In Israel, a company called Innowattech is installing strips of asphalt embedded with piezoelectric materials. According to the company, the generators could produce 1 MWh of electricity from a four lane highway, or enough to power 2,500 homes.

The technology just keeps getting better, too. Last year, Princeton University researchers combined silicone and nanoribbons of lead zirconate titanate to create PZT, an ultra-efficient piezoelectric material that can convert up to 80 percent of mechanical energy into electricity. PZT is 100 times more efficient than quartz. It's so efficient, in fact, that the material could be used to harness energy from the minute vibrations found in items like shoes and clothing. That means a piezoelectric-equipped shirt could potentially charge up your cell phone after a day of activity. Piezoelectric sidewalks, roads, and clothing items haven't taken off in a big way quite yet, but they probably will soon. As we become more reliant on having fully-charged gadgets with us at all times, a shirt or pair of shoes that can prevent a device from dying will be incredibly valuable.

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THE MODERN OLYMPIC GAMES

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The modern Olympic Games are the leading international sporting event featuring summer and winter sports competitions where thousands of athletes variously compete. The Olympic Games are considered the world's foremost sports competition with more than 200 nations participating. The Olympic Games are held every four years, with the Summer and Winter Games alternating by occurring every four years but two years apart. Their creation was inspired by the ancient Olympic Games, which were held in Olympia, Greece, from the 8th century BC to the 4th century AD. Baron Pierre de Coubertin founded the International Olympic Committee (IOC) in 1894. The IOC is the governing body of the Olympic Movement.

Ancient Olympics

The Ancient Olympic Games were religious and athletic festivals. Competition was among representatives of several city-states and kingdoms of Ancient Greece. These Games featured mainly athletic but also combat sports such as wrestling, pentathlon and boxing, horse and chariot racing events. According to legend, it was Heracles who first called the Games "Olympic" and established the custom of holding them every four years. The myth continues that after Heracles completed his twelve labors, he built the Olympic Stadium as an honor to Zeus. Following its completion, he walked in a straight line for 200 steps and called this distance a "stadion" which later became a unit of distance. The winners of the events were admired and immortalized in poems and statues.

Revival

The first Games held under the auspices of the IOC were hosted in Athens in 1896. The Games brought together 14 nations and 241 athletes who competed in 43 events. Zappas had left the Greek government a trust to fund future Olympic Games. This trust was used to help finance the

1896 Games. George Averoff contributed generously for the refurbishment of the stadium in preparation for the Games. The Greek government also provided funding, which was expected to be recouped through the sale of tickets. The second Olympics were held in Paris.

Winter Games

The Winter Olympics were created to feature snow and ice sports that were logistically impossible to hold during the Summer Games. At the 1921 Olympic Congress, in Lausanne, it was decided to hold a winter version of the Olympic Games. A winter sports week was held in 1924 in Chamonix, France. This event became the first Winter Olympic Games.

Economic and social impact

Many economists are skeptical about the economic benefits of hosting the Olympic Games, emphasizing that such "mega-events" have large costs. But nevertheless research suggests that hosting the Games effects the local nonprofit sector. But I should like to note that hosting the Olympics has also negative effect. The Games make negative effects on host communities. For example, Games in Sochi made a negative effect on Krasnodar region and its infrastructure.

Effect of television

The 1936 Summer Olympics in Berlin were the first Games to be broadcast on television, though only to local audiences. Global audience for the 1968 Mexico City Games was 600 million, whereas at the Los Angeles Games of 1984, the audience numbers had increased to 900 million. Ratings for the 2006 Winter Games were significantly lower than those for the 2002 Games, while there was a sharp increase in viewership for the 2008 Summer Olympics, and the 2012 Summer Games became the most watched event in the US television history.

