

**A WAY TO PRODUCE NATIONAL CLOTHES PATTERN DESIGNED
IN HARMONY OF EUROPEAN AND ASIAN FASHION IN A COST-
EFFECTIVE WAY WITH MODERN CAD/CAM SYSTEMS**

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Abstract: The analysis in this article shows that the design and production of women's clothing in modern CAD/CAM systems has not been established in our Republic at the required level. Therefore, it is necessary to improve the quality and design of clothing, effectively use natural and seasonal fabrics, and build an optimal design based on modern design programs. It is envisaged to harmoniously reflect the oriental nationality in modern European women's clothing, that is, to use the assortment of national fabrics as decoration, to bring back the increasingly declining gold embroidery patterns into fashion, and to widely use national embroidered copies.

Key words: women's clothing, modernity, fashion, east, west, automated system, construction, natural, fabric, CAD/CAM.

As is known, modern CAD/CAM systems and their efficiency in production are of great importance today. The ASSYST CAD and Gemini CAD ALT systems, developed in Germany and Romania in 1985-2002, meet the requirements of manufacturing enterprises of various capacities.

We will consider the modules for design, modeling, gradation, economic layout, control of output to print, data conversion, pattern numbering, and the main indicator of economic efficiency, which can be achieved by achieving accuracy. Automated systems for clothing design entered our Republic in 1990-2000. They were expensive systems of leading foreign companies in this field, such as Investronica (Spain) and Gerber (USA). This, in turn, became the necessary impetus for other companies to work on creating new automated systems. After the Bichuv devices, software was created for the reproduction (gradation) and layout of patterns on a computer.

But since the cutting devices and service were extremely expensive, it was a problem to bring them to local sewing enterprises and distribute them widely. These problems began to be solved

after the state developed export production programs at light industry enterprises in our country. Advanced foreign technologies entered light industry enterprises. Among them are CAD/CAM systems.

Currently, automation systems from various companies are offered on the market for the sewing industry. They differ from each other in their interface features, their convenience, the method of depicting the design object and storing data, and their functional capabilities: "Assol", "Gratsiya", "Relikt" (Russia), German "Assyst", "Grafis" (Germany), GIGMobil (Belgium),

InvestronicaSistemas (Spain), LectraSystems, Pantotus (France), etc.

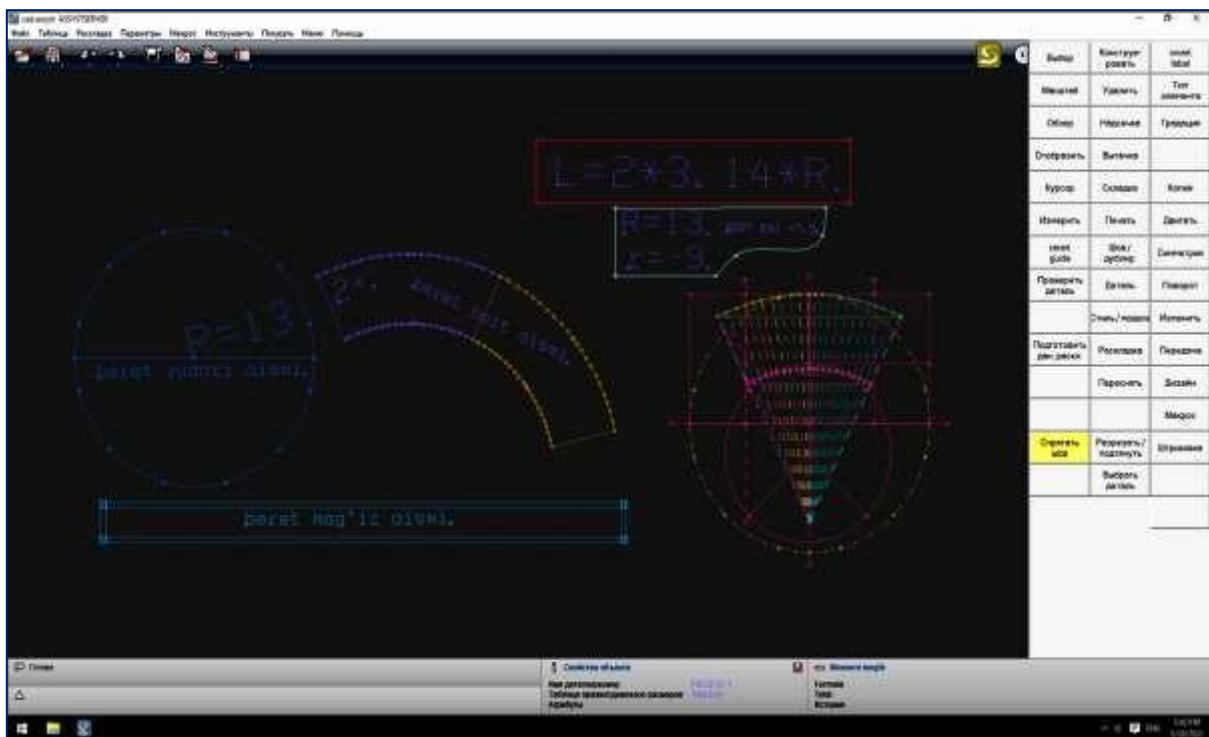


Figure 1. ASSYST CAD design of a women's beret

The main issue: These programs require financial investments in terms of purchasing a key, and for small enterprises, the programs "AUTO CAD" and "COREL DRAW" with vector and mathematical accuracy (functions of sections, arcs, circles, rectangles, etc.) are offered for free working versions. We offer these programs for large and diversified enterprises on the example of the construction of a Western national headdress - a beret for the production of clothing (Fig. 1, 2).

