Path-Finding in Multi-Agent, Unexplored and Dynamic Military Environment Using Genetic Algorithm

Original Research, D1
Saeedvand S, Naser Razavi S and Ansaroudi F.
**ABSTRACT:** Path-finding in multi-agent, unexplored and dynamic military environment is one of the most important issues for solving ... necessary constraints to find path in a dynamic and unexplored environment are considered and Genetic algorithm is used.

**Keywords:** Multi-Agent System, Path-finding, Chromosome

**PII:** S232251141500002-4

**Optimal Design of Bearingless Permanent Magnet-Type Synchronous Motors for Generating Maximum Levitation Force**
Original Research, D2
Honarjou M., Faraji H. and Shirzadi A.

ABSTRACT:
One maintenance task that still exist with conventional motors, are bearing lubrication and renewal. Bearingless motors are an interesting area of research where minimum maintenance and longer lifetime is desired. In this study, the effect of the thickness of the permanent magnets on the amount of levitation force is investigated. The simulation is done in Maxwell software.

Keywords:
Bearingless Permanent Magnet Synchronous Motor, Maximum Levitation Force, Optimization, Thickness of PM.

PII: S232251141500003-4

Studying an Improved Interval-Only Algorithm for the De-Interleaving of Radar Pulses

Original Research, D3
Daryasafar N and Dehghani H.

ABSTRACT:
In the electronic intelligence system (ELINT) for radar signals, a de-interleaving technique is used to separate the signal from the noise. In this study, an improved interval-only algorithm is presented for the de-interleaving of radar pulses. Their block diagrams and implementations steps as well as their ability in Deinterleaving of radar pulses are analyzed.

Graphs showing the threshold and time intervals.
Direct Kinematics solution of 2-(6UPS) Hybrid Manipulator based on Neural Network

ABSTRACT:
This contribution addresses forward kinematic solution of modular hybrid manipulator which includes two same Stewart Mechanisms. The neural network is used to calculate the forward kinematics of 2-(6UPS) based on closed form solution (CFS) of kinematics for 2-(6UPS) shows proper performance of proposed network in less than %1 error.

Keywords:
2-(6UPS) Manipulators, Stewart Mechanism, Forward Kinematics Analysis, Nonlinear Multivariable System, WNN.
Current Measurement with Optical Current Transformer

Original Research, D5
Alavi O.

ABSTRACT: Applying an optical current transformer (optical CT) to substations has several advantages, e.g. high accuracy and reliability. The optical CT uses optical fibers contained in an insulator. As an application of the optical CT, a new fault location system has been developed.

Keywords: OCT, Fiber Optic, Current Sensor, Protection

Reliability Constrained Energy and Reserve Scheduling of Microgrids Including High Penetration...
ABSTRACT:
Due to environmentally and economically advantages, high deployment of renewable energy sources (RES) such as wind or solar power is needed. The reliability of RES is not high enough to cover the electricity load demand. Therefore, energy and reserve scheduling must be done accurately so that the optimal requirement reserve is determined by a tradeoff between reliability and economics.

Keywords: Microgrids, renewable energy sources (RES), energy and reserve scheduling, expected energy not supplied (EENS).

PII: S232251141500007-4

Optimal Charge-Discharge Scheduling of Electric Vehicles Considering Their Battery Lifetime

ABSTRACT:
Due to environmentally and economically advantages, high deployment of renewable energy sources (RES) such as wind or solar power is needed. The reliability of RES is not high enough to cover the electricity load demand. Therefore, energy and reserve scheduling must be done accurately so that the optimal requirement reserve is determined by a tradeoff between reliability and economics.

Keywords: Microgrids, renewable energy sources (RES), energy and reserve scheduling, expected energy not supplied (EENS).

PII: S232251141500008-4

Introducing a New High-Order Chaotic System with an Equilibrium Point and Stabilizing It Using a Linear Quadratic Regulator (LQR) Controller

ABSTRACT:
In this paper, a new high-order chaotic system is proposed. This system has an equilibrium point on center and its stability around this point is guaranteed using a Linear Quadratic Regulator (LQR) controller. The Lyapunov exponent and equilibrium point of the chaotic system are determined.

Keywords: Chaotic System, High-Order Chaos, Lyapunov Exponent, Equilibrium Point, LQR Controller

PII: S232251141500009-4

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