Review Article

Vietnam's Higher Education in the Era of Industrial Revolution 4.0: Opportunities, Challenges and Innovation

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Abstract

The industrial revolution 4.0 with its rapid development speed and far-reaching impacts on the development of each country, if being left behind of this revolution, the lags behind the development is also inevitable. On the contrary, if making good use of the advantages of this revolution, the opportunities are huge. Industry 4.0 is based on people, in which high-quality human resources are the core for development. This is also the development direction that each country needs to prepare for incessant changes in the future. This article will present the issue of "Vietnam's higher education in the era of Industrial Revolution 4.0: Opportunities, challenges, and innovations"
Keywords: Industrial Revolution 4.0, Higher education, Vietnam.

I. INTRODUCTION
The Industrial Revolution 4.0 (Industry 4.0) is the cohesion between technology industries. These are the technologies of the internet of things, artificial intelligence, robotics, self-driving cars, three-dimensional printing, super-intelligent computers, smart factories, nanotechnology, biotechnology... This revolution, appearing since the first decade of the 21st century, has drastically changed production resources, machines are connected to the internet and linked together through a system that can operate its own production process according to a pre-determined plan. More sophisticated devices such as computers, telephones, satellites connecting information, and internet systems were born one after another. In a German government report in 2011, the phrase "Industry 4.0" has become popular in many developed countries around the world and is defined as "a terminological phrase for the technologies and concepts of value chains" along with physical systems in virtual space, internet of things (IoT) and internet of services (IoS). The essence of Industry 4.0 is based on a digital technology platform and integrates all smart technologies to optimize production processes and methods, emphasizing the technologies that are and will have the greatest impact on 3D printing technology, biotechnology, new material technology, automation technology, robotics [5].

So how is Industry 4.0 for higher education understood? It is an intelligent educational model, aiming to link mainly between school elements - managers - entrepreneurs. This is a favorable environment for students as well as lecturers to promote the spirit of entrepreneurship, to link higher education with businesses and to strive for socio-economic development. In addition, it also helps teaching activities to take place smoothly anytime, anywhere, learners can personalize and completely decide their learning without being constrained by time and place. Students can "wear" VR (virtual reality glasses) and feel like they are sitting in class listening to lectures, or role-playing to witness simulated battles, look at relics, bring emotions and feelings. Deep memorization, making the lesson more poignant. A university is not only a place of training and research, but also a center for innovation, solving practical problems, and bringing value to society. Eliminating the concept of lecture halls, classrooms or laboratories is attached to four walls, and expanding in conjunction with businesses, with the labor market to become an educational ecosystem. In this article, the author will present, learn and research on the issue of "Vietnam's higher education in the 4.0 industrial revolution: Opportunities,

challenges, and innovations".

II. RESEARCH CONTENTS AND DISCUSSION

Consulting with previous research authors; Searching for documents and data in the university library at the beginning of the study. Find information by accessing the internet.

1. Research content

1.1. Background of Industry 4.0

Human history has experienced 4 industrial revolutions: The first time was associated with the introduction of the steam engine (in the early eighteenth century); the second is associated with the advent of electricity (at the end of the nineteenth century and the beginning of the twentieth century); the third is associated with the advent of computers (the 1960s); and the fourth is associated with the integration of many technologies, mainly information technology, biotechnology, and artificial intelligence. The term "Industrial Revolution 4.0" was first mentioned in Germany in 2011, and is now widely used in many languages around the world. The achievements brought by the industrial revolutions are enormous, strongly promoting the development of human society. With scientific and technological advances, machines gradually replace human labor, form new production, and business models, labor productivity is increasing, material wealth is created more and more. Thanks to that, people's lives are increasingly enhanced; thinking ability, way of life, and methods of social management also change in the direction of more and more science. From nearly 200 years ago, Marx once predicted the great role of science - technology, considering the development of knowledge as the biggest feature of technological revolutions: The development of fixed capital is an indicator of how far popular social knowledge has been transformed into a direct productive force. Researchers believe that all elements of Industry 4.0, from knowledge development, technical progress, labor productivity, amount of wealth created, to structural changes of the economy administration - institutions, management - administration all have developed at an exponential rate. Accordingly, a country that wants to develop quickly and keep up with the speed of advanced countries must develop a strategy to implement Industry Revolution 4. 0..

