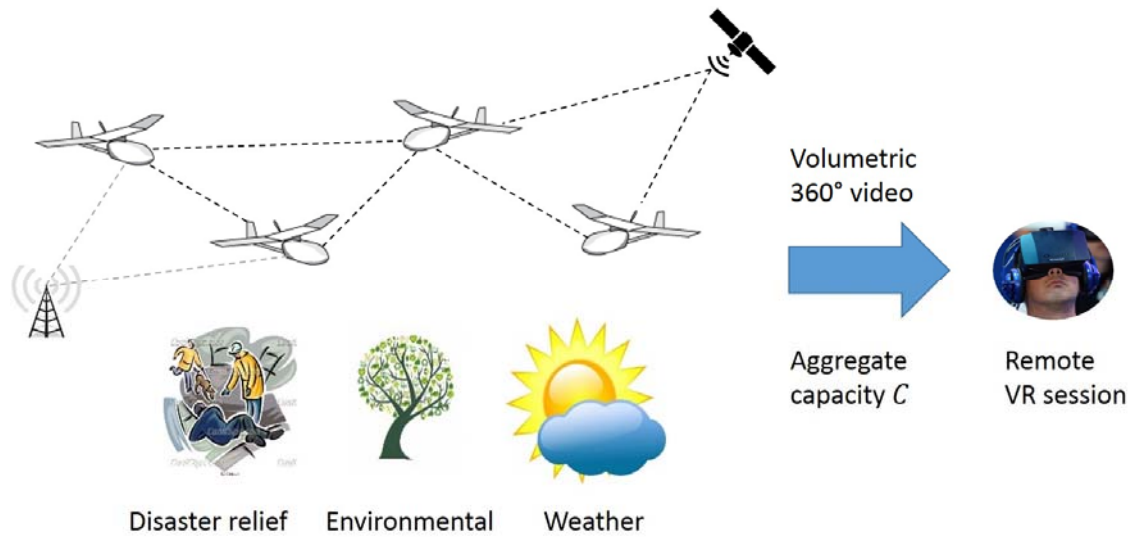


# LABORATORY FOR NETWORKED VIRTUAL AND AUGMENTED REALITY COMMUNICATIONS



## Postdoctoral Researcher Opening

A postdoctoral research associate position is available at the Laboratory for Networked Virtual and Augmented Reality Communications (LION) directed by Prof. Jacob Chakareski. The successful candidate will engage with Prof. Chakareski in

- Carrying out cutting edge research at the intersection of networked virtual and augment reality, immersive communication, UAV-IoT sensing, 5G edge-computing network architectures, and machine learning for stochastic control
- Investigating interdisciplinary applications to remote sensing, disaster relief, environmental monitoring, and cyber-physical health care systems and devices
- Writing research papers and funding proposals
- Eclectic international collaboration with partners from industry and academia
- Mentoring of graduate and undergraduate students
- Technology transfer with industry sponsors and entrepreneurship
- Service activities (workshop and journal special issue organization)
- Integrated educational and outreach activities

The lab is hosted in the Department of Electrical and Computer Engineering at the University of Alabama. It features state-of-the-art equipment: head/wall-mounted immersion displays, high-definition visual/range sensors, augmented/virtual reality goggles, UAV-IoT devices, and 5G/LTE-A MIMO SDR boards. The research activities of the lab are supported by government (NSF and AFOSR) and industry (Adobe, NVIDIA, and Microsoft) sponsors.

The initial appointment will be for a one-year term, with the possibility for a yearly renewal, subject to the Associate's performance. Candidates with background in electrical engineering, computer science, applied mathematics, or other relevant fields are encouraged to apply.

To apply, please send the following PDF documents to Dr. Chakareski ([jacob@ua.edu](mailto:jacob@ua.edu)), indicating "Postdoc application" in the subject line of your message:

- A two page research statement describing your research plans/interests and how they fit within the investigations carried out in the lab
- Copies/preprints of recent journal/conference publications
- A curriculum vitae (CV) including 3-4 references (names and contact details) and a full list of publications
- A cover letter indicating your educational/research background, research interests, and specific motivation to join the lab

For an outline of the research and service activities carried out by Prof. Chakareski and the lab's mission statement and research vision, please visit [www.jakov.org](http://www.jakov.org).

Recent references:

- ACC 2018: Coalition Formation for Coordinated Task Allocation in Heterogeneous UAV Networks
- ICC 2018: Viewport-Driven Rate-Distortion Optimized 360° Video Streaming
- ICC 2018: Energy Efficiency Analysis of UAV-Assisted mmWave HetNets
- ICC 2018: Structural Properties of Optimal Transmission Policies for Delay-Sensitive Wireless Sensors
- Asilomar 2017: Optimal measurement policy for predicting UAV network topology
- MMSP 2017: Convexity characterization of virtual view reconstruction error in multi-view imaging
- MM 2017: Optimal Set of 360-Degree Videos for Viewport-Adaptive Streaming
- SIGCOMM 2017: VR/AR Immersive Communication: Caching, Edge Computing, and Trans. Trade-Offs
- MobiSys 2017: Drone Networks for Virtual Human Teleportation
- ICC 2017: Viewport-adaptive navigable 360-degree video delivery (**best paper award**)
- INFOCOM 2017: UAV-IoT for Ubiquitous Immersive Communication and Virtual Human Teleportation
- JSAC 2016: Joint Caching, Routing, and Channel Assignment for Collaborative Small-Cell Networks
- Globecom 2016: Reinforcement Learning for Energy-Efficient Delay-Sensitive CSMA/CA Scheduling
- Sarnoff 2016: On the Continuous Coverage Problem for UAV Swarms

About: The University of Alabama ([www.ua.edu](http://www.ua.edu)) is a major comprehensive student-centered research university founded in 1831 as the first public college in Alabama. The University of Alabama consistently ranks among the top 50 public national universities according to the U.S. News and World Report annual rankings.

