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 fuel, usage of clean energy such as solar energy, wind energy, etc. will be increased. In this study, wind turbine and solar panel is connected to the grid via 12 pulses inverter and control system. In order to optimal control of pitch angle at high speed of wind, genetic algorithm has been used. In this regard, for the maximum power point tracking (MPPT) a genetic algorithm is used. The results show that this system is capable of maximum power extraction and maximum power output.

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

Optimum Design of PSS and SVC Controller for Damping Low Frequency Oscillation (LFO)
Original Research, A2

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, skin, saturation, standard deviation.

Enhancement and Cleaning of Handwritten Data by using Neural Networks and Threshold Techniques.
ABSTRACT: This paper proposes the use of threshold technical and artificial neural network (ANN) for cleaning and enhancing scanned images. The process of cleaning an image is a preprocessing step for a system for handwritten recognition, which is the focus of this paper.

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

PII: S232251141200005-1

Video Streaming over Wireless Mesh Networks
ABSTRACT: Wireless mesh networks (WMNs) have emerged as a key technology for next-generation wireless networking. Wireless mesh networks are essential in meeting the quality and volume requirements, such as video coding and wireless channel specifications, with focuses on video surveillance systems.

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
A Lak, Nazarpour D, Ghahramani H.


ABSTRACT: A long transmission line needs controllable series and shunt compensation for power flow control and voltage stability improvement. Static VAR Compensator (SVC) based on a series compensated line can be highly effective to improve the power system stability 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 C Based Fuzzy Logic Controller and Adaptive Neuro Fuzzy Inference System CFF

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. To improve the reliability and efficiency of the grid, two controller have been proposed to control the performance of the propulsion system. The perturbation and observation (P&O) algorithm is employed for the power control. Eventually, the operation of two controllers have been compared.

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

Original Research, A8

Hosseini H. and Tousi B.
| **ABSTRACT:** | Abstract – Automatic Generation Control (AGC) and Automatic Voltage Regulator (AVR) are crucial for maintaining the stability and reliability of power systems. A new method for tuning the controller 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), imperialist competitive algorithm (ICA) |