ABSTRACT: Owing to advances in medicine, with the increased demands on clinical services, quality enhancement of medical images is of great significance. We report here a novel method for the removal of noise and enhancement of medical images. The proposed algorithm removes and reduces noise in medical images and improves their quality. The experiment result indicates that the proposed algorithm significantly improves the quality of an image while reducing its noise.

Key words: Wavelet transform, Medical image, Image fusion
Modeling and Design of Controllers for Switched Reluctance Motor Based on Asymmetrical Γ-Source Inverters

Original Research, C15
Mehdizadehmoghadam SM and Hajizadeh M.

ABSTRACT:
In this paper a power electronic converter on the basis of asymmetrical Γ-source inverter has identified to control the Switched Reluctance Motor (SRM). The proposed control system is implemented and tested on the MATLAB/simulink environment, and the performance of the designed control system has been tested in MATLAB/simulink to prove the performance of the designed control system.

Keywords:
Power Electronic Converter, Asymmetrical Γ-Source Inverter.
Path-finding in Multi-Agent, unexplored And Dynamic Military Environment Using Genetic Algorithm

Original Research, C16
Saeedvand S, Razavi SN, Ansaroudi F.

ABSTRACT

Keywords
Placement of Dispersed Generation with the Purpose of Losses Reduction and Voltage Profile Improvement in Distribution Networks Using Particle Swarm Optimization Algorithm

Original Research, C17
Yousefpour K.

ABSTRACT: Optimal placement of dispersed generation in electrical distribution systems was carried out considering the voltage profile and losses. The results indicated the competency of the proposed algorithm.

Keywords: Optimal Placement, Dispersed Generation, PSO Algorithm, Voltage Profile, Losses

A Compact Monopole Antenna for Wireless Applications

Original Research, C18
Jamalpoor R.

ABSTRACT: A tiny wideband microstrip-fed monopole antenna with two L-shaped notches and stubs is proposed. The antenna is designed and optimized using Ansoft HFSS and details of the proposed antenna design approach and measured results are also presented and discussed.

Keywords: Microstrip Antenna, Monopole, Wireless.
Modeling and Optimizing the Hardness of the Melted Zone in Submerged Arc Welding Process using Taguchi Method

Aghakhani M and Shahverdi Shahraki H.


ABSTRACT: Welding, as one of the most useful method for permanent joint of components, is of great importance in industry. Among different factors that affect the quality of weld, hardness of melt zone is one of the most important factors. In this research, the hardness of melt zone in Submerged Arc Welding process has been studied. Using Taguchi method, the effects of 4 factors, including power, welding speed, droplet size and piece and thickness of magnesium oxide nanoparticles had respectively the highest impact on the hardness of melted zone.

Keywords: Submerged Arc Welding, Hardness of Melted Zone, Taguchi Method, Analysis of Variance, Optimization
Discretization of Cuckoo Optimization Algorithm for Solving Quadratic Assignment Problems

Original Research, C20
Kazemi E and Dejam S.

ABSTRACT: Quadratic Assignment Problem (QAP) is one of the combinatorial optimization problems. Meta-Heuristic Algorithms are a new family of optimization algorithms. Among these algorithms, the Cuckoo Optimization Algorithm (COA) is a recent algorithm that has been developed. In this paper, the authors propose the Discrete Cuckoo Optimization Algorithm (DCOA) to solve QAP. The proposed algorithm is tested on different QAP instances and the results are compared with other algorithms.

Keywords: Quadratic Assignment Problem (QAP), Meta-Heuristic Algorithms, Discrete Cuckoo Optimization Algorithm (DCOA).