

“*TOPOLOGICAL INTERFERENCE MANAGEMENT THROUGH INDEX CODING*”



Date & Time:

January 20, 2014
6:45PM to 8:45PM

Location:

Beacon Place Conference Center
6055 Rockside Woods Blvd.
Independence, OH 44131
(enter building via main entrance
at front of building and take
elevator to conference center on
lower level)

Agenda:

- *Registration Opens @ 6:45
- *Free Catered meal @ 6:45
- *Opening Remarks @ 7:00
- *Presentation

Who Is Invited?

Anyone interested in this topic,
although priority will be given to
pre-registered IEEE Cleveland
Section members

CPD

One (1) CPD Hour Available
Bring your flyer for credit

Space is limited

To reserve your seat please
RSVP by December 17 at:
clevelandieee.org/rsvp-1-20-2014

Abstract:

This talk will revisit the robust principles of ignoring interference when it is weak and avoiding it when it is strong, in both cases exploring information theoretic optimality with very limited channel knowledge at the transmitters. Optimal interference avoidance shows essentially equivalent to the index-coding problem, which explores an interference alignment perspective. Ignoring interference, i.e., treating interference as noise will be shown to be optimal for the entire capacity region (within a constant gap). If for each user, desired signal strength is no weaker than the sum of the strengths of the strongest interference caused by the user and the strongest interference suffered by the user, with all signal strengths measured in dB scale.

Speaker:

Syed Ali Jafar received his B. Tech. from IIT Delhi, India, in 1997, M.S. from Caltech, USA, in 1999, and Ph.D. from Stanford, USA, in 2003, all in Electrical Engineering. His industry experience includes positions at Lucent Bell Labs, Qualcomm Inc. and Hughes Software Systems. He is currently an Associate Professor and Associate Chair for Graduate Studies in the Department of Electrical Engineering and Computer Science at the University of California Irvine, Irvine, CA USA. His research interests include multiuser information theory and wireless communications.

Dr. Jafar is an IEEE Communications Society Distinguished Lecturer for 2013-2014. He received an IEEE GLOBECOM CTS Best Paper Award in 2012 and an IEEE Communication Society Best Tutorial Paper Award in 2013. He served as Associate Editor for IEEE Transactions on Communications 2004-2009, for IEEE Communications Letters 2008-2009 and for IEEE Transactions on Information Theory 2009-2012. He was elevated to IEEE Fellow in 2013 (Class of 2014) for contributions to analyzing the capacity of wireless communication networks.



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This is to certify that _____ attended this seminar. Certified by _____.
Certificates of attendance and other evidence of CPD activity should be retained by the attendee for auditing purposes.