Delta Computing & Engineering Colloquium

Hosted by the College of Science & Computer Engineering Friday, September 15, 2017 Delta 241, 3:00 p.m. – 4:00 p.m.

Uniformly Oversampled Sequence Detection in the Presence of Unknown Jitter

Dr. J.R. Cruz University of Oklahoma

In this paper we propose a technique to deal with unknown random jitter in a bandlimited Gaussian channel. The jitter caused by the deviation or displacement of signal pulses affects the performance of the communication system. We show that a sampling set as small as twice the baud rate is enough for good detection performance. Detection is done by means of a suboptimal algorithm with polynomial time computational complexity. The results are compared for different transmission rates. The simulation results for Gaussian pulses and sinc pulses show that despite the sub-optimality of our algorithm, the bit-error probability remains relatively close to optimum.

Host: Dr. Tom Harman, Dr. Hakduran Koc Refreshments will be served from 2:30 p.m. – 3:00 p.m.!

Contact Information: Dr. Ahmed Abukmail 2700 Bay Area Blvd., Delta Building 169, Houston, TX 77058 281-283-3888: Abukmail@uhcl.edu Any person needing an accommodation for a disability to participate in this program should contact the sponsoring organization at (281) 283-3770 for necessary arrangements.



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