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

Friday, April 15, 2011

8:00 - 9:00 am Registration and Continental Breakfast, Coffee House
9:00 am Dr. Brian Chapman, Senior Vice President for Academic Affairs & Provost, University of Houston-Downtown
Welcoming Remarks, UHD Wilhelmina Cullen Robertson Auditorium
9:10 am Dr. Weining Feng, Associate Professor of Engineering Technology, UHD
Introduction of Keynote Speaker, Auditorium
9:10 - 9:40 am Dr. Obadiah Kegege, NASA Glen Research Center, 2002 UHD Alumnus
Keynote Speaker, Auditorium
9:40 - 10:40 am Oral Presentations, Session I, Auditorium
10:50 - 11:50 pm Oral Presentations, Session II, Auditorium
11:50 am Johanna Wolfe, Vice President for Advancement and External Relations, UHD
Introduction of External Community Speaker, Auditorium
11:50 - 12:10 pm Mr. Patrick DeRueda, President, Waste Management, Inc.
Lunch Break
12:10 - 1:30 pm Lunch Break
1:30 - 3:30 pm Open Poster Sessions, Room A300

Conference Co-Chairs:
Dr. Kenneth Johnson, Assistant Professor of Geology, UHD
Dr. Aimee Roundtree, Assistant Professor of English, UHD

Conference Planning Committee:
Dr. David Branham, Assistant Professor of Social Sciences, UHD
Dr. Youn-Sha Chan, Associate Professor of Mathematics, UHD
Mr. Rene Garcia, Program Manager, UHD Scholars Academy
Dr. Marilyn McShane, Professor of Criminal Justice and Director of the Institute for Community Justice, UHD
Dr. Lisa Morano, Associate Professor of Biology and Microbiology, UHD
Dr. Kenneth Oberhoff, Assoc. Dean, UHD College of Sciences & Technology
Dr. Mary Jo Parker, Director, UHD Scholars Academy
Dr. George Pincus, Dean, UHD College of Sciences and Technology
Dr. Gene Preuss, Associate Professor of History, UHD
Dr. Ruth Robbins, Professor of Finance, Accounting and CIS, UHD
Dr. Larry Spears, Professor of Chemistry, UHD
Mrs. Mary Sykes, Lecturer of Finance, Accounting and CIS, UHD
Dr. Akif Uzman, Chair of Natural Sciences Department, UHD
Dr. Jeong-Mi Yoon, Associate Professor of Mathematics, UHD

Oral and Poster Presentations:
16 - Brandy Bell, “Migmatization and Melt Generation in the Monotonous Unit, Moldanubian Batholith, Czech Republic: Implications of Zircon Pb/U (SHRIMP-RG) Ages and HF Isotope Compositions”
Co-Authors: Jiri Zak, Krystof Verner, and Joshua J. Schwartz. (1) Department of Geology, Charles University, Prague, Czech Republic; (2) Department of Geological Sciences, University of Alabama, Tuscaloosa, AL
UHD Faculty Mentor: Dr. Kenneth Johnson
Project Location: University of Houston-Downtown

29 - Marilyn Davila, “Role Of Muscleblind1 In Aberrant Splicing In Myotonic Dystrophy Type 2 (DM2)”
Co-Authors: Linda L. Bachinski and Mario Sirito
Faculty Mentor: Dr. Ralf Krane
Project Location: University of Texas M.D. Anderson Cancer Center

42 - Mitesh Koirala, Hurualain Raja, “ Investigations of Plasmid Sequences of Xylella fastidiosa Genomes from Texas”
UHD Faculty Mentor: Dr. Lisa Morano
Project Location: University of Houston-Downtown

48 - Sarah E. Mayer, “Personal Values as Motivators for Engaging in Women’s Rights”
UHD Faculty Mentor: Dr. Justin Hackett
Project Location: University of Houston-Downtown

55 - Adetomiwa Oguntuga, “Ant Foraging Simulation Analyzer”
Faculty Mentor: Dr. Melanie Moses
Project Location: University of New Mexico

61 - Rodolfo Rios, Jr., “Residential Real Estate Property Tax Appeal In Harris County, Texas: An Empirical Analysis And Policy Recommendation”
UHD Faculty Mentor: Dr. Chu Nguyen
Project Location: University of Houston-Downtown

