

ENGINEER'S PLANET MATLAB PROJECT LIST(UPDATED)

2020

S NO	PROJECT TITLE	YEAR	JOURNAL
1	An Improved Current-Limiting Strategy for Shunt Active Power Filter (SAPF) Using Particle Swarm Optimization (PSO)	2018	IEEE
2	Transformerless Z-Source Four-Leg PV Inverter with Leakage Current Reduction	2018	IEEE
3	Ensuring Power Quality and Stability in Industrial and Medium Voltage Public Grids	2018	IEEE
4	A BL-CSC converter fed BLDC motor drive with power factor correction	2018	IEEE
5	Dual-Buck AC-AC Converter with Inverting and Non-Inverting Operations	2018	IEEE
6	Self-tuned fuzzy-proportional-integral compensated zero/minimum active power algorithm based dynamic voltage restorer	2018	IET
7	Modeling, Implementation and Performance Analysis of a Grid-Connected Photovoltaic/Wind Hybrid Power System	2018	IEEE
8	Standalone Photovoltaic Water Pumping System Using Induction Motor Drive With Reduced Sensors	2018	IEEE

S NO	PROJECT TITLE	YEAR	JOURNAL
1	A Comparative Study of Different Multilevel Converter Topologies for Battery Energy Storage Application	2017	IEEE
2	A Low Cost Speed Estimation Technique for Closed Loop Control of BLDC Motor Drive	2017	IEEE
3	A Synchronous Generator Based Diesel-PV Hybrid Micro-grid with Power Quality Controller	2017	IEEE
4	A Synchronous Generator Based Diesel-PV Hybrid Micro-grid with Power Quality Controller	2017	IEEE
5	An Intelligent Fuzzy Sliding Mode Controller for a BLDC Motor	2017	IEEE
6	Analysis Of Solar Energy Embedded To Distribution Grid For Active & Reactive Power Supply To Grid	2017	IEEE
7	Cascaded Multilevel Inverter Based Electric Spring for Smart Grid Applications	2017	IEEE
8	Comparative Simulation Results of DVR and D-STATCOM to Improve Voltage Quality in Distributed Power System	2017	IEEE

S NO	PROJECT TITLE	YEAR	JOURNAL
9	Design and Evaluation of a Mini-Size SMES Magnet for Hybrid Energy Storage Application in a kW-Class Dynamic Voltage Restorer	2017	IEEE
10	Design of PID-Fuzzy for Speed Control of Brushless DC Motor in Dynamic Electric Vehicle to Improve Steady-State Performance	2017	IEEE
11	Direct Torque Control of PM BLDC Motor Using Fuzzy Controllers	2017	IEEE
12	Double Closed Loop Control for BLDC based on whole Fuzzy Controller	2014	IEEE
13	Dual-Bridge LLC Resonant Converter With Fixed-Frequency PWM Control for Wide Input Applications	2017	IEEE
14	A Two Degrees of Freedom Resonant Control Scheme for Voltage Sag Compensation in Dynamic Voltage Restorers	2017	IEEE
15	High Performance Non-Salient Sensorless BLDC Motor Control Strategy from Standstill to High Speed	2017	IEEE
16	Indirect Speed Estimation of High Speed Brushless DC Motor Drive Using Fuzzy Logic Current Compensator	2017	IEEE

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S NO	PROJECT TITLE	YEAR	JOURNAL
17	Modeling and Simulation of Closed Loop Speed Control for BLDC Motor	2017	IEEE
18	Nine-level Asymmetrical Single Phase Multilevel Inverter Topology with Low switching frequency and Reduce device counts	2017	IEEE
19	Novel Approach Employing Buck-Boost Converter as DC-Link Modulator and Inverter as AC-Chopper for Induction Motor Drive Applications: An Alternative to Conventional AC- DC-AC Scheme	2017	IEEE
20	PWAM Controlled Quasi-Z Source Motor Drive	2017	IEEE
21	Simulation and Control of Solar Wind Hybrid Renewable Power System	2017	IEEE
22	Improved Dynamic Performance of Shunt Active Power Filter Using Particle Swarm Optimization	2017	IEEE
23	Particle Swarm Optimization Based Shunt Active Harmonic Filter for Harmonic Compensation	2017	IEEE
24	Design and Performance Analysis of Three-Phase Solar PV Integrated UPQC	2017	IEEE
25	Improved Fault Ride Through Capability in DFIG Based Wind Turbines Using Dynamic Voltage Restorer With Combined Feed-Forward and Feed-Back Control	2017	IEEE