Industrial Revolution 4.0 is a combination of technologies, erasing the boundaries between the physical world, the digital world, and the biological world. These are the technologies of the internet of things, artificial intelligence, robotics, self-driving cars, three-dimensional printing, super-intelligent computers, smart factories, nanotechnology, biotechnology... This is the revolution in smart manufacturing based on breakthrough achievements in various technology fields with the foundation of digital technology breakthroughs. The center of Industry Revolution 4.0 is an information technology and the internet of things (IoT), which not only helps people communicate with each other but also helps people communicate with machines and objects; and objects communicate with each other. It has a strong impact on all industries, creating products and services that enable human society to lead fuller, more prosperous lives. And it also has the potential to lead to inequality and unemployment when new technology will gradually replace human labor. Industry Revolution 4.0 creates development at an exponential rate, from factors such as knowledge, technical progress, labor productivity, and the amount of wealth created, to changes in the structure of the economy. administrative - institutional background, management - administration.

Industry Revolution 4.0 will create a drastic change in the distribution of production resources, production and consumption methods thanks to the strong development of science and technology. The "automatic" production that is typical of the 3rd industrial revolution will soon transition to "smart" production, in which machines are connected to the internet and linked together through a system that can automatically run the entire production process according to a pre-determined plan. The wave of new technology with smart manufacturing will help technology develop and then leading to increased productivity. But to be able to apply "smart manufacturing" into practice, it is indispensable for high-quality human resources. Therefore, a country that wants to develop quickly and sustainably must develop a strategy for implementation, especially education and training. The task setting for higher education is to have a specific orientation to adapt to the new era, to train good human resources, to meet the requirements of the modern labor market.

1.2. Impact of Industry Revolution 4.0 on higher education

The impact of Industry Revolution 4.0 on higher education is huge, creating opportunities but also posing many challenges that require innovation.

1.2.1. Some general features of higher education in the context of Industry Revolution 4.0

The world today is going through unprecedented changes. Industry Revolution 4.0 has been continued to create strong changes, affecting all aspects of human life in the 21st century. This revolution will profoundly affect the global economy and society, including higher education. If higher education is considered as a necessary preparation step for learners to confidently enter life, the school needs to fully equip them with the necessary skills and knowledge, not only for the present but also for the future

From the appearance of robots with artificial intelligence with features that can replace humans, even have the ability to calculate, memorize, speak many different languages and moreover, have persistent and energetic labor with high productivity. Those features can create the risk of disrupting the labor market, in fact, advanced countries such as Japan and the United States have also used robots in a number of production fields such as automobile manufacturing, mechanical industry. Because once automated, the number of workers that can be replaced by machines will be redundant and safe jobs with higher incomes may increase. Vocational and unskilled workers may gradually be replaced by automatic production lines; a team of highly qualified workers, doctors, engineers, lecturers... must constantly learn, improve, and proactively approach new things and advances of the times, only then they able to compete and master machines and work in the context of the 4.0 industrial revolution.

In fact, higher education, in general, has not yet met the needs of the labor market; the size of the skills shortage varies by industry sector. According to Deloitte survey data with 450 manufacturing executives, the areas where workers lack the most skills are Technology and computers (70%), problem-solving (69%), basic engineering training (67%), and computational skills (60%) [4, 9].

According to experts in the education industry, in the new era, people will no longer be so important to a formal degree, to their origins or relationships, the problem is knowledge, expertise, skills... In the 4.0 industrial revolution, the opportunity for everyone is the same. Whoever has real capacity, has a good qualification, skill and can create a lot of value for society, that person will succeed. For universities, Industry Revolution 4.0 requires human resources with new skills and higher education levels.

Thus, it can be seen that the impact of Industry Revolution 4.0 on education is huge, creating opportunities but also posing more and more challenges for educational institutions.

