0:00-0:40 My research area or my research specialization is in the area of information visualization, computer graphics, and medical imaging. So right now we are mainly focused on two different research areas: one is information visualization. Easily speaking, that is the subject processing large amounts of data convert that thing to graphical illustration. So by using visual extraction, large amounts of alphanumeric data can be converted to graphics.

0:41-1:07 So by presenting those kind of information to the user through visualization, user can easily evaluate or analyze huge amounts of data. They can easily grasp entire data sets and also they can pinpoint where is the area they should put more focus or put their attention. That’s one area.

1:06-1:31 Second area is using three vision technology. In other word, with the advancement of technology we are able to get much high quality image, for example from the video — high definition video. And now the image technique can be further enhanced. We are able to see either picture or computer generated images in three-dimensional space.

1:32-2:06 So one of our interest areas is using computer graphics or visualization is there any way we can assist the user to perceive the depth more accurately. So in other words, we want to use that thing not qualitative purpose, mainly quantitative purpose. So two areas we are interested in, we want to apply that thing to command and control operation. Another area we are interested in virtual surgery simulation or surgery planning are two different subjects we are actively studying at IPFW.

2:07-2:44 Regarding 3-D vision technology we, our center, has been funded by the National Science Foundation. The project what we did was we generate the scene of actual battlefield in 3-D space showing the terrain and also it’s showing the location of our ally and artillery and resources. By projecting that information through 3-D vision technology either commander or operator may be able to understand the situation more effectively.

2:45-3:07 One of main thing I like working at IPFW is the profile of the students. For example, some portion of our students they need more challenge beyond the classroom learning. So they are interested in doing research and they are
even considering to attend advanced study after finishing their bachelor’s degree here.

3:08-3:40 Another group of student, they are mainly interested in the education at IPFW is career development. And sometimes they need more care or support from the faculty. After working with a student about three to four years, when I hear that, ‘Oh, Professor Kim, I got a job from this place,’ that gives me a kind of energy or motivation working at IPFW. So those kinds of things help me a lot.