PC-01-76	New Non-Isolated High Voltage Gain Single-Switch DC-DC Converter Based on Voltage-Lift Technique
<b>3</b>	14:00-14:15	PC-01-109	A new two-input and multi-output Interleaved DC_DC boost converter for satellites power system
<b>4</b>	14:15-14:30	PC-01-59	A New High-Step-Up DC-DC Converter using Three-Windings Transformer and Soft-Switching for use in Photovoltaic Systems
<b>5</b>	14:30-14:45	PC-01-110	A Soft-Switched High Step-Up DC-DC Converter Using Voltage Multiplier Cells
<b>6</b>	14:45-15:00	PC-01-64	Design of a High Efficiency and High Voltage Gain Extendable Non-Isolated Boost DC-DC Converter

Wednesday, 13 Feb. 2019

**Session B1: Electric Drives I**

Session Chairs: **Dr. Samet, Dr. Allahbakhshi**

	<b>Time</b>	<b>Code</b>	<b>Title</b>
<b>1</b>	15:30-15:45	EA-02-75	Robust Predictive Current Control for a Dual Inverter Fed Open-End Winding Induction Motor
<b>2</b>	15:45-16:00	EA-02-115	A New Space Vector Modulation Technique for Reducing Switching Losses in Induction Motor DTC-SVM Scheme
<b>3</b>	16:00-16:15	EA-02-65	Stator Flux Oriented Control of Brushless Doubly Fed Induction Motor Drives Based on Maximum Torque per Total Ampere Strategy
<b>4</b>	16:15-16:30	EA-02-138	A Novel Space Vector Modulation Strategy for Direct Torque Control of Induction Motors
<b>5</b>	16:30-16:45	EA-02-66	Predictive Direct Torque Control with Reduced Number of Considered States in Synchronous Reluctance Motor Drive
<b>6</b>	16:45-17:00	EA-03-84	Magnetic and Thermal Analysis of Switched Reluctance Machines Integrated Battery Chargers

**Session B2: Control of Power Electronic Converters**

Session Chairs: **Dr. Mardaneh, Dr. Rajaei**

	<b>Time</b>	<b>Code</b>	<b>Title</b>
<b>1</b>	15:30-15:45	PC-10-60	High Efficiency Electric Vehicle Fast Charging
<b>2</b>	15:45-16:00	PC-10-52	Robust and Global Asymptotic Stable Controller for Boost AC-DC Converter
<b>3</b>	16:00-16:15	PC-10-147	A Step by Step Design Procedure of PR controller and Capacitor Current Feedback Active Damping for a LCL-Type Grid-tied T-Type Inverter
<b>4</b>	16:15-16:30	PC-07-145	A Novel Current Observer based on Fourier series for Model Predictive Control System using DVR
<b>5</b>	16:30-16:45	PC-01-106	Simulation of a Step-up Resonant Switched-Capacitor Converter under the CCM Operation Mode
<b>6</b>	16:45-17:00	PC-01-199	A Fault-Tolerant Strategy for Three-Phase Dual Active Bridge Converter

Wednesday, 13 Feb. 2019

**Session B3: Grid-connected Inverters**

Session Chairs: **Dr. Rastegar, Dr. Zolghadri**

	Time	Code	Title
1	15:30-15:45	PC-09-181	An Improved Combined Control for PMSG-Based Wind Energy Systems to Enhance Power Quality and Grid Integration Capability
2	15:45-16:00	PC-09-191	Power Quality Improvement Using Virtual Flux Combined Control of Grid Connected Converters under Balanced and Unbalanced Grid Operation
3	16:00-16:15	PC-08-20	Improved Direct Power Control of DFIG Wind Turbine by using a Fuzzy Logic Controller
4	16:15-16:30	PC-07-202	Analyzing Delay-Power Relationship of the Grid-Connected Inverters in System Small Signal Stability
5	16:30-16:45	PC-07-79	Power Quality Compensation and Power Flow Control in AC Railway Traction Power Systems

