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POPULARISATION OF DESCRIPTIVE GEOMETRY SCIENCE BASED ON THE EXAMPLE OF SCIENTISTS NIGHT AT SILESIA UNIVERSITY OF TECHNOLOGY

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There are several different definitions of science of the slogan „popularisation of science”. This paper follows the definition from „Encyclopaedia of Pedagogy of the 21st Century” (2005), namely: (...) providing knowledge, science and art and making them more accessible to wide circles of the society. The first aspect – providing – means giving the society some definite contents of knowledge, technology and art, while the second – making them more accessible consists in (...) adaptation of forms and popularisation methods to the level of education of people participating in the said process and ensuring that the difficult matters popularised become clear and understandable to the recipients. [1]

The contemporary form of science popularisation is carried out through lectures, surveillance and actions. The Ministry of Science and Tertiary Education has been supporting the science popularisation program since 2010, particularly the actions aimed at improving the communication between schools and academic institutions, which according to The Ministry of Science and Tertiary Education should lead to a situation when scientists reach wide circles of recipients. [3] [4]

Polish universities and tertiary education institutions have been the co-authors of science dissemination projects among children and youth since 2007. Undoubtedly, the most popular educational undertaking performed at Silesian University of Technology is organising the Night of Scientists of Silesian University of Technology when we can see the way good and interest attracting subjects of the lectures may gather crowds of young scientists. The excellent effects of the work contributed in the popularisation of science and presenting it in an accessible form – according to the principle “teach while entertaining”, are gained at interactive workshops that force the recipient to creative thinking.

In the meetings so far (organised since 2011) within the Night of Scientists of Silesian University of Technology, the personnel of Geometry and Engineering Graphics Centre have

presented 16 topics substantially related to widely understood popularisation of descriptive geometry.

[2]

- Polyhedrons – stars of science, culture, art.
- Geometry sewn with a string (photograph 1).
- Magic squares – Tangram.
- Cardboard box – packaging is a challenge (photograph 2).
- Street Art – drawing joke.

The paper presents the geometric topics that have been used for presentation within workshops popularising science and presents the applied methods of workshops performance that took place as part of the Night of Scientists of Silesian University of Technology, coordinated by the authoresses of this paper.



Fig. 1, 2 Examples of works done at the Night of Scientists in The Geometry and Engineering Graphics Centre: 1. Geometry sewn with a string 2. Cardboard box

References:

- [1] Encyklopedia pedagogiczna XXI wieku. Tom IV: 2005, Warszawa, s.684
- [2] Bietkowski M., Kajrunajtyś J., Kania A., Palej M., Sroka-Bizoń M., Sulwiński S., Tytkowski K., Wantrych M.: 70 lat Geometrii Wykreślnej w Politechnice Śląskiej, Gliwice 2015 r., str. 26
- [3] Rozporządzenie Ministra Nauki i Szkolnictwa Wyższego z dnia 27 października 2015 r. (Dz. U. poz. 1862)
- [4] Ustawa z dnia 30 kwietnia 2010 r. o zasadach finansowania nauki (Dz. U. z 2014 r. poz. 1620 oraz z 2015 r. poz. 249 i 1268) w art. 25