A showcase of academic excellence demonstrated by UHD undergraduates and graduates majoring within the Marilyn Davies College of Business, Colleges of Humanities and Social Science, Public Service, Sciences and Technology, and University College.

Friday, April 12, 2019

8:00 – 8:30 am Registration and Continental Breakfast (Mural Area and Coffee House)
8:30 – 9:00 am Welcoming Remarks (Wilhelmina Cullen Robertson Auditorium) –
Dr. Mary Jo Parker, Scholars Academy, Executive Director, UHD
Dr. Eric Carl Link, Provost, UHD
Dr. Ermelinda DeLaVina, Associate Dean, College of Sciences and Technology, UHD
Dr. Miriam M. Morales, UHD Alumna
Dr. Mary Jo Parker, Executive Director, UHD Scholars Academy
Dr. Laura Marone, Professor of Biology and Microbiology
Dr. Whitney Botsford Morgan, Associate Professor of Management & Insurance Risk Management
Professor Mitsue Nakamura, Lecturer of Mathematics and SA Peer Mentor Coordinator
Dr. Chu Nguyen, Chair of Finance, Accounting and Enterprise Information Systems
Dr. Maria Bhattacharjee, Associate Professor of Public Service
Dr. Lucille Pointer, Program Coordinator, UHD Scholars Academy
Dr. Shahnjinta Roy, Associate Professor of Psychology
Dr. John Linantud, Associate Professor of Political Science

Conference Co-Chairs:
Dr. Judith Harris, Assistant Professor of Criminal Justice
Dr. Mian Jiang, Associate Professor of Chemistry

Conference Planning Committee:
Dr. Liza Alonzo, Director, Alumni Relations, Advancement & University Relations
Dr. Maria Bhattacharjee, Associate Professor of Urban Education
Dr. Youn-Sha Chan, Associate Professor of Mathematics and Statistics
Dr. Irene Chen, Professor of Urban Education
Dr. Shahnjita Connors, Assistant Professor of Health and Behavioral Science
Dr. Ermelinda DeLaVina, Associate Dean, College of Sciences and Technology
Dr. Poonam Gulati Sahota, Director of the Center for Community Engagement and Service Learning
Dr. Jillian Hill, Associate Professor of English
Dr. Ruth M. Johnson, Associate Professor of Psychology
Dr. John Linantud, Associate Professor of Political Science

Oral Presentations:
Joshua Alegría - Anticancer Efficacy of Components from Turmeric Root and Black Pepper
Tristan Arroyo - Identification of Genetic Loci Responsible for Explorative Behavior between D. Simulans, and D. Sechellia
Tracey Geri & Pamela Lambert - Access to Affordable Healthcare: A Comparative Policy Analysis
Rachel Gross - Computational Modeling of Methyl Ammonium Lead Iodide
Angelina Maldonado - Investigating Soil Microbes for Antimicrobial Properties
Takese McKenzie - A New and Friendly Open-Source Fly Tracker to Study Attention Deficient Hyperactivity Disorders in Drosophila Melanogaster
Sarah Ramal - Synthesis of Phthalocyanine Monomers: The Flexibility Perspective

The UHD Scholars Academy (SA) is an academically competitive program in the College of Sciences and Technology (CST) that promotes scholarship and student success for undergraduate students majoring in Science, Technology, Engineering and Mathematics (STEM).

One Main Street, 725-North, Houston TX 77002-1001
Phone: 713-222-5344; Fax: 713-223-7410; scholars@uhd.edu; www.uhd.edu/scholars
STEM Keynote Speaker: (9:35AM-9:50AM)
Miriam M. Morales, PhD
Associate Vice President of Data Science
Memorial Hermann Hospital System, Clinical Transformation

Presentation Title: “#datascience”

