

Personnel Issues in the Application of Nanotechnology in Construction and Architecture

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Annotation:

This article discusses personnel issues in the application of nanotechnology in construction and architecture and their development in the regions of our country, in addition, to introduce new technologies in the regions of our country, introduce special courses on nanotechnology and technoparks in economic zones where science could be concentrated.

Key words: Nanotechnology, information development, personnel problem, personnel issue, technical personnel, special courses, construction technologies, nanomaterials, qualified teachers.

In the development of nanotechnology, very great prospects are opening up in the field of information development. For these developments, top-class specialists will be very needed. As the American scientist E. Teller said, "Those who have mastered nanotechnology before will take the leading place in the technosphere of the next century." Therefore, the personnel issue must be resolved at an accelerated pace.

A very important place in the development of work on nanotechnology is occupied by the personnel issue. In Uzbekistan, there should also be scientific and educational centers "Nanotechnology", within the framework of the national project "Education", which has become such an institution designed to give a powerful impetus to the development of a system of training scientific and technical personnel of high qualifications and competent in the field of nanotechnology¹.

Work on nanotechnology in the regions of the country cannot arise from scratch, it is necessary to carry out a set of measures to revive and improve education, additionally introduce special courses on nanotechnology and technology parks in the economic zones of our country, where a strong concentration of science, engaged in the development of breakthrough ideas based on nanotechnology. The development of work in the field of nanotechnology requires government and investment support.²

The introduction of nanotechnology in construction and architecture is restrained by the unwillingness of construction specialists and architects to perceive the new level of development of construction technology and materials. Without specially acquired knowledge, it is difficult to understand, for example, how the impenetrable glass of window openings is capable of transmitting steam or, depending on the time of day, transmitting a given amount of light of a certain spectrum. At present, there are not enough highly qualified teachers, specialists and scientific personnel in the field of nanotechnology in the regions of our country. The introduction of nanotechnology is also constrained by the lack of special scientific and educational programs in construction and polytechnic universities. And recent graduates cannot appreciate the possibilities of super new materials and the potential of their use in urban planning.



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¹Ravshanovich, X. S. (2021). Types of domes of architectural monuments of Uzbekistan. International Journal of Culture and Modernity, 1, 5-8.

²Есбергенов, Б. Е. (2021).

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personnel are needed in the regions of our country. And for their preparation, the scientific and educational process will have to be seriously modernized. In order to develop nanotechnology in construction and architecture in the regions of our country, it is necessary to send young personnel who are interested in nanotechnology, university teachers, researchers, masters and students for scientific internships in foreign countries.³

At this time, nanotechnology in construction and architecture is successfully and dynamically developing and therefore, it will be very necessary to study interdisciplinary subjects. In this regard, it is necessary to continuously train and improve the qualifications of teachers in this area⁴.

As Academician Zh.I. Alferov, that for the development of real high-tech today, "another education" is needed, or rather the training, attraction and retention of young specialists, personnel for work in various fields of nanotechnology and nanomaterials, it is necessary to create information centers with new training standards. In this regard, Uzbekistan is currently undergoing a lot of work to create schools, centers and universities. Technical centers for the standardization of "nanotechnology and nanomaterials" are needed.



For the development of nanotechnology, the state feeds on and intends to invest in this industry to develop nanomaterials for use in construction and architecture.

This will allow us to determine long-term prospects, as well as outline ways to use the latest advances to improve the durability, reliability and strength of buildings and structures.

And today all interested enterprises and organizations, scientists, teachers, undergraduates and students working in the field of construction and architecture can take part in shaping the future of construction science. For the emergence of new knowledge and competent specialists, a new level of development in the field of education in schools and universities is required.

Nanotechnology in construction and architecture makes it possible to change the ideas about building materials and technologies, to embody the most unrealistic ideas of architects and designers, to create a cozy, comfortable environment for human life.

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³Нарзиев, А. К. У. (2020). РАЗВИТИЕ ГРАДОСТРОИТЕЛЬСТВА УЗБЕКИСТАНА. Academy, (11 (62)).

⁴Жонузаков, А. Э., &Холиков, С. Р. (2020). Архитектурный комплекс Хазрати Имам (Хастимом)-пример сохранения и использования культурного наследия в Узбекистане. Academy, (11 (62)).

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