1.2.2. Opportunities and challenges from Industry Revolution 4.0 to higher education

According to Nguyen Thang (2017), the Vietnam Academy of Social Sciences said that in the medium term, some industries may be negatively affected, such as energy, manufacturing, textiles, and electricity. However, he also found that many fields will also benefit from this revolution if they go in the right direction and catch the rhythm, such as tourism, domestic trade, information technology, education, medicine. economy, construction, e-government. Therefore, we need to have a suitable restructuring plan.

According to Thai An (2017), Industry Revolution 4.0 opens many opportunities for countries, especially developing countries, to improve productivity and shorten the development gap. At the exhibition "Vietnam Manufacturing Expo (VME) 2017" with the content "Manufacturing industry – a journey towards Industry Revolution 4.0"; The CEO of Reed Tradex (Thailand) said that applying the achievements of the Fourth Industrial Revolution will help industrial enterprises reduce operating costs by 3.6% and increase efficiency by 4.1% in a year and human resources have been being ready to learn to enter the era of Industry Revolution 4.0. This industrial revolution is a development trend based on digitization and connectivity, with a scale that has a strong impact on all aspects of socio-economic life, changing production methods and forces. future export and international integration process. Catching up with the development trend of Industry Revolution 4.0 will help developing countries improve their efficiency when participating in global value chains [7].

According to Mac Van Tien (2016), Research Institute of Science and Vocational Training, in Vietnam: unskilled laborers without technical expertise account for 83.28% of the total number of employees; trained workers account for only 4.84%; workers with intermediate professional qualifications are 3.61% and workers with college and university degrees or higher comprise for 8.26%. In 2016, this number decreased by only about 3%, corresponding to the number of workers without technical expertise representing 78.6% of the labor force, of which there are more than 37 million workers in rural areas and more than 17 million workers. 5 million workers in urban areas. Vietnam has about 10.9 million employed people who are trained, equivalent to 20.6%. There is a significant difference in the proportion of trained workers between urban and rural areas, this difference is 24.4% (urban is 37.2% and rural is 12.8%) [3]. According to the General Statistics Office (2017), in the period 2005-2015, although the labor force working in the agricultural sector decreased, it still accounted for the highest proportion. Specifically, agriculture decreased from 55.09% in 2005 to 45.19% in 2015; in turn, the industry increased from 17.59 to 21.78%; services increased from 27.32% to 33.03% [8]. This will cause no small difficulty when entering Industry Revolution 4.0.

1.2.3. Industry Revolution 4.0 poses a huge training need for universities

First of all, Industry Revolution 4.0 requires high-quality human resources who meet the requirements of knowledge, skills, and qualities, which are constantly changing in the new working environment. This is an urgent requirement for education, especially higher education. Therefore, the education sector must quickly move from a knowledge-heavy education to an education that helps develop students' capacity and promotes innovation and

creativity. Thus, at universities, new learning models will be born with the development of science and technology, gradually replacing traditional teaching and learning methods.

In all industries, breakthroughs in new technologies such as artificial intelligence, robotics, the internet, independent vehicles, 3D printing, nanotechnology, biotechnology, the science of materials, energy storage, and quantum computing will have an even stronger impact on social life. The higher education system will be strongly and comprehensively affected, the list of training occupations will have to be adjusted and updated continuously because the boundaries between the fields are very thin. Accordingly, there will be a link between the fields of physics - biology; mechanics - electronics - biology, from which a series of old majors will be lost and replaced by opportunities for the development of new training majors, especially those related to the interaction between humans and machines. The labor market will have a strong division between low-skilled workers and high-skilled workers. The researchers point out that Industry Revolution 4.0 not only threatens the employment of low-skilled workers but even middle-skilled workers will be affected if they are not equipped with new knowledge - creative skills for the 4.0 economy. The Industrial Revolution 4.0 not only creates first training opportunities for young people but also requires those who are already employed, from workers to engineers, to change and update their knowledge and skills at a higher level. According to analysts, the need to train new information technology staff is a great opportunity for universities.

