09 · 11 · 2021 · 10 AM
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Chinese-American
Academic and Professional Association
in Southeastern United States

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2021 CAPASUS
Academic and Professional

CAREER DEVELOPMENT IN THE US

Challenges and Opportunities

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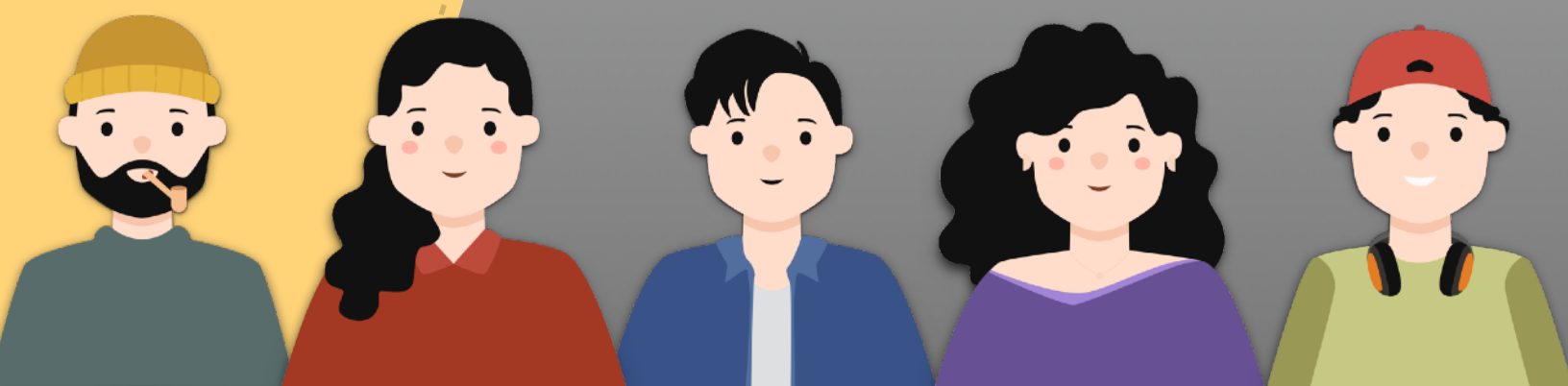


2021 CAPASUS Academic and Professional

CAREER DEVELOPMENT IN THE US

Challenges and Opportunities

HOST Chinese-American Academic and Professional Association in Southeastern United States (CAPASUS)

TIME September 11th, 10:00 – 11:30 AM (ET)

WEBINAR via Cisco Webex (see www.CAPASUS.org)

Time	Activity	Speakers
10:00 AM	Opening Remarks	Moderator: Dr. Catherine Chang, CAPASUS President Dr. Yichang (James) Tsai, Georgia Tech Director-General Elliot Wang, TECO-Atlanta Director Shirley Yang, Science and Technology Division, TECRO-Washington, DC Director Martin Chen, Economic Division, TECO-Atlanta
10:15 AM	**Topic One:** Science and Engineering Scholars/ Professionals' Career Development (including Q&A)	Dr. Jeff Wu, Georgia Tech Dr. Ross Wang, Oak Ridge National Laboratory Dr. Chih-Wei Chang, Emory University
10:55 AM	**Topic Two:** Short-Term/Temporary Appointment Outside the Home Institution (including Q&A)	Dr. Steven Liang, Georgia Tech Ms. Nancy Tai, Atlanta Chinese School

VISIONS AND GOALS

Chinese-American Academic and Professional Association in Southeastern United States (CAPASUS) was established on June 25, 1977 and is a nonprofit organization. The objectives of CAPASUS are: 1) to provide opportunities for all members to exchange their academic, cultural, social, professional, and business knowledge and experiences and 2) to make academic, cultural, social, professional, and business contributions to the societies of the United States and the Republic of China (Taiwan).

CAPASUS has rich, high-quality human resources, including many passionate leading academics and professionals. With them, CAPASUS is able to build an experience-sharing platform and mentorship mechanism for knowledge transfer among senior and junior scholars that will substantially assist more Taiwanese American *scholars and professionals* grow professionally and personally, especially in culture adaptation and leadership, in the United States. CAPASUS' long-term goal is *to build a sustainable experience-sharing platform and mentorship mechanism for the transfer of knowledge and experience among senior and junior scholars/professionals*.

INTRODUCTION

The panel discussion titled "Career Development in the US: Challenges and Opportunities" is organized by Dr. Yichang (James) Tsai and Dr. Catherine Chang. The discussion will consist of two topics presented in sequence for one and a half hours. It will be a virtual meeting via Cisco Webex.

Panelists will share their professional experiences at different stages of their careers from junior to senior levels. Afterwards, the panelists will answer questions raised from the audience. The presentation will be recorded and the executive summary will be shared with a broader audience later.

