

УДК 101.1

doi:10.18720/SPBPU/2/id23-439

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ENGINEERING AS A VOCATION

Abstract. Engineering as a profession refers to the idea that engineering is not just a job or profession, but a calling or purpose in life. This viewpoint emphasizes the importance of passion, dedication, and a sense of duty in pursuing the engineering profession, to making a meaningful impact on society, solving complex

problems, and improving people's lives, and to continually learn and grow both professionally and personally. Engineering as a profession requires a deep commitment to ethical principles, continuing education and professional development, and the use of one's skills and experience to serve the greater good.

Key words: profession choice, computer and software engineering, profession and occupation.

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ИНЖЕНЕРНОЕ ДЕЛО КАК ПРИЗВАНИЕ

Аннотация. Инженерное дело характеризуется тем, что является не только профессией или средством существования, но и призванием, формирующим жизненные цели. Такой подход позволяет выделить эмоциональные составляющие при выборе профессии инженера: самоотверженность и чувство долга. Будущий инженер осознает возможности оказывать значимое влияние на общественные процессы, на решение сложных общечеловеческих проблем, на пути улучшения жизни людей. Возникает готовность постоянного обучения и роста как в профессиональном, так и в личном плане. Инженерное дело как профессия требует глубокой приверженности этическим принципам, постоянного применения своих компетенций и опыта для служения общему благу.

Ключевые слова: выбор профессии, компьютерная и программная инженерия, профессия и род занятий.

Introduction. Engineering is an occupation with extremely wide reach. The term «engineering» covers many fields and, by extension, many skills. Engineers are scientists, inventors, designers, builders, and great thinkers. They improve the state of the planet, amplify human capability, and make people's lives safer and easier.

Engineering is that the art of remodeling the knowledge from basic and applied sciences into things useful for the human society [1]. Engineers design, build, test, operate, and maintain large, complex products and systems that serve a spread of useful purposes in most walks of human life. The «largeness» of those engineering products and systems could also be visibly evident, as in automobiles and airplanes, roads, bridges, and buildings, or national power grids and global communication networks; or their small sizes may belie the amazing complexity and ingenuity involved, as in microelectronic chips for smart phones, home appliances, GPS devices, or implanted medical electronics.

Actual engineering is an innovative program that seeks to blend the traditionally diverse disciplines of Mechanical, electrical, and plumbing (MEP) and computer engineering into one integrated engineering field. It draws its strength from the recorded successful experiences of a previous long program throughout history and provides strong computer engineering and software skills to new computer engineers. The foundational and advanced coursework in MEP builds on these computer and software engineering skills, to form the curriculum to serve current needs within the industry. In addition, Systems Engineering concepts are introduced at some levels and are heavily utilized in the most design project. Systems engineering represents a contemporary engineering skill set that's highly wanted by industry, and engineers are well positioned to satisfy those needs [2]. At present, two important concentrations are offered within the world: systems engineering and computer engineering, and many solutions within the engineering program for the foremost well-known problems within the industry.

Thinking of engineering as a vocation. Engineering and technology subjects are still very much in demand because they develop the basic skills that employers are looking for [3]. A career in engineering can take many ways, and it can be confusing to know where to start or which way to use to take off towards the world of Engineering in the field of technical careers [4].

Engineering is a very flexible field and can be applied in many ways. The engineer will probably be surprised by so many different areas in which he can work. When working in engineering as a profession, an

engineer must always direct things, ideas and actions towards high-value engineering content that relates to his or her career.

To achieve this, the engineer must get the basics right, as there is a path to engineering to suit everyone, whether the person wants to earn and learn at the same time or whether he prefers to stay in the study to eclipse the knowledge, he must have the resources he needs [5; 6].

What is the main business of engineering? For Computer Engineering and information technology, there are many engineering jobs associated with the field of information and Communication Technology. It is divided into two parts: software engineering and infrastructure engineering and physical hardware. Software engineers work with intangible computer programs that effectively power computers and communication systems. In addition, they deal with operating systems, programs, applications, sites, databases, computer games and much more. As for infrastructure engineering and physical devices, engineers specializing in this field work with network cables, motherboards, office modules and computer hardware accessories.

But to answer the above question, I can say: yes, it is true that engineers produce practical knowledge and practice the art of forming social and technical systems, and that their virtue is objectivity and precise harmony with the world as we know it, and thus give orders in which things are, so that everything is in its proper place [7; 8].

But not only that, according to what I see: engineering is a word that contains in its deep internal content many important things and things, and therefore I can know the engineer: a person who has a higher education, who always keeps his ideas and aspirations are modest, Who is able to follow and continue in order to achieve his goals, however difficult, with a standard normative and qualifications and abilities of high science fiction, as well as a high level of experience and competence in his field of Science, which makes him a realistic and practical person at the same time [9; 10].

On this basis, I can define the engineer in the following words:

$$\begin{aligned} \text{ENGINEER} &= \\ &= \text{Education} + \text{Newness} + \text{Going} + \text{Imagination} + \text{Normative} + \\ &\quad + \text{Experience} + \text{Efficiency} + \text{Realistic} \end{aligned}$$

Computer and software engineering examples. Computer and Software engineering creates high-quality software and knowledge systems using programming languages and coding [11]. It focuses on designing and modifying complex software systems to support the society we sleep in. Software engineering is one among the foremost prominent sorts of engineering industries, as we use software in nearly a part of our lives, like aviation, transport, business operations, communications, banking, finance, medicine, entertainment, resources, and infrastructure.

To enhance a company's use of technology, software engineers use their knowledge of programming and knowledge of technologies to develop a system relevant to the corporate.

Computer and Software engineers have the subsequent responsibilities:

Analyze client software requirements and develop an answer to satisfy their needs.

Write, test, and refine code to create necessary software aligned with the client's requirements.

Research, design and write new software programs and computer operating systems.

Work closely with other staff, like project managers, graphic artists, UX designers and other developers to collaborate on software projects. Support clients and colleagues on the upkeep and performance of software systems and rewrite or modify current operating systems that require alteration.

The «right/wrong» routine and «fulfilling a function». What exactly does it mean for an engineer to say something is «right» or «wrong» [12]? It's usually a fast and lazy thanks to evaluate several of the given ideas, or it's going to function a fast solution to the scenario ahead of the engineer, employing a «true / false» routine also can create confusion when situations change later. Thus, the «true/false» routine can't be explicitly guided, as that's not entirely true.

So, if an engineer takes up to fifteen seconds to explain what's «right» or «wrong» in a thought, he can add tons of ideas to the conversation during that very same time. Instead, the engineer is going to be ready to share with others: how he or she views things with others in his or her work environment, thus providing more clarity about those important

parts of the work, how he or she is going to see certain pieces of work, or where the course of action is probably going to travel next.

In my opinion, continuing to supply more value while performing the engineering job is more beneficial to the engineer and therefore the job together, because what's «wrong» today could also be «right» tomorrow, so providing such a context within the paperwork by the engineer will provide others with how you think that about this example. Without it, we just set the marks, do all the thinking, and don't help others develop their ability to dissect things, clarify on what's important, which parts have specific requirements, where we've room to maneuver, etc. On this basis, getting out of the «right / wrong» routine, exchanging tons of ideas from what the engineer thinks, and sharing those ideas together with his colleagues within an equivalent team, is extremely important to develop the work and work forward constantly, and solve problems at work quickly and appropriately, and this is often the work of the engineer actually, and this is often the right thanks to fulfill the work (fulfilling a function) inevitably without discussion.

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