



RENEWABLE ENERGY TECHNOLOGIES

MOTIVATION AND OCCUPATIONAL SAFETY OF EMPLOYEES IN THE SECTOR

MODULE

2022-2-TR01-KA210-VET-000098216

IN RENEWABLE ENERGY TECHNOLOGIES ACCORDING TO 4.0 STANDARDS NEW APPLICATIONS



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1. YOUNG PROFESSIONALS SUCCESS SECRETS

For young professionals who want to build a career, it is important to be aware of the characteristics required for success in business. Being prepared for a period that requires education, discipline and hard work can open the doors of opportunities. As David Rockefeller noted, if we can meet these challenges without losing courage, the opportunities may be better than ever..



In today's world, people need to have a job/profession in order to survive and reach a good standard of living. Research reveals that these individuals feel more valuable in society and hold on to life better.

It is known that, especially in the globalizing world, people who have a successful career in the professional field are more motivated and can think more innovatively. Young professionals have the chance to achieve greater success in the business world by specializing in their field. Because this age group aims to work intensively and improve their own skills, thus becoming more competent in business life.

In terms of job opportunities, new doors are opening for young professionals in many parts of the world. Thanks to technological advances, increased communication opportunities and strengthening of international relations, job opportunities for young professionals are also diversifying. Advantages such as working abroad opportunities, opportunities to cooperate with international companies and projects from abroad are among the issues that attract the attention of young professionals.

Success for young professionals is only possible with education, discipline and hard work. At the same time, it is also important for them to constantly improve themselves, follow new trends in the business world and be open to innovation.



When young professionals have the skills necessary to prove themselves in the business world, they will take a big step towards success.

Job satisfaction

It is of great importance for young professionals (25-34 years old) that business people who continue their lives as professionals love their work and provide emotional satisfaction.

Job satisfaction refers to a person's satisfaction with his job. Young professionals are structured as individuals who desire to establish an emotional bond with their work and be happy. Their passion for their work is directly reflected in the work they do, which increases their happiness. For young professionals, it is important for job satisfaction that their work is appreciated and valued by the employer. Their work symbolizes their professional purpose of existence and represents an area in which they want to express themselves. In addition, people's ability to stand out and show themselves in their jobs is among the factors that support job satisfaction.

It should not be forgotten that job satisfaction is one of the secrets of successful people generally establishing a passionate relationship with the work they do.

Job satisfaction is an important factor that ensures the psychological satisfaction of young professionals.

This means that their working life is welcomed by both themselves and their employers or service recipients. Job satisfaction brings many positive results. These results enable young professionals to become individuals who are happier, more motivated, more productive and spend more time on their personal development, both at work and outside of work.

Young professionals who achieve job satisfaction tend to establish healthier relationships with their colleagues when they see that they are doing their job well and that this is evaluated positively by their employers or service recipients. This development allows young professionals to increase their professional reputation in their environment, experience improvements in their wages and be exposed to positive discrimination. In addition, young professionals develop a more constructive and protective attitude towards their environment and the world they live in. This contributes to increased work efficiency.

It is important that work provides an opportunity not only for material development, but also for spiritual and personal development. Dissatisfaction at work can cause young professionals to waste their lives. Lack of love for their own profession can lead young professionals to complete unhappiness. They even perceive positive criticism as negative, and their relationships with colleagues weaken. In this case, young professionals' perceptions are not clear enough and they begin to display a callous and careless attitude. They also have a negative attitude towards pricing. Such people disrupt the working peace in the workplace and as a result, they become unhappy, pessimistic and unproductive in their own world and business life.

Job satisfaction is an important element that supports the personal development of young professionals and enables them to be successful in their business lives. Young professionals who love their jobs and are satisfied with their jobs become valuable assets for both themselves and their employers or service recipients..

Motivation



Victory, "Victory is mine." It belongs to those who can say. Success is "I will succeed." It belongs to the one who starts with "I succeeded" and says "I succeeded" at the end. These words can be a way of thinking that inspires us in life as young professionals. Young professionals aspire to be motivated for success and achieve their goals.

