Aislyn Technologies Pvt Ltd

POWER SYSTEM

1. IMPEDANCE MODELLING AND STABILITY ANALYSIS IN VEHICLE-GRID SYSTEM WITH CHB-STATCOM.
2. A DYNAMIC COORDINATION CONTROL ARCHITECTURE FOR REACTIVE POWER CAPABILITY ENHANCEMENT OF THE DFIG-BASED WIND POWER GENERATION.
3. A GRID-SUPPORT STRATEGY WITH PV UNITS TO BOOST SHORT-TERM VOLTAGE STABILITY UNDER ASYMMETRICAL FAULTS.
4. NEW TRANSIENT STABILITY AND LVRT IMPROVEMENT OF MULTI-VSG GRIDS USING THE FREQUENCY OF THE CENTER OF INERTIA.
5. MULTIPORT DC–DC–AC MODULAR MULTILEVEL CONVERTERS FOR HYBRID AC/DC POWER SYSTEMS.
6. A NEW THREE-PHASE TO FIVE-PHASE TRANSFORMER WITH POWER QUALITY IMPROVEMENT IN HYBRID-MULTILEVEL INVERTER BASED VCIMD.
7. AN ADAPTIVE RECLOSING STRATEGY FOR MMC-HVDC SYSTEMS WITH HYBRID DC CIRCUIT BREAKER.
8. A HYBRID COMPENSATOR CONFIGURATION FOR VAR CONTROL AND HARMONIC SUPPRESSION IN ALL-ELECTRIC SHIPBOARD POWER SYSTEMS.

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9. IMBALANCE-VOLTAGE MITIGATION IN AN INVERTER-BASED DISTRIBUTED GENERATION SYSTEM USING A MINIMUM CURRENT-BASED CONTROL STRATEGY.
10. REACTIVE POWER CONTROL METHOD FOR THE LCC RECTIFIER SIDE OF A HYBRID HVDC SYSTEM EXPLOITING DC VOLTAGE ADJUSTMENT AND SWITCHED SHUNT DEVICE CONTROL.
11. A UNIFIED CONTROL STRUCTURE FOR GRID CONNECTED AND ISLANDED MODE OF OPERATION OF VOLTAGE SOURCE CONVERTER BASED DISTRIBUTED GENERATION UNITS UNDER UNBALANCED AND NON-LINEAR CONDITIONS.
12. ENERGY-BASED CONTROL OF A DC MODULAR MULTILEVEL CONVERTER FOR HVDC GRIDS.
13. A HYBRID MODULAR MULTILEVEL CONVERTER WITH REDUCED FULL-BRIDGE SUBMODULES.
14. A MODEL PREDICTIVE POWER CONTROL METHOD FOR PV AND ENERGY STORAGE SYSTEMS WITH VOLTAGE SUPPORT CAPABILITY.
15. FREQUENCY CONTROL OF OFFSHORE WIND FARM WITH DIODE-RECTIFIER-BASED HVDC CONNECTION.

16. COMBINED CONTROL OF GRID CONNECTED CONVERTERS BASED ON A FLEXIBLE SWITCHING TABLE FOR FAST DYNAMIC AND REDUCED HARMONICS.
17. AN OFFSHORE WIND FARM WITH DC COLLECTION SYSTEM FEATURING DIFFERENTIAL POWER PROCESSING.
18. ROBUST REPETITIVE CONTROL OF POWER INVERTERS FOR STANDALONE OPERATION IN DG SYSTEMS.
19. MULTI-SCALE MODELING AND SIMULATION OF DFIG-BASED WIND ENERGY CONVERSION SYSTEM.
20. ENHANCED SOGI CONTROLLER FOR WEAK GRID INTEGRATED SOLAR PV SYSTEM.
21. CONTROL OF A SUPERCAPACITOR-BATTERY-PV BASED STAND-ALONE DC-MICROGRID.
22. FAULT RIDE THROUGH STRATEGY OF VIRTUAL-SYNCHRONOUS-CONTROLLED DFIG-BASED WIND TURBINES UNDER SYMMETRICAL GRID FAULTS.
23. AN SOC-BASED VIRTUAL DC MACHINE CONTROL FOR DISTRIBUTED STORAGE SYSTEMS IN DC MICROGRID.

