Research Profiles

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initial report

THE UNIVERSITY OF TEXAS AT EL PASO

500 W. University Ave. El Paso, Texas 79968

Stephen B. Aley

Professor - Biological Sciences
College of Science

KEYWORDS

• Biochemistry • Bioinformatics • Curriculum Development • Genomics • Infectious Disease • Microbiology • Parasites • Proteomics • STEM Education

STRATEGIC AREAS

• Education for the 21st Century Demographic • Health & Biomedical Sciences and Engineering

Dr. Aley is a molecular biologist and biochemist with a major focus on human parasitic protists. His expertise centers on genomic and proteomic analysis, including genome assembly/annotation and comparative genomics, and he is a faculty member for both the Pathobiology and Bioinformatics graduate programs. He is also a researcher and innovator in developing undergraduate STEM education programs which foster student success, including developing quantitative skills in biomedical students and incorporating authentic research experiences into mainstream curricula in all STEM fields. In addition to his faculty and research roles, Dr. Aley currently serves as Associate VP for Research, with a focus on working with faculty to develop strong research proposals.

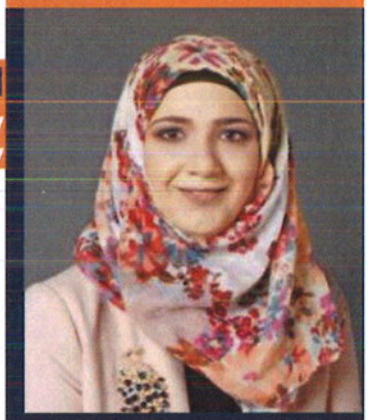
CONTACT

Administration Building 209C

(915) 747-8813
saley@utep.edu

Fatima Z. Alshbool

Assistant Professor of Practice - Pharmacy
School of Pharmacy



KEYWORDS

• Cardiovascular Disease • E-cigarette • Platelets • Third Hand Smoke • Thrombosis

STRATEGIC AREAS

• Health & Biomedical Sciences and Engineering

Dr. Alshbool's primary research interest is in the area of cardiovascular disease, and specifically the pathogenesis of thrombotic diseases. Using mouse models and human platelets, and a host of pharmacological and biochemical approaches, she is currently interested in identifying new proteins that regulate platelet function, and understanding their contribution to the genesis of thrombosis diseases. Ultimately, her work should define new means by which platelets proteins can be targeted for therapeutic purposes.

CONTACT

Campbell Building 701

(915) 747-8284
fzalshbool@utep.edu

Elizabeth Youngblood Anthony

Professor - Geological Sciences
College of Science

KEYWORDS

• Geothermal Energy • Quaternary Volcanoes • Tectonic Evolution Texas • Volcano Eruption Forecasting

STRATEGIC AREAS

• Education for the 21st Century Demographic • Energy & Environment • Global Enterprise & Border Studies • Cross-cutting: Cyberinfrastructure and Collaborative Environments • Cross-cutting: Emerging Technologies: Information Technology • Biotechnology & Nanotechnology • Cross-cutting: U.S. –Mexico and Latin America: Social and Behavioral Issues • Other

Libby Anthony studies the geology of western North America, including the Trans-Pecos area of Texas. She also has active research programs in East Africa, where she collaborates with UTEP-trained Kenyan geologists on volcano eruption prediction and geothermal energy.

CONTACT

Geological Sciences Building
321

(915) 747-5483
eanthony@utep.edu

Beverley Argus-Calvo

Associate Professor - Educational Psychology and Special Services
College of Education

KEYWORDS

• Bilingual Special Education. Individualized Psycho Educational Assessment • Culturally Responsive Special Education • Working With Parents Of Culturally Diverse Students With Special Needs

STRATEGIC AREAS

• Education for the 21st Century Demographic

Beverley Argus-Calvo, Ph.D., associate dean for graduate studies and research for the UTEP College of Education (CoED). Argus-Calvo currently serves as an associate professor in the CoED's Educational Diagnostician program in the Department of Educational Psychology and Special Services. Argus-Calvo began her education career as a teacher for learning disabled students in 1983. Since then, she has worked with children with special needs in elementary and secondary schools in the United States and Mexico. She worked as an educational diagnostician in New Mexico from 1997-1999. Argus-Calvo's research and professional interests include binational education, extended learning, early college high school programs, music and arts based programs for elementary children in underserved communities, and working with families of children with special needs along the United States-Mexico border. Her work has been published in respected journals such as the College Student Journal, Multiple Voices for Ethnically Diverse Exceptional Learners, and the Rural Special Education Quarterly, books and international scholarly publications. Argus-Calvo is currently collaborating with colleagues from UTEP and the UACJ, the UACH, the CCHEP, and the CIESAS on research projects addressing education and children in vulnerable settings.

