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 increase. 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)

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 increase the risk of voltage instability. In this paper, it is proposed that the STATCOM with a SVC is installed to counteract the effect of low-frequency oscillations. The results of 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.
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.
This paper propose the use threshold technical and artificial neural network (ANN) for clean and enhancement scanned images. 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
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 high-speed access with low-cost deployment. This paper focuses on video surveillance systems that require high-bandwidth and low-latency data transmission. The paper presents a novel method for reducing the bandwidth requirements of video surveillance systems by using lossy video compression. The method uses fuzzy logic and adaptive neuro-fuzzy inference systems (ANFIS) to optimize the compression process. The results show that the proposed method achieves better performance than existing methods in terms of compression ratio and video quality.

Keywords: Wireless mesh network; Client; Router; Video compression

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. Sub-Synchronous Resonance (SSR) is one of the transmission line stability issues that can be mitigated 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. The most important application of wind power is wind turbines. In this paper, a new method is utilized for the design of the Automatic Voltage Regulator (AVR) and Power System Stabilizer (PSS) of a wind turbine system. The proposed method is based on Imperialist Competitive Algorithm (ICA), which is applied to a three-area AGC system. The operation of the AVR and PSS is examined through MATLAB simulations. The results show that the proposed method is able to improve the performance of the wind turbine system.

Keywords: 3 to 5 keyword or phrases.
| ABSTRACT: | Abstract – Automatic Generation Control (AGC) is a very imperative issue in power system operation for providing electric energy at reasonable prices. The algorithm to determine theAndGet detail of the system 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) |