Bio-sketch: Dr. Miriam Morales has 18 years of experience in pure mathematics, statistics, health care analytics, data integration, programming, data warehouses, research, clinical trials, outcomes, population health and Epidemiology. Dr. Morales graduated from UHD Scholars Academy with a Bachelor of Science in Applied Mathematics in 2001. She was the first Scholars Academy graduate. Dr. Morales began her career at the Baylor College of Medicine Children’s Nutrition Research Center as an intern, where incidentally she was hired on the spot during a UHD Scholars Academy field trip. She went on to pursue her Masters of Science in Biostatistics and transitioned to working at the University of Texas Medical School as the Biostatistician for their Neurosciences Department. Dr. Morales worked on numerous research studies, clinical trials, study design and has become an expert in the evaluation of patient outcomes. In 2008, Dr. Morales took over the quality analytics team at the Memorial Hermann Texas Medical Center. There Dr. Morales automated several manual nursing reports, integrated external benchmarking tools, developed statistical and predictive models in vascular medicine, and published findings in neurology and stroke outcomes. Dr. Morales was promoted to the Director of Strategic Analytics in 2014 and ran the analytics teams for the Mischer Neuroscience Institute’s Innovation and Quality Unit and implemented several system wide initiatives in health care benchmarking, physician alignment, and quality improvement. Dr. Morales earned her Doctorate in Epidemiology with emphasis in the Evaluation of Healthcare Systems in April 2018 from the University of Texas Health Science Center School of Public Health. Dr. Morales currently serves as the Associate Vice President of Data Science for Memorial Hermann Healthcare System where she oversees system wide analytic strategies to reduce care variation while improving patient outcomes. Dr. Morales created the Miriam Morales Scholarship Endowment at UHD for students majoring in mathematics, statistics or data analytics and the scholarship is open to both part-time and full-time students at UHD. Dr. Morales currently serves as the President of the UHD Alumni Board and is also a member of the Houston Livestock Rodeo and Show Go Tejano Scholarship Committee.

Presentation Abstract: Healthcare systems’ success will depend on how well they are able to translate raw information into knowledge and actionable insights that change practice. Data Scientists are experts at leveraging data systems, machine learning models, predictive and prescriptive analytics, and the visualization of insights. What will differentiate a career in data science is the ability to not only do the hard work of analytics but to also communicate insights to stakeholders. I will describe my undergraduate research experiences at UHD and how they drove my success in graduate school and in my academic and professional careers.

Liberal Arts Keynote Speaker: (12:10PM-12:25PM)
Yolanda J. Rios, EdD
Director of Multilingual/Title III/Migrant
New Caney ISD

Presentation Title: “Breaking Barriers in Barrios: How School Connectedness Impacts Hispanic Student Achievement”

Bio-sketch: Dr. Yolanda Rios was born and raised in Houston, TX. She is a proud UHD Alumni and the first in her family to graduate with a bachelor’s degree. In 2008, she started her career as a bilingual teacher in Aldine ISD. Over the years, she has spent countless hours serving organizations that contribute to Hispanic Leadership and Bilingual Education.

Dr. Yolanda Rios currently serves the New Caney ISD community as the Director of Multilingual by providing services for students and families of English Learners. As a struggling student herself, she became aware of some of the issues that
cause students to drop out of school and the generational consequences caused to their families. Prior to her current role, Dr. Rios has worked as a campus leader with high economically disadvantaged populations and has been a determining factor in helping them excel!

Her recent research contributions are in the areas of Hispanic dropouts, school attendance, and graduation rates. In 2015, she completed her dissertation at Sam Houston State University and has continued to have interest in how school climate affects Hispanic student achievement.

Dr. Rios’ continued passion comes from the idea that the world can be a better place if we first believe in our future, our students.

**Presentation Abstract:** The School Connectedness Theory presents an idea that if a student feels connected to their school, they are more likely to perform better in state assessments and graduate from high school. For many Hispanic students, the local schoolhouse is where resources and opportunities for success occur, but for others they are faced with obstacles such as language barriers, school discipline, and employment that keep them from building that connectedness. There are many factors impacting Hispanic student dropout rates, during this presentation a personal anecdote will help tie the importance of research to building communities and schools that will excel!

**STUDENT RESEARCH CONFERENCE PRESENTED BY CITGO**

**CITGO Representative:** (9:15AM-9:30AM)
Mr. Brandon Thompson  
Sr. Lubricants Compliance Specialist

**Presentation Title:** “My Life and These Sheets of Paper”

**Bio-sketch:** “Only those who are willing to risk going too far, can possibly find out how far they can go – Eric Thomas.”

