

Age of Information in Communication Networks

معصومه مرادیان

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Abstract

In emerging communication networks such as real-time Internet of Things and machine-type communications, the end nodes transmit status updates to a monitoring entity, which is responsible for making proper controlling decisions based on the received information. The timeliness of the received information in such networks is of crucial importance to ensure seamless operation of applications. In this regard, quantifying the freshness of information, termed as age of information (AoI), has attracted a lot of attention in recent years. In this talk, we use the concept of Markovian jump linear systems in order to analyze the age of information (AoI) in discrete-time Markovian systems. The proposed approach is, referred to as discrete-time SHS model, is applied in two simple wireless relay network settings to study the effect of unreliable channels on AoI-based scheduling.

Biography

Masoumeh Moradian is a senior postdoc fellow at Institute for Research in Fundamental Sciences (IPM). She received her PhD in electrical engineering from Sharif university in 2016. Her research interests include communication networks, queueing theory, Energy harvesting-based communication, and age of information.

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