1.2.4. Industry Revolution 4.0 changes all activities in universities

To meet enough human resources for the creative economy, it is necessary to change training activities such as program innovation, teaching methods, student management, testing methods, and output standards assessment, with the strong application of information technology. Accordingly, the old teaching methods are no longer suitable for the needs of society. With the application of technological achievements, learners anywhere can access the school's library for self-learn and self-study. Thus, the traditional library model cannot exist, but universities must build electronic libraries. Schools must change their teaching model such as online training without classrooms and teachers in class, learners will be guided through the internet. Virtual classrooms, teachers, and devices with simulation, lectures digitized and shared via platforms such as Facebook, YouTube, Grab,

Uber... will become a development trend in activities of university training in the near future. Then, knowledge cannot be limited and exclusive to one person or within a certain organization. Students have many opportunities to approach, accumulate and refine new and interesting things to become global citizens which future workers able to work in a creative and competitive environment. The reward for students is no longer a degree on paper, but a degree in an extended sense which is the exchange of knowledge, creativity, and values contributing to society. So, recruiting organizations and businesses need people who can do the job, not people with high degrees. Thus, universities will have to change drastically to a model of training only "what the market needs", the content of basic subjects will have to be shortened and replaced with the necessary one necessary to meet the needs of the labor market and help learners realize the motto "lifelong learning". According to this new model, the connection between training institutions, organizations, and enterprises is an indispensable requirement to complement each other and promote the formation of training institutions in enterprises to divide general resources, make the resources used with the highest efficiency. This will affect the arrangement of management, service, and teaching staff of universities. When that, all data of learners from codes, scores, personal information... are digitized in one place. In many cases, teachers only need to upload documents to the "cloud", everyone debates on the "cloud" while still ensuring privacy, efficiency, and synchronization. Faced with this fact, if schools do not change their training models, they will be obsolete and there will be no learners. What are the needs of businesses in particular and the market in general, the more learners will tend to find places that meet those needs? This is really a challenge because most schools today just stop at the level which lecturers teach by projectors, videos, and sharing documents online. Limited funding is also one of the main reasons why science and technology applications have not developed strongly in universities.

In the Industry Revolution 4.0 environment, each student with different learning needs and abilities will be designed with a separate learning schedule suitable for each person. The training software will replace part or all of the knowledge of the textbook when learning in class. Instead of focusing on providing learners with knowledge and skills, the new teaching model mainly guides students on how to self-study, how to think, and handle situations in life, thereby forming their competence approach and solving problems.
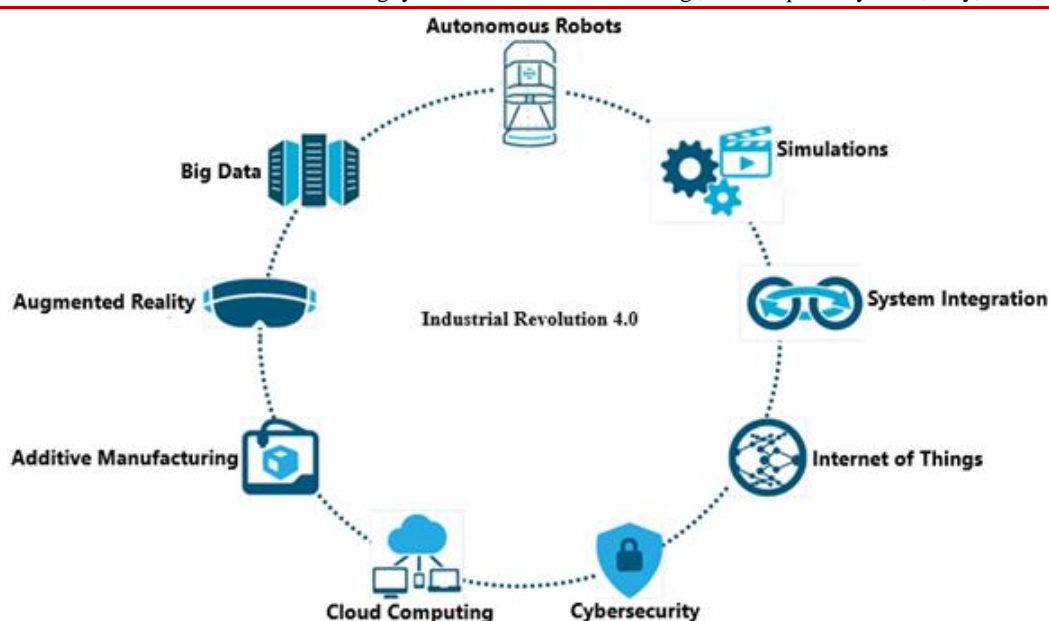
Picture: Nature of Industry Revolution 4.0 [10]