Brandon Thompson started his career as a Lab temp for CITGO Petroleum and 14 years later is now the Sr. Lubricants Compliance Specialist for CITGO’s Product Technology group. School was not one of Brandon’s favorite things to do growing up. In college, things still didn’t click but he graduated with a Bachelor’s of Science in Chemistry. Brandon still has many hills to climb and goals to accomplish in his life. When he is not chasing after his dreams, Brandon enjoys spending time with his wife and 2-year-old son.
**Poster Presentation Session I (1:30PM-2:15PM):**

Research Mentor(s): Dr. Jorge Tito
Project Location: University of Houston-Downtown

4 - Meheret Tadesse, “Synthesis and Characterization of New Ball-type Phthalocyanine Monomers from Diphenols”
Research Mentor(s): Dr. Eszter Trufan
Project Location: University of Houston-Downtown

6 - Laura Conde-Puello, “Novel Exploration of Nickel Related Compounds and Their Application in Sensing”
Research Mentor(s): Dr. Mian Jiang
Project Location: University of Houston-Downtown

8 - Suleiman Anaza, “OpenCV Based Robot Control System”
Research Mentor(s): Prof. Mitsue Nakamura
Project Location: University of Houston-Downtown

10 - Idris Akinlusi, Darwin Argueta, “Screening Synthetic Compounds for Antibacterial Activity Against P. fluorescens and B. subtilis”
Research Mentor(s): Dr. Rachna Sadana
Project Location: University of Houston-Downtown

12 - Tristan Arroyo, “Zika Virus–Associated Birth Defects and Socioeconomic Analysis of Zika Virus Exposures”
Research Mentor(s): Dr. M. Gabriela Bowden
Project Location: University of Houston-Downtown

14 - Mahendra Basyal, “Label Diffusion of EEG-Based Brain Activity Data Using Greedy Max-Cut”
Research Mentor(s): Dr. Yuchou Chang
Project Location: University of Houston-Downtown

16 - Christopher Blank, “Academic Review of Feature Description and Facial Recognition via Histograms of Oriented Gradients”
Research Mentor(s): Dr. Yuchou Chang
Project Location: University of Houston-Downtown

18 - Trinh Bui, “Optimal Paths and Cycles in Networks”
Research Mentor(s): Dr. Timothy Redl
Project Location: University of Houston-Downtown

20 - Erick Cervantes, “Environmental Monitoring with IoT”
Research Mentor(s): Dr. Weinig Feng
Project Location: University of Houston-Downtown

22 - Dalí Caicedo, Patrick M. Krause, Mohammed Mohammed Ali, Loic Steinthal, “The role of immunosuppression via activation of the PD1/PD-L1 immune checkpoint in triple-negative breast cancer progression.”
Co-Authors: Dr. Alejandro Contreras
Research Mentor(s): Dr. Adriana Visbal
Project Location: University of Houston-Downtown

24 - Rosa Del Abra, Takese McKenzie, “Identifying the Molecular mechanisms linking High Sugar Diet to the Hyperactivity Phenotype in ADHD”
Research Mentor(s): Dr. Connie Kang
Project Location: University of Houston-Downtown

26 - Ramandeep Dhadral, Marianna Grijalva, “SLEEK CHOCOLATE – Spring, TX: Expanding a Small Business Using Operations Management”
Research Mentor(s): Dr. Elias Keedy
Project Location: University of Houston-Downtown

28 - Mariangela Gamez, “An Overview of Adolescents Sexual Abusers”
Research Mentor(s): Dr. Nina Barbieri
Project Location: University of Houston-Downtown

30 - Kelly Garcia, Whitney Orr, “Effects of Soil Texture on Wheat Germination Rate and Growth Allocation”
Research Mentor(s): Dr. Michael Tobin
Project Location: University of Houston-Downtown

32 - Jose Gonzalez, “Synthesis and Characterization of a Polymer Derived from a Cationic Surfactant Via Addition Polymerization”
Research Mentor(s): Dr. Robin Jose
Project Location: University of Houston-Downtown

34 - Meagan Grant, “Finding an Optimal Assignment of Incoming STEM students to Faculty and Peer Mentors”
Research Mentor(s): Dr. Timothy Redl
Project Location: University of Houston-Downtown

36 - Rachel Gross, “Computational Modeling of Methyl Ammonium Lead Iodide”
Research Mentor(s): Dr. Maria Benavides
Project Location: University of Houston-Downtown

38 - Yasar Hassan, “Computer Vision”
Research Mentor(s): Dr. Yuchou Chang
Project Location: University of Houston-Downtown

40 - Ana Garay, Danniela Herrera, Nicolette Vallot, “Antibiotic Sensitivity of Escherichia coli and Serratia marcescens as Planktonic Cells and Biofilms”
Co-Authors: Jacqueline Rocha
Research Mentor(s): Dr. Poornam Gulati Salhotra
Project Location: University of Houston-Downtown