Motivation is an internal power and enables a person to take action towards a certain goal. For young professionals, motivation enables them to focus on career goals, progress and achieve success. To be successful in the business world, constant work and effort is required. Therefore, it is important that the motivation of young professionals is always high.

However, the motivation level may drop from time to time. It can be difficult to maintain motivation on long-running projects or repetitive tasks. In such cases, it is important to turn to sources of motivation. Young professionals can benefit from different resources to stay motivated.



First, it is important to focus on goals. Setting short-term goals, tracking progress, and celebrating success can increase young professionals' motivation. Additionally, achieving small successes in the work environment and working with a supportive team are also motivating factors.

Second, investing in personal development can also increase motivation. Young professionals can fuel their motivation by learning new skills, attending training, or taking time to maintain their own talents. As they improve themselves, they realize their potential for greater success.

Finally, maintaining balance and maintaining a good lifestyle can increase motivation. Young professionals making time for themselves, making time for their hobbies and maintaining a healthy lifestyle reduces stress and increases motivation. Fitness and a good mood provide motivation on the path to success.

In conclusion, for young professionals, motivation is an important factor to achieve success. Factors such as focusing on goals, personal development and attention to balance can increase motivation. Young professionals can maintain their motivation and achieve success by nurturing their inner strength and reaching out to support resources.

Every individual understands what motivates him/herself and uses these as motivation tools. While a good meal may be motivating for some people, a kind word is more effective for others. While eating is an internal activity, hearing a kind word provides external

motivation because it is an external influence. Motivation in business life comes from both internal and external sources such as success, appreciation, status, financial gain, and enjoyment of work.

As Confucius said, the desire to win and the desire to achieve success, when combined, lead to personal excellence. Our motivation is successful depending on what gets us to the end. Success does not come easily, it is necessary to make an effort.



Continuous learning and self-improvement are important for professional success. The life stories of the people we inspire are quite interesting. They are all different, but what they have in common is that they work tirelessly. For example, Albert Einstein revolutionized the field of theoretical physics by continuing his work tirelessly.

As Abraham Lincoln said, we should never give up because only those who quit lose. In order to maintain our motivation, we must focus on internal and external factors and move forward with determination to achieve our goals..

Technical Expertise and Ethical Conduct

Technical expertise is a concept that requires deep expertise and high skills in any field. For young professionals aged 25-34 who want to specialize in this field, it is necessary to go beyond just technical knowledge and skills. As a criterion that gives respect, it is very important to adopt the principles of ethical behavior.



Ethical behavior can be defined as a concept in which correct behavior is determined. However, it should be noted that this is not enough. Ethics includes a set of rules and principles that can be applied in different fields. In business life, professional ethics should be at the forefront. While commercial ethics is based on values such as honesty, transparency and justice in the business world; Personal ethics is the individual's use of ethical values with a sense of responsibility towards others.

Ethical behavior is of great importance for young professionals between the ages of 25-34. Therefore, young professionals who want to become technical experts should not limit themselves to just technical knowledge and skills. Adopting ethical principles of behavior will help them gain respect and operate reliably..

To attract this audience and meet their needs, it is important to present content about technical expertise in an informative and understandable way. There should also be a focus on the importance of ethical behavior that will help young professionals advance further in their careers.

Professional ethics includes the rules of conduct that must be followed, especially for professions directly related to people. These rules aim to regulate the relationships between members of the profession and their relationships with society. Professional ethics emphasizes the importance of ethical behavior that has a compelling impact on individuals and society. In addition to the rules of conduct determined by written and verbal rules, there are also values that are not expressed in professional ethics. These values are invisible rules that protect the profession and its members in the business environment, give respect to the profession, and increase the reputation of the profession and its members. Compliance with these rules also helps regulate relations between professionals and society..

Basic principles of professional ethics for the target audience of young professionals (25-34 years old)



1. Professional behavior: It is important to carry out professional activities in a professional manner. Being professional means doing things in an orderly and effective manner and acting in accordance with professional moral values..

2. Honesty and compliance with the law: Professionals must perform their work in accordance with the principle of honesty. Compliance with laws and ethical rules helps maintain professional reputation and trust.

3. Reputation management: It is important to care about the reputation of our customers as well as protecting our own reputation. Doing our job professionally and reliably increases our customers' trust in us..