24. ANALYSIS AND IMPROVED DESIGN OF PHASE COMPENSATED PROPORTIONAL RESONANT CONTROLLERS FOR GRID-CONNECTED INVERTERS IN WEAK GRID
25. ENERGY STORAGE REQUIREMENTS FOR INVERTER-BASED MICROGRIDS UNDER DROOP CONTROL IN D-Q COORDINATES
26. VOLTAGE CONTROL OF FOUR-LEG VSC FOR POWER SYSTEM APPLICATIONS WITH NONLINEAR AND UNBALANCED LOADS
27. MATHEMATICAL MODELING AND POSITION-SENSORLESS ALGORITHM FOR STATOR-SIDE FIELD-ORIENTED CONTROL OF ROTOR-TIED DFIG IN ROTOR FLUX REFERENCE FRAME
28. IMPROVED VIRTUAL SYNCHRONOUS GENERATOR CONTROL OF DFIG TO RIDE-THROUGH SYMMETRICAL VOLTAGE FAULT
29. EFFECTS OF POD CONTROL ON A DFIG WIND TURBINE STRUCTURAL SYSTEM
30. AN INERTIA AND DAMPING CONTROL METHOD OF DC–DC CONVERTER IN DC MICROGRIDS
31. INDIRECT TORQUE CONTROL OF A CASCADED BRUSHLESS DOUBLY-FED INDUCTION GENERATOR OPERATING WITH UNBALANCED POWER GRID
32. ASYMMETRICAL FAULT RIDE-THROUGH CONTROL STRATEGY FOR ROTOR-SIDE CONVERTER OF DFIG

33. LQR CONTROL OF SINGLE-PHASE GRID-TIED PUC5 INVERTER WITH LCL FILTER
34. UTILITY GRID INTERFACED SOLAR WPS USING PMSM DRIVE WITH IMPROVED POWER QUALITY PERFORMANCE FOR OPERATION UNDER ABNORMAL GRID CONDITIONS
35. ANALYSIS AND MITIGATION OF SUBSYNCHRONOUS RESONANCE IN SERIES-COMPENSATED GRID-CONNECTED SYSTEM CONTROLLED BY A VIRTUAL SYNCHRONOUS GENERATOR
36. HARMONICS REDUCTION OF ADJUSTABLE SPEED DRIVE USING MULTI-OBJECTIVE DYNAMIC VOLTAGE RESTORER
37. DECENTRALIZED VOLTAGE REGULATION IN ISLANDED DC MICROGRIDS IN THE PRESENCE OF DISPATCHABLE AND NON-DISPATCHABLE DC SOURCES
38. A CONTROL APPROACH BASED ON PARALLEL FORM INFINITE IMPULSE RESPONSE FILTER FOR UTILITY GRID INTEGRATED SOLAR PV-BATTERY SYSTEM
39. MULTIFUNCTIONAL CAPABILITIES OF POWER CONVERTER IN A THREE PHASE FOUR WIRE GRID INTERACTIVE PV SYSTEM
40. SELF-ADJUSTABLE STEP-BASED CONTROL ALGORITHM FOR GRID-INTERACTIVE MULTIFUNCTIONAL SINGLE-PHASE PV-BATTERY SYSTEM UNDER ABNORMAL GRID CONDITIONS

41. DECENTRALIZED CONTROL OF DC ELECTRIC SPRINGS FOR STORAGE REDUCTION IN DC MICROGRIDS
42. ACTIVE POWER FLOW CONTROL OF THREE-PORT CONVERTER FOR VIRTUAL POWER PLANT APPLICATIONS
43. COMBINED OPERATION OF D-STATCOM AND LOW THD SVC IN A DISTRIBUTION GRID FOR DYNAMIC VAR COMPENSATION AND VOLTAGE STABILIZATION
44. MULTI-OPERATIONAL PV-BES-DG BASED MICROGRID WITH POWER QUALITY IMPROVEMENT
45. CURRENT CONTROL OF A GRID-CONNECTED SINGLE-PHASE VOLTAGE-SOURCE INVERTER WITH LCL FILTER
46. A DUAL-CURRENT CONTROL LOOP FOR BALANCED AND UNBALANCED CURRENT CONTROL FOR LCL FILTER INTERFACED GRID CONNECTED VSIS
47. PCC VOLTAGE QUALITY RESTORATION STRATEGY OF AN ISOLATED MICROGRID BASED ON ADJUSTABLE STEP ADAPTIVE CONTROL
48. INERTIA RESPONSE IMPROVEMENT IN AC MICROGRIDS: A FUZZY-BASED VIRTUAL SYNCHRONOUS GENERATOR CONTROL
49. CHARACTERISTIC ANALYSIS AND RISK ASSESSMENT FOR VOLTAGE–FREQUENCY COUPLED TRANSIENT INSTABILITY OF LARGE-SCALE GRID-CONNECTED RENEWABLE ENERGY PLANTS DURING LVRT