42 - Ayzhamal Zhamangaraeva, “Corner Detection of Structure from Motion Using Optical Flow Algorithm”
Research Mentor(s): Dr. Yuchou Chang
Project Location: University of Houston-Downtown

Research Mentor(s): Dr. Stephen Wernet
Project Location: University of Houston-Downtown

46 - Sally Ananywru, Crisilie Domingo, Leslie Lopez, Kinjal Patel, Camille Paguinto, “Designing an Incubator to Compare the Growth of Edible Mushroom Varieties: Cross-disciplinary Research in Engineering Technology and Biology”
Research Mentor(s): Dr. Lisa Morano, Dr. Vassilios Tzouanas
Project Location: University of Houston-Downtown

48 - Stephanie Delgado, Angelina Maldonado, Eudes Mvoula, “Investigating Soil Microbes for Antimicrobial Properties”
Co-Authors: Aneeka Khan, Valeria Vasquez, Frank Omoregbie
Research Mentor(s): Dr. Sanghamitra Saha, Dr. Elizabeth Villegas
Project Location: University of Houston-Downtown

50 - Allison McKee, “Computational Analysis of Silver (I) NHC Complex”
Research Mentor(s): Dr. Maria Benavides
Project Location: University of Houston-Downtown

52 - Christopher Burks, Michael Melton, “Petrology of Hawaiite and Alkalai-Olivine Basalt in Big Bend Ranch State Park, West Texas, and their Possible Connection to Continental Rifting”
Research Mentor(s): Dr. Kenneth Johnson
Project Location: University of Houston-Downtown, Big Bend Ranch State Park

54 - Huy Anh Mai, Praneeth Nadimpalli, “Screening Synthetic Compounds for Their Cytotoxic Effects on Leukemia Cell Lines”
Research Mentor(s): Dr. Rachna Sadana
Project Location: University of Houston-Downtown

56 - Alejandra Carmona, Nhi Le, Nhat Nguyen, Jacqueline Ramos, “Examining Antibiotic Potential in Synthetic Compounds”
Research Mentor(s): Dr. Rachna Sadana
Project Location: University of Houston-Downtown

58 - Katelyn Payne, “Construction of Myxococcus xanthus Type IV pil- and EPS-deficient strains for motility analyses”
Research Mentor(s): Dr. M. Gabriela Bowden
Project Location: University of Houston-Downtown

Co-Authors: Valentina Maza, Chisom Odom, Lorraine Reitzel
Project Location: University of Houston-Downtown, University of Houston

Research Mentor(s): Dr. Rachna Sadana
Project Location: University of Houston-Downtown

64 - Aneeka Khan, Frank Omoregbee, Valeria Velazquez, “Characterizing Soil Isolates Exhibiting Anti-microbial Properties”
Co-Authors: Angelinda Maldonado, Stephanie Delgado, Eudes Mvoula
Research Mentor(s): Dr. Elizabeth Villegas
Project Location: University of Houston-Downtown

66 - James Aaron, Christopher Sookdeo, “The effect of water and thermal history on phase structure and transitions of honey”
Co-Authors: Dougles Szynka, Slawomir Bakier
Research Mentor(s): Dr. Janusz Grebowicz
Project Location: University of Houston-Downtown

68 - Bao Hoang, Manh-Tuong Nguyen, “Eco-concrete”
Co-Authors: Richard Rodriguez, Julio Almaraz, Janet Sanchez, Pablo Esquivel, Lance Schramm, Patricia Mora
Research Mentor(s): Dr. Arash Rahmatian
Project Location: University of Houston-Downtown

70 - Jacob Thorp, “Color Image Watermarking Based on Color Variation Measure”
Research Mentor(s): Dr. Yuchou Chang
Project Location: University of Houston-Downtown

72 - Julio Enriquez, Aaron Torres, “Ionization Gas Centrifuge System for Venus Exploration”
Research Mentor(s): Dr. Maria Benavides, Dr. Donald Musselwhite
Project Location: University of Houston-Downtown

74 - Victor Varghese, “Prosthetic Hand Control with Teach and Learn Method”
Research Mentor(s): Dr. Weinong Feng
Project Location: University of Houston-Downtown