**Session B4: PV Converters I**

Session Chairs: **Dr. Tavakolibina, Dr. Mohammadi**

	Time	Code	Title
1	15:30-15:45	PC-09-4	Fuzzy Control of a Photovoltaic Power Plant
2	15:45-16:00	PC-04-206	A Single DC-Source Five-Level Inverter Applied in Stand-Alone Photovoltaic Systems Considering MPPT Capability
3	16:00-16:15	PC-04-101	A five-switch active NPC with low output voltage THD for photovoltaic applications
4	16:15-16:30	PC-04-70	Active and Reactive Power Control Strategy of the Modular Multilevel Converter for Grid-Connected Large Scale Photovoltaic Conversion Plants
5	16:30-16:45	PC-01-210	A New Transformerless Common-Ground Single-Phase Inverter for Photovoltaic Systems

Thursday, 14 Feb. 2019

## Session C1: Special Applications I

Session Chairs: **Dr. Mohammadi, Dr. Arabkhaburi**

	Time	Code	Title
1	09:00-09:15	EA-05-74	State Estimation for Sensorless Control of BLDC Machine with Particle Filter Algorithm
2	09:15-09:30	EA-05-38	Selection of Excitation Signal Waveform for Improved Performance of Wound-Rotor Resolver
3	09:30-09:45	EA-05-39	Design Considerations of Multi-Turn Wound-Rotor Resolvers
4	09:45-10:00	PC-16-148	Common and Differential Modes of Conducted Electromagnetic Interference in Electric Vehicle equipped with Supercapacitor
5	10:00-10:15	PC-15-141	Control of Single-Phase Bidirectional PEV/EV Charger Based on FCS-MPC Method for V2G Reactive Power Operation
6	10:15-10:30	PC-05-97	Improved Railway Static Power Conditioner Using C-type Filter in Scott Co-phase Traction Power Supply System

## Session C2: Power Electronic Converters

Session Chairs: **Dr. Tahami, Dr. Allahbakhshi**

	Time	Code	Title
1	09:00-09:15	PC-10-49	Volume Optimization in Si IGBT based Dual-Active-Bridge Converters
2	09:15-09:30	PC-02-88	A High Step-Up DC/DC Switched-Capacitor Converter with Soft Switching and Regulated Output Voltage
3	09:30-09:45	PC-01-82	Two High Stepped up Continuous Input Current Active Switched-Inductor Quasi-Z-Source Inverters
4	09:45-10:00	PC-01-44	A Family of High Step-Up A-Source Inverters with Clamped DC-Link Voltage
5	10:00-10:15	PC-01-30	An Extended Quasi-switched Z-Source Inverter

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### Session C3: Electric Drives II

Session Chairs: **Dr. Zolghadri, Dr. Samet**

	Time	Code	Title
1	09:00-09:15	EA-08-117	Portable Remotely Operated Underwater Smart Vehicle with a Camera and an Arm
2	09:15-09:30	EA-04-19	Post Fault Vector Control of an Induction Motor Fed by a CHB Inverter
3	09:30-09:45	EA-03-72	A Method for Vibration Alleviation of SRM When Demagnetization Voltage is Boosted
4	09:45-10:00	EA-02-137	Deviation Control in Comparison with DTC and FOC for SynRM Drives
5	10:00-10:15	PC-07-80	EMC Generation and Propagation in Embedded Grids with Multiple Converters

### Session C4: Multi-level Inverters

Session Chairs: **Dr. Tavakolibina, Dr. Rajaei**

	Time	Code	Title
1	09:00-09:15	PC-16-184	A Robust Short-Circuit Fault Diagnosis for High Voltage DC Power Supply Based on Multisensor Data Fusion
2	09:15-09:30	PC-04-34	Cascaded Half-Bridge Multilevel Inverter with Asymmetric Voltage Sources and Reduced Number of Components
3	09:30-09:45	PC-04-27	A New Basic Step-Up Cascaded 35-Level Topology Extendable To Higher Number of Levels
4	09:45-10:00	PC-04-193	A Quasi-Resonant Switched-Capacitor High Step-Up Multilevel Inverter with Self-Voltage Balancing
5	10:00-10:15	PC-04-58	A New Switch Capacitor Multilevel Inverter With Partial Charging Switching And Reduced Components