For the teaching staff, the school management system with the support of technology will provide a data system to help them track the progress of each class, and promptly solve the problems arising during their studies. Therefore, lecturers need to make efforts to study and research to be able to take advantage of and master technology, so that these tools support and create freedom and creativity in training.

In the face of increasingly high requirements of the labor market, to match the new production environment, training activities of universities must be linked with organizations and enterprises in order to shorten the gap between training, research, and implementation. Promote the development of training at enterprises, develop schools in enterprises to train human resources suitable to the technology and organization of the enterprise. Strengthening the connection among universities and businesses on the basis of enterprises' social responsibility, aiming at businesses is really an "extension arm" in training activities of the university so as to effectively use its equipment and technology to serve the training work, thereby forming the professional capacity for learners during the training and internship at the enterprise.

1.3. Renovating higher education in the context of Industry Revolution 4.0

Clearly identifying the challenges facing the education and training sector, we need to: "Strongly shift the educational process from mainly equipping knowledge to comprehensively developing learners' capabilities and qualities. Learning with practice; theory associated with the practice; School education combines with family education and social one" [1, 2]. To achieve the above-mentioned goals, universities need to innovate really and quickly, first of all in terms of

higher education policy, management activities of the university, and teaching staff.

1.3.1. Policies for higher education

The Industrial Revolution 4.0 is happening very quickly and completely changes the appearance, thinking of owners - employees, as well as the previous working way of people. To take advantage of opportunities and overcome the challenges of Industry Revolution 4.0, we need to promote innovation policy in technology, encourage start-ups; comprehensively change education and training to have a human resource who can quickly apply the achievements created by the digital revolution in order to create breakthroughs for the economy and society.

On the basis of analyzing the opportunities and challenges for higher education on the threshold of Industry Revolution 4.0 as above, referring to the strategies and policies of advanced countries in the world for higher education, we can draw a conclusion. Some recommendations are as follows [6].

1.3.1.1. Legal corridor

It is necessary to revise the provisions of new laws and industrial policies before the Industrial Revolution 4.0 taking into account factors such as improvement of framework conditions, enforcement of competition rules, openness to trade, and specialized skills. Support links, innovative activities based on different forms among businesses, universities, and individuals; strengthen business support in new technology areas; attract multinational firms and strengthen the role of domestic companies in global value chains. Besides, improving the efficiency of network security management and intellectual property management system when new technologies will blur the boundaries between countries and continents,

maximizing the level of information sharing everywhere. Create an open environment for creative businesses and consider businesses as the center of development.

1.3.1.2. Reasonable allocation of investment capital for science and technology development combined with promoting human resource development

Formulate a development strategy for the automation and high-tech industry; focus on cooperation between science and technology and production, business; and deploy and apply new technologies, especially in the private business sector. Strengthen high-tech scientific research, invest in research, quickly approach science and technology trends in areas such as new materials, new energy, digital, information technology, automation, artificial intelligence, biotechnology. We have identified science and technology as the most important motivation in the country's development strategy, but the investment in this motivation is still very limited.

1.3.1.3. Science and technology development

The most important motivation that must be linked with in the modern market economy is international integration and private enterprise is harmonious and organic to create a business environment, integration towards digitization, increasing the content of science and technology, added value, and competitiveness. To do so, it is necessary to have a system of specific and synchronous solutions suitable to the new "production force", linking the science and technology market with the goods and service market, and education and training with the needs of the market economy, building a national innovation system to put businesses, especially small and medium-sized enterprises playing a central role in developing the digital economy, transforming science and technology, and Education and training really become motivation and goal of development.