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S NO	PROJECT TITLE	YEAR	JOURNAL
26	Design and evaluation of a mini-size SMES magnet for hybrid energy storage application in a kW-class dynamic voltage restorer	2017	IEEE
27	A Filterless Single-Phase AC-AC Converter Based on Coupled Inductors with Safe-Commutation Strategy and Continuous Input Current	2017	IEEE
28	Novel Back EMF Zero Difference Point Detection Based Sensorless Technique for BLDC Motor	2017	IEEE
29	A Novel DVR-ESS-embedded wind energy conversion system	2017	IEEE
30	Dynamic Voltage Conditioner, a New Concept for Smart Low-Voltage Distribution System	2017	IEEE
31	Transformer-less dynamic voltage restorer based on buck-boost converter	2017	IEEE
32	Three-Phase Transformerless Shunt Active Power Filter with Reduced Switch Count for Harmonic Compensation in Grid-Connected Applications	2017	IEEE
33	Comparison of DC/DC Converters in DCM for Reducing Low-Frequency Input Current Ripple of Single-Phase Two-Stage Inverters	2017	IEEE

S NO	PROJECT TITLE	YEAR	JOURNAL
1	A Generation of Higher Number of Voltage Levels by stacking inverters of lower multilevel structure with low voltage devices for drives	2016	IEEE
2	A Novel Multilevel Multi-Output Bidirectional Active Buck PFC Rectifier	2016	IEEE
3	Optimal Pulse width Modulation of Medium-Voltage Modular Multilevel Converter	2016	IEEE
4	Novel Family of Single-Phase Modified Impedance-Source Buck-Boost Multilevel Inverters with Reduced Switch Count	2016	IEEE
5	Adaptive Neuro Fuzzy Inference System Least Mean Square Based Control Algorithm for DSTATCOM	2016	IEEE
6	An Islanding Detection Method for Inverter-Based Distributed Generators Based on the Reactive Power Disturbance	2016	IEEE
7	Quasi-Z-Source Inverter With a T-Type Converter in Normal and Failure Mode	2016	IEEE
8	Real-Time Implementation of Model Predictive Control on 7-Level Packed U-Cell Inverter	2016	IEEE
9	High frequency inverter topologies integrated with the coupled inductor bridge arm	2016	IET

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S NO	PROJECT TITLE	YEAR	JOURNAL
10	Dynamic voltage restorer employing multilevel cascaded H-bridge inverter	2016	IET
11	Active power compensation method for single-phase current source rectifier without extra active switches	2016	IET
12	Cascaded multilevel inverter using series connection of novel capacitor-based units with minimum switch count	2016	IET
13	Design and Implementation of a Novel Multilevel DC-AC Inverter	2016	IEEE
14	A New Cascaded Switched-Capacitor Multilevel Inverter Based on Improved Series-Parallel Conversion with Less Number of Components	2016	IEEE
15	Circulating current derivation and comprehensive compensation of cascaded STATCOM under asymmetrical voltage conditions	2016	IET
16	Design and implementation of a novel three-phase cascaded half-bridge inverter	2016	IET
17	Grid connected three-phase multiple-pole multilevel unity power factor rectifier with reduce components count	2016	IET
18	Control of Ripple Eliminators to Improve the Power Quality of DC Systems and Reduce the Usage of Electrolytic Capacitors	2016	IEEE

