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MAJORING IN ENGINEERING

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The article deals with the importance of engineering profession in modern world. The very notion of the term of “engineering” has been specified. The skills needed for being professional in engineering as well as the spheres, where they can be applied, have been considered.

У статті розглянуто важливість інженерної професії в сучасному світі. Саме поняття "інженерна справа" було визначено. Були розглянуті навички, необхідні для професійного навчання в галузі машинобудування, а також сфери, де вони можуть бути застосовані

Nowadays one of the most challenging choices that young people can make is to decide on future occupation in sense of finding out really popular and demanded by society profession as well as the one you are really being involved in and wish to gain professionalism in. Indeed, it is far not an easy task currently to choose from a number of vocations the one you really like and are ready to develop and perfect skills in.

The purpose of the article is to consider why the engineering profession is relevant and being in demand, its specific features as well as personal qualities needed for the engineer-to-be as well as to reveal the gender issues in engineering profession today.

Numerous publications on the problem cover the main stages in the course of engineering profession changing and developing till present time. It is presupposed that people, choosing this profession, possess such qualities as dreamer, innovator, researcher, problem solver, inventor and creator. All these terms describe the characteristics of an engineer [1; 2]. As an engineer you might work out the next generation of the iPad or a medical device, that will help doctors to treat illness, a spacecraft carrying humans to the Mars, or the system supplying remote regions with clean water or a new sustainable power source providing ecologically clean energy, a device able to detect toxic agents and chemicals, or a new safe to earthquake building. Using basic foundations in mathematics and science, engineers apply their technical knowledge to conceive, design and implement new processes, products and systems that make our everyday lives possible. Besides, engineers are those at the cutting edge of technology, who through innovation, creativity and change provide our safety, health, comfort and recreation [2].

In fact, you can succeed in engineering as it is more based on ability and determination, than gender. Many schools, government agencies and private companies have created specialized programs, targeted to attract women into engineering. At present there are more programs than ever designed to attract women into engineering as well as to help them to succeed in the engineering environment. Experts in this sphere recommend not let gender deter you from doing what you want to do [3].

Engineering is a broad term that covers a wide range of applications and branches of industry. In the past, engineering traditionally was divided into four major branches: Mechanical, Chemical, Civil and Electrical ones with sub-branches of each discipline. Today, however, the number of engineering degrees available have increased dramatically. There are now six major branches of engineering: Mechanical, Chemical, Civil, Electrical, Management, and Geotechnical, and literally hundreds of different subcategories of engineering under each branch [3].

An engineering degree can “open you doors” to any field, any profession, any industry or career you might be interested in. There are many fields you can choose: from including electrical, mechanical, industrial, safety, chemical, aerospace, petroleum, biomedical, ocean and mining just to name only few of them. So your options with an engineering degree in the engineering profession

depend on what you want to do and your own interests. In modern world, increasingly connected with technology, having a background and understanding in engineering the doors to other professions can be opened [1].

Only in the fields of engineering, computing and engineering technology there are more than twenty five major specialties. Degrees in these fields are accredited in many countries [1].

Agricultural engineers apply knowledge of engineering technology, biological science and even agriculture. They design agricultural machinery, equipment, structures. Some specialties include power systems and machinery design; structures and environment; food and bioprocess engineering. Construction engineers are responsible for overseeing the construction of airports, malls, schools, manufacturing facilities, highways, high rise structures, water treatment plants and much more. Mechanics is the study of motion and forces. With roots in physics and mathematics, Engineering Mechanics is the basis of all the mechanical sciences and can be applied to civil engineering, materials science and engineering, mechanical engineering, and aeronautical and aerospace engineering [3].

Taking into account everything mentioned above it should be *concluded* that the engineering nowadays is one of the most relevant professions in many countries of the world and is likely to be in future. Besides, within the framework of this profession gender or racial boundaries are practically not existent.

References

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