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MODERN PROBLEMS OF PROFESSIONAL ETHICS IN THE ENGINEERS PREPARATION CONTEXT

The practice of market economy puts forward the requirement of moral - ethical preparation of new generation of the qualified specialists - engineers.

A problem of formation and educational preparation of such engineers who would have not only knowledge and system, analytical style of thinking but also high level of moral ideology as a platform for civilized managing in market economy is being got the special importance now.

The education today is the obligatory factor of human progress, socio economic development and global competitiveness. For this reason the social responsibility of education is high. The social - responsible economy is possible only at presence of responsible, moral personality of the engineer, economist, manager etc. This mission will be executed the more successfully, than more coordinated and integrated there will be efforts of education, business, authority and public.

In Kiev (July 6, 1999) the Ukrainian independent centre of political researches with the Centre of the international private business (USA) support has carried out the "round table" session on a theme: "Ethics of business dealing: the international standards and Ukrainian realities" with the purpose of discussion of the world standards of ethics in a sphere of the enterprises and the business partners and civil servants concerning; problems of bribery and corruption in the different countries; influence of corruption at development of the market relations; role of business associations and education in creation of the business ethics codes [1].

Among the participants of "round table" session there were businessmen, national deputies, representatives of many high educational institutions of Ukraine, journalists. Alongside with huge difficulties, the representatives of the Ukrainian business marked active work on formation of norms and standards of civilized business ethics at many Ukrainian enterprises, firms, companies.

The performance of these tasks is connected with the new educational technologies search, new approaches to organization of specialist's preparation, active methods and receptions of training using, with revival of the overlooked ethical norms of the Ukrainian people.

The analysis of the numerous publications allows making a conclusion, that the problem of a professional engineer's ethics in Ukrainian economy did not become yet a subject of serious and deep study from the scientist. In spite of the fact that the professional ethics codes at some Ukrainian enterprises are accepted and strictly observed the moral, ethical approaches in Ukrainian economy only are formed. So for example, the Ukrainian specialists did not realize a plenty of the favorable contracts with western partners owing to ignorance of the international norms of business ethics.

At the same time at many enterprises, companies of the advanced countries codes of ethical behavior are already applied for a long time; the "hot lines" for the complaints reception from the personnel connected to problems of morals are open; the special ethics committees are created; the educational programs are entered into practice, which purpose is the training to ethical methods of managing in modern conditions. In USA, for example, since 90 years XX some judicial structures began to oblige to enter the ethics educational programs in corporations, which were convicted of a deceit.

The firm "Samsung" from South Korea gives unprecedented earlier independence to divisions, unlimited initiative to all and everyone in the activity because of understanding that the value of freedom consists of opportunity not to impose the will to another's. Whether for the sake of common success achievement the chief of the firm Li Gun Hi has called all workers to

adhere the human moral norms, to raise their professional level, to respect the orders and customs of their working place [2, p. 15].

The connection of the problem with set forth above scientific and practical tasks is that the statement of a question about moral aspects of various spheres of professional technical specialist's activity is essentially important in modern conditions.

The problems of humanization of professional education which essential part is the formation of the ethical standards in the field of the business relations are actively investigated by the Ukrainian scientists. V.N. Babaev, V.P. Andrushenko, I.D. Bech, I.A. Zyazyun, G. Kanishenko, V.G. Kremen, V.A. Kudin, N.G. Nichkalo, A. Pogrebnoy, A. S. Ponomarev, A.G. Romanovsky, A. Sidorenko, S.O. Susoeva, L.L. Tovashnyansky and many others investigate the pedagogical theory and practice of modern Ukrainian education.

However there is insufficiently investigated a lot of the important aspects of a problem of effective preparation of the ethics competent engineers - professionals, many of whom under the forecasts of the experts still long time will make a significant part in the Ukrainian managing staff. In particular, there are open questions of the rational contents and forms of this preparation, its scientific - methodical maintenance, character and methods of training work. The questions of the future engineers' business ethics formation during their professional training still remain at a stage of discussion, in spite of the fact that any specialist irrespective of area of his activity, could not effectively work in a modern society without business ethics and psychology knowledge. Such knowledge should be owned by the specialists irrespective of the fact which there will be a purpose of their life, to what area the professional activity will be connected with.

The purpose of given article consists of the theoretical and methodological bases analysis of professional engineer's ethics formation with the social responsibility.