S NO	PROJECT TITLE	YEAR	JOURNAL
19	Design of External Inductor for Improving Performance of Voltage Controlled DSTATCOM	2016	IEEE
20	An Enhanced Single Phase Step-Up Five-Level Inverter	2016	IEEE
21	A Hybrid-STATCOM with Wide Compensation Range and Low DC-Link Voltage	2016	IEEE
22	A Capacitor Voltage-Balancing Method for Nested Neutral Point Clamped (NNPC) Inverter	2016	IEEE
23	T-type direct AC/AC converter structure	2016	IET
24	Modular Multilevel Converter Circulating Current Reduction Using Model Predictive Control	2016	IEEE
25	Parallel inductor multilevel current source inverter with energy – recovery scheme for inductor currents balancing	2016	IET
26	Open-Circuit Fault-Tolerant Control for OuterSwitches of Three-Level Rectifiers in Wind Turbine Systems	2016	IEEE
27	Enhancing DFIG wind turbine during three phase fault using parallel interleaved converters and dynamic resistor	2016	IET

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S NO	PROJECT TITLE	YEAR	JOURNAL
28	Load Model for Medium Voltage Cascaded H-Bridge Multi-Level Inverter Drive Systems	2016	IEEE
29	Development and Comparison of an Improved Incremental Conductance Algorithm for Tracking the MPP of a Solar PV Panel	2016	IEEE
30	Impact of Switching Harmonics on Capacitor Cells Balancing in Phase-Shifted PWM Based Cascaded H-Bridge STATCOM	2016	IEEE
31	Effect of circulating current on input line current of 12-pulse rectifier with active inter-phase reactor	2016	IET
32	Modular Multilevel Converter-Based Bipolar High-Voltage Pulse Generator With Sensorless Capacitor Voltage Balancing Technique	2016	IEEE
33	Power-Electronics-Based Energy Management System With Storage	2016	IEEE
34	Modulation and Control of Transformerless UPFC	2016	IEEE
35	A Hybrid Simulation Model for VSC HVDC	2016	IEEE
36	Switching Control of Buck Converter Based on Energy Conservation Principle	2016	IEEE

S NO	PROJECT TITLE	YEAR	JOURNAL
37	A Three-Phase Multilevel HybridSwitched-Capacitor PWM PFC Rectifier for High-Voltage-Gain Applications	2016	IET
38	A dc-Side Sensorless Cascaded H-Bridge Multilevel Converter Based PhotovoltaicSystem	2016	IEEE
39	Phase angle calculation dynamics of type-4wind turbines in rms simulations during severe voltage dips	2016	IET
40	A Multi-Level Converter with a Floating Bridge for Open-Ended Winding Motor Drive Applications	2016	IEEE
41	Model Predictive Control of Quasi-Z-SourceFour-Leg Inverter	2016	IEEE
42	Using Multiple Reference Frame Theory for Considering Harmonics in Average-Value Modeling of Diode Rectifiers	2016	IEEE
43	Cascaded Dual Model Predictive Control of an Active Front-End Rectifier	2016	IEEE
44	Simple Time Averaging Current Quality Evaluation of a Single-Phase Multilevel PWM Inverter	2016	IEEE
45	Nonlinear Control of Single-Phase PWM Rectifiers With InherentCurrent-Limiting Capability	2016	IET

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46	Impact of SFCL on the Four Types of HVDC Circuit Breakers by Simulation	2016	IEEE
47	An Adaptive SPWM Technique for Cascaded Multilevel Converters with Time-Variant DC Sources	2016	IEEE
48	Model-Based Control for a Three-Phase ShuntActive Power Filter	2016	IEEE
49	Design of a multi-level inverter with reactive power control ability for connecting PV cells to the grid	2016	IEEE
50	DSTATCOM supported induction generator for improving power quality	2016	IET
51	Improved equal current approach for reference current generation in shunt applications underunbalanced and distorted source and load conditions	2016	IET
52	A Hybrid-STATCOM With Wide Compensation Range and Low DC-Link Voltage	2016	IEEE
53	Design of External Inductor for Improving Performance of Voltage-Controlled DSTATCOM	2016	IEEE
54	Full-Bridge Reactive Power Compensator With Minimized-Equipped Capacitor and Its Application to Static Var Compensator	2016	IEEE