64 - Leah Scogin, “Parable of the Anti-Vendetta: Tracing the Themes of Hope and Future in Parable of the Sower and V for Vendetta”
UHD Faculty Mentor: Dr. Nicole LaRose
Project Location: University of Houston-Downtown

69 - Glenda L. Thammavangsa, Cori Ali, Lassana Samarako, “Using Diatoms and Arcellaceans to Determine Succession of a Mitigated Wetland”
UHD Faculty Mentor: Dr. Brad Hoge
Project Location: University of Houston-Downtown
41 - Jarret Kitchen, “Thermal Analysis of Dinuclear Cu(II) Complexes”
UHD Faculty Mentor: Dr. Salah Massoud, University of Louisiana-Lafayette
Project Location: University of Houston-Downtown

43 - Johnathan Kuskos, Denise Montes, Manuel Palma, “A Program for Brain State Analysis”
Co-Author: Kyleigh Caesar, Ilian Rojas
UHD Faculty Mentor: Dr. Hong Lin
Project Location: University of Houston-Downtown

45 - Binh Le, “Sex Ratio of Millipedes”
UHD Faculty Mentor: Dr. Barry Sullender
Project Location: University of Houston-Downtown

Co-Author: Dr. Krystof Verner, Czech Geological Survey
UHD Faculty Mentor: Dr. Janusz Grebowicz
Project Location: University of Houston-Downtown

49 - Sarah E. Mayer, “The Role of Parental Hostility in Parental Perception of Non-Parental Discipline”
UHD Faculty Mentor: Dr. Susan Henney
Project Location: University of Houston-Downtown

51 - Sasha Meyer, “The Importance of Gender Responsive Strategies for Female Offenders: Pathways Theory of Female Criminality”
UHD Faculty Mentor: Dr. Tomson Nguyen
Project Location: University of Houston-Downtown

53 - James Allen Nealy, Jr., “Missed Opportunities: LBJ, the Sino-Soviet Split and the Prague Spring”
UHD Faculty Mentor: Dr. Gene Preuss
Project Location: University of Houston-Downtown

55 - Adetomiwa Oguntuga, “Ant Foraging Simulation Analyzer”
Faculty Mentor: Dr. Melanie Moses
Project Location: University of New Mexico

57 - Ada Ashley Otti, Mayra Rios, and Viridiana Sanchez, “Categorization of Facial Stimuli by Gender and Race”
Co-Author: Angel Harrison and Natalie Trevino
UHD Faculty Mentors: Drs. Stephanie J. Babb, Ruth M. Johnson, and Mary Portillo
Project Location: University of Houston-Downtown

59 - Amanda Polidore, Natalie Robbins, and Shannon Peterson, “The Role Society and Media Play in the Development of an Eating Disorder”
UHD Faculty Mentor: Dr. Christine Bachman
Project Location: University of Houston-Downtown

61 - Rodolfo Rios, Jr., “Residential Real Estate Property Tax Appeal In Harris County, Texas: An Empirical Analysis And Policy Recommendation”
UHD Faculty Mentor: Dr. Chu Nguyen
Project Location: University of Houston-Downtown

63 - Kayleigh Michelle Rundquist, “Avoiding Extinction: Processes to Reconstruct Judea-Spanish”
UHD Faculty Mentor: Dr. Reynaldo Romero
Project Location: University of Houston-Downtown

65 - Israel Sierra, “Electrochemical Sensing Of Sulfur-Containing Organic Compounds By Electrodes Of Non-Noble Metals”
Co-Author: Yongjie Zhan and Jun Lou, Department of Mechanical Engineering and Material Science, Rice University
UHD Faculty Mentors: Drs. Mian Jiang and Larry Spears
Project Location: University of Houston-Downtown

67 - David Spilkin, Oliver Sudduth, “The Growth of Megacities; the Case study of Dhaka, Bangladesh”
UHD Faculty Mentor: Drs. Merrilee Cunningham
Project Location: University of Houston-Downtown

69 - Glenda L. Thamavongsa, Cori Ali, Lassana Samarakoon, “Using Diatoms and Arecallaceans to Determine Succession of a Mitigated Wetland”
UHD Faculty Mentor: Dr. Brad Hoge
Project Location: University of Houston-Downtown

71 - Santa Vasquez and Sudeep Wostli, “FM Transmitter Circuit”
UHD Faculty Mentor: Dr. Weining Feng
Project Location: University of Houston-Downtown

