

Resilient Resource Allocation for Wireless Networks

Research Problem:

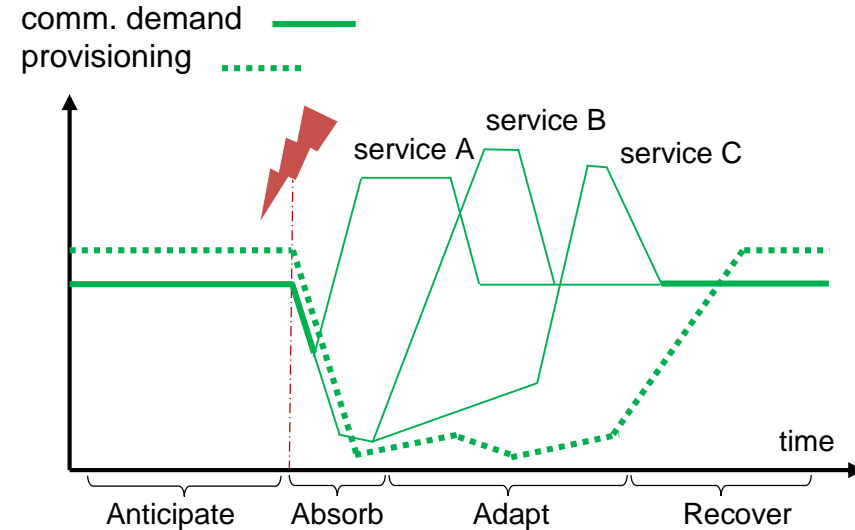
- Communication networks are an indispensable critical infrastructure of daily life, but face increasing threats caused by natural disasters, attacks, and outages. Resilient resource allocation is a new paradigm to design communication networks to quickly absorb challenging network events, adapt, and recover services and to get the system better prepared by anticipating future challenging events.

Tasks:

- Review the relevant literature, formulate the resource allocation problem, design (with my help) new algorithms for solution, and evaluate the performance of the algorithms by simulation
- Summarize results for thesis/report or scientific publications

If interested, please send your CV and transcripts to:

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Requirements:

- Highly motivated in doing research in the field of communications
- Solid understanding about communication/ information theory and optimization/ learning theory
- Hands-on experience with CVX, MATLAB, or Python
- Good oral and writing skills in English