Yichang (James) Tsai

BIO: PhD in CEE at Georgia Tech and BS from the National Chung-Hsing University in Taiwan. Currently a professor in Civil and Environmental Engineering and also an adjunct professor in Electrical and Computer Engineering at Georgia Tech. Research includes Smart Cities: Intelligent Transportation Infrastructure Asset Health and Safety Condition Assessment, Prediction, and Management Using Emerging Sensor Technologies (2D imaging, 3D lasers, 3D LiDAR, and smart phones, CAV) with computer vision, machine learning, GPS/GIS technologies. Recent studies on safety and mobility of aging population. Developed and successfully implemented the complex, large-scale, risk-based Georgia Pavement Management System (GPAMS) for the Georgia Department of Transportation (GDOT)–to manage its 18,000 centerline miles of highway over the past 20 years. Developed open-format 2D/3D Pavement Surface Image (.PSI) which has become the US national standard to support automatic detection of pavement distresses, including potholes, cracking, rutting, friction, etc. Associate Editor of the *ASCE Journal of Computing in Civil Engineering*. He has served in the technical committee in the NCHRP connected and automated vehicles research projects sponsored by the USDOT. He is also featured in the National Academy of Sciences' *Ignition Magazine* (www.trb.org/Publications/Blurbs/163652.aspx).

Catherine Chang

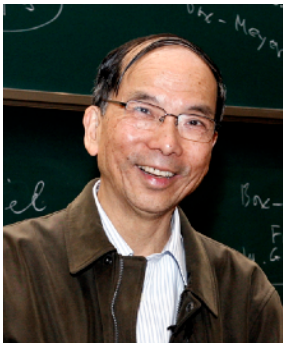
BIO: Catherine Chang is President of CAPASUS, 2021-2022. Currently assistant professor in History at Winthrop University, she received her Ph.D. degree in East Asian Languages and Cultures from the University of Southern California and her Bachelor's and Master's degrees in political science from National Taiwan University. Before entering the discipline of history, she was a journalist and a think tank's policy analyst in Taiwan. She has taught at different types of U.S. colleges and universities, including the University of Redlands, the University of California in Santa Cruz, and Skidmore College. Taking interdisciplinary and global perspectives, her current research includes China's and Taiwan's political, social, and cultural histories in the early modern and modern periods, with interests in international relations, modernization and political theories, and the diaspora. She teaches courses of World History, East Asian Histories, Women's History, Digital History, Maritime History, and Historiography and Methodology.

The following two topics will be presented:

Topic 1: Science and Engineering Scholars/Professionals' Career Development

This topic is intended for speakers to share their scholar/professional career development experiences, especially lessons learned in the areas of science and engineering. The topic intends to address the following questions: How to look for job interview opportunities? What are the key points to present in your interview? What are your career goals and paths in both academic and industrial fields? How do you find your own place in different universities and organizations? How do you obtain career information and proceed efficiently? How do you negotiate with different levels of administration on the required resources, promotion, etc.? How do you adapt the culture of your organization and develop your leadership skills? This topic will be presented and discussed by Dr. Jeff Wu, Member of both National Academy of Engineering (the US) and Academia Sinica (Taiwan) and Professor at Georgia Tech, Dr. Chieh (Ross) Wang, an R&D staff member at the Oak Ridge National Laboratory (ORNL of the US Department of Energy), and Dr. Chih-Wei Chang, a Medical Physics Resident at Emory University.

Jeff Wu



BIO: Dr. C. F. Jeff Wu is Professor and Coca Cola Chair in Engineering Statistics at the School of Industrial and Systems Engineering, Georgia Institute of Technology. He was the first academic statistician elected to the National Academy of Engineering (2004); also a Member (Academician) of Academia Sinica (2000). A Fellow of American Society for Quality, Institute of Mathematical Statistics, of INFORMS, and American Statistical Association. He received the COPSS (Committee of Presidents of Statistical Societies) Presidents' Award in 1987, the COPSS Fisher Lecture Award in 2011, the Deming Lecture Award in 2012, the inaugural Akaike Memorial Lecture Award in 2016, the George Box Medal from ENBIS in 2017, and numerous other awards and honors. He has published more than 185 research articles and supervised 50 Ph.D.'s. Among his students, there are 23 Fellows of ASA, IMS, ASQ, IAQ and IIE, and three editors of Technometrics. He has

published two books *Experiments: Planning, Analysis, and Parameter Design Optimization* (with Hamada) and *A Modern Theory of Factorial Designs* (with Mukerjee). He coined the term "data science" in 1998.