4. Being respectful: Respecting people and the environment is important in professional relationships and social interactions. Empathizing and respecting different ideas and values are part of professional ethics.

5. Social responsibility awareness: As professionals, we have responsibilities towards society. It is important to contribute to projects that will benefit society and to be sensitive to social problems.

6. Cooperation and work environment: It is important to create a good work environment, respect the rights of employees and provide them with a safe working environment. Encouraging the best use of talents and providing equal opportunities is also important.

7. Decision making: Decisions regarding employees should be made based on their qualifications, performance, skills and experience. A fair decision-making process is a requirement of professional ethics.

8. Ethical values: It is important to consider the ethical dimensions of our activities and comply with ethical values such as honesty, transparency and impartiality. Corruption, including bribery, should not be tolerated.

Young professionals must act in accordance with professional ethics to be successful in their business lives and develop their careers. Professional ethics can be secured through employment contracts and various protocols, even if they are not written. Contracts and protocols with employers are signed between employees and employers and are reviewed and updated at certain time intervals..

Professional Communication



Communication, the most important element of professional ethics, is of great importance for young professionals. When strong communication is established with employers and other employees, possible problems arise less and quick and effective solutions are found to problems.

Communication is the mutual transfer of emotions, thoughts, information and news between people in different forms and ways. In business life, communication means understanding each other and working together.

Here are some important communication tips for young professionals to succeed in business:

-Active Listening: One of the most important elements of communication is active listening. Listen carefully and try to understand what your employers and colleagues say. Understanding problems and needs allows you to find better solutions.

- Empathize: Empathy in the workplace can be used as a way to strengthen your work relationships. Try to understand your colleagues' emotional states and needs. Showing empathy encourages teamwork and ensures cooperation.

-Being Clear and Understandable: Clarity and understandability are very important in communication. Express your opinions clearly and concisely to your employers and colleagues. Communicating in a complex way can lead to misunderstandings and unnecessary problems.

- **Solving Problems Quickly:** Communication is an important tool for solving possible problems. Focus on solving problems by communicating quickly and effectively when problems arise. You can achieve better results by collaborating and communicating openly.



For young professionals, improving communication skills and complying with professional ethical rules is one of the cornerstones of success in business life. Active listening, empathy, clear communication and solving problems quickly will help young professionals advance in their careers.

Healthy and effective communication is an important component of a successful business life. To communicate correctly, four main components are needed: source, message, channel and receiver. Let's explain these components in more detail through an example.

For example, purchasing manager Ekrem Bey sent an e-mail to warehouse manager Mesut Bey and asked, "Mr. Mesut, has the inverter we ordered on Tuesday arrived?" asks the question. Here, the source is the person with whom the communication is made, that is, the purchasing manager. The source can also be thought of as the person or group who sends the message for communication..

For healthy communication, the message must be short and clear. Our aim is to ensure that the recipient understands the message as soon as possible and can give the necessary response. The shorter and more understandable the message, the faster the response will be. Additionally, a short and clear message prevents misunderstandings.

In this example, Mr. Mesut was asked a question about work. The purpose of the message is to find out whether the material has arrived or not. We call the communication channel used to ask the question a "channel". We may ask the question verbally, via SMS, social media accounts, email or through another employee. The channel used in this example is the email channel.

Channel selection is also important. When we use a communication channel that the recipient does not use, the message does not reach and communication is interrupted. To avoid this problem, businesses often use the corporate email system. In this system, not only the source and receiver, but also other units acting as control receive the message. In case of any delay, they step in to complete the communication.

On the buyer's side, the addressee of the problem is Mr. Mesut. He is responsible for answering this question.

For healthy communication, harmony must be achieved between the four main components: source, message, channel and receiver. This increases the efficiency of businesses and helps solve problems quickly. Good communication is a fundamental requirement for a successful business environment.

Adaptation to the Digital World



Digitalization is a concept that stands out as 21st century skills today. It is the process of transferring traditionally performed services, works and productions to the digital environment using digital technologies and processing and using them in this environment in order to adapt to our social life. Digitalization occurs by transferring information, data, services and products to the digital environment.

