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ABSTRACTS

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machine), active and reactive power, direct power control of the line side converter, direct controls of both of the converters in a DC link inverter. The idea is the same for all of them and can be generalized. Looking deeper into the operation of the direct controls, some special effects can be found: different resulting error bands and switching frequency in different operation modes of the converter, large delay in reference tracking. These can badly affect the operation of the control: larger (not the expected) error, larger switching frequency, slower control. Methods are given against them: modified switching tables, increasing the number of sectors, selecting proper sector orientation.

**Keywords:** Direct power control, direct torque and flux control, Voltage Source Converter (VSC), wind generator systems.

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### Multipolar Double Fed Induction Wind Generator with a Single Phase Secondary Winding

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The project concerns the practical applications of multipolar induction machines as generators for small and medium wind turbines. Such a multipolar generator should be built in a way that the primary and secondary windings are placed on the stator, and the rotor is tooth-like without windings, with each tooth equivalent to one pole pair. The most reliable design is that with a single-phase secondary winding, which provides efficient control of the generator.

**Keywords:** IEEEtran, double fed, induction generator, paper, multipolar.

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### The Measurement on the Solar Cells in Liberec City

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In the years 2005–2007 was realised the project “Pilot project of the power-produsing yield of the solar photovoltaic system in our climatic conditions for requirement of the supplying of the information and monitoring system of Liberec city”. The project was solved at Technical University of Liberec (TUL) with the cooperation of High School for Electrotechnics and Mechanical Engineering in Liberec (SPSE). The project was financed by statutory city of Liberec. The paper deals with realisation of the project, measurements proceeding and some particular results.

**Keywords:** IEEEtran, solar cell system, renewable energy systems, photovoltaic.