Use of performance enhancing drugs

In the early 20th century, many Olympic athletes began using drugs to improve and increase their athletic abilities. In 1904, Thomas Hicks, a gold medalist for the marathon, was given strychnine by his coach. The first Olympic athlete to test positive for the use of performance enhancing drugs was Hans-Gunnar Liljenwall, a Swedish pentathlon athlete at the 1968 Summer Olympics, who lost his bronze medal for alcohol use. The most publicized doping-related disqualification was in the 1988 Canadian Olympics where the Canadian sprinter, Ben Johnson was positive for stanozolol. In the late 1990s, the IOC took the initiative in organizing World Anti-Doping Agency in 1999. During the 2006 Winter Olympics, only one athlete failed a drug test. During the Beijing games, 3,667 athletes were tested. Only three athletes failed drug tests. In London over 6,000 Olympic and Paralympic athletes were tested. One hundred and seven athletes were not allowed to compete. During and after the Games eight athletes tested positive for a banned substance and were suspended, including shot putter Nadzezhda Ostapchuk who was stripped of her gold medal.

Terrorism and violence

Three Olympiads had to pass without a celebration of the Games because of war: the 1916 Games were cancelled because of World War I, and the summer and winter games of 1940 and 1944 were cancelled because of World War II.

Terrorism most directly affected the Olympic Games in 1972. When the Summer Games were held in Munich, Germany, eleven members of the Israeli Olympic team were taken hostage by the Palestinian terrorist group Black September in what is now known as the Munich massacre.

Terrorism affected the last two Olympic Games held in the United States. During the Summer Olympics in 1996 in Atlanta a bomb was detonated at the Centennial Olympic Park, which killed two and injured 111 others.

Conclusion

This paper analyzes not only sports component but also economic impact on people. Olympic Games make rather serious impact on people. It can unite all people and countries. It is the most popular and prestigious sports event in the world therefore all athletes are prepared and trained at the highest level because they realize their responsibility and importance of this event. Also countries which held competitions must allocate funds and create all necessary conditions for carrying

out these Games. If all these conditions are observed this sports festival will be discussed and memorized for a long time.

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GREEN BUILDING

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Green building (also known as green construction or sustainable building) refers to a structure and using process that is environmentally responsible and resource-efficient throughout a building's life-cycle: from siting to design, construction, operation, maintenance, renovation, and demolition. This requires close cooperation of the design team, the architects, the engineers, and the client at all project stages. The Green Building practice expands and complements the classical building design concerns of economy, utility, durability, and comfort.

Although new technologies are constantly being developed to complement current practices in creating greener structures, the common objective is that green buildings are designed to reduce the overall impact of the built environment on human health and the natural environment by: efficiently using energy, water, and other resources.

Goals of green building

Green building brings together a vast array of practices, techniques, and skills to reduce and ultimately eliminate the impacts of buildings on the environment and human health. It often emphasizes taking advantage of renewable resources, e.g., using sunlight through passive solar, active solar, and photovoltaic equipment, and using plants and trees through green roofs, rain gardens, and reduction of rainwater run-off. Many other techniques are used, such as using low-impact building materials or using packed gravel or permeable concrete instead of conventional concrete or asphalt to enhance replenishment of ground water.

While the practices or technologies employed in green building are constantly evolving and may differ from region to region, fundamental principles persist from which the method is derived: Sitting and Structure Design Efficiency, Energy Efficiency, Water Efficiency, Materials Efficiency, Indoor Environmental Quality Enhancement, Operations and Maintenance Optimization, and Wastes and Toxics Reduction. The essence of green building is an optimization of one or more of these principles. Also, with the proper synergistic design, individual green building technologies may work together to produce a greater cumulative effect.

Indoor environmental quality enhancement

Also important to indoor air quality is the control of moisture accumulation (dampness) leading to mold growth and the presence of bacteria and viruses as well as dust mites and other organisms and microbiological concerns. Water intrusion through a building's envelope or water condensing on cold surfaces on the building's interior can enhance and sustain microbial growth. A well-insulated and tightly sealed envelope will reduce moisture problems but adequate ventilation is also necessary to eliminate moisture from sources indoors including human metabolic processes, cooking, bathing, cleaning, and other activities.

Personal temperature and airflow control over the HVAC system coupled with a properly designed building envelope will also aid in increasing a building's thermal quality. Creating a high performance luminous environment through the careful integration of daylight and electrical light sources will improve on the lighting quality and energy performance of a structure.