Since half-windings 9, 10 of the commutating choke 6 transmit only short-time current impulse, overall sizes of the commutating choke 6 are small in comparison with overall sizes of the choke 1 (fig. 1).

The positive circuit singularity attached to half-bridge inverter is a coercive switching is necessary over the small current range therefore blanking times of thyristors 3, 4 and gabarits of commutating component part would decrease.

Thus the half-bridge thyristor inverter can be used at wide power range particularly if supply is the three-phase rectifier.

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The work was submitted to III international scientific conference «Actual problems of science and education», Cuba, March, 19-29, 2008, came to the editorial office 21.04.2008.

TECHNOLOGICAL ADVANCEMENT OF FILLED GARMENT PRODUCTION

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One of the major tasks rising at garments designing is the development of their production technology. Especially it concerns the garments with various fillings, the structure of which is complex and multilayer.

Depending on their designation the filled garments can perform different functions: for example, the heat-protective one, if an insulant appears as a filling; or the sorption one, if chemical agents - sorbents appear as a filling. Such products are very popular at the moment, so there is a need to produce them.

However, when manufacturing such goods there emerges a range of difficulties, one of which is that the filling compounds inside the garments are necessary to be distributed and fastened so that under the effect of its own weight the filler wouldn't shift into the lower part of the garment. Special compartitions are made for the filler to be put in there for this purpose.

Some filled compartitions form the product packet, which can differ with its construction, form and components. The whole garment production technology depends largely on the construction of such a packet.

Nowadays, the most applicable constructions of the filled packets are the versions of two-layer packet constructions. Such constructions consist of the shell material's inner and outer plies fastened against each other forming compartitions wherein the filler is put. Also there are three- and four-ply packet constructions, though they haven't become common use owing to their manufacturing high labour intensity.

The two-ply packet constructions production technologies can be various. Traditionally the layers are connected by means of through stitching, but this way of layers interconnection has some disadvantages, so the layers bonding techniques by means of various supplementary elements were developed. Such elements can be resilient members and partitions. At the garment production enterprises the rectangular shape partitions are used, but using such partitions we often have appearance defects in final products. To avoid such defects the filled packets layers connecting technology with formed partitions will allow. This technology allows avoiding appearance defects and guaranteeing high quality shrink in the complete product with their manufacturing minimal labour intensity.

The work was submitted to the International Scientific Conference «Technologies - 2008», Kemer (Turkey), May 24-31, 2008, came to the editorial office on 29.04.2008.

IMPLEMENTATION OF " WASTE MANAGEMENT" MA DEGREE COURSE AT TECHNICAL UNIVERSITIES IN BAIKAL REGION – ONE MORE STEP TOWARDS THE EUROPEAN UNIVERSITY SYSTEM IN ENGINEER-ECOLOGICAL EDUCATION

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Russian University system needs harmonizing with the higher education systems of the EU member states in order to become competitive in the world economy.

In postindustrial society the raising standards in engineer-ecological education were particularly stimulated by Bologna declarations as the consequence of the changing society requirements. They

include new working conditions, an increasing demand for highly qualified and successful professionals and a consequent demand for the relevant training. Engineer-ecological standards specially adapted to European university system (degrees and qualifications) should be based on state-of-the-art, environmental and IT technologies.

Training of engineer-ecologists at technical universities in Baikal region has become a vital issue for both educational establishments and industrial enterprises. Such specialists should not only be able to improve the ecological situation in the region, but also promote its sustainable development. Creative and flexible thinking together with high professional knowledge is vitally important for engineer-ecologists in today's swiftly changing world to make a greater contribution to their communities.

The new international ecological educational project "The development of a MA degree course "Industrial and municipal waste management" at technical universities in Baikal region" has been successfully carrying out in ISTU since 2007. It has been a part of TEMPUS-TASIS programme within a "Course Development" category. The ISTU partners (department of Mineral Processing & Environmental-Engineering) are three major European universities: Dresden Technical University, Germany; Vienna Agriculture University, Austria; Copenhagen Technical University, Denmark and two Eastern Siberia universities: SibGTU, Krasnoyarsk and BSGTU, Ulan-Ude.

Long-term objectives of the project include an introduction of a new specialization – sustainable management of industrial and municipal waste - at technical universities of the Russian Federation in the sphere of engineer-ecological education. This course-work and training strategies aim to be accepted at European universities and to comply with the regulations of Bologna declaration. Short-term objectives are to provide development and implementation of "Waste Management" MA degree course at three technical universities in Baikal region.

Realization of the project will provide increased funding and improved training facilities at technical universities. It will also unable to work out and implement new methods of teaching, ECTS and e-learning systems and to facilitate teachers' and students' mobility with the consequent acquisition of higher levels of language and professional competence. An important part of the project will include sharing successful experience with other technical universities in Siberia, organization of relevant seminars and conferences, development of the project site and working out of the teaching materials.

The implementation of this educational project within the framework of TEMPUS-TASIS programme should not only increase the training standards of engineer-ecologists according to European requirements, but also establish ecological education as one of the most vital and prestigious university qualifications in Baikal region.

The work is submitted to III Scientific Conference "The Problems of International Integration of Educational Standards", Czechia (Prague) – Luxembourg – France (Paris), April, 20-27, 2008. Came to the Editor's Office on 18.03.2008.