Digitalization has not emerged as just a phenomenon in human history. After starting with hunting and gathering, people preferred to engage in agriculture and then move to a settled life. Various production processes were implemented in this process.

For the target audience of Young Professionals (Ages 25-34), we can focus on the importance and advantages of digitalization. Individuals in this age range are generally familiar with technology and tend to use the digital world actively. Digitalization is an important factor for them to compete in the business world and develop their careers.

Additionally, people in this age group often enjoy keeping up to date with news about digitalization and exploring new technologies. Therefore, it is important to craft content to appeal to these interests. For example, we can offer them new ideas and trends by addressing topics such as digital marketing strategies, artificial intelligence, data analytics.

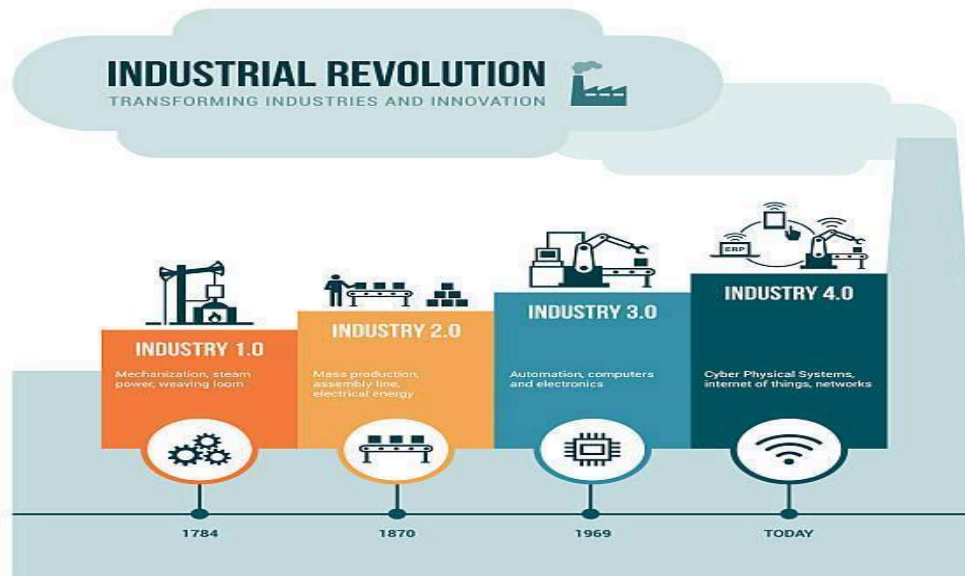


When talking about the advantages of digitalization, we can focus on issues such as increasing efficiency in business life, streamlining processes, and expanding collaboration opportunities. At the same time, we can highlight the opportunities that digitalization offers for personal development and learning. Online training, remote working and the opportunities provided by digital platforms provide young professionals with an advantage in terms of continuous learning and self-improvement.

As a result, digitalization is of great importance for young professionals. They need to actively use digital technologies to make them competitive in the business world, develop their careers and stand out with innovative ideas.

Development Process of the Industry

Over the last 300-400 years, production processes have evolved significantly. These developments are expressed in stages called industrial revolutions. Industrial revolutions are discussed in four stages in total.



The first Industrial Revolution occurred with the invention of the steam engine. The steam engine was invented in the 18th century, and production, which was previously done on hand looms, was replaced by steam power.

Then, a technological revolution that can be described as the Second Industrial Revolution occurred in the 1860s. During this period, the production of iron and steel came to the fore, and the discovery of electricity was also one of the prominent features of this period. Thomas Edison, one of the pioneers of the Second Industrial Revolution, is known as the inventor of direct current electricity and stands out as the inventor of the light bulb. At the same time, Nikola Tesla, the inventor of alternating voltage, introduced many electrically powered devices to the industrial sector. During this period, the invention of the automobile and the American automobile giant Henry Ford's introduction of mass production were among the important developments.