Ross Wang

BIO: Dr. Chieh (Ross) Wang is an R&D Staff Member in the Vehicle Connectivity & Autonomy Research (VCAR) Group at the Oak Ridge National Laboratory (ORNL). His research revolves around utilizing emerging sensing and computational technologies for transportation data collection, analysis, visualization, simulation, modeling, and application. His current research includes developing traffic simulation and analysis for connected and autonomous vehicles (CAVs) and smart cities applications. He is also one of the key investigators of USDOT's national transportation data programs, including the National Household Travel Survey (NHTS) and the Freight Analysis Framework (FAF). He is one of the key developers for the NHTS website (www.nhts.ornl.gov), for which he is developing web-based data analytics and visualization tools. Dr. Wang received his Bachelor's and Master's degrees in Civil Engineering from the National Taiwan University and his Ph.D. degree in Civil and Environmental Engineering from the Georgia Institute of Technology.

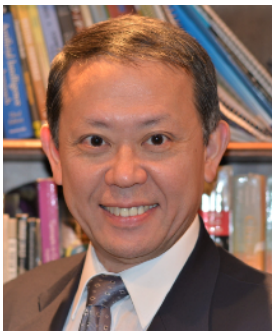
Chih-Wei Chang

BIO: Dr. Chih-Wei Chang is a current Medical Physics Resident at Emory University School of Medicine. He received his PhD in nuclear engineering from North Carolina State University and earned his bachelor's and master's degrees from National Tsing Hua University. Dr. Chang's research interests include applying physics-informed machine learning for predictive modeling and proton/photon therapy. He assisted the commissioning work at Emory Proton Therapy Center and developed a standardized framework to commission and validate Monte Carlo algorithms for clinical treatment planning. Before joining Emory University, Dr. Chang developed the physics-integrated machine learning framework for thermal-fluid applications that can potentially shorten the model development time and leverage data value for newly designed systems. He also enjoys horse riding and golf in Georgia.

Topic 2: Short-Term/Temporary Appointment Outside the Home Institution

This topic is intended to discuss the opportunity, process, and experience of applying for a sabbatical or unpaid leave to work temporarily outside the US at affiliated educational institutions for a few months or a few years. The presentation and discussion will include: a) developing and identifying opportunities that can enhance a future career and learning any pitfalls in career development; b) negotiating with the home institution to align with the school's vision, arranging the trip to Taiwan or other countries outside the US and applying for sponsorship from the organizations; c) managing challenges and networking; d) bridging and restarting one's active research track; and e) personal life and finance arrangements, including taxation, etc. This topic will be presented by Dr. Steven Liang, Endowed Chair/Professor at Georgia Tech, former president of Walsin-Lihwa Corp. (in Taiwan) and 1995 Chairperson of Monte Jade Southeastern, and Ms. Nancy Tai, former president of Yeon Technologies (in Taiwan) and 2018 Chairperson of Monte Jade Southeastern.

Steven Liang



BIO: PhD in Mechanical Engineering from University of California at Berkeley. Currently Morris M. Bryan Jr. Professor at Georgia Tech. Research on modeling, monitoring, and control of precision manufacturing processes and systems. Work disseminated in over 600 archival articles, 5 books, and 40+ international conference keynotes. Served as President of NAMRI/SME, Chair of MED/ASME, and President of a Taiwan's top-30 publicly traded company of global footprints. Currently Technical Editor of the *International Journal of Precision Engineering and Manufacturing* and Editor-in-Chief of the *Journal of Manufacturing and Materials Processing*. Accolades include Robert B. Douglas Outstanding Young Manufacturing Engineer Award of SME, Ralph R. Teetor Education Award of SAE, Blackall Machine Tool and Gage Award of ASME, Outstanding Service Award of ASME, Milton C. Shaw Manufacturing Research Medal of ASME, Most Influential Professor in Smart Manufacturing of SME, Outstanding Lifelong Service Award of SME, and Gold Medal of SME. Fellow of ASME, SME, and AET.

Nancy Tai

BIO: Nancy Tai received her master's degree in Computer Science from Indiana University. She worked on system and network management for 25 years and later moved to innovation prototyping. In 2003, Nancy and her team at Georgia-Pacific spearheaded RFID (Radio Frequency Identification) research and implemented it in business production lines to improve efficiency in supply chain and inventory management. She was thus invited to participate in RFID global standard definition and helped facilitate the world-wide RFID implementation. Nancy joined the Yuen Foong Yu group in Taiwan in 2006 serving as the president of Yeon Technologies to develop tagging solutions for RFID implementation. Nancy returned to Atlanta in 2012 and started engaging in community services. She joined the Monte Jade Science & Technology Association SE (MJSTASE) in 2015 and served as the Chair in 2018. Nancy took on the role as the principal of Atlanta Chinese School in 2019 and established the Taiwan Center for Mandarin Learning at Atlanta in 2021.

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Prepared by Esther Chiu

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