S NO	PROJECT TITLE	YEAR	JOURNAL
55	A New Cascaded Switched-Capacitor Multilevel Inverter Based on Improved Series-Parallel Conversion With Less Number of Components	2016	IEEE
56	Efficient Implicit Model Predictive Control of Three Phase Inverter with an Output LC Filter	2016	IEEE
57	Single-stage Three-phase Differential-mode Buck-Boost Inverters with Continuous Input Current for PV Applications	2016	IEEE
58	Soft-start control strategy for the three phase grid-connected inverter with LCL filter	2016	IEEE
59	High-Gain Single-Stage Boosting Inverter For Photovoltaic Applications	2016	IET
60	Multilevel Inverter Topologies With Reduced Device Count: A Review	2016	IEEE
61	Real time implementation of unity power factor correction converter based on fuzzy logic	2016	IEEE
62	Power Factor Correction in BLDC motor Drives Using DC-DC Converters	2016	IEEE
63	Transformerless Single-Phase Universal Active Filter With UPS Features and Reduced Number of Electronic Power Switches	2016	IEEE

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64	PI tuning of Shunt Active Filter using GA and PSO algorithm	2016	IEEE
65	PSO – PI Based DC Link Voltage Control Technique for Shunt Hybrid Active Power Filter	2016	IEEE
66	Artificial Neural Network based Three Phase Shunt Active Power Filter	2016	IEEE
67	Cascaded open end winding transformer based DVR	2016	IEEE
68	Brushless DC motor drive with power factor regulation using Landsman converter	2016	IET
69	Comparative analysis of 6, 12 and 48 pulse T-STATCOM	2016	IEEE
70	A Superconducting Magnetic Energy Storage-Emulator/Battery Supported Dynamic Voltage Restorer	2016	IEEE
71	Compensation of voltage disturbances in SMIB system using ANN based DPFC controller	2016	IEEE
72	Commutation Torque Ripple Reduction in BLDC Motor Using Modified SEPIC Converter and Three-level NPC Inverter	2016	IEEE
73	Novel Cascaded switched-diode multilevel inverter for renewable energy integration	2016	IEEE
74	A Highly Reliable Single-Phase High-Frequency Isolated Double Step-Down AC-AC Converter with Both Non-Inverting and Inverting Operations	2016	IEEE

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75	Dynamic Voltage Restorer Using Switching Cell Structured Multilevel AC-AC Converter	2016	IEEE
76	Time-Varying and Constant Switching Frequency Based Sliding Mode Control Methods for Transformerless DVR Employing Half-Bridge VSI	2016	IEEE
77	Evaluation of DVR Capability Enhancement - Zero Active Power Tracking Technique	2016	IEEE
78	Sensitive Load Voltage Compensation Performed by a Suitable Control Method	2016	IEEE
79	Current harmonics Reduction of Three Phase Grid Connected Pulse Width Modulated Voltage Source Inverter by Hysteresis Current Controller with Offset Band	2016	IEEE
80	A Hysteresis Current Controller for Grid-Connected Inverter with Reduced Losses	2016	IEEE
81	Power quality improvement in distribution network using DSTATCOM with battery energy storage system	2016	Elsevier
82	Current Control of Three-phase Grid-connected PV Inverters using Adaptive PR Controller	2016	IEEE
83	Three-phase grid connected PV inverters using the proportional resonance controller	2016	IEEE
84	New Perspectives on Droop Control in AC Microgrid	2016	IEEE

S NO	PROJECT TITLE	YEAR	JOURNAL
1	A High Gain Input-Parallel Output-Series DC/DC Converter with Dual Coupled Inductors	2015	IEEE
2	A High Step-Up Converter with Voltage-Multiplier Modules for Sustainable Energy Applications	2015	IEEE
3	A High Step-Up DC to DC Converter Under Alternating Phase Shift Control for Fuel Cell Power System	2015	IEEE
4	High-Efficiency MOSFET Transformerless Inverter for Non-isolated Microinverter Applications	2015	IEEE
5	A Multi-Input Bridgeless Resonant AC-DC Converter for Electromagnetic Energy Harvesting	2015	IEEE
6	A Novel Control Method for Transformerless H-Bridge Cascaded STATCOM with Star Configuration	2015	IEEE
7	A Novel High Step-up DC/DC Converter Based on Integrating Coupled Inductor and Switched-Capacitor Techniques for Renewable Energy Applications	2015	IEEE
8	A Function Based Maximum Power Point Tracking Method for Photovoltaic Systems	2015	IEEE
9	A Three-Phase Grid Tied SPV System With Adaptive DC Link Voltage for CPI Voltage Variations	2015	IEEE
10	Design of External Inductor for Improving Performance of Voltage Controlled DSTATCOM	2015	IEEE