The discovery of the transistor and the invention of the computer in the 1970s come to the fore as the third industrial revolution. Thus, production has become more efficient with automation bands. One of the most important features of the Third Industrial Revolution is that the machine replaces humans. Robots and microcomputers have become the main elements of production. On the other hand, the concept of renewable energy sources began to be used effectively for the first time at this time. Protecting the environment, protecting resources and increasing production have become the main goals. The concept of information communication technologies has emerged

The Fourth Industrial Revolution, namely Industry 4.0, expresses the latest technological developments in itself. Especially with the complete digitalization of physically working systems, concepts such as smart factories, autonomous robots, cloud technology, virtual reality, augmented reality, big data, internet of things have begun to be used frequently. The difference of Industry 4.0 from other industrial revolutions is that it introduces the concept of the internet of things through the use of cyber-physical systems at every stage of

production with internet network or cloud technologies. In this way, the system will control itself and minimize production errors while performing mass and flexible production.

Industry 4.0 made its name known for the first time at the Hannover fair held in 2011 with the support provided by the German government. The world's technology giant countries supported this industry and planned their long-term goals accordingly.



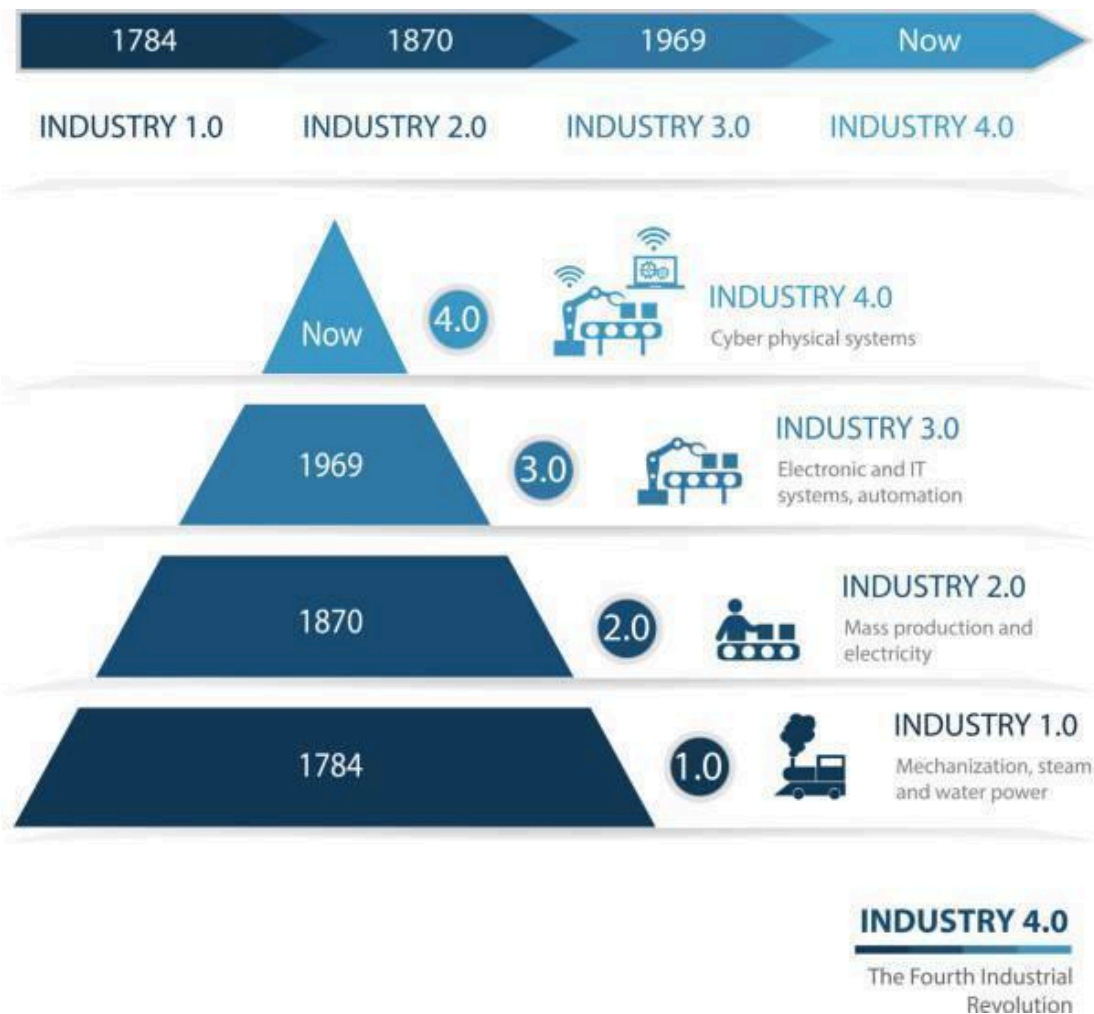
Industry 4.0 aims to make production more efficient, flexible and personalized with the integration of digital technologies into production processes. Digital technologies are transforming production processes by:

Automation: By automating production processes, digital technologies reduce the need for manpower and increase production efficiency.