In XX century the engineer's profession became one of most widespread. It is connected with development of engineering and new technologies and scale of their application at an industrial stage of civilization development. The social sense and purpose of engineer's activity includes the development and realization of technologies ensuring the greatest possible satisfaction of all growing man's requirements with minimization of necessary resources. The society requirement stimulated development of engineering education. However the technocratic thinking prevails in system of modern technical education. The "professional" personality deformations, the growing distance among material man's and society bases of existence and moral requirements, restriction of a professional outlook by branch frameworks, unwillingness to look in the future, to estimate possible variants of the remote consequences of the accepted engineering decisions, sense of engineering activity as a whole are a consequence of this process [3].

In economic processes determining development of our society, the engineering activity is being played a more and more essential role. The results of engineering activity everywhere are surrounded the man: the norms and methods of engineering thinking will penetrate in economic, scientific, social and even humanitarian spheres of activity. In spite of the fact that various machines, mechanisms, technological and productions are the object of work for the engineer the problem "man - machine" in real life appears as a problem of the attitude among the man because the engineer deals with other people and nature - basis of society life. Therefore he is obliged to care of convenience, safety, ecology consequences of created machines. The modern engineering activity puts sharp the problems of the social responsibility, intellectual honesty and professional ethics.

The engineer - professional can not be only owner of the certain set of business qualities, he must think about moral consequences of his activity constantly. And in the same time the low professional level should remain as an object of the quite certain moral estimation. The low level of professionalism is always immorally. It is represented that today such statement of a question can become the important turn in change of public consciousness.

Studying the main professional business ethics standards can play significant role in formation of moral orientations of the future engineers. In our opinion the professional business

ethics can not be shown only as creation and distribution of the professional ethical codes. The sense and tasks of a professional ethics is much wider - it is called to pay attention to moral aspect of any kind of activity and by that to focus the man included in this activity, on moral activity connected with development of independent moral orientation, aspiration to creativity, participation in social transformations, personal perfection [4, p. 98].

Dynamism of modern life, wide circulation of information technologies on all spheres of life and activity, aggravation of global ecological problems, the processes of globalization essentially increase volume and constantly complicate the contents of professional specialist's activity. In parallel with growth of technical power, the introduction of innovation technologies occurs to crisis in ecological, social and cultural spheres - catastrophic backlog in development of ethical society adaptation to consequences of scientific and technical progress. This phenomenon is usually described in the literature by the term "unmoral" [5, p. 4].

After occurrence of new technical opportunities there is a reorganization of the public relations that in turn should result to certain agreement - formation of adequate ethical norms [5, p. 4]. However, the introduction of new kinds of the communications with new technical rules of dialogue at their use lags behind during long time from adaptive opportunities of mankind (so, at wide spreading 'radio' in practice of public life only a small part from 150 its consequences was taken attention) [6, p. 232].

The traditional way of ethical norms development which was charactered for the previous history of mankind, borrows too much time. The modern situation does not allow making society adaptation successfully to scientific and technical progress' influence by traditional ways of tests and mistakes. High speed of scientific and technical progress and social inertia of a society require the development of ethical norms and their introductions through the education system. At the present stage spontaneous formation of ethics should be replaced by regular ethical researches of engineering activity.

The increased backlog of business ethics from technical realities causes many problems in modern economy, and bad created ethical norms can result to impossibility of steady development [7, p. 32]. The ethical norms in different aspects of technique pollution are not generated still and the accepted laws and normative acts are not observed.

It is necessary to develop the modern business ethics requirements in conditions of constantly occurring changes in technical sphere. "But as we, the people, are not so rational, we could only aspire and come nearer to those optimum decisions which a rational essence is capable to develop" [8, p. 20]. Therefore these modern business ethics standards should be developed and embodied in life - future engineers have to study norms of the ethical responsibility in using technical means (scientific achievement) and skills of rational professional ethics.

Traditionally role of ethics was reduced to search of the compromise between the contradictions arising at interaction of separate individuals, man and society, man and nature, and also between social, biological and personal components of human mentality. These contradictions any more do not correspond to realities of the modern communications because they do not examine the influence rendered by engineering on a society. "That circumstance, that engineering and society are coincided and at the same time separated from each other, at the end, itself testifies about irrational, unplanned and anarchical condition of the society" [9, with 367]. These words by T.V. Adorno, said him in middle XX c., have not lost the urgencies still today. The neglect by results of technical innovations is occurred to chaotic elements in the public relations and the inconsistent installations of behavior consequently are being formed. The absence of behavior regulation is derivated to the new conflicts.

