Hybrid Energy Production System with PV Array and Wind Turbine and Pitch Angle Optimal Control by Genetic Algorithm (GA)

PII: S232251141200001-1
ABSTRACT: In the 21st century because of expensive fossil fuels, usage of clean energy such as solar energy, wind energy, etc. will be increased in the power sector. Wind energy is one of the effective renewable energy sources. In order to optimal control of pitch angle at high speed of wind, genetic algorithm has been used.

Keywords: Wind Turbine, Photo Voltaic (PV), Genetic Algorithm (GA)

PII: S232251141200002-1

Optimum Design of PSS and SVC Controller for Damping Low Frequency Oscillation (LFO)
ABSTRACT: The development of the demand for electrical energy leads to loading the transmission system close to their limits that ... simulation show that the SVC with PID controllers is more effective in damping LFO compared to PSS with PID controllers.

Keywords: 3 to 5 keyword or phrases.

Hot paper

PII: S232251141200003-1

An Efficient Algorithm for Lip Segmentation in Color Face Images Based on Local Information
Original Research, A3

Kalbkhani H, Chehel Amirani. M.


**ABSTRACT**

Lip detection is used in many applications such as face detection and lips reading. In previous works, researchers have ... on CVL face database. Our experiments show that new algorithm gives better results than previous works on this database.

**Keywords:** lip detection, skin, saturation, standard deviation.

**PII:** S232251141200004-1

Enhancement and Cleaning of Handwritten Data by using Neural Networks and Threshold Techniques.
Zali Varghahan B and Chehel Amirani M.


ABSTRACT: This paper propose the use threshold technical and artificial neural network (ANN) for clean and enhancement scanned image. Process of cleaning image is the preprocessing for system handwritten recognition that we do this work in this paper.

Keywords: threshold technical, artificial neural network, handwritten recognition, clean image, multilayer perceptron

PII: S232251141200005-1

Video Streaming over Wireless Mesh Networks

Original Research, A5
Kalbkhani H and Zali. B.


ABSTRACT: Wireless mesh networks (WMNs) have emerged as a key technology for next-generation wireless networking. Wireless mesh networks provide a promising alternative for broadband wireless access, especially in rural and underserved areas where traditional wired solutions are either not available or too expensive. However, one of the main challenges in the deployment and operation of WMNs is the need for efficient resource management to support the diverse QoS requirements of multimedia applications such as Voice over IP (VoIP), video conferencing, and multimedia streaming. This paper presents a novel approach for improving the performance of WMNs by introducing an efficient QoS management scheme that addresses the resource allocation problem.

Keywords: Wireless mesh network; Client; Router; Video

PII: S232251141200006-1

Novel Methods with Fuzzy Logic and ANFIS Controller Based SVC for Damping Sub-Synchronous Resonance and Low-Frequency Power Oscillation

Original Research, A6
A Lak, Nazarpour D, Ghahramani H.


ABSTRACT: A long transmission line needs controllable series as well as shunt compensation for power flow control and voltage stability. This can be achieved by installing the SVC. The MATLAB/Simulink software program was used to verify the effectiveness of each control method.

Keywords: Sub-Synchronous Resonance (SSR), Static VAR Compensator (SVC), Fuzzy Logic Controller (FLC), Adaptive Neuro-Fuzzy Inference System (ANFIS), Fast Fourier Transform (FFT).

PII: S232251141200007-1

Mitigating SSR in Hybrid Wind-Steam Turbine with TCSC Based Fuzzy Logic Controller and Adaptive Neuro Fuzzy Inference System Controller

Original Research, A7

Hosseini H. and Tousi B.
ABSTRACT: The increasing requirement to the clean and renewable energy has led to the rapid development of wind power systems all over the world. A novel method for designing a Power System Stabilizer (PSS) and Automatic Voltage Regulator (AVR) for the synchronous generator is proposed in this paper. The controller is designed using Imperialist Competitive Algorithm (ICA). The method is applied to a three-area Automatic Generation Control (AGC) system. The results show that the proposed method has better performance than other methods such as Particle Swarm Optimization (PSO) and Genetic Algorithm (GA). The performance of the system is evaluated based on the criteria of settling time, peak overshoot, and rise time. The results show that the proposed method has better performance than other methods such as PSO and GA.

Keywords: 3 to 5 keyword or phrases.

PII: S232251141200008-1

A Novel Method for Designing PSS-AVR by Imperialist Competitive Algorithm (ICA) for three-area AGC System

Hosseini H. and Tousi B.
| **ABSTRACT:** | Abstract – Automatic Generation Control (AGC) for providing electric power systems stability. The optimization of AGC parameters by using imperialist competitive algorithm (ICA) has been proposed. Finally the results have been compared. |
| **Keywords:** | Automatic Generation Control (AGC), proportional Integral Derivative (PID), Automatic Voltage Regulator (AVR) |