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## Session D1: Power Supplies and Energy Storage Systems

Session Chairs: **Dr. Allahbakhshi, Dr. Rajaei**

	Time	Code	Title
1	13:30-13:45	PC-13-48	A Novel Triple Quadrature Pad for Inductive Power Transfer Systems for Electric Vehicle Charging
2	13:45-14:00	PC-06-210	A Comprehensive Time-domain-based Optimization of a High-Frequency LLC-based Li-ion Battery Charger
3	14:00-14:15	PC-06-168	Non-Isolated Three Port DC-DC Converter with Soft Switching Technique
4	14:15-14:30	PC-06-71	A Series Resonant Cell Equalizer Circuit for Series-Connected Li-Ion Battery String
5	14:30-14:45	PC-06-127	Design & Implementation of 3 kW Single-Phase BESS Using ARM & FPGA
6	14:45-15:00	PC-06-102	Stochastic Smart Charging of Electric Vehicle for a Smart Home with PV Penetration

## Session D2: PV Converters II

Session Chairs: **Dr. Mardaneh, Dr. Mohammadi**

	Time	Code	Title
1	13:30-13:45	PC-09-197	Virtual RL Damping and Harmonic Suppression for Current-Source Inverter Based Photovoltaic Systems
2	13:45-14:00	PC-09-130	A new High Step-up Three-Port DC-DC Structure for Hybrid PV/Battery Energy Systems
3	14:00-14:15	PC-09-7	A Single-Phase Grid-Connected PV Microinverter With Very Low DC Bus Capacitance, Low THD, and Improved Transient Response
4	14:15-14:30	PC-09-23	A Stable Power Reserve Control Method in Photovoltaic Systems Using I-V Curve Characteristics
5	14:30-14:45	PC-09-150	An Improved Three-Input DC-DC Boost Converter for Hybrid PV/FC/Battery and Bidirectional Load as Backup System for Smart Home
6	14:45-15:00	PC-09-25	Analysis and Design of a New Extendable Sepic Converter with High Voltage Gain and Reduced Components for Photovoltaic Applications

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### Session D3: DC-DC Converters II

Session Chairs: **Dr. Zolghadri, Dr. Tahami**

	Time	Code	Title
1	13:30-13:45	PC-09-22	A Soft-Switched Ultra High Gain DC-DC Converter with Reduced Stress voltage on Semiconductors
2	13:45-14:00	PC-09-136	A Single-Switch High Step-Up DC-DC Converter Based on Integrating Coupled Inductor and Voltage Multiplier Cell for Renewable Energy Applications
3	14:00-14:15	PC-09-203	A High Conversion Non-Isolated Bidirectional DC-DC converter with Low Stress for Micro-Grid Applications
4	14:15-14:30	PC-09-187	Soft-Switching Isolated Dual Active Bridge Bidirectional DC-DC Converter with Simple Structure
5	14:30-14:45	PC-09-54	Symmetric Extendable Ultra High Step-Up Non-Isolated DC-DC Converter
6	14:45-15:00	PC-09-55	New Interleaved Structure with High Voltage-Gain and Low Voltage-Stress on Semiconductors