1.3.1.4. Implement synchronously support solutions

Such as propaganda, increasing awareness for the whole society, particularly the business community about the inevitable trend of Industry Revolution 4.0. Strengthen international cooperation in development research and technology transfer, especially in fields and investments, and sponsor organizations and individuals with excellent scientific and technological initiatives.

It is necessary to promote the tectonic role and institutional reform, increase investment in creating a dynamic business environment to promote technology spillover; improve the labor market and the system of advanced education and training; enhance skills, and develop human resources to adapt to the rapid changes of technology and the development of Industry Revolution 4.0; it is essential to have in-depth studies to

fully realize and promptly adjust strategies and policies most effectively in time.

1.3.1.5. Renovating the school's management activities

Universities need to change the training model from knowledge transmission to quality formation and capacity development of learners; from training mainly according to quantity to improving both quantities, quality, and efficiency; from focusing solely on imparting knowledge to a combination of three objectives: knowledge, skills, and attitudes in order to bring out the best in an individual's potential.

Thus, the higher education system must focus on developing the qualities and competencies of learners through orienting the most suitable pathways for different groups of students to help them realize their potential. The brand name of a university is not only assessed through the rate of graduates having jobs, especially in the right fields, position on national and international rankings, but also the sustainable development of students. employees, the ability to adapt to the new working environment, the ability to innovate, and be creative in the process of professional activities. To meet that requirement, universities need to have many programs, both training and retraining for different subjects as alumni, to help them update new knowledge to continue to supplement and complete good yourself.

Universities must be built into research and technology transfer centers. Universities need to show a pioneering role in carrying out scientific and technological research missions; is a platform promoting innovation, provides a launching pad for young people and startups, and keeps the pace of development for industries. Universities also need to catch up with the trend that is training time for highly qualified workers not only be limited to a short period of time but throughout their working life as learners continue to return to learn more and have more knowledge, skills after graduation.

1.3.1.6. For students

It is necessary to switch from memorizing and remembering a lot to forming the ability to apply, adapt, solve problems, handle situations, and train thinking. Not only learning in textbooks and books, but also learning through practice, socio-economic reality, games, interactive relationships, through projects, and must identify learning as regular, related work. customs and lifelong learning.

Promote foreign language learning, especially English; enhance the application of information technology in the process of teaching-learning and school administration. In the current context of globalization and deep integration, foreign languages, such as English, are the key to expanding and updating human knowledge. If you are not good at foreign

languages, you cannot achieve scientific and technological achievements. Applying advanced technology in foreign language teaching, with an electronic learning system suitable to all subjects so that learners can learn foreign languages anytime, anywhere, by any means, in particular, development of listening and speaking skills. Create a foreign language learning environment in schools, families, and society so that everyone can learn foreign languages together. Make conditions for learners to access digital and technology to easily absorb new achievements in science - technology of the world.

1.3.1.7. Education program
Need to specify specific output standards, general qualities, and professional competence; to quickly innovate from the enrollment stage to the assessment and accreditation of education quality, especially graduates. Training objectives must be towards graduates having the ability to think and create, innovate, analyze and synthesize information, the ability to work independently and make decisions based on data analysis. The university should be a place to lead thinking and motivate students to start a business, connect with the market and businesses.

Regularly review and renew training programs, linking theory with practice. University training firstly provides a basic theoretical system as a solid foundation for students to have "capital" to approach practical problems that are constantly changing. Make maximum conditions for students to practice, get acquainted, and grasp the advances of science - technology in the training field.

Diversify programs and serve all learning needs of students. Each student has different learning needs and abilities. The school develops mechanisms to discover, nurture and motivate students to identify and pursue their interests and passions. This requires universities to develop different training programs and pathways to cater to different needs and learning styles. Some people have a need to learn quickly and graduate early; or focus on some core subjects first, after going to work they will return to complete the study and research program.