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S NO	PROJECT TITLE	YEAR	JOURNAL
11	Grid-Connected PV Array with Supercapacitor Energy Storage System for Fault Ride Through	2015	IEEE
12	Grid-Connected PV-Wind-Battery based Multi-Input Transformer Coupled Bidirectional DC-DC Converter for household Applications	2015	IEEE
13	MPPT with Single DC-DC Converter and Inverter for Grid Connected Hybrid Wind-Driven PMSG-PV System	2015	IEEE
14	Application of Neural Networks in Power Quality	2015	IEEE
15	Neuro Fuzzy based controller for Power Quality Improvement	2015	IEEE
16	Single- and Two-Stage Inverter based grid connected Photovoltaic Power Plants with Tide-Through under Grid Faults	2015	IEEE
17	Power Quality Improvement of PMSG based DG set feeding Three-phase loads	2015	IEEE
18	A five level cascaded H-Bridge multilevel STATCOM	2015	IEEE
19	MPPT with single DC-DC converter and inverter for grid connected hybrid wind driven PMSG-PV system	2015	IEEE
20	Versatile unified power quality conditioner applied to three-phase four wire distribution systems using a dual control strategy	2015	IEEE

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S NO	PROJECT TITLE	YEAR	JOURNAL
21	A novel five-level voltage source inverter with sinusoidal pulse width modulator for medium voltage applications	2015	IEEE
22	Development and comparison of an improved incremental conductance algorithm for tracking the MPP of a solar PV panel	2015	IEEE
23	A single DC source cascaded seven level inverter integrating switched capacitor techniques	2015	IEEE
24	Improving the Performance of Cascaded H-bridge based Interline Dynamic Voltage Restorer	2015	IEEE
25	Integrated Photovoltaic and Dynamic Voltage Restorer System Configuration	2015	IEEE
26	Multilevel Cascaded-Type Dynamic Voltage Restorer with Fault Current Limiting Function	2015	IEEE
27	Dynamic Voltage Restorer Based on Three-Phase Inverters Cascaded Through an Open-End Winding Transformer	2015	IEEE
28	Design Considerations of a Fault Current Limiting Dynamic Voltage Restorer (FCL-DVR)	2015	IEEE
29	Control and Performance Analysis of a Single-Stage Utility-Scale Grid-Connected PV System	2015	IEEE

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S NO	PROJECT TITLE	YEAR	JOURNAL
1	A Modified Three-Phase Four-Wire UPQC Topology With Reduced DC-Link Voltage Rating	2013-14	IEEE
2	FPGA-Based Predictive Sliding Mode Controller of a Three-Phase Inverter	2013-14	IEEE
3	Pulsewidth Modulation of Z-Source Inverters With Minimum Inductor Current Ripple	2014-15	IEEE
4	Improving the Dynamics of Virtual-Flux-Based Control of Three-Phase Active Rectifiers	2014-15	IEEE
5	Sensorless Induction Motor Drive Using Indirect Vector Controller and Sliding-Mode Observer for Electric Vehicles	2013-14	IEEE
6	Back-Propagation Control Algorithm for Power Quality Improvement Using DSTATCOM	2014-15	IEEE
7	A Zero-Voltage Switching Three-Phase Inverter	2014-15	IEEE
8	Control of Reduced-Rating Dynamic Voltage Restorer With a Battery Energy Storage System	2014-15	IEEE
9	A Combination of Shunt Hybrid Power Filter and Thyristor-Controlled Reactor for Power Quality	2014-15	IEEE
10	A Transformerless Grid-Connected Photovoltaic System Based on the Coupled Inductor Single-Stage Boost Three-Phase Inverter	2014-15	IEEE

