

February 14, 2025

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## Back to Basics: Coagulation for Water Treatment



### Shankar Chellam

*A.P. & Florence Wiley  
Professorship III,  
Civil & Environmental  
Engineering,  
Texas A&M University*

### Seminar Details

*Friday, February 14, 2025  
2:30pm – 4:00pm*

*UH Campus Classroom &  
Business Building  
Room CBB 108*

*Online via [https://  
www.cive.uh.edu/  
research/seminars](https://www.cive.uh.edu/research/seminars)*

**ABSTRACT:** The continued threat of contamination of municipal water supplies and the growth of potable reuse necessitates the systematic evaluation of the efficacy of existing unit processes to protect public health and develop new technologies to better attenuate viruses. The presentation will focus on mechanistic comparison of four coagulation approaches (conventional alum and FeCl<sub>3</sub> coagulation and aluminum and iron electrocoagulation) for their ability to remove/inactivate three virus surrogates with widely different characteristics (enveloped phage  $\phi 6$ , non-enveloped bacteriophage MS2, and tailed phage P1).

**BIOGRAPHY:** Shankar Chellam is a Professor and holder of the A.P. & Florence Wiley Professorship III in the Zachry Department of Civil & Environmental Engineering. Before joining Texas A&M University in August 2015, he spent 16 years at the University of Houston. He worked in industry and as a consultant before beginning his independent academic career. His research covers a wide spectrum of topics related to the transport, characterization, and removal of environmental colloids. On a personal level, Shankar is an avid heavy metal aficionado and regularly attends concerts.