LOAD BALANCING STRUCTURE
FOR MULTIPLE SOURCES SYSTEMS

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Rezumat. *Lucrarea prezintă o structură de control pentru (re)balansarea sistemelor formate din generatoare/surse multiple, cu scopul menținerii constante a ieșirii globale, în condiții de funcționare defectuoasă sau perturbată. O astfel de structură de control își dovedește aplicabilitatea în cazul sistemelor formate dintr-un număr redus (trei, patru) de surse de producere a energiei, conectate în paralel, situație întâlnită din ce în ce mai des în zilele noastre, în special în structurile de tip smart grid sau, în industria energiei regenerabile (eoliană, solară) etc.*

Abstract. *Current paper presents a structure to (re)balance a multiple sources and/or generator control system on maintaining the global load, in case of charge and functioning disturbances. Applicability is proved on a control structure of the three and four sources connected in parallel to provide energy, a situation that has been encountered more and more these days especially in the smart grid or renewable energy industry (wind, solar and small generators), etc.*

Keywords: balancing; control performances; control architectures; disturbance rejection, renewable energy

1. Introduction

It is well known that the use of conventional technology to produce electrical power normally results in pollution that affects everyone. It often relies on the burning of fossil fuels that produce dangerous gases that often destroy the environment.

So now many countries/companies/communities are turning to energy sources that result from renewable sources.

Meanwhile, the use of renewable sources sometimes, needs special connection to existing distribution network, function on specific introduced disturbances.

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