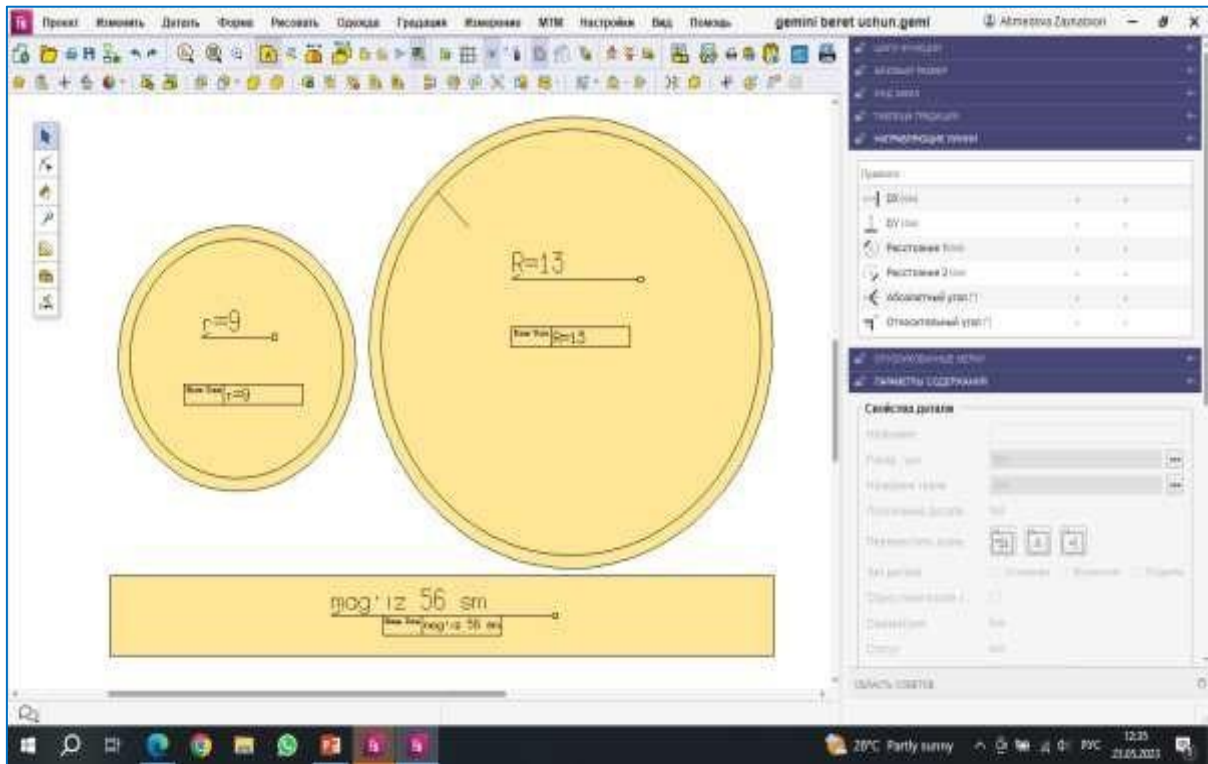


Figure 2. Drawing calculations of a title in the GEMINI CAD program

The relevance of the introduction of computer-aided design (CAD) systems for light industrial products is due to the need to ensure high dynamics of model changes, increase the volume and complexity of design developments, and significantly complicate the process, which is due to the need to increase the volume and complexity of design developments, which is based on the dissertation of M.T. Khodjaeva “Development of a method for automated design of forms of hats made of natural fur”.

Having studied several literatures, taking into account the new design of women's headgear and the fact that the production coefficient of this headgear at our country's production enterprises is several times lower than in foreign countries, we note that the introduction of women's headgear into the production of enterprises in the territory of the Republic of Uzbekistan and the harmonious reflection of European national headdresses with oriental national fabrics and embroidery patterns will attract foreign guests (Figures 3-5).



Figures 3,4,5. National demonstrations of European-style dresses

Conclusion

The modern fashion trend, silhouette, style and assortment of fabrics for women's clothing were studied. The assortment of women's clothing, the analysis of the shape-keeping properties of clothing and methods for their study, the physical-mechanical and operational properties of materials were studied, and the physical-mechanical properties of fabrics were studied in the laboratory for the quality and certification of materials for modern clothing. The most important quality indicators of clothing are ergonomic indicators, especially hygienic indicators that ensure heat retention, breathability, and sweat absorption.

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