2019-2020 Assistant Professor Excellence Speaker Series

M.D. Anderson Library, Room 306

Wednesdays @ 12:15 p.m. - 1:15 p.m. *(Light lunch will be served.)*

Dr. Tiffany S. Legendre
Conrad N. Hilton College of Hotel & Restaurant Management

September 25, 2019

From "Ew" to "Wow", the gateway bug to edible insect consumption

The world cannot support current food production techniques, especially animal proteins and their detrimental effect on long term sustainability issues such as greenhouse gas emissions, water use, land use, and feed requirements. The United Nations (U.N.) finds the key answer lies in human consumption of edible insects. They are a sustainable, nutritious, and cost-effective food source already consumed across the globe. However, the question of how to encourage Westerners to eat insects as a sustainable long-term food source remains perplexing. While research in food science has examined edible insects from a sustainability, production, and health standpoint, it has neglected to examine customer psychology and business initiatives that can break the barrier to edible insect consumption. Dr. Legendre has done significant research in this area with the hope that she can see more consumers embrace edible insect-based food. She will showcase three of her recent publications and explain how to make edible insects more appealing to Western consumers, particularly what collaborative efforts are necessary for edible insect food businesses to be considered "cool".

Dr. Zheng Chen
Cullen College of Engineering

October 23, 2019

Electroactive Polymer Artificial Muscles Enabled RoboFish

Autonomous underwater robots are highly demanded in environmental monitoring, intelligent collection, and deep water exploration. Recent years have witnessed significant effort in development of bio-inspired underwater robots to mimic aquatic animals, such as robotic fish, robotic jelly fish, and robotic manta ray, to achieve high energy propulsion efficiency and maneuvering capabilities. Novel actuating materials, which are lightweight, soft, and capable of generating large flapping motion under electrical stimuli, are highly desirable to build such bio-inspired robotic fish. Electroactive polymers (EAPs) are emerging smart materials that can generate large deformations under electrical stimuli. As an important category of ionic EAPs, Ionic Polymer-Metal Composites (IPMCs) can work under wet conditions with low actuation voltages, which shows their great potential as artificial muscles in bio-inspired underwater robots. In this talk, a systems perspective is taken, from modeling, control, fabrication, and bio-inspired design, which addresses the most challenges in this research area. Three types of bio-inspired underwater robots using artificial muscles will be presented in this talk, including robotic fish, robotic manta ray, and artificial swimming bladder. Advantages and challenges of using IPMC artificial muscles in bio-inspired robots will be concluded at the end.

Dr. Summer Harlow
Valenti School of Communication

January 29, 2020

From #BlackLivesMatter to #Ayotzinapa: Rethinking Domestic and Foreign Protest News Coverage on Social Media

Research suggests news media negatively portray protests that challenge the status quo – a pattern known as the protest paradigm. Such de-legitimizing coverage has been shown to turn the public against protesters and their causes. Most research, however, neglects the external and internal factors that influence journalists' coverage, especially in this digital era. In Professor Summer Harlow's talk she will answer research questions examining how social media users' sharing of protest news amplifies certain narratives that marginalize some protests and legitimize others. Using a quantitative analysisof "big" data based on social media sharing of news coverage of protests throughout the U.S. and Latin America, as well as qualitative interviews with journalists and activists, Professor Harlow will reconsider the applicability of the paradigm in a digital media landscape, and connect the paradigm to a broader critique of media, protest, and power, suggesting a hierarchy of social struggle with practical and theoretical implications.

Dr. Sang Byung Seo
C.T. Bauer College of Business

February 26, 2020

Disasters: Do Investors Fear the Possibility of Another Great Depression?

The average return on the U.S. aggregate stock market is roughly 6% larger than the average return on government bills, reflecting "high risk, high return." However, quantitatively explaining this gap has been a considerable challenge in the macro-finance literature over the last few decades. Holding a well-diversified stock portfolio does not seem so risky, considering that aggregate consumption and other economic fundamentals exhibit little volatility. This is one of many puzzles that suggest that there is more than meets the eye when it comes to understanding the connection between asset prices and macroeconomic fluctuations. One potential resolution is to consider the risk of rare but severe economic downturns like the Great Depression. While rare disaster models have received ample attention due to their success in explaining various puzzles, measuring disaster risk still remains as an issue. In this talk, Dr. Seo will discuss how derivative markets can help us overcome this issue.

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