50. AN ENHANCED STATIC COMPENSATOR WITH DC-LINK VOLTAGE SHAPING METHOD
51. GRID-TIED BATTERY INTEGRATED WIND ENERGY GENERATION SYSTEM WITH ABILITY TO OPERATE UNDER ADVERSE GRID CONDITIONS
52. ENERGY MANAGEMENT SYSTEM FOR DC ELECTRIC SPRING WITH PARALLEL TOPOLOGY
53. FUZZY BASED MANAGEMENT OF HYBRID ENERGY STORAGE SYSTEM FOR IMPROVED DYNAMIC RESPONSE OF DC MICROGRID
54. ANALYSIS AND CONTROL OF A MODULAR MULTILEVEL CASCADED CONVERTER-BASED UNIFIED POWER FLOW CONTROLLER
55. A DC HYBRID ACTIVE POWER FILTER AND ITS NONLINEAR UNIFIED CONTROLLER USING FEEDBACK LINEARIZATION
56. QUASI-TWO-STAGE MULTIFUNCTIONAL PHOTOVOLTAIC INVERTER WITH POWER QUALITY CONTROL AND ENHANCED CONVERSION EFFICIENCY
57. INTEGRATION OF FLEXIBLE LOADS AND ELECTRIC SPRING USING A THREE-PHASE INVERTER
58. CLOSED-FORM ANALYTIC EXPRESSION OF TOTAL HARMONIC DISTORTION IN SINGLE-PHASE MULTILEVEL INVERTERS WITH STAIRCASE MODULATION
59. A NOVEL FILTER DESIGN METHOD FOR GRID-TIED INVERTERS

60. FLATNESS-BASED GREY WOLF CONTROL FOR LOAD VOLTAGE UNBALANCE MITIGATION IN THREE-PHASE FOUR-LEG VOLTAGE SOURCE INVERTERS

DRIVES & CONTROL

1. AN SCR BASED CSI-FED INDUCTION MOTOR DRIVE FOR HIGH POWER MEDIUM VOLTAGE APPLICATIONS
2. A SWITCHED CAPACITIVE FILTER-BASED HARMONIC ELIMINATION TECHNIQUE BY GENERATING A 30-SIDED VOLTAGE SPACE VECTOR STRUCTURE FOR IM DRIVE
3. SENSORLESS FIELD ORIENTED SMCC BASED INTEGRAL SLIDING MODE FOR SOLAR PV BASED INDUCTION MOTOR DRIVE FOR WATER PUMPING
4. COMMON MODE VOLTAGE ELIMINATION IN VARIABLE SPEED DRIVES FOR IMPROVED ELECTRICAL SAFETY
5. AN ENVELOPE-PREDICTION-BASED SENSORLESS ROTOR POSITION OBSERVATION SCHEME FOR LCI-FED EESM AT ZERO AND LOW SPEED
6. ACCURATE ROTOR SPEED ESTIMATION FOR LOW-POWER WIND TURBINES
7. SINGLE STAGE AUTONOMOUS SOLAR WATER PUMPING SYSTEM USING PMSM DRIVE

8. A REDUCED COMPONENT COUNT FIVE-LEVEL INVERTER TOPOLOGY FOR HIGH RELIABILITY ELECTRIC DRIVES
9. MINIMIZATION OF CURRENT RIPPLE AND SWITCHING LOSSES IN DOUBLE-INVERTER FED WOUND ROTOR INDUCTION MACHINE DRIVE USING PWM TECHNIQUES
10. A NOVEL AC/AC MODULAR MULTILEVEL CONVERTER FOR MEDIUM VOLTAGE VARIABLE FREQUENCY VECTOR CONTROLLED INDUCTION MOTOR DRIVES
11. FPGA BASED EXPERIMENTAL EVALUATION OF BLDC MOTOR DRIVE FED FROM COUPLED INDUCTOR BASED BRIDGELESS SEPIC
12. PMBLDC MOTOR BASED CEILING FAN USING AN ISOLATED PFC ZETA CONVERTER
13. SEPIC CONVERTER BASED SOLAR ENERGY DRIVEN SENSORLESS INDUCTION MOTOR DRIVE