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

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 the mission. 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 motors that have no mechanical bearing. The advantage of bearingless permanent magnet synchronous motor is that it is more reliable than conventional motors. In this study, the optimal 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) framework, the identification of radar signals is a crucial task. In this study, an improved interval-only algorithm is proposed for the de-interleaving of radar pulses. The algorithm is designed to be efficient and robust, with its block diagrams and implementation steps analyzed in detail. The methodology enhances the performance of radar signal processing, providing a valuable tool for electronic intelligence systems.
Direct Kinematics solution of 2-(6UPS) Hybrid Manipulator based on Neural Network

Abstract:
This contribution addresses forward kinematic analysis of a new hybrid manipulator by the proposed neural network. The closed form solution (CFS) of kinematics for 2-(6UPS) shows proper performance of the proposed network in less than 1% error.

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

Original Research, D4
Rahmani A, Ghanbari A, Mahboubkhah M.
Current Measurement with Optical Current Transformer

Original Research, D5
Alavi O.

ABSTRACT: Applying an optical current transformer (optical CT) is a promising technology for substations due to its high accuracy and reliability. This article presents a new fault location system based on the optical CT technology.

Keywords: OCT, Fiber Optic, Current Sensor, Protection

Reliability Constrained Energy and Reserve Scheduling of Microgrids Including High Penetration Renewable Resources
ABSTRACT:

Due to environmentally and economically advantages, high deployment of renewable energy sources (RES) such as wind or solar, and the increasing use of electric vehicles (EVs) for reliable and reliable energy has been considered. This paper introduces a new high-order chaotic system with an equilibrium point and studies its stability using a Linear Quadratic Regulator (LQR) controller. The proposed system can be used in various applications, such as secure communication systems.