1.3.2. Innovating the activities of the teaching staff
According to the traditional educational method, the teacher transmits knowledge and information to the students. Nowadays, websites on the internet are gradually replacing that role which is providing information quickly, conveniently and free of charge. . Students are no longer limited to four classroom walls, but have the opportunity to study anytime, anywhere, expand globally. The problem is, when technology maximizes the goals of knowledge and skills, but cannot replace the teacher who transmits and inspires students about their attitude to life and work and adapts to all changes, cooperation, and

creativity. At present, capacity and attitude play a decisive role in the training goals of schools. Knowledge is not only received through textbooks, reference materials, in class, but added, renewed, and multiplied hour by minute, students can easily learn, but must be through dialogue, working in groups, criticizing problems, the teacher will stimulate thinking ability, passion for research and discovery of new things in students.

Forms of online learning require the teacher not to transmit knowledge anymore, but to be the guide and coordinator to create a learning environment for students; not lecture but focus on helping students orient their learning. The lecturer must not only be good at his profession, ready to answer students' questions but also have the courage to regularly improve his ability to adapt to new situations, especially in time to innovate teaching and learning methods, maximizing the application of information technology and visual aids to the teaching process.

Therefore, the role of the lecturer changes drastically. To meet the requirements of Industry Revolution 4.0, lecturers need to be improved their capacity by training on the use of teaching technology, the application of advanced forms and online models in training, promoting scientific research, research-oriented training, and improving foreign language skills as follows:

1.3.2.1. Professional competence
Teachers must be fostered to grasp and participate in advanced training forms, online training, and distance learning in order to both improve their professional qualifications and approach new teaching models which help them supplement professional knowledge, diversify teaching forms. Online teaching models must be applied in university training, such as E-learning (management system model through online); B-learning (teaching model combining classroom learning, and online cooperative learning and self-study); video conferencing (many people teleconference through television exchange, communicate with each other). In the current era, it is necessary to replicate the linking model among schools - managers - entrepreneurs, creating conditions for lecturers and students to innovate, create, and associate theory with practice.

1.3.2.2. Ability to use modern equipment and facilities in teaching
That is the ability to manage resources and data on the internet, proficiently uses new technological means to serve the teaching process. Thus, the teaching staff must be regularly studied and trained about informatics, methods of using information technology to actively guide students to update knowledge and new technologies.

1.3.2.3. Scientific research capacity

The results of scientific research are firstly applied for teaching work. Then, the new lecture content will have depth, making conditions for teachers to apply modern teaching methods. Through scientific research, lecturers' thinking capacity is trained and enhanced.

1.3.2.4. Training and fostering to improve foreign language skills

Nowadays, English is a global language. Most of the scientific and technological achievements are conveyed in English. Therefore, in order to inherit and absorb the intellectual quintessence of the world, university lecturers must be fluent in foreign languages, especially English. This is also a mandatory requirement of advanced universities in the world.

Thus, universities in the era of Industry Revolution 4.0 are not only a place for training and scientific research but also a center of innovation, promoting entrepreneurship among students and improving labor productivity to meet the socio-economic development needs of each country. Schools must set up a development strategy to adapt to the new era, boldly innovate training, from curricula and teaching methods to building a lecturers' contingent and renovating management according to new criteria - scientific and modern. Only then, new universities can meet the requirements of the 4.0 industrial revolution.

III. CONCLUSION

Concentrate the available strength and seize the opportunities of Industry Revolution 4.0. To do this, we need a holistic and unified global view about the way of technology is impacting our lives and reshaping our economic, social, cultural, and human environment in Industry Revolution 4.0 era (digital citizenship).

Education in general and higher education, in particular, is one of the areas that will be affected by the 4.0 industrial revolution faster, because education itself will also create new versions of the next Industrial Revolutions. Right from the university lecture hall, teachers need to help students accumulate knowledge about information technology, timely update and apply the world's latest scientific and technical advances to life. Besides, they are equipped with foreign languages and soft skills which have the opportunity to compete for jobs when graduating and open the door to enter the globalized playground.

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