

Sample summary of Distinguished Speaker Series for Exploration Credit

Inventing the Future

Jose A. Gutierrez is a technical engineer with many years of experience. He is currently the chief engineer/technology manager at the company Microsoft and he has skills in multiple different fields. He has a Ph.D. in engineering sciences and he has a deep technical and business expertise in multiple different industries such as the Oil and Gas industry, the electrical power industry, and the commercial sectors. Professor Gutierrez also contributed to many everyday inventions we have currently right now in this world such as wifi and Bluetooth.

Professor Gutierrez starts off his lecture by discussing the differences between being an inventor and an innovator, the common misconceptions between them, and some famous people who are often confused and wrongly depicted as being one or the other. An inventor is creating a product or a process for the first time while an innovator is when someone improves or makes a significant contribution to something that has already been invented. Steve Jobs was a great innovator, not a great inventor. He helped improve and elevate the normal cellular phone, into a much more advanced smartphone. Thomas Edison on the other hand was a great inventor. He's invented multiple important inventions such as the lightbulb, the Phonograph, and a Mimeograph. Professor Gutierrez states that innovation and invention play a role in each other. It all starts with creativity. Creativity is about creating new ideas and we are already creative by nature because we know how to think, speak, and solve problems. Inventions are simply about implementing those ideas. Innovation is about turning those inventions into a new product that helps people (something that people want to buy).

Afterward, Professor Gutierrez talks about the many everyday inventions that he has successfully contributed. Some of these inventions included wifi and Bluetooth. Professor Gutierrez also contributed to other less successful inventions such as infrared and Zigbee, but he said that those inventions helped pave the way for his more successful inventions. This is because Professor Gutierrez's team not only learned from their mistakes, but they were also able to use parts or pieces of their failed projects, and they were able to create something bigger out of those devices. His team successfully innovated. One challenge that Professor Gutierrez talks about in his lecture when working on his projects was how to successfully work with other people. He says that to successfully lead and work together as a group, the entire group needs to be empathetic towards each other. He states that there is a human aspect in all of us that we can't forget, and none of us are all robots, we need to successfully communicate with each other. He also states that even if you are a genius in a specific topic, to be a part of innovation, you need to be able to interact with people and be able to teach them your knowledge. Being a genius is not helpful whenever you cannot convey your ideas or opinions to someone else.

Finally, Professor Gutierrez gives us ideas on how we can change the world for the next generation. He shows us a picture of the earth from mars and he makes us visualize how much collaboration is on this small spec of the entire universe. He then shows us a picture of the earth at night with all the lights turned on. He says that everything we do is energy-based and that we cannot do anything without it. More energy is required for more crops, more food, and for more people to think about the next steps of innovation. If we want to innovate the world, we should probably start with energy.