### Session D4: Special Applications II

Session Chairs: **Dr. Rahideh, Dr. Samet**

	Time	Code	Title
1	13:30-13:45	PC-12-32	Comparative Study of Heatsink Volume and Weight Optimization in SST DAB cells Employing GaN, SiC-MOSFET and Si-IGBT Switches
2	13:45-14:00	PC-09-163	A New High Step-up Gain SEPIC Converter for Renewable Energy Applications
3	14:00-14:15	PC-08-9	Static Modeling of the IDC-PFC to Solve DC Power Flow Equations of MT-HVDC Grids Employing the Newton Raphson Method
4	14:15-14:30	PC-04-45	Single-Source Transformerless Multilevel Inverter with Boosting Ability Using Two DC-DC Regulators
5	14:30-14:45	PC-04-13	A New Fault Tolerant Method for Cascaded H-Bridge Inverters Based On Peak Reduction Post-Fault Control Method
6	14:45-15:00	PC-02-166	A High Voltage Variable Inductor LCC Resonant Converter with High Power Factor over Wide Load Range

## Poster presentation I

Wednesday, 13 Feb. 2019

Poster I: **15:00-15:30**

	Code	Title
1	EA-04-86	Real-Time Bearing Fault Diagnosis of Induction Motors with Accelerated Deep Learning Approach
2	EA-02-77	Robust Maximum Torque per Ampere Strategy for Permanent Magnet Synchronous Motor Based on PI-Sliding Mode Controller
3	PC-05-51	Two-Stage Input-Output Feedback linearization controller for AC-AC converter based SST
4	EA-02-207	A Novel Double Carrier PWM Modulation for Sensorless Control of Permanent Magnet Synchronous Motors
5	EA-01-47	Analysis of Different Rotor and Stator Structures in Order to Optimize Two-Phase Switch Reluctance Motor Torque Characteristics
6	EA-01-11	Modeling and Analysis of a Modular Hybrid-Excited Reluctance Motor for High-Torque Applications
7	EA-01-10	Non-linear Modeling of a Multi-Layer Switched Reluctance Motor with Magnetically-Disconnected Stator Modules
8	EA-01-174	Novel E-Core Double-Stator Two Phase Switched Reluctance Motor with Segmental Rotor
9	EA-01-158	Comprehensive Research on a Modular-Stator Linear Switched Reluctance Motor with a Toroidally Wound Mover for Elevator Applications
10	EA-01-17	Design and Analysis of Radial-Flux Hybrid Excitation Eddy Current Brake
11	EA-01-26	Sensitivity Analysis of Rotor Geometry for External-Rotor Synchronous Reluctance Motor Using Finite Element Method
12	EA-01-67	Multi-objective Optimization of an Outer Rotor BLDC Motor Based on Taguchi Method for Propulsion Applications
13	EA-01-134	A new method to model damper windings in the salient pole synchronous machine
14	PC-10-133	Integrated Control strategies for current ripple reduction and enhancing performance in Non-Inverting Interleaved DC-DC Converter
15	PC-10-89	Sliding Mode Controller (SMC) For Sinusoidal Ripple Current (SRC) Charge of Li-ion Battery
16	PC-04-159	Space Vector PWM Technique for $\pi$ -type Multilevel Inverter

17	PC-04-14	THD Minimization in a Five-Phase Five-Level VSI Using a Novel SVPWM Technique
18	PC-04-154	High Power Quality Wide Range Power Source for B-H Meter Applications
19	PC-01-103	A New High Gain DC-DC Boost Converter with Continuous Input and Output Current
20	PC-04-154	A New Real-Time Implementation of Level Shifted-PWM Method for a Three Phase 5-Level NPC Inverter
21	PC-04-98	A Single Phase Boost Switched-Capacitor Multilevel Inverter Topology
22	PC-04-87	Cascaded Multilevel Inverter Using Quasi Resonant Switched Capacitor Units
23	PC-01-93	A High-Efficiency Non-Isolated High-Gain Interleaved DC-DC Converter with Reduced Voltage Stress on Devices
24	PC-01-140	A Non-Isolated High Step-up DC-DC Converter with Soft Switching Capability for PV Power Application
25	PC-01-126	A New Structure of Bidirectional DC-DC Converter for Electric Vehicle Applications
26	PC-01-50	A New Non-Isolated Buck-Boost Converter with High Voltage Gain and Positive Output Voltage for Renewable Energy Applications
27	PC-01-162	A New Non-Isolated High Gain DC-DC Converter Suitable for Renewable Energies