73 - Anna A. Weckes, “Engagement in Community Service: Does Commuting and Psychological Sense of Community Make a Difference for Students?”
UHD Faculty Mentor: Dr. Justin Hackett
Project Location: University of Houston-Downtown

75 - Elena Espino, “MRI Analysis of Superficial Femoral Veins in Patients with Peripheral Arterial Disease”
Co-Author: Eric Yang, M.D.
Faculty Mentor: Dr. Joel D. Morrisett
Project Location: Baylor College of Medicine

77 - A’Tondra Gilstrap, “Viability of Enteric Bacterial Pathogens in Transport Media Systems”
Co-Author: Jeticia Sistrunk
Faculty Mentor: Dr. Zhi-Dong Jiang
Project Location: Center for Infectious Diseases at University of Texas School of Public Health

Poster Presentation Session II (2:30PM-3:30PM):

Faculty Mentors: Drs. Cindy Stewart 1, Todd Moore 2, Travis Crone 1, Stacie De Freitas 1
Project Location: 1 University of Houston-Downtown; 2 University of Tennessee-Knoxville

UHD Faculty Mentor: Dr. Jorge Tito-Izquierdo
Project Location: University of Houston-Downtown

6 - Debrah Alsbrook, Melanie Boudreaux, “When Can Strangers Intervene: An In Depth Look at Non-Parental Discipline, Child Characteristics, and Parental Attitudes”
UHD Faculty Mentor: Dr. Susan Henney
Project Location: University of Houston-Downtown

8 - Fernando Andrade, “Identification of Laccase Genes from Coastal Prairie Soil Ascomycete Fungi”
Co-Author: Jessica Collins and Amrit Lamichhane
UHD Faculty Mentor: Dr. Phil Lyons
Project Location: University of Houston-Downtown

10 - Felipe Areola, Amir Aghajani, Trina Alainz, “A Correlation of Hydration Temperature to Concrete Compressive Strength”
UHD Faculty Mentor: Dr. Jorge Tito-Izquierdo
Project Location: University of Houston-Downtown

12 - Nomeera Baig and David Tran, “New pH Sensor Based on Ionomer/Carbon Nanoparticle Composite Film: Extension of Detection into the Very Strong Acidic Environment”
UHD Faculty Mentor: Dr. Mian Jiang
Project Location: University of Houston-Downtown

14 - Jesus Barron-Aldana, “Co-factor Manipulation Increases Stress Tolerance in Escherichia coli”
Co-Author: Drs. G. Blazer, G. Bennett, K.Y. San
Faculty Mentor: Dr. Grant Blazer
Project Location: Rice University

16 - Brady Bell, “Migmatization and Melt Generation in the Monotonous Unit, Moldanubian Batholith, Czech Republic: Implications of Zircon Pb/U (SHRIMP-RG) Ages and Hf Isotope Compositions”
Co-Author: Jiri Zak, Dr. Krystof Verner, and Zsofia J. Schwartz.
(1) Department of Geology, Charles University, Prague, Czech Republic, (2) Department of Geological Sciences, University of Alabama, Tuscaloosa, AL
UHD Faculty Mentor: Dr. Kenneth Johnson
Project Location: University of Houston-Downtown

18 - Flor Botello, Anastacia Bynoe, Tonya Ditsler, “How Large is My Megalopolis?”
UHD Faculty Mentor: Drs. Crystal Guillory and Merrilee Cunningham
Project Location: University of Houston-Downtown

20 - Amber Meghan Burket, Russell Kendrick, Mayra Sanchez, “Mathematical Analysis of Biofilm Growth of Pseudomonas aeruginosa and Mycobacterium smegmatis”
UHD Faculty Mentors: Drs. Youn-Sha Chan and Poonam Gulati
Project Location: University of Houston-Downtown
22 - Debbie Bush, “Population Genetics and Management of Suburban White-Tailed Deer (Odocoileus virginianus)”
Co-Authors: Mark Weckell and Mark Siddall2 - Mianus River Gorge Preserve, Bedford, NY; 2American Museum of Natural History, New York, NY
UHD Faculty Mentor: Dr. Akif Uzman
Project Location: University of Houston-Downtown

24 - Jennifer Carmichael and Daisy Silva, “Viscosity Reduction of Bisphenol-A Based Epoxy Diacylate Oligomer Using Aqueous Solutions of Electrolytes”
UHD Faculty Mentor: Dr. Byron Christmas
Project Location: University of Houston-Downtown