76 - Maritza Montoya, Leslie Young, “Open- and Closed-System Evolution of Syenite and Trachyte Magmas in the Leyva Canyon Volcano, Big Bend Ranch State Park, West Texas”
Research Mentor(s): Dr. Kenneth Johnson
Project Location: University of Houston-Downtown, Texas Tech University, Big Bend Ranch State Park

78 - Mariam Dadani, “Web Hosting for Hurricane Hou”
Co-Authors: Luis Lanas
Research Mentor(s): Dr. Ting Zhang
Project Location: University of Houston-Downtown

80 - Brittany Zavala, “Studies on Eco-Friendly Concrete”
Co-Authors: Michael Figueroa, Moises Nunez
Research Mentor(s): Dr. Arash Rahmatian
Project Location: University of Houston-Downtown

82 - Michael Figueroa, Moises Nunez, “A Smart Sensing System with Machine Learning Algorithms for Structural Damage Analysis”
Research Mentor(s): Dr. Ting Zhang
Project Location: University of Houston-Downtown

84 - Syed Faran Jafri, “Effective Reinforced Concrete Floor Systems for Flat Slab vs. Beam Slab”
Research Mentor(s): Dr. Arash Rahmatian
Project Location: University of Houston-Downtown

86 - Kimberley Kissoon, “Examining the Role of Exopolysaccharides in Myxococcus xanthus Surface Social Motility”
Co-Authors: M. Gabriela Bowden, Zhaoyang Zhang, Oleg Igoshin
Research Mentor(s): Dr. Heidi B. Kaplan
Project Location: UTHealth-McGovern Medical School

Research Mentor(s): Dr. Eszter Trufan
Project Location: University of Houston-Downtown

Poster Presentation Session II (2:15PM-3:00PM):

Research Mentor(s): Dr. Lisa Morano, Dr. Vassilios Tsouanas, Northworks Digital Factory
Project Location: University of Houston-Downtown

3 - Joshua Alegria, “Anticancer Efficacy of Components from Turmeric Root and Black Pepper”
Research Mentor(s): Dr. Hamida Gavi
Project Location: University of Houston-Downtown

5 - Mays Al-Malki, Laura Conde-Puello, Charlie Lazo, Meheret Tadesse, “Evaluating protocols for the determination of water hardness”
Co-Authors: Eudes Mvoula, Frank Omoregbee
Research Mentor(s): Dr. Mian Jiang
Project Location: University of Houston-Downtown

7 - Suleiman Anaza, Fnu Ayesha, Gaelle Elias, Dennis Rivera, Zachary Tubbs, “Constructing a System to Help Maintain Sustenance in Long-term Chemical Attacks”
Research Mentor(s): Prof. Mitsue Nakamura
Project Location: University of Houston-Downtown

9 - Jonathan Andrade, “Effect of Fly Ash and Silica Fume on Time to Corrosion Initiation”
Research Mentor(s): Dr. Arash Rahmatian
Project Location: University of Houston-Downtown

11 - Tristan Arroyo, “Identification of Genetic Loci Responsible for Exploratory Behavior Between D. Simulans, and D. Sechellia”
Co-Authors: Kally Ramos
Research Mentor(s): Dr. Connie Kang
Project Location: University of Houston-Downtown

Co-Authors: Nelson Arias
Research Mentor(s): Prof. Mitsue Nakamura
Project Location: University of Houston-Downtown

Research Mentor(s): Dr. Eszter Trufan
Project Location: University of Houston-Downtown

17 - Pedro Brito Rodriguez, “Stock Structure of Bowhead Whales Inferred from mtDNA”
Research Mentor(s): Dr. Amy Baird
Project Location: University of Houston-Downtown

Research Mentor(s): Dr. Katarina Jegdic
Project Location: University of Houston-Downtown

21 - Ahmad Chaban, Remsha Iqbal, Mohammed Mohammed Ali, “Corneal and Retinal Diseases from an Undergraduate’s Shadowing Experience”
Co-Authors: Idris Akinliusi
Research Mentor(s): Dr. Hamida Gavi
Project Location: University of Houston-Downtown, Eye Excellence Clinic

23 - Katherine Aguilar, Adrian Chavez, Samantha Cornejo, Noelia Jimenez, Rachel Mendez, “Enhancing the Brain Biologically with Stimulants and Technology”
Co-Authors: Jeremiah Gantt
Research Mentor(s): Prof. Mitsue Nakamura
Project Location: University of Houston-Downtown