## Poster presentation II

Thursday, 14 Feb. 2019

Poster II: **10:30-11:00**

	Code	Title
1	PC-16-16	Reliability Analysis of Buck-Boost Converter Considering the Effects of Operational Factors
2	PC-13-60	Comparative Analysis of the Conventional Magnetic Structure Pads for the Wireless Power Transfer Applications
3	PC-13-185	A Novel Multi-Objective Topology for In-Motion WPT Systems with an Input DG Source
4	PC-13-186	Efficiency Optimization of a Dynamic Wireless EV Charging System Using Coupling Coefficient Estimation
5	PC-13-189	Design and Analysis of a Modified Dual Phase Shift Control Method for a Wireless EV Charger Considering Coupling Uncertainty
6	PC-09-160	Single-Switch Single-Magnetic Core High Step-up Converter with Continuous Input Current and Reduced Voltage Stress for Photovoltaic Applications
7	PC-09-165	Controller Design of Paralleled Quasi-Z-Source Inverters with Battery for Application in Grid-Connected Photovoltaic Power Generation System
8	PC-09-131	A New Non-Isolated Multi-Input DC-DC Converter with High Voltage gain and Low Average of Normalized Peak Inverse Voltage
9	PC-09-164	A New Variable Step-Size P&O Algorithm with Power Output and Sensorless DPC Method for Grid-Connected PV System
10	PC-09-113	Optimal Robust Control of LCL-type Grid-Connected Voltage Source Inverters against Grid Impedance Fluctuations
11	PC-10-112	Control Strategy of a Single Phase Active Power Filter with Adjustable DC Link Capacitor Voltage for THD Reduction in Non-linear Loads
12	PC-01-124	Tapped Switched-Coupled-Inductors $\hat{I}^*$ -Source Inverter
13	PC-02-100	Simulation of a Multi-Level Resonant Flying-Capacitor Converter above Resonant Frequency to Overcome Its Voltage Regulation Issue
14	PC-02-53	An Interleaved Diode-Capacitor High Step-Up Quasi-Resonant DC-DC Converter Featuring Soft-Switching Characteristic
15	PC-08-194	A New Control Method To Overcome Sympathy Between Transformers Using SSSC
16	PC-08-125	An Improved Control Strategy for DFIG Low Voltage Ride-Through Using Optimal Demagnetizing method

17	PC-07-36	Design and Investigation of Single-Tuned Passive Filter in Distribution Networks Based on Pareto Optimal Fronts
18	PC-06-149	Identification of Iron Powder B-H Characteristics Considering Impurities in the magnetic material
19	PC-06-126	Introduction of Ozone Generation Power Supply for Water Purification
20	PC-06-195	Operation of an active distribution network with PV and storage battery and vehicle charge station and modeling of uncertainty with copula model
21	PC-05-157	Ultra High Step-up DC-DC Converter Based on Switched Inductor-Capacitor Cells
22	PC-05-56	A New structure with new algorithm for Cascaded Multilevel Inverter with Reducing Number of IGBT
23	PC-05-121	Comparison of Three-Point P&O and Hill Climbing Methods for Maximum Power Point Tracking in PV Systems
24	PC-05-204	A New Wireless Power Transfer Topology based on Quasi-Z-Source and LLC Resonant Network with Low Input Current THD
25	EA-02-95	Reducing Variation of Switching Frequency in Finite-State Predictive Torque of three-Phase Induction Motor
26	PC-05-43	phase-shifted half-bridge resonant inverter for driving Cooker magnetron
27	PC-05-127	A New Driving Method for an Oven Magnetron Using A Soft Switching Active Clamp Fly-back Converter