26 - Raymond Cherian, Jermaine Thomas, Joanne Veloz, Alexis Woodard, “The Effectiveness of Artificial Organs vs. Natural Organs”
Co-Authors: Shawn Benny, Angela Lee, and Arturo Garza
UHD Faculty Mentor: Mitsue Nakamura
Project Location: University of Houston-Downtown

28 - Daniel Cowart, “An Investigation of Regret Type and Directionality Within the Context of Life-Satisfaction”
UHD Faculty Mentor: Dr. Derek de la Pena
Project Location: University of Houston-Downtown

30 - Randy Davila, “Synthesis and Characterization of Novel Catanionic Amphiphiles”
Co-Authors: Dr. Pradip. K. Bhowmik, Department of Chemistry, University of Nevada Las Vegas
UHD Faculty Mentors: Drs. Janusz Grebowicz and Robin Jose
Project Location: University of Houston-Downtown

UHD Faculty Mentor: Dr. Vassilios Tsouanas
Project Location: University of Houston-Downtown

34 - Ruslan Gashinov, “Computational Studies of Novel Ion Pair Amphiphiles (IPA)”
UHD Faculty Mentors: Drs. Robin Jose and Maria Benavides
Project Location: University of Houston-Downtown

36 - Marco Hernandez, Wendy Ramirez, Sheba Mathew, “An Insight into the Ebola Virus”
Co-Authors: Caroline Barbosa, Joanna Castañeda, Arrion Goudeau, Lili Perez
UHD Faculty Mentor: Mitsue Nakamura
Project Location: University of Houston-Downtown

38 - Anderson Jackson III and Lisa Camp, “Group Knowledge: Comparison of Diversity within Student Teams”
UHD Faculty Mentor: Dr. Faiza Khoja
Project Location: University of Houston-Downtown

Co-Authors: Meredith Carey and Logan Lynn
UHD Faculty Mentors: Drs. Stephanie J. Babb and Ruth M. Johnson
Project Location: University of Houston-Downtown

42 - Mitesh Koirala, Huralain Raja, “Investigations of Plasmid Sequences of Xylella fastidiosa Genomes from Texas”
UHD Faculty Mentor: Dr. Lisa Morano
Project Location: University of Houston-Downtown

44 - Adolfo Lara, “Determining the Role Of Syntaxin 4 By Using Patch-Clamping To Measure Capacitance Changes In Mice Wild Type And Knock-Out Mast Cells”
Co-Author: Brittany L. Coughlin
Faculty Mentor: Dr. Ruth Heidelberg
Project Location: University of Texas Health Science Center Houston

46 - Diana Lopez, “What About The Brady Bunch? The Effect Of Family Size And Income On Support For Vouchers”
UHD Faculty Mentor: Dr. David Branham
Project Location: University of Houston-Downtown

48 - Sarah E. Mayer, “Personal Values as Motivators for Engaging in Women’s Rights”
UHD Faculty Mentor: Dr. Justin Hackett
Project Location: University of Houston-Downtown

50 - Dean Russell Mertens, Brian Wallace Frey, “Spinning Ball Spiral”
UHD Faculty Mentor: Dr. Jorge Tito-Izquierdo
Project Location: University of Houston-Downtown

52 - Charles Morehead, “Partisanship, Race, and Solutions for Academic Inadequacy in Public Schools”
UHD Faculty Mentor: Dr. David Branham
Project Location: University of Houston-Downtown

UHD Faculty Mentors: Drs. Jeong-Mi Yoon, Volodymyr Hrynkiv, Lisa Moran
Project Location: University of Houston-Downtown

56 - Matthew Ojeda, Deepak Pandey, “The newest Xylella fastidiosa genome from Texas: Preliminary Analysis of ‘Oak Strain’ MM067”
UHD Faculty Mentor: Dr. Lisa Morano
Project Location: University of Houston-Downtown

58 - Tia Pilaroscia and Lilian Antunes, “Riparian Fungal Population Dynamics along Buffalo Bayou as influenced by soil element composition and pH”
UHD Faculty Mentors: Drs. Phil Lyons and Shishen Xie
Project Location: University of Houston-Downtown

60 - Raquel Ramos, “Ethnic Differences in Attitudes Toward Non-Parental Discipline”
UHD Faculty Mentor: Dr. Susan Henney
Project Location: University of Houston-Downtown

