
Technical Presentation

“Information Centric Networking in Vehicular Communications”

By:

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Where: Black Sheep Burrito, 702 Quarrier St. Charleston, WV

Abstract: For the past few decades, the increase in the number of vehicles on roads made life on top of risks and thus safety became more essential for both travelers and drivers of vehicles at both public and private scales. By enabling vehicular to communicate with each other, the risk is expected to be minimized as much as possible. For this purpose, researchers and industrial personnel focused on existing IP based communications and came up with amendments in 802.11 families and finally we have Dedicated Short Range Communication (DSRC) based protocols. However, still it is an open issue to handle the dynamic and spontaneous behavior of vehicles on the roads during wireless communications.

Recently, Information Centric Networking (ICN) has been introduced as a new trend in future networking. Since ICN is at an early bud stage, therefore, many issues are still unidentified and open.

In this talk, therefore speaker would like to highlight few of the ICN challenges in perspective of the Vehicular Networks also named as Vehicular-ICN (V-ICN) followed by the conventional definitions of ICN and differences between current internet and ICN architectures.

In addition, also different architectures of ICN namely Content Centric Networking (CCN) and Named Data Networking (NDN) will be discussed along with their applicability in VANETs. In the end, some application perspective will be discussed.

Syed Hassan Ahmed did his Bachelors in Computer Science from Kohat University of Science and Technology (KUST), Kohat, Pakistan. Later on, he joined School of Computer Science and Engineering, Kyungpook National University, Korea, where he completed his Masters in Computer Engineering. During his Bachelors and Masters, he published 20+ International Journal and Conference papers in multiple topics of wireless communications. Currently he is pursuing his PhD in Computer Engineering at Monet Lab, KNU, in Korea. Also, he has been a visiting researcher at the Georgia Institute of Technology, Atlanta, USA in 2015. He is also an IEEE/ACM member and serving several reputed conferences and journals as a TPC and Reviewer respectively. In year 2014-15, he won the successive Gold and Top Contributor awards in the 2nd and 3rd KNU workshop for future researchers, South Korea. His research interests include WSN, Underwater WSN, Cyber Physical Systems, VANETs and ICN in Vehicular Communications. His publications can be found at <https://sites.google.com/site/shahmedknu/pub-1>.

IEEE West Virginia Section will provide dinner for the IEEE members and the speaker.