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 many real-world problems. 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 solve this problem and offer long maintenance-free operation. A bearingless Permanent Magnet Synchronous Motor (PM) finds its application in consumer applications due to its fast response and high efficiency. In this article, the thickness of PM is optimized in order to maximize the levitation force. The direction of the winding pole-pair in 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

Original Research, D3
Daryasafar N and Dehghani H.

**ABSTRACT:**
In the electronic intelligence system (ELINT) in the process of identification radar signals are used both technical and informational methods. In this paper, the researchers have studied a new method called Interval-Only Algorithm for De-Interleaving of Radar Pulses. The researchers have introduced a new algorithm and analyzed its block diagrams and their ability in Deinterleaving of radar pulses.

**Studying an Improved Interval-Only Algorithm for the De-Interleaving of Radar Pulses**
ABSTRACT: This contribution addresses forward kinematic solution of 2-(6UPS) Hybrid Manipulator based on Neural Network.
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 non-interference with electromagnetic fields. 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 is considered very attractive. However, due to intermittency of these sources, high deployment of RES requires a reliable energy management system that can ensure the power adequacy in case of unavailability of RES. In this paper, a novel optimal method for energy and reserve scheduling is proposed. The goal is to jointly determine the dispatch schedule of wind and solar generation and the required reserve 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

ABSTRACT:

Due to environmentally and economically advantages, high deployment of renewable energy sources (RES) such as wind or solar is considered very attractive. However, due to intermittency of these sources, high deployment of RES requires a reliable energy management system that can ensure the power adequacy in case of unavailability of RES. In this paper, a novel optimal method for energy and reserve scheduling is proposed. The goal is to jointly determine the dispatch schedule of wind and solar generation and the required reserve 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

ABSTRACT:

In this paper, a new high-order chaotic system is proposed. This system has an equilibrium point on center and its stability depends on the Lyapunov Exponent and the nonlinear function of the system. In order to stabilize the chaotic system around equilibrium point, a Lyapunov Controller is used. The results show the effectiveness of the proposed method.

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