Smartening: Digital technologies add smartness to production processes and enable production decisions to be made more accurately and efficiently by collecting and analyzing real-time data at every stage of the production process.

Personalization: Digital technologies personalize production processes and make it possible to offer products and services tailored to customer needs.

Digitalization and Industry 4.0 are leading to a revolutionary change in the industrial sector. This change transforms production processes, business models and workforce structure.



Digital transformation and Industry 4.0 provide many important benefits for businesses. These new technologies offer various advantages in the business world, such as increased efficiency, cost reduction, new business opportunities and increased competitiveness.

With the application of digital technologies, productivity increases are achieved by automating and making smart production processes. This means businesses spend less time, effort and energy. It can make business life easier, especially for young professionals, by providing a more productive working environment and more effective time management.



Additionally, digital technologies reduce costs by reducing waste and increasing production efficiency. This allows businesses to offer more competitive prices while also increasing their profitability. It also provides benefits in budget planning and saving, which are also important for young professionals.

Digitalization and Industry 4.0 also lead to the emergence of new business opportunities. New technologies allow business models to change and evolve. For example, new business areas such as digital marketing or e-commerce may emerge. This can offer young professionals more career options and job opportunities.

Finally, businesses that invest in digital technologies have a chance to get ahead of the competition. Businesses that adapt to the innovations brought by Industry 4.0 can be more competitive in the market and attract more customers than other businesses.

As a result, we explained the benefits of digitalization and Industry 4.0 to businesses, focusing on the target audience of Young Professionals (Ages 25-34). These innovations can attract the attention of young professionals and make their business lives easier by providing advantages such as increased productivity, cost reduction, new job opportunities and increased competitiveness.

It is predicted that with Industry 4.0, some professions will no longer exist and new professions will emerge in line with the needs of the day and the requirements of new technologies..

Some of these new professions include:

- Industrial Data Science
- Industrial User Interface Design
- Industrial Computer Programming

- Data Security Expertise
- Wearable Technology Design
- IoT Solution Architecture
- Robot Coordinator
- Cloud Computing Expertise
- 3D Printer Engineering



2. OCCUPATIONAL HEALTH AND SAFETY

Occupational health and safety (OHS) is the work carried out to prevent health and safety risks that employees may encounter in the workplace and to protect the health and safety of employees.



OHS covers the physical, chemical, biological, psychosocial and ergonomic risks that employees are exposed to in the workplace. Various measures can be taken to prevent these risks and protect employees. These measures include improving the workplace environment, training and informing employees, and using personal protective equipment.

OHS positively affects the health and safety of employees as well as the efficiency and competitiveness of the employer..



The basic principles of OHS are as follows::

- Occupational health and safety is the joint responsibility of employees and employers.
- Occupational health and safety covers all activities in the workplace.
- Occupational health and safety is based on risk prevention approach.
- Occupational health and safety is aimed at continuous improvement.

The main purpose of OHS is to prevent health and safety risks that employees may encounter in the workplace and to protect the health and safety of employees. In line with this purpose, ISG has the following objectives:

- To prevent work accidents and occupational diseases,
- To protect the health and safety of employees,
- To provide a safe and healthy working environment in the workplace,
- Increasing employees' awareness and awareness of occupational health and safety.

Personal Protective Equipment (PPE): All tools, devices, tools and equipment used, worn, worn or carried to protect employees against risks that may occur in the workplace.

Although PPE does not completely eliminate risks in the workplace, it helps prevent work accidents and occupational diseases by reducing the severity of employee injuries and health problems..



