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 tasks. 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 have been introduced and discussed in the last decades. In this paper, optimization of the permanent magnet (PM) thickness in bearingless permanent magnet synchronous (BPM) motors is investigated. The thickness of the PM is a parameter that influences the levitation force in BPMs. The objective of this work is the optimization of the thickness of the PM in the BPM. The work is performed in different cases. The simulation is done in Maxwell software.

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

**PII:**
S232251141500003-4

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**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) in the process of identification radar signals are used both technical and non-technical methods. In this paper, a new algorithm for the detection of radar signals in the ELINT system is introduced and studied. The performance of the proposed algorithm is compared with the other algorithms in a number of cases. The results show that the proposed algorithm is an improved algorithm.

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The rest of the document contains further research papers and their abstracts, but these are not shown in the provided image.
Direct Kinematics solution of 2-(6UPS) Hybrid Manipulator based on Neural Network

Original Research, D4
Rahmani A, Ghanbari A, Mahboubkhah M.

ABSTRACT: This contribution addresses forward kinematic
Keywords: 2-(6UPS) Manipulators, Stewart Mechanism,
Current Measurement with Optical Current Transformer

ABSTRACT:
Applying an optical current transformer (optical CT) to substations has several advantages, e.g. high accuracy and stability. In this paper, a new fault location system will be presented which has been developed as an application of the optical CT. The optical CT uses high precision devices with a high bandwidth and enables the transmission of power system data over long distances. As an example, the system will be applied to a fault location system for power system protection.

Keywords:
OCT, Fiber Optic, Current Sensor, Protection

Reliability Constrained Energy and Reserve Scheduling of Microgrids Including High Penetration Renewable Energy Sources

ABSTRACT:
Energy and reserve scheduling of microgrids is an important problem to ensure the reliability of power systems. In this paper, a new approach for reliability constrained energy and reserve scheduling of microgrids including high penetration renewable energy sources is presented. The problem is formulated as a mixed-integer nonlinear programming problem, and a heuristic algorithm based on the branch-and-bound method is proposed to solve the problem. Numerical results show that the proposed algorithm is effective in finding good solutions with lower computational effort compared to other methods.
ABSTRACT:

Due to environmentally and economically advantages, high deployment of renewable energy sources (RES) such as wind or solar power systems is motivated. However, RES may lead to an unstable system because of their intermittency and reliability. As a result, 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