62 - Elda Rueda and Valerie Jordan, “Immunohistochemical Profiling of Creatine Kinase and Adenylate kinase in Adult Mouse Retina: Implications in Retinal Metabolism”
Co-Author: Irena Sigel
UHD Faculty Mentor: Dr. Jerry Johnson
Project Location: University of Houston-Downtown

64 - Leah Seogin, “Parable of the Anti-Vendetta: Tracing the Themes of Hope and Future in Parable of the Sower and V for Vendetta”
UHD Faculty Mentor: Dr. Nicole LaRose
Project Location: University of Houston-Downtown

66 - Ceraira Snerling Simmons, “Isolation of Potential Antiviral Agents from Plant Products”
Co-Authors: Dr. Hamida Qavi and Jose Ventura
UHD Faculty Mentor: Dr. Tyra Montgomery
Project Location: University of Houston-Downtown

68 - Marika Stepankiw, “Partisanship, Race, and Solutions for Academic Inadequacy in Public Schools”
UHD Faculty Mentor: Dr. Aimee Roundtree
Project Location: University of Houston-Downtown

70 - Jose Trinidad, “Singular Shocks and Hyperbolic Conservation Laws”
UHD Faculty Mentor: Dr. Katarina Jegdic
Project Location: University of Houston-Downtown

72 - Monica Villegas, Nadia Abousouli, “Aliphatic Acrylate-Functional Urethane Optimization and Comparison”
Co-Author: Omid Afhami
UHD Faculty Mentor: Dr. Byron Christmas
Project Location: University of Houston-Downtown

74 - Desiree Wilson, “Microrna-96 Is A Posttranscriptional Suppressor Of Anaplastic Lymphoma Kinase Expression In T-Cell Lymphoma And Other Cancers”
Co-Authors: Yong Li, Deeksha Vishwamitra, Bin Shi, Ping Shi, and Hesham Amin
Faculty Mentor: Dr. Hesham Amin
Project Location: University of Texas M.D. Anderson Cancer Center

76 - Laura R. Hardin, Allen Fok, Vision Prashasoukou, “When Good People Go Bad: Identifying Personality Red Flags of Fraudsters”
UHD Faculty Mentor: Dr. Linda Bressler
Project Location: University of Houston-Downtown
**External Community Speaker:**

**Patrick DeRueda**

President, Waste Management, Inc.

Patrick DeRueda is President of Waste Management's Recycle America, a wholly owned subsidiary of the company. Waste Management, Inc., based in Houston, Texas, is a FORTUNE 200 company with revenues of approximately $12 billion and 43,000 employees. Mr. DeRueda is responsible for all aspects of the company's recycling activities including processing, commodity marketing and applying practical technology. Pat has been with Waste Management in various positions since 2001. He served as a Market Area General Manager in the west, where he oversaw various business operations in New Mexico and Arizona.

Before joining the Waste Management team, Mr. DeRueda was employed by BFI Waste Systems from 1987 to 2001 where he managed that company's safety program and served as district manager in Santa Barbara, CA. In 2000, Pat served as president of the board of directors for the Santa Barbara Region Chamber of Commerce. He also served as the 1996 Hispanic Business Council Chairperson and has served board of directors for the Business First National Bank of Santa Barbara (founder) and the Rio Rancho Chamber of Commerce. Mr. DeRueda received his bachelor’s degree and a certificate in health and safety studies from California State University in Los Angeles.

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**Poster Presentation Session I (1:30PM-2:30PM):**

1. **Gloria Arbarca, Sueyen Diosdado, “Temporal Changes in Bacterial Endophyte Communities in European and American Hybrid Grapevines”**
   - UHD Faculty Mentors: Drs. Jeong-Mi Yoon, Volodymyr Hrynkiv, Lisa Morano
   - Project Location: University of Houston - Downtown

3. **Frances Acevedo, “Novel and Stereotypical Age-Related Changes in Retinal Synaptic Structure: Implications for Age-Related Vision Loss”**
   - Co-Authors: Elda Rueda, Michael Irving, Shahjeer Noorudeen, Donald Fox
   - UHD Faculty Mentor: Dr. Jerry Johnson
   - Project Location: University of Houston - Downtown

5. **Amie Albanese, Robert Nguyen, Jose Trejo, “Mathematical Modeling of the BMP-4 and FGF Signaling Pathways during Neural Induction in Xenopus laevis”**
   - UHD Faculty Mentors: Drs. Edwin Tecarro and Akif Uzman
   - Project Location: University of Houston - Downtown