CONTACT

Education Building
713

(915) 747-5266
bcalvo@utep.edu

Omar B. Badreddin

Assistant Professor - Computer Science
College of Engineering

KEYWORDS

• Cyber-physical Systems • Data Analytics. • Informatics • Software Engineering • SysML • UML

STRATEGIC AREAS

• Health & Biomedical Sciences and Engineering • National Defense & Border Security • Cross-cutting: Cyberinfrastructure and Collaborative Environments • Cross-cutting: Emerging Technologies: Information Technology • Biotechnology & Nanotechnology

Dr. Badreddin is an Assistant Professor at the Computer Science department. His main research areas include Cyber-Physical Systems Design and Testing, Model-Driven Engineering, Model-Driven Systems Engineering. His collaborators include NASA Jet Propulsion Lab, French Alternative Energies and Atomic Energy Commission, and IBM. His most recent work is related to testing untestable systems. Untestable systems are those that can not be tested due to the cost of performing tests (i.e collision-avoidance systems), or due to difficulties in sitting the environment for test (i.e deep ocean explorers). Applications of the research include healthcare analytics and informatics. Dr. Badreddin has active collaborations with a few hospitals in North America, where his work is applied to explore techniques for compliance and clinical pathway management.

CONTACT
Engineering Building 3.0610

obbadreddin@utep.edu

Jose Leo Leobardo Banuelos

Assistant Professor - Physics
College of Science

KEYWORDS

• Energy Storage • Hierarchical Mesoscale Materials • Ionic Liquids • Nano-confinement • Porous Media • Protein Solution Structure • Small-angle X-ray And Neutron Scattering

STRATEGIC AREAS

• Energy & Environment • Health & Biomedical Sciences and Engineering • Cross-cutting: Emerging Technologies: Information Technology • Biotechnology & Nanotechnology

Dr. Bañuelos is interested in the physicochemical properties of nanoscale fluid-solid interfaces in areas of significant societal and economic importance, such as energy storage and conversion, natural resource management, environmental remediation, and nanomedicine. His expertise lies in using advanced x-ray and neutron scattering structural and spectroscopic techniques to elucidate the properties of novel electrolyte / electrode materials for supercapacitor applications. He has been successful in integrating experimental efforts with computational modeling (as a postdoc in a Department of Energy funded Energy Frontier Research Center) alongside collaborators at Oak Ridge National Laboratory (Oak Ridge, TN) and the NIST Center for Neutron Research (Gaithersburg,MD). He is a long-time user of national user facilities for neutron and x-ray scattering, and was a staff scientist at Rutherford Appleton Laboratory's ISIS Pulsed Neutron and Muon Source (Oxfordshire, UK) before joining UTEP in March 2016. He is developing simultaneous small angle scattering and electrochemical measurements capabilities to elucidate the nanoscale structural changes that occur in electrical energy storage systems during power cycling.

CONTACT
Physical Sciences Building 215C

(915) 747-7535
jlbanuelos@utep.edu

Thomas Boland

Professor - Metallurgical, Materials and Biomedical Engineering (MMBME)
College of Engineering

KEYWORDS

• Biomaterials • Inkjet Printing • Tissue Engineering

STRATEGIC AREAS

• Health & Biomedical Sciences and Engineering

Research interests are applying engineering principles to build three dimensional structures that show biological function. Recent research assessed whether printed adipose tissues integrate with the host better than conventionally grown. Specifically, he is constructing adipose grafts using a bioprinter and measure anastamoses in vitro. His research will collect preclinical data supporting bioprinting applications for medical products. He is the inventor of bioprinting, or live-cell tissue printing, and has been the founder of this field of research. He has received over $5.5M in research funding for his work. He has received numerous awards and was featured on CNN and the Discovery Channel for his ground breaking innovations using inkjet printers to assemble cells and biomaterials into viable and functioning structures. He is the author of more than 70 publications, including 3 invited reviews and chapters, and he has delivered more than 25 invited presentations. He is a member of the AVS, MRS, the Society for Imaging Science and Technology (IS&T) and the Tissue Engineering and Regenerative Medicine International Society (TERMIS). Thomas is the co-founder and Chief Science Officer (CSO) for TeVido biodevices, LLC, a company that is commercializing a bioprinted nipple areola complex for breast cancer survivors. As CSO, he oversees product research and technical process development.

CONTACT
Engineering Building BE201

(915) 747-7992
tboland@utep.edu

Eddie Castañeda

Professor - Psychology
College of Liberal Arts

KEYWORDS

• Behavioral And Neural Plasticity • Dopamine • Drug Addiction • In Vivo Intracerebral Microdialysis
• Movement Disorder • Neuroscience

STRATEGIC AREAS

• Health & Biomedical Sciences and Engineering

Dr. Castañeda is interested in understanding brain mechanisms that change neural function to support sparing of behavioral ability as neurons degenerate across the progression of Parkinson's disease. Similar mechanisms may also change brain function to produce addiction in response to repeated exposure to stimulant drugs. His current research interests focus on the release of the neurotransmitter dopamine and how these changes correlate with motor ability in a model of Parkinson's disease and with increasing behavioral responses to repeated stimulant drug exposure. Dr. Castañeda currently serves as the Principal Investigator for the NIH/NIDA-funded R24 UTEP Vulnerability Issues in Drug Abuse (VIDA) research training project, which aims to increase the amount of substance abuse research and training present on campus.

