Hybrid Energy Production System with PV Array and Wind Turbine and Pitch Angle Optimal Control by Genetic Algorithm (GA)
ABSTRACT: In the 21st century because of expensive fossil fuels, usage of clean energy such as solar energy, wind energy, etc. will be more important. In this paper, the operation of optimal control of pitch angle at high speed of wind and power management of the power distribution system. 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), Maximum Power Point Tracking (MPPT), 12-Pulse Inverter, Optimal Control.

Optimum Design of PSS and SVC Controller for Damping Low Frequency Oscillation (LFO)
Hosseini H., Tusi B., Razmjooy N., Khalilpour M.


**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**
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 Technique
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

Pf: S232251141200005-1

Video Streaming over Wireless Mesh Networks
Wireless mesh networks (WMNs) have emerged as a key technology for next-generation wireless networking. WMNs are characterized by their self-organizing nature, which allows them to adapt to changing network conditions and improve their performance. However, WMNs also present several challenges, such as video coding and wireless channel specifications, which can affect the performance of video surveillance systems. In this paper, we propose a novel method that combines fuzzy logic and ANFIS (Adaptive Neuro-Fuzzy Inference System) controller to improve the performance of WMNs in video surveillance systems. The proposed method is evaluated through simulations and compared with existing methods, demonstrating its effectiveness in improving the performance of WMNs in video surveillance systems.

Keywords: Wireless mesh network; Client; Router; Video surveillance system.
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 improvements 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. This paper presents a novel method for designing a Synchronous Generator based wind turbine. The proposed method is based on Imperialist Competitive Algorithm (ICA). The proposed method is compared with GWO, PSO, and DE algorithms. Finally the operation of two controllers have been compared.
| **ABSTRACT:** | Abstract – Automatic Generation Control (AGC) is a very imperative issue in power system operation for providing electric power. Automatic Voltage Regulator (AVR) and Automatic Generation Control (AGC) are the most important issues in power system operation. The aim of this paper is the optimization of AVR and 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), imperialist competitive algorithm (ICA) |