



Society of Tribologists and Lubrication Engineers

Houston Section

October 8, 2021 Technical Meeting

Welcome to STLE Houston Section's 2021-2022 Lunch Seminar Series!

Our second technical seminar of the new season will be held “virtually” on Friday, October 8, 2021 at noon. Dr. Akash Jena of Lamar University will be presenting “*The Characterization of Solid-Liquid Systems Using Interfacial Modulus and Work of Adhesion*”. Please reserve the date!

Abstract: Drop motion dynamics are different and characterized based on the wetting properties of the surface used. With increasing lateral force, stages of drop motion are determined. The significant moment in motion, or the onset of motion for a drop, can be determined with the initial displacement of the receding edge. Surfaces with different structures posit a different onset of motion value for the drop and rougher surfaces exhibit different adhesive behavior despite being made of the same material. We determine this to be because of the interaction of the solid towards the liquid, which can be summarized in the term known as GS, namely the Interfacial modulus. This is resilience to the interaction towards the droplet and is quantified with respect to change in surface topography and material. This research therefore tries to characterize surfaces via these parameters, and to signify how different surfaces would interact with different media. Also based on different surfaces used, we also determine how polymerization affects motion and with different surfaces, another characteristic parameter known as Work of Adhesion is also determined for these systems.

Speaker: Dr. Akash Jena has a PhD in Chemical Engineering from Lamar University. Among his areas of concentration are wetting and interfacial phenomena and material characterization, along with process engineering experience with chemical treatment application at petrochemical plants. When not working, Akash likes reading news, exploring history, and playing racquet sports.

Location: Virtual.

IMPORTANT NEW PRE-REGISTRATION REQUIREMENT:

Please pre-register for “*The Characterization of Solid-Liquid Systems Using Interfacial Modulus and Work of Adhesion*” on October 8, 2021 12:00 PM CST at:

<https://attendee.gotowebinar.com/register/5397239114712831500>

AFTER REGISTERING, YOU WILL RECEIVE A CONFIRMATION EMAIL CONTAINING INFORMATION ON HOW TO JOIN THE WEBINAR

Schedule:

12:00PM - 1:00PM: Business Meeting and Technical Presentation

Fees:

None

The STLE Houston Section's Monthly meeting provides a platform to advance your knowledge, learn current trends in tribology, lubrication and related industries, and much more. We're hoping to be back to in-person meetings as soon as possible.

STLE Houston Section Calendar of Events (2021 - 2022)

September 10, 2021	Todd Cawley of LSI Chemical, " <i>Colorless and Permanently Suspended Nanocarbons in Lubricants</i> "	Virtual
October 8, 2021	Dr. Akash Jena of Lamar University, "<i>The Characterization of Solid-Liquid Systems Using Interfacial Modulus and Work of Adhesion</i>"	Virtual
November 12, 2021	Dr. Ken Hope, STLE President (and Global PAO Technical Services Manager of Chevron Phillips Chemical), " <i>The Current State of STLE</i> "	Virtual
December 10, 2021	Jeffrey Harmening - Manager, EOLCS/DEF/MOM and Dennis L. Bachelder, Engine Oil spec, both of API, " <i>Importance of EO Audit Program</i> "	Virtual
January 14, 2022	No Meeting This Month	
February 11, 2022	TBD	TBD
March TBD, 2022	2022 Annual Houston STLE Lube School	TBD
March 11, 2022	TBD	TBD
April 8, 2022	TBD	TBD
April TBD, 2022	Commercial Innovation Forum	TBD
May 15 – 19, 2022	STLE Annual Meeting & Exhibition	Walt Disney World, Swan and Dolphin, Orlando, FL
May TBD, 2022	TBD	TBD
September TBD, 2022	First Technical Meeting of the new season	TBD