S NO	PROJECT TITLE	YEAR	JOURNAL
11	LCL Filter Design and Performance Analysis for Grid-Interconnected Systems	2014-15	IEEE
12	An Inductively Active Filtering Method for Power-Quality Improvement of Distribution Networks With Nonlinear Loads	2013-14	IEEE
13	A Bidirectional-Switch-Based Wide-Input Range High-Efficiency Isolated Resonant Converter for Photovoltaic Applications	2014-15	IEEE
14	Analysis and Implementation of an Improved Flyback Inverter for Photovoltaic AC Module Applications	2014-15	IEEE
15	Speed Sensorless Vector Controlled Induction Motor Drive Using Single Current Sensor	2013-14	IEEE
16	A Novel Design and Optimization Method of an LCL Filter for a Shunt Active Power Filter	2014-15	IEEE
17	An Active Harmonic Filter Based on One-Cycle Control	2014-15	IEEE
18	A Nine-Level Grid-Connected Converter Topology for Single-Phase Transformerless PV Systems	2014-15	IEEE
19	Modeling and Design of Voltage Support Control Schemes for Three-Phase Inverters Operating Under Unbalanced Grid Conditions	2014-15	IEEE
20	Cascaded Two-Level Inverter-Based Multilevel STATCOM for High-Power Applications	2014-15	IEEE

S NO	PROJECT TITLE	YEAR	JOURNAL
21	A Voltage-Controlled DSTATCOM for Power-Quality Improvement	2014-15	IEEE
22	Solar PV and Battery Storage Integration using a New Configuration of a Three-Level NPC Inverter With Advanced Control Strategy	2014-15	IEEE
23	A Current Control MPPT Method in High Power Solar Energy Conversion System	2014-15	IEEE
24	A Novel Five-Level Inverter for Solar System	2014-15	IEEE
25	A Single-Stage Three-Phase Grid-Connected Photo-Voltaic System With Fractional Order MPPT	2014-15	IEEE
26	Design and Implementation of Sliding Mode and PI Controllersbased Control for Three Phase Shunt Active Power Filter	2014-15	IEEE
27	Implementation of Adaptive Filter in Distribution Static Compensator	2014-15	IEEE
28	A Comparison of Soft-Switched DC-to-DC Converters for Electrolyzer Application	2014-15	IEEE
29	Adaptive fuzzy controller based MPPT for photovoltaic systems	2014-15	IEEE
30	Design of Fuzzy Logic Based Maximum Power Point Tracking Controller for Solar Array for Cloudy Weather Conditions.	2014-15	IEEE

S NO	PROJECT TITLE	YEAR	JOURNAL
31	Dynamic Behavior of DFIG Wind Turbine Under Grid Fault Conditions	2014-15	IEEE
32	Fuzzy-Logic-Controller-Based SEPIC Converter for Maximum Power Point Tracking	2014-15	IEEE
33	Performance Improvement of Direct Power Control of PWM Rectifier With Simple Calculation	2014-15	IEEE
34	FLC-Based DTC Scheme to Improve the Dynamic Performance of an IM Drive	2014-15	IEEE
35	Single Phase Grid-Connected Photovoltaic Inverter for Residential Application with Maximum PowerPoint Tracking	2014-15	IEEE
36	Improved Active Power Filter Performance for Renewable Power Generation Systems	2014-15	IEEE
37	Micro Wind Power Generator with Battery Energy Storage for Critical Load	2014-15	IEEE
38	Power Conditioning in Distribution Systems Using ANN Controlled Shunt Hybrid Active Power Filter	2014	IEEE
39	Power Quality Improvement Using UPQC Integrated with Distributed Generation Network	2014	IEEE
40	Control Strategy of Three-Phase Battery Energy Storage Systems for Frequency Support in Microgrids and with Uninterrupted Supply of Local Loads	2014	IEEE