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## UNBALANCES COMPENSATION FOR A THREE-PHASE AUTONOMOUS INDUCTION GENERATOR

BY

**\*C. P. ION, C. MARINESCU and \*L. CLOTEA**

**Abstract.** This paper presents a new method to supply single-phase loads using a three-phase induction generator (IG). A combination between a voltage source inverter (VSI) and a dump load (DL) ensures, besides the phase balancing of the IG, the voltage and frequency regulation. The VSI operates at constant frequency – thus keeping the system frequency also constant - and deals with unbalances compensation, while the DL performs the voltage regulation. Simulations and experiments are carried out in order to highlight the reliability of such a configuration.

**Keywords:** Renewable energy, induction generator, unbalances compensation, voltage source inverter, dump load.