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

Pll: S232251141200001-1

1d Wind Turbine and Pitch Angle Optimal Control

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ABSTRACT: In the 21st century because of expensive fossil fuels, usage of clean energy such as solar energy, wind energy, etc. will increase. The electrical part of wind turbine is a distributed power generation. To control the generator at wind turbine, Genetic Algorithm has been used. The MPPT in a 12-Pulse Inverter is applied to control the wind turbine.

Keywords: Wind Turbine, Photo Voltaic (PV), Genetic Algorithm (GA)
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 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 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
Kalbkhani H and Zali. B.


ABSTRACT:
Wireless mesh networks (WMNs) have emerged as a key technology for next-generation wireless networking. Modern WMNs have been developed to meet various requirements, 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 Oscillations

Original Research, A6
ABSTRACT: A long transmission line needs controllable series as well as shunt compensation for power flow control and voltage stability improvement. In this paper, an SVC installation is suggested for this purpose. The voltage stability of the power system can be improved 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).

Pll: S232251141200007-1
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 wind energy is obtained through wind turbines, which convert wind power into electricity. In practice, the electrical power is generated by an asynchronous wind generator. This paper presents a novel method for designing a power system stabilizer (PSS) and an automatic voltage regulator (AVR) using an Imperialist Competitive Algorithm (ICA) for a three-area AGC system. The electrical power obtained through the wind generator has been fed into the power system network through a transformation center. A combination of a synchronous wind generator based wind turbine has been used to create the maximum possible renewable wind energy. Finally, the operation of two controllers has 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 essential for maintaining the stability and reliability of power systems. A new approach for tuning 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), Automatic Voltage Regulator (AVR), imperialist competitive algorithm (ICA) |