PPE types are as follows:

- Head protection: Helmet, helmet, visor with helmet

- Hand and arm protectors: Gloves, muffs, armbands
- Eye and face protection: Glasses, mask, visor
- Ear defenders: Earplugs, headphones
- Leg and foot protectors: Boots, boots, shoes, knee pads, leggings
- Trunk and body protection: Overalls, apron, work clothes, vest with helmet
- Respiratory system protectors: Mask, respirator

In order for PPE to be used effectively, it is important to choose and use it correctly. PPE must fit the employee's body size. Additionally, PPE should be checked regularly and expired or damaged PPE should be replaced.

The use of PPE plays an important role in ensuring occupational health and safety in the workplace. Employers are obliged to provide appropriate PPE to their employees and provide training for their employees to use PPE correctly..

Benefits of PPE:

- It reduces the severity of employee injuries and health problems.
- Prevents work accidents and occupational diseases.
- It helps to ensure occupational health and safety in the workplace.
- Increases employee productivity.

The main occupational health and safety risks encountered in the renewable energy sector are:

Electric shock: Electrical energy is widely used in renewable energy facilities. Therefore, the risk of electric shock is high.

Fall from height: Renewable energy facilities such as wind turbines and solar panels are generally installed at high altitudes. Therefore, the risk of falling from height is high.

Use of work equipment: Various work equipment is used in renewable energy facilities. Necessary training must be provided and precautions must be taken for the safe use of these equipment.

Chemical substances: Some chemicals are used in renewable energy facilities. Necessary precautions must be taken during the use and storage of these chemicals.

Other risks: Other risks encountered in renewable energy facilities include moving parts of machines, weather conditions, wild animals and poisonous plants.

The following measures can be taken to ensure occupational health and safety in the renewable energy sector::

- Employing an occupational safety specialist: By employing an occupational safety specialist in renewable energy facilities, it is possible to take the necessary precautions and implement practices to ensure the occupational health and safety of employees.

- Providing occupational health and safety training: By providing occupational health and safety training to employees, they can gain the necessary knowledge and skills to protect themselves from work accidents and occupational diseases.
- Taking occupational safety measures: By taking occupational safety measures in renewable energy facilities, occupational accidents and occupational diseases can be prevented.



Ensuring occupational health and safety in the renewable energy sector is an important part of the efficiency and sustainability of businesses, as well as the health and safety of employees.

SES employees are included in the hazardous work category within the scope of the International Labor Organization (ILO) "Convention on the Prevention of Hazardous and Unhealthy Working Conditions in Workplaces" No. 155 and "Framework Convention on Occupational Health and Safety and Improvement of the Working Environment" No. 187.

Article 1 of ILO Convention No. 155 states, "The purpose of this Convention is to take measures to protect and promote the health and safety of workers at workplaces, to prevent hazardous and unhealthy working conditions, to eliminate or reduce hazards and to take measures to protect workers from these hazards." to ensure that it is received." It is in the form.

Article 1 of ILO Convention No. 187 states: "The purpose of this Convention is to promote international cooperation to protect and improve the health and safety of workers through the development and implementation of policies and practices for the improvement of occupational health and safety and the working environment at the national level. " It is in the form.

Within the scope of these contracts, the risks faced by GES employees are evaluated as follows:

- Risk of electric shock, fire and explosion due to high voltage equipment and installations in the workplace
- Risk of poisoning, burns and skin diseases due to chemicals found in the workplace
- Risk of physical injury due to heavy loads in the workplace
- Risk of hearing loss and headache due to noise and vibration in the workplace

- Risk of respiratory diseases due to dust and smoke in the workplace

Due to these risks, it is accepted that SES employees need special protection in terms of occupational health and safety. For this reason, SES employees are included in the hazardous work class within the scope of international legislation.

Some specific measures for occupational health and safety for solar power plant workers are as follows:



- During the construction phase: During the construction phase, the following precautions should be taken for employees:
 - The work area should be surrounded by barriers to ensure the safety of employees.
 - In jobs that require working at height, employees must use seat belts.
 - If work is to be done on the electrical installation, the electricity must be cut off.
- During the maintenance and repair phase: During the maintenance and repair phase, the following precautions should be taken for employees:
 - Employees must receive the necessary occupational safety training before being assigned.
 - Workers must use appropriate personal protective equipment.
 - If work is to be done on the electrical installation, the electricity must be cut off.