   - UHD Faculty Mentor: Dr. David Branhman
   - Project Location: University of Houston - Downtown

9. **Felipe Arreola, Luis Hernandez, “Pile Performance”**
   - UHD Faculty Mentor: Dr. Jorge Tito-Izquierdo
   - Project Location: University of Houston - Downtown

11. **Namaera Fatima Baig, “A Study of the Oligomer CN996”**
    - UHD Faculty Mentor: Dr. Byron Chrisman
    - Project Location: University of Houston - Downtown

13. **Rebecca Barbosa, Itzel Campos, Jordan Cline, “Adrenoleukodystrophy (ALD) and The Myelin Project”**
    - Co-Authors: Curtis Bickman, David Duran, Anisa Saleh
    - UHD Faculty Mentor: Dr. Lisa Morano
    - Project Location: University of Houston - Downtown

15. **Tonya Bauch and Jillian Morin, “Analysis of phage particles found in newly sequenced Xylella fastidiosa genome, Med Mts 067”**
    - UHD Faculty Mentor: Dr. Lisa Morano
    - Project Location: University of Houston - Downtown

17. **Kelsey Dawn Bogaards, “Examining The Order Effect Of Nonconscious Priming For Goal-Related Behavior”**
    - UHD Faculty Mentor: Dr. Travis Crone
    - Project Location: University of Houston - Downtown

19. **Robert Bowen, Ashley Davis, Amy Durden, Shterion Petrov, Michelle Pineda, “The Vertical City: Modern Urban Dwellers Find a Place in the Sky to Call Home”**
    - UHD Faculty Mentors: Drs. Crystal Guillory and Merrilee Cunningham
    - Project Location: University of Houston - Downtown

    - UHD Faculty Mentors: Drs. Youn-Sha Chan and Poonam Gulati
    - Project Location: University of Houston - Downtown

    - UHD Faculty Mentors: Drs. Glen Merrill and Janusz Grebowicz
    - Project Location: University of Houston - Downtown

25. **Diana Chakravartkkil, “Inhibition of Dental Biofilms of Streptococcus mutans by Active Ingredients in Mouthwashes”**
    - Co-Author: Laura Robles
    - UHD Faculty Mentor: Dr. Poonam Gulati
    - Project Location: University of Houston - Downtown

27. **Maja Cicic, Kourtnti Jones, and Delia Phillips, “Consolidation of Memories in a What-Where-When Task”**
    - Co-Authors: Brenda Banda, Kimberly Lockett, and Adelita Suarez
    - UHD Faculty Mentors: Drs. Stephanie J. Babb and Ruth M. Johnson
    - Project Location: University of Houston - Downtown

29. **Marilyn Davila, “Role Of Muscleblind1 In Aberrant Splicing In Myotonic Dystrophy Type 2 (DM2)”**
    - Co-Authors: Linda L. Bachinski and Mario Sirit
    - Faculty Mentor: Dr. Ralf Krahe
    - Project Location: University of Texas M.D. Anderson Cancer Center

    - Co-Authors: Christopher Charles, Alex Jimenez, Jorge Pereira, Jesus Fernandez and Victor Martinez
    - UHD Faculty Mentor: Mitsue Nakamura
    - Project Location: University of Houston - Downtown

33. **Cassandra Flores, “Study Of Acetaminophen and Transition Metals and their Analytical Applications”**
    - UHD Faculty Mentors: Drs. Mian Jiang and Larry Spears
    - Project Location: University of Houston - Downtown

    - Co-Authors: Lilian Antunes and Tia Pilarosca
    - UHD Faculty Mentors: Drs. Richard Alo and Erin Hodges
    - Project Location: University of Houston - Downtown

37. **Wayland Hickman and Corey Davis, “Process Control of an Air Heater: An Experimental Study”**
    - UHD Faculty Mentor: Dr. Vassilios Tzouanas
    - Project Location: University of Houston - Downtown

39. **Larry Kegler, Kartik Gopavaram, Manuel Moreno, “Transportation in Current and Future Megacities”**
    - UHD Faculty Mentor: Dr. Merrilee Cunningham
    - Project Location: University of Houston - Downtown
Obadiah Kegege, PhD  
Electronics Engineer  
Systems Engineering and Analysis Division  
NASA Glenn Research Center  

