

REPORT ON SEMINAR ON RECENT TRENDS IN ELECTRONICS INDUSTRY

The Department of Electronics and Communication Engineering organized a seminar on “Recent Trends in Electronics Industry” for II&III B.Tech ECE Advanced Learner Students on 26.03.2019. Mr. B Sambhi Reddy, Chief Engineer, Efftronics Systems Pvt Ltd, Vijayawada was the resource person for the seminar.

The Resource person started his lecture by introducing the Industrial Revolution 1.0 to the students; he said that “The Industrial Revolution, which took place from the 18th to 19th centuries, was a period during which predominantly agrarian, rural societies in Europe and America became industrial and urban. Industrialization marked a shift to powered, special-purpose machinery, factories and mass production. The iron and textile industries, along with the development of the steam engine, played central roles in the Industrial Revolution, which also saw improved systems of transportation, communication and banking. While industrialization brought about an increased volume and variety of manufactured goods and an improved standard of living for some, it also resulted in often grim employment and living conditions for the poor and working classes.”

Later he spoke about the Industrial Revolution 4.0 where computers are connected and communicate with one another to ultimately make decisions without human involvement. “A combination of cyber-physical systems, the Internet of Things and the Internet of Systems make Industry 4.0 possible and the smart factory a reality. As a result of the support of smart machines that keep getting smarter as they get access to more data, our factories will become more efficient and productive and less wasteful. Ultimately, it's the network of these machines that are digitally connected with one another and create and share information that results in the true power of Industry 4.0.” he stated during his lecture.

The resource person mainly focused on the IoT where different electronic devices, different home appliances can communicate over the internet and also said that IoT is playing a major role in applications which minimize human intervention required in activity. For example, in day-to-day activities such as home maintenance, alerts can be provided at various points like filling a refrigerator, buying oil for the vehicle, checking locks in the house, using purely automated mechanisms but which would seamlessly integrate with human life involved.

“A key component of Industry 4.0 is the Internet of Things that is characterized by connected devices. Not only does this help internal operations, but through the use of the cloud environment where data is stored, equipment and operations can be optimized by leveraging the insights of others using the same equipment or to allow smaller enterprises access to technology they wouldn't be able to on their own”. He added to his discussion.

He also discussed about the evolution of “Autonomous cars” which is capable of sensing its environment and moves without human intervention and also explained the different features of these vehicles like path breaking, vehicle to vehicle communication, automatic breaking etc. He also said that by using these vehicles accidents can be avoided to a great extent.

Mr. Sambhi Reddy also discussed about 3D printing which is a process of making three dimensional solid objects from a digital file. “In this process an object is created by laying down

