To control the fluctuated wind power by power stabilization using DSP Control.

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ABSTRACT – In wind power plant, output of the power is directly based on the speed of air velocity which is not constant at any time because of wind speed changed in any time period. the paper is represent the control of output power of wind generator using power stabilization   and DSP control.

Keywords: DSP, power stabilization, air velocity

1. INTRODUCTION

power stabilization and has important role in any power consumption device. or particular system. power stabilization is used for the reduced the fluctuated power of output of wind generator.

In this system we are used the some equipment for power stabilization we have some design such as regulator, inverter output filter design Hormmic constant passive filter design. and using hardware device such as. Interfaces board. digital signal processor syncohrous machine, voltage regulation, prime mover.

2. EXPERIMENTAL STUDIES

Non traditional energy sources – growth of renewable energy sources is raidly over them traditional energy

souses and in renewable wind solar tidal energy souses has important role in renewable energy sources. we are created the model with the help of single induction generator.

Generation - using the single synchronous machine for the purpose of the feneration of power and for the control device we are used the frequency & voltage.

Load – load is vary during the time period   load profile is below

Induction motor	50%
Synchronous motor	28%
electronics	22%

Load is consume between 50 to 70% of total power system energy. We are integrated only fluctuation the load using power stabilization.

DSP – Digital signal processing is a numerical processing of signal on data processing machine.

In this system we are use the control the frequency by using DSP control.

3. EXPERIMENTAL SETUP

a. Passive load

b. wind form

c. DC motor asynchronous M/C set.

4. WORK

output of wind power is control by DSP controller and power stabilizer. Power stabilizer various component has

. Interfere board

. Digital signal processor

. Control the direct – current link.

2 Control the Reactive current

3 Passive filter performances

Review – For the control of fluctuation of power of wind form we create the per unit system model in which the following term is include.

1. Inverter output filter design.

2. Energy storage Design

3. per unit system model.

after design we are obtain the result by simulation of system.

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