9:00 a.m. - Friday, April 15, 2011  
Wilhelmina Cullen Robertson Auditorium  
University of Houston-Downtown  

Title: “Lessons Learned: How Your Undergraduate Research Can Open Opportunities for You”  

Abstract: Nine years ago, I was part of the University of Houston-Downtown (UHD) Scholars Academy and actively participated in research and presented in the Annual UHD Student Research Conference. This research experience opened doors to my graduate education, a PhD, and later to a professional career with NASA. The hope for a brighter future lies in our research efforts and innovations that make positive impacts in society. Because of others who were/are willing to persistently spend their time on research, we enjoy new technologies, such as life changing medical diagnostics equipment and advanced scientific/computing and modeling devices, security systems, wireless communication, and entertainment systems. As an undergraduate student at UHD, your success in research will create a link to your graduate education and employers. I will share my experiences with you - future scientists, doctors, entrepreneurs, engineers, and innovators. My presentation will entail lessons learned as an undergraduate, participant in research, preparation for graduate school, and transition to the workforce. Together, we will answer these two questions: “Is undergraduate research a vital factor in your education and career development?” and “How does your involvement in research and presentations benefit you as a student?”  

Biography: Dr. Obadiah Kegege is an Electronics Engineer in the Systems Engineering and Analysis Division at NASA Glenn Research Center. He is currently part of the Space Communications and Navigation team. Obadiah received his Bachelor of Science in Control and Instrumentation Electronics Design (Summa Cum Laude) from the University of Houston-Downtown in 2002 as a Scholars Academy member. He later earned his Master’s of Science in Electrical Engineering in 2006 from the University of Texas Pan American (Thesis: Ultra-Wide Band Radar for Near-Surface and Buried Target Detection) and a PhD in 2009 from the University of Arkansas (Dissertation: Design and Verification of Integrated Reconfigurable Driver and Current Sensor for Extreme Space Environments). His experiences include performing electrical and instrumentation systems design, development, and testing in the petrochemical refineries and manufacturing plants. During his undergraduate and graduate studies, Dr. Kegege volunteered in a number of educational events, including the “Walk for Success” - an educational effort that utilizes thousands of volunteers conducting door-to-door campaign providing information to families with high school students about college readiness, expectations, and scholarship information. And now, as an engineer at NASA, Dr. Kegege volunteers to inspire and create an environment that supports student success in Science, Technology, Engineering, and Mathematics (STEM). He serves as a volunteer for the MC2STEM High School Program (supported by NASA Glenn Research Center) that provides high school students with project-based learning environments. In this capacity, Dr. Kegege participates in classroom group projects, evaluating student projects, and serving as a mentor. Plus, Dr. Kegege is a volunteer for the FIRST Robotics Competitions that combines the excitement of sports with challenging science and real-world engineering skills.
Acknowledgements

It is a great pleasure to recognize the many individuals, organizations, and institutions supporting our UHD students in their research endeavors. These include significant funding of research over the past year from the National Institute of General Medical Sciences (1T34GM079088), National Science Foundation UBM Program (0734294), National Science Foundation S-STEM Program (0728408), The Brown Foundation, Inc., Welch Foundation (BJ-0027), NASA, Shell Oil Co. and University of Houston-Downtown.

Many students conducted their research during summer research programs on and off-campus. Faculty and staff members of these and other academic institutions, as well as personnel at industrial facilities, have generously supported/mentored our UHD students.

In addition, we would like to thank the UHD faculty and staff who have worked tirelessly to support undergraduate research experiences as well as the UHD staff, faculty and administrators who have helped make this conference a success. We especially thank Drs. Kenneth Oberhoff, Dennis Rodriguez, Edward Sheinberg, Larry Spears, Akif Uzman, Dean Susan Ahern, Dean Donald Bates, Dean Elizabeth Pelz, Dean George Pincus, and UHD President William Flores.

Thank you for participating in the 10th Annual UHD Student Research Conference!

Please share your impressions of the event by completing a conference evaluation.

Thanks to the generous supporters of this student conference:

The Brown Foundation, Inc.
National Institute of General Medical Sciences (Award No. 1T34GM079088)
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UHD College of Business
UHD College of Humanities and Social Sciences
UHD College of Public Service
UHD College of Sciences & Technology
UHD President’s Office
UHD Scholars Academy