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. The power system is designed as such that it can operate with sustainable energy sources. Optimization of wind turbines such as pitch angle control, maximum power point tracking (MPPT), and the design of the inverter is essential in this regard. Economic and environmental benefits of renewable energy sources such as wind energy make them important for the future electrical power system. The power system designer should be able to implement these technologies in order to control the system and its components. 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 Pulses Inverter, Optimal Control.
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.

PII: S232251141200003-1

An Efficient Algorithm for Lip Segmentation in Color Face Images Based on Local Information
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
Original Research, A4

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

PII: S232251141200005-1

Video Streaming over Wireless Mesh Networks

Original Research, A5
ABSTRACT: Wireless mesh networks (WMNs) have emerged as a key technology for next-generation wireless networking. Wireless mesh networks (WMNs) have emerged as a key technology for next-generation wireless networking. The novelty of WMNs is their ability to interconnect several wireless networks through a mesh topology. In this paper, we present a novel approach for video compression and transmission in WMNs. The proposed approach is based on the fuzzy logic and ANFIS (Adaptive Neuro-Fuzzy Inference System) controller. The proposed approach is compared with other existing methods and the results show that the proposed approach outperforms the existing methods in terms of video quality and network performance.

Keywords: Wireless mesh network; Client; Router; Video compression; Fuzzy logic; ANFIS controller.

PII: S232251141200006-1

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. To overcome the limitations of the PWM-VSC, a Combined Shunt Series Compensation (CSSC) technique was proposed, which is composed of a Static VAR Compensator (SVC) with a Switched Series Reactor (SSR) and a thyristor-controlled series compensator (TCSC). 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...

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 article, a novel method for designing a novel power system stabilizer and automatic voltage regulator (PSS-AVR) for a two-machine power system is presented. The PSS-AVR uses an Imperialist Competitive Algorithm (ICA) for optimal tuning of the PSS-AVR parameters. The results of this method are compared with the novel PSS-AVR method in (Hosseini et al., 2010) and MATLAB. The obtained results show the efficiency of the proposed method. Finally 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.
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<th><strong>ABSTRACT:</strong></th>
<th>Abstract – Automatic Generation Control (AGC) is a very imperative issue in power system operation for providing electric...</th>
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<td><strong>Keywords:</strong></td>
<td>Automatic Generation Control (AGC), proportional, integral, derivative (PID), Automatic Voltage Regulator (AVR), imperialist competitive algorithm (ICA)</td>
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