Using of engineering as a way of the communications now pushes aside the forms of interpersonal dialogue on the second plan, gradually putting on the foreground the dialogue by means of technical devices: the telephone, electronic mail and other means of the communications. However a new condition formed by communication's means has not found the reflection in the ethical requirements for the present time.

The researcher's mark that communication means' using is become a reason to verbal dialogue components losing [10, p. 9]. The system of understanding and consent achievement, produced by centuries, is being collapsed now. In means of the electronic communications frequently there is a distortion of language, its modification, wide inclusion idiomatic expressions in it. Instead of information transfer by linguistic ways the hieroglyphic system takes place that causes fears in expansion of social consumers' environment of the language substitute.

The analysis of the scientific publications allows making the conclusion that in modern conditions occurs the creation of a new direction - techno ethics which basic contents is the distribution of the moral relations and estimation of technical improvements' consequences [10]. In this connection the development and formation of ethical principles which are regulated the engineer's relation to new technical devices is especially important in modern conditions.

The creation of techno ethics is dictated also by necessity of the alternative promotion to Protestant labor ethics underlying capitalist manufacture which not only has been armed mankind scientific and technical achievement, but also resulted it in global crisis. It is possible to generalize opinion of the scientists engaged in techno ethics problems, as follows: "The formation of techno ethics' bases allows expanding the sphere of an active opposition to global ecological threat; however techno ethics should not be essentially new ethics" [10].

Conclusions. The new century was marked by essential changes of the purposes and character of public manufacture, has caused the new requirements to the purposes and contents of professional engineer's activity and his personality. Comprehension of deep moral - ethical sense of engineer's profession, his activity and social responsibility and practical realization of results of this comprehension are not simple tasks. Today there is no unequivocal approach to understanding of professional engineer's activity structure and as a consequence, the business ethical component has insufficient reflections in system of student's professional training in technical high schools. It is obvious, that the deep theoretical research of these problems is extremely necessary for informatics-psychological, scientific - methodical and organizational maintenance of professional self-determination and educational process of future engineer's preparation.

Thus, the decision of problems in preparation of new engineers' generation who has knowledge in the field of business ethics relations is connected with realization of a two-uniform task: comprehension of growing importance of the moral - ethical factor alongside with professional increasing in the engineering specialization.

Literature. 1. [http:// www. КМА seminar](http://www.kma-seminar.com). 2. Робочі процеси високих технологій у машинобудуванні: Підручник для студентів вищих навчальних закладів / За редакцією А.І. Грабченка. – Житомир: ЖДТУ, 2003. – 451 с. 3. Товажнянський Л.Л., Романовський О.Г., Пономарьов О.С. Технологія педагогічного проектування системи формування гуманітарно-технічної еліти // Наукові праці: Науково-методичний журнал. Вип.7. Педагогічні науки. – Миколаїв: Вид-во МДГУ ім. Петра Могили, 2002. – 176 с. 4. М.В. Колтыпина, Т.О. Лычева. Этика молодого специалиста. - Формирование научного мировоззрения студентов в вузе. – М., 1989, с. 90-98. 5. А. В. Миронов Техноэтика: Ответ на актуальные проблемы перехода к устойчивому развитию. – Вестн. Моск. Ун-та. Сер.7. Философия. 2004. №3. 6. Ранн Ф. Нормативные детерминанты технических изменений // Философия техники в ФРГ. М., 1989. 7. Данилов-Данильян В.И. Экология и проблемы этики // Глобальные проблемы биосферы. М., 2001. 8. Хэар Р. Как же решить моральные вопросы рационально? // Мораль и рациональность. М., 1995. 9. Адорно Т.В. О технике и гуманизме // Философия техников ФРГ. М., 1989. 10. Данилов-Данильян В.И. Указ. Соч.; Петрищева Г.Ф. Духовные составляющие устойчивого развития // Введение в теорию устойчивого развития: Курс лекций. М., 2002.

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**MODERN PROBLEMS OF PROFESSIONAL ETHICS IN THE ENGINEERS'
PREPARING ASPECT**

The given article encompasses problems of professional ethics role in the technical specialists preparing process. The attention is concentrated on an urgency and practical significance of this problem in modern conditions of development of the society undergoing transformational democratic conversions. In article the special role of education in engineers professional ethics standards creation is considered. The psychological and pedagogical conditions which promote to educate of civilizing business ethics rates in modern conditions are analyzed.