The great experiences during attending the Geospatial Week 2017

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Starting from my research areas during my Ph.D. study in Japan, computational geometry, especially in the generalized Voronoi diagrams, I would like to find some real-world applications related to my primary studies. One of the interesting applications is the urban planning. Recently, colleagues and I, consisting of architect and computer scientists, have established the research group for studying the uses of Voronoi diagram.

We have done the research related to the application of Laguerre Voronoi diagram to the urban planning. Finally, we submitted the paper "*Interactive Land-Use Optimization Using Laguerre Voronoi Diagram with Dynamic Generating Point Allocation*" in the Third International Conference on Spatial Data Mining and Geographical Knowledge Services (ICSDM2017), which is one of the workshops organized in the ISPRS Geospatial week 2017 at Wuhan, China. I, as the representative of the research group, had an excellent opportunity to attend the Geospatial Week under the support of ISPRS foundation.

I attended the Geospatial Week during September 21-22, 2017, emphasizing on the ICSDM2017 workshop. I followed some talks from the keynote speakers and participated in the oral presentation sessions. Since my research area is mathematics, attending this conference was very interesting to me for learning some new approaches to the application points of view. During the conference, I had learned a lot about the new trend of research related to the data sciences. Also, I could understand how the GIS society considers the research problem. For example, during a talk of the keynote speaker, I thought that it is interesting to find the mapping between the spaces of data, i.e., physical spaces, virtual spaces, and social space-time in the mathematical point of view. It inspired me how to apply the mathematical principles to the real world applications.

Attending this conference gave me the great opportunity to survey the interesting research, especially the ideas from Prof. Anthony G.O. Yeh in the closing ceremony, which was directly related to the computational geometry. After finishing the conference, I have discussed the research ideas to the research group, and we will try to find the interesting topics for the researches related to the GIS based on mathematics and computer science. In addition to the benefits to the study, joining this conference helped me to find the connections between math and real-world problems for introducing to mathematics students. As a mathematics lecturer, the common question from the students is that, what is the contribution of mathematics to the real world. At least, I can answer to my students that we can apply principles we learn in mathematics to the data sciences which will be an important research area. I have also considered creating the new course in the department which includes data sciences, big data, and GIS as the application viewpoint.

During the conference, I had chances to meet many people who work in the GIS and remote sensing area. I discussed and exchanged ideas for researching and working, and hope to make the collaboration shortly.

Finally, I would like to thank the ISPRS Foundation for supporting the travel grant to attend the ISPRS Geospatial Week 2017, which is one of my precious moments. I also appreciate Wuhun University, China for organizing this event successfully. I hope that I will have chances to attend this series of the conference in the future, in addition to exchange idea and research topic with GIS community.

Gave the presentation in ICSDM2017

Group photo with the attendee from Thailand, whom I met during the event