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 increased. The reduction of power losses in the power system and enhancement of power quality are essential. 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

PII: S232251141200002-1

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 ...

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
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.
This paper proposes the use of threshold techniques and artificial neural networks (ANN) for cleaning and enhancing scanned images. The process of cleaning images is a preprocessing step for system handwritten recognition, which is the focus of this paper.

**Keywords:** threshold techniques, 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. WMNs, with their self-configuration and robustness capabilities, have been recently used in several applications, such as video coding and wireless channel specifications, with focuses on video surveillance systems.

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
ABSTRACT: A long transmission line needs controllable series and shunt compensation for power flow control and voltage regulation. The series compensation can be provided 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).

Mitigating SSR in Hybrid C Based Fuzzy Logic Controller and Adaptive Neuro Fuzzy Inference System

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. In this paper, a novel methodology was presented for designing the Power System Stabilizer (PSS) and Automatic Voltage Regulator (AVR) by Imperialist Competitive Algorithm (ICA). The objective function to be optimized is designed in terms of rise time, settling time, and percentage overshoot of the system. The proposed controller was applied on a three-area AGC system. The results of the controllers performances were compared to each other. The proposed strategy is simple, easy to implement and provides good performance.

**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) is a very imperative issue in power system operation for providing electric energy to the consumers at the required voltage level. In this paper the automatic generation control system is presented. This operation is based on the control of the AGC system to ensure the stability of the electric power system. The control of the AGC system is achieved by using the proportional integral derivative (PID) controller. The controller parameters are optimized by using the 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)