To play the video, click on the image or click the link below and open it with your browser.

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Safety precautions to be taken into consideration during solar power plant construction and maintenance works can be listed as follows:

- Appointment of an occupational safety expert: It is of great importance to assign an occupational safety expert and supervise the work during solar power plant construction and maintenance works. The occupational safety specialist is responsible for identifying all elements that threaten the health and safety of employees and taking the necessary precautions.
- Use of appropriate equipment: It is mandatory to use appropriate safety equipment for those working in SPP construction and maintenance works. This equipment includes materials such as helmets, glasses, gloves, work shoes and seat belts.



To play the video, click on the image or click the link below and open it with your browser.

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Providing occupational health and safety training: Occupational health and safety training should be provided to employees in solar power plant construction and maintenance works.. These trainings ensure that employees are informed about the risks they may encounter and work safely.

- Making workplace conditions suitable: The conditions of the workplace where solar power plant construction and maintenance work will be carried out should be made suitable to ensure the safety of employees. In this context, all precautions should be taken to ensure a safe working environment in the workplace.



Some of the safety precautions that should be taken into consideration during SPP construction and maintenance works are as follows:

- Working at height: Works such as installation, maintenance and repair of panels in solar power plants are carried out at height. Therefore, necessary safety precautions should be taken when working at height. These measures include the use of safety nets, ladders and basket platforms.



To play the video, click on the image or click the link below and open it with your browser.

<https://www.youtube.com/watch?v=WIOsKn5Q6yY>

- Electric shock: There are electrical installations in solar power plants. Therefore, necessary safety precautions must be taken against the risk of electric shock. These precautions include grounding electrical equipment and using protective equipment against electric shock for employees.
- Fire: There is a risk of fire in solar power plants. Therefore, fire extinguishing equipment must be kept ready and employees must receive fire extinguishing training.
- Work accident: Work accident may occur during SPP construction and maintenance works. Therefore, necessary precautions should be taken to prevent work accidents. These measures include informing employees about occupational safety and making arrangements to reduce risks in the workplace.

Taking the above-mentioned safety measures during SPP construction and maintenance works will help protect the health and safety of employees.

Solar power plants (SPP) are facilities that use sunlight to produce electricity. In these facilities, solar rays are converted into electrical energy by photovoltaic panels.

. Electrical accidents in solar power plants may occur due to electrical installation malfunctions, errors during maintenance and repair work, or human errors..

Precautions that can be taken against electrical accidents in solar power plants are as follows:

- Installation and maintenance of electrical installations and equipment in accordance with the regulations: Installation and maintenance of electrical installations and equipment used in solar power plants in accordance with the relevant standards and regulations is one of the most important measures to prevent electrical accidents. In this context, the installation and equipment must be checked regularly and faults must be eliminated in a timely manner.
- Grounding: Grounding is one of the most effective safety measures against electric shocks. In solar power plants, all electrical equipment must be grounded.
- Use of personal protective equipment (PPE): People working in solar power plants must use PPE to protect against electrical accidents. PPE provides protection against electric shocks, burns and other injuries.
- Providing occupational health and safety training: People working in solar power plants must receive training on occupational health and safety. These trainings ensure that employees acquire the necessary knowledge and skills to prevent electrical accidents.

Some special precautions that can be taken to prevent electrical accidents in solar power plants are:

Installation and maintenance of solar panels and inverters by authorized persons: Solar panels and inverters are high voltage equipment. It is important to ensure that the installation and maintenance of this equipment is carried out by authorized persons to prevent electrical accidents.

Lightning protection: Lightning can cause electrical accidents in solar power plants. Lightning protection in solar power plants will help reduce this risk.

Giving safety instructions to employees: Giving safety instructions to employees in solar power plants will help prevent electrical accidents. These instructions will ensure that employees work safely with electrical installations and equipment.

Preventing electrical accidents in solar power plants is important for both the safety of employees and the sustainability of the facility. For this reason, necessary precautions must be taken against electrical accidents in solar power plants..

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