25 - Takese McKenzie, “A New and Friendly Open-Source Fly Tracker to Study Attention Deficient Hyperactivity Disorders in Drosophila Melanogaster”
Co-Authors: Santiago Gutierrez, Jose Gonzalez
Research Mentor(s): Dr. Connie Kang
Project Location: University of Houston-Downtown
27 - Lysabeth Busby, Erick Cordova, Isaac Ferreyra, Carissa Moran, “The Efficacy of Teacher Training for Students with Disruptive Behaviors”  
Research Mentor(s): Dr. Stephanie L. Coleman  
Project Location: University of Houston-Downtown

29 - Mariangela Gánemz, “Misleading Errors in Legal Translation: Documents from Harris County, Fort Bend County and Galveston County”  
Research Mentor(s): Dr. Rey Romero  
Project Location: University of Houston-Downtown

31 - Melissa Garcia Canastuj, “Singapore Country Report”  
Research Mentor(s): Dr. John Linantud  
Project Location: University of Houston-Downtown

33 - Jose Miguel Gonzalez, “Data Aggregation System for UHD Solarized Micro-Grid”  
Co-Authors: Dr. Weining Feng  
Project Location: University of Houston-Downtown

35 - Nia Griffith, “An Analysis of Diversity and Resistant of Environmental Bacteria from Three Elementary Schools in Houston, TX.”  
Research Mentor(s): Dr. M. Gabriela Bowden  
Project Location: University of Houston-Downtown

37 - Roel Guerra, “Developing a Methodology for the Purification of a Zwitterionic Chiral Monomer”  
Research Mentor(s): Dr. Robin Jose  
Project Location: University of Houston-Downtown

Co-Authors: Ian Frankel  
Research Mentor(s): Dr. Youn-Sha Cha  
Project Location: University of Houston-Downtown

41 - Desmond Dawson, Giao Ho, Jennifer Mendoza, Frank Omoregbeye, Jermal Sanders, Lacey Singleton, “What changes can society make to limit their impact on climate change?”  
Co-Authors: Brook Krenke  
Research Mentor(s): Prof. Mitsue Nakamura  
Project Location: University of Houston-Downtown

43 - Isbah Khan, “Impact of fruit and vegetable consumption on standardized body mass index (zBMI) of Mexican-American adolescents”  
Co-Authors: Ms. Katherine R. Arlinkhaus, Ms. Claudia W. Scott, Dr. Daphne C. Hernandez, Dr. Craig A. Johnston  
Research Mentor(s): Dr. Craig Johnston  
Project Location: University of Houston

45 - Jennifer Lara, “Do Noncognitive Variables Predict Academic Success Among Nontraditional Students?”  
Research Mentor(s): Dr. Kit Cho  
Project Location: University of Houston-Downtown

47 - VI Ly, Shawn Olichwier, “Accurate Prediction of Boundaries of High Resolution Topologically Associated Domains (TADs) In Fruit Flies Using Deep Learning”  
Research Mentor(s): Dr. Benjamin Solbom  
Project Location: University of Houston-Downtown

49 - Marcell McCorrkle, “Risk, Uncertainty, and Healthcare Coalitions”  
Research Mentor(s): Dr. Laila Sorurbakhsh  
Project Location: University of Houston-Downtown

51 - Hector Melchor, “Using Performance-Based Criteria for SCC Coastal Condominium Column Repair”  
Research Mentor(s): Dr. Arash Rahmatian  
Project Location: University of Houston-Downtown

53 - Ahmed Mohammed Ali, “Computational Studies of Three N-substituted Molecules of 5-ChloroSalicylamides- Potential Dental Antiplaque Agents”  
Research Mentor(s): Dr. Maria Benavides  
Project Location: University of Houston-Downtown

55 - Nho Le, Julia Nguyen, Nhat Nguyen, “Chemical Analysis of Plastic Samples pre- and post-Freshwater Exposure”  
Co-Authors: Shaynah St. Vallier, Trung Le  
Research Mentor(s): Dr. Poonam Gulati Salhotra, Dr. Janusz Grebowicz  
Project Location: University of Houston-Downtown

57 - Daniel Avalos, Jessica M. Gonzalez, Matthew Pacheco, Marium Waqar, “Evolution of the Atmospheric Particulate Matter in the Greater Houston Area”  
Research Mentor(s): Dr. Penny Morris-Smith, Dr. Philip Lyons  
Project Location: University of Houston-Downtown