CONTACT
Psychology 103

(915) 747-6558
ecastaneda9@utep.edu

Ernesto Chavez

Professor - History
College of Liberal Arts

KEYWORDS

• Borderlands History • Chicano/a History • Historiography • History And Theory • Latino/a History • Sexuality

STRATEGIC AREAS

• Cross-cutting: U.S. –Mexico and Latin America: Social and Behavioral Issues

Dr. Chavez is a historian of the Mexican American past who is interested in the construction of identity and community using race, class, gender, and sexuality as categories of analysis. His current project examines these issues via the life of Mexican-born, Catholic, Gay, Actor Ramón Novarro who first gained prominence in U.S. films in the 1920s and whose career lasted until his death in 1968.

CONTACT

Liberal Arts Building 314

(915) 747-6591
echavez@utep.edu

Christine C. Chen

Professor - Occupational Therapy
College of Health Sciences

KEYWORDS

• Community-based • Hand Function • Homelessness • Multiple Sclerosis • Occupational Therapy Intervention • Outcome Measurement

STRATEGIC AREAS

• Education for the 21st Century Demographic • Health & Biomedical Sciences and Engineering • Cross-cutting: U.S. –Mexico and Latin America: Social and Behavioral Issues • Other

Dr. Chen's main research has been focused on the measurement and evaluation of functional outcomes in patients with chronic conditions. With an NIH career development grant, she developed and validated the Manual Ability Measure-36 (MAM-36), the shorter version MAM-20, the T-MAM (Taiwanese version of the MAM), and the T-MAM for Burns (the Taiwanese version of MAM for Burn patients). These task-oriented, patient-reported, and context embedded assessments allow health professionals to better understand the patient/client's perception of their functional issues and allow clinicians and researchers to compare patient' perceived ability and clinician observed capacity. Dr. Chen also conducted research in program evaluation (the VA study), rehab therapy effectiveness (the AOTA study), and psychometric analyses of clinical outcome assessment using conventional psychometric methods and/or novel, contemporary measurement modeling methods known as Rasch analysis. More recently, she collaborated with international colleagues to investigate: (1) the arm and hand functions in patients with multiple sclerosis, (2) balance and fall history in community-dwelling persons with amputation, and (3) the relationship between balance, fall and prosthetic utilization. Recently funded by PCORI and Einstein Health Network, she is a member of the clinical core team to develop theory-based rehab treatment specifications.

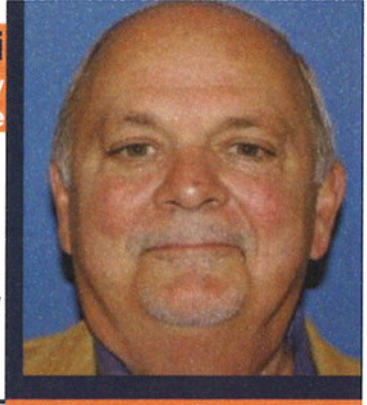
CONTACT

Campbell Building 302

(915) 747-7269
cchen5@utep.edu

Russell R. Chianelli

Professor - Chemistry
College of Science



KEYWORDS

• Asphaltenes • Bio-remediation • Environmental Engineering • EXXON • Materials

STRATEGIC AREAS

• Energy & Environment • Cross-cutting: Cyberinfrastructure and Collaborative Environments • Cross-cutting: Emerging Technologies: Information Technology • Biotechnology & Nanotechnology

Dr. Chainelli worked with Exxon Valdez for over 20 years before becoming a professor at The University of Texas at El Paso. He was the Chemistry department chair before starting the Materials Research and Technology Institute (MRTI). MRTI has been vital in helping students across various sciences conduct research in Environmental Science, Materials, Chemistry, and Engineering. He has also been able to make connections with various top businesses in industry which has lead to relationships with the University. He is passionate about helping students develop as research and developing innovations in research.

CONTACT

Physical Sciences Building 201A

(915) 747-7555
chianell@utep.edu

Emily J. Christenberry

Clinical Assistant Professor - Pharmacy
School of Pharmacy

KEYWORDS

• Alcohol And Substance Abuse • Co-curriculum • Curriculum Assessment • Inpatient General Medicine • Pharmacy Practice Advancement Initiatives • Transitions Of Care

STRATEGIC AREAS

• Education for the 21st Century Demographic • Health & Biomedical Sciences and Engineering

Dr. Christenberry is a clinical faculty member in the School of Pharmacy specializing in inpatient general medicine. Her primary research themes center on the Scholarship of Clinical Practice and the Scholarship of Teaching and Learning. She obtained her Doctor of Pharmacy degree from Butler University College of Pharmacy and Health Sciences and completed a post-graduate year 1 (PGY-1) pharmacy residency at St. Vincent Hospital Indianapolis in Indianapolis, IN and a PGY-2 pharmacotherapy residency with the UTEP/UT Austin Cooperative Pharmacy Program. Her current research projects include immunizations, curricular and co-curricular assessment, transitions of care, and pharmacy practice advancement initiatives. Her research interests include substance abuse, liver disease, transitions of care, and curricular assessment.

