

**REPORT FOR
COMSOC DISTINGUISHED LECTURER TOUR
Name of Lecturer: Liangping Ma
Region: North America
Location: Blacksburg, Auburn, Birmingham, Huntsville,
USA**

July 29 – August 2, 2018

The goal of this tour was to introduce the latest fifth-generation (5G) cellular systems from the industrial perspective to the local IEEE Communication Society (ComSoc) communities. The talk, titled “5G Technologies, Standards, and Commercialization”, covered some of the fundamental technologies, the status of the (3GPP) standards, and the commercial deployment prospects. The tour consisted of four stops in Virginia and Alabama.

On July 30th I visited the Blacksburg campus of Virginia Tech, where the host was Prof. Lingjia Liu. Faculty members and students attended my talk, where I used simple examples to explain intricate concepts and emphasized practical considerations in technology development. I also had the opportunities to have extended discussions about 5G and beyond and to know about the interesting and cutting-edge research that they had been working on.



Figure 1 Discussing with some of the audience at Virginia Tech.

My next stop was Auburn University on August 1st, where Prof. Shiwen Mao kindly hosted my talk. Many people attended the talk and the attendees were highly engaged, raising excellent questions such as the 5G deployment strategy and the fixed wireless access use case for 5G. I also had the opportunity to visit the labs and to know about the research they had been doing, which was truly impressive to me.

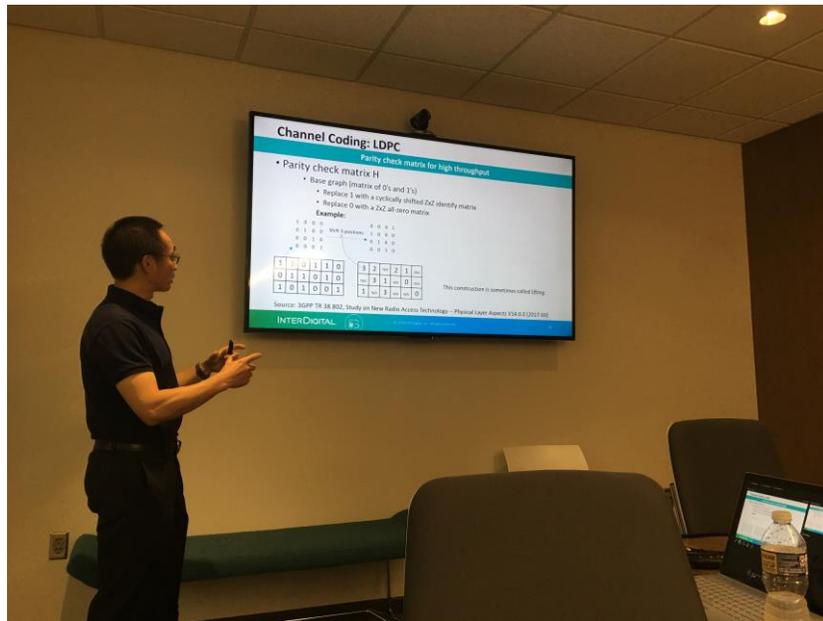


Figure 2 Presenting about LDPC in 5G New Radio at Auburn University.

After my talk at Auburn, I drove a few hours to Birmingham for the talk planned in a nice restaurant in the evening. John Spencer kindly hosted the event. There were more than 30 attendees and some of them drove all the way from Tuscaloosa. The audience asked many interesting questions and were eager to see the 5G phones.



Figure 3 Presenting to the Birmingham section.

My final stop was Huntsville on August 2nd, and the talk was kindly hosted by Josh Langford at ADTRANS, Inc. Huntsville is a high-tech hub, which probably helped attract a large audience. Many in the audience were interested in the core network of 5G, and in particular technologies such as software defined networking (SDN) and network function virtualization (NFV), and I explained these technologies in great detail.



Figure 4 The audience at the talk at ADTRAN in Huntsville.

There were long drives between the locations in Alabama. Despite sometimes being tired, I enjoyed the beautiful sceneries along the way – a bonus for my tour!

Since 5G is still a very new and evolving technology, it is important to promote it through programs such as the ComSoc DL program. I am very glad that I could contribute to this cause. I was moved by the strong desire of our ComSoc members to learn new things such as 5G.

I would also like to thank Dr. Song Guo (Director Membership Services), Dr. Wahab Almuhtadi (Director, ComSoc North America Region), Dr. Anader Benyamin (DLT North America Coordinator), and Ms. Carol Cronin (ComSoc Executive and Volunteer Services Administrator) for their support, especially for allowing Virginia Tech to be included in the tour despite there is no ComSoc chapter currently serving Virginia Tech. I would also like to thank the hosts Prof. Lingjia Liu, Prof. Shiwen Mao, John Spencer, Josh Langford and many volunteers for organizing the events. Lastly, I would like to thank Virginia Tech, Auburn University, and ADTRANS for providing the venues.

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