Research Mentor(s): Dr. Eszter Trufan  
Project Location: University of Houston-Downtown

61 - Amanda Rodriguez, “Sandstone petrology of the Chinle Formation in Grand Staircase-Escalante National Monument, southern Utah: significance for interpreting climatic and tectonic changes during the Late Triassic”  
Co-Authors: Jose Teran, Sarah Roberts  
Research Mentor(s): Dr. Jeffrey W. Martz  
Project Location: University of Houston-Downtown

63 - Jesus Ruiz, “Theoretical Studies of the Photoluminescence and Forensic Application of Azomethine-Zinc (II) Complexes”  
Research Mentor(s): Dr. Maria Benavides  
Project Location: University of Houston-Downtown

65 - Mame Sarr, Geraldine Tijerina, “Contemporary Techniques in Geologic Mapping”  
Research Mentor(s): Dr. Sarah Heinlein  
Project Location: University of Houston-Downtown

Research Mentor(s): Dr. Stephen Wernet  
Project Location: University of Houston-Downtown

69 - Derek Rajan, Fikri Tadesse, “Portable Analyzer System for Water Quality Monitoring”  
Research Mentor(s): Dr. Weining Feng  
Project Location: University of Houston-Downtown

71 - Paula Ortiz, Jacqueline Torralba, “Petroleum/Petrochemical Mid-Stream Study: Corrosion Study of the Pipeline Material Under Various Environmental Condition”  
Research Mentor(s): Dr. Mian Jiang  
Project Location: University of Houston-Downtown

Research Mentor(s): Dr. Vassilios Tzouanas, Dr. Lisa Morano  
Project Location: University of Houston-Downtown

75 - Kevin Vo, “Computational studies of a new synthetic compound that causes human fibrosarcoma HT-1080 cell apoptosis, 5-(Furan-2-yl)-4-(3,4,5-trimethoxyphenyl)-3H-1,2-dithiol-3-one oxime, and other related compounds”  
Research Mentor(s): Dr. Maria Benavides  
Project Location: University of Houston-Downtown

77 - Cuong Pham, “Data Analysis for Estimating Missing Data in Magnetic Resonance Imaging”  
Research Mentor(s): Dr. Yuchou Chang  
Project Location: University of Houston-Downtown

79 - Julie Flores, Enrique Sanchez, Angela Ybarra, Brittany Zavala, “Combating a flowable mortar mixture”  
Research Mentor(s): Dr. Arash Rahmatian  
Project Location: University of Houston-Downtown

81 - Sahira Palomo, “Acoustic Performance in Concrete using Rockwool”  
Research Mentor(s): Dr. Arash Rahmatian  
Project Location: University of Houston-Downtown
Poster Presentation Session II – Graduate Level Projects (2:15PM-3:00PM):

83 - Juan De La Cruz, Phuong Huynh, Tom Andrew Wilson, "A service learning project that aimed at solving real-world problems in the Data Mining course of the Master of Science in Data Analytics"
Research Mentor(s): Dr. Hong Lin
Project Location: University of Houston-Downtown

Research Mentor(s): Dr. Laila Sorurbakhsh
Project Location: University of Houston-Downtown
Acknowledgments

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In addition, we would like to thank the UHD faculty and staff who have worked tirelessly to support undergraduate and graduate research experiences as well as the UHD staff, faculty and administrators who have helped make this conference a success.

Thank you for participating in the 18th Annual UHD Student Research Conference, Presented by CITGO!

Thanks to the generous supporters of this student conference:

CITGO
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Welch Foundation (BJ-0027)
National Science Foundation (Award No. 0934913)
UHD Marilyn Davies College of Business
UHD College of Humanities and Social Sciences
UHD College of Public Service
UHD College of Sciences & Technology
UHD University College
UHD President’s Office
UHD Provost’s Office
UHD Scholars Academy

Please share your impressions of the SRC by completing a conference evaluation and receive a free SRC memento!

Post-Conference Evaluation Survey
Please complete the electronic Student Research Conference 2019 Post-Evaluation Survey by visiting the following web link:


The UHD Scholars Academy (SA) is an academically competitive program in the College of Sciences and Technology (CST) that promotes scholarship and student success for undergraduate students majoring in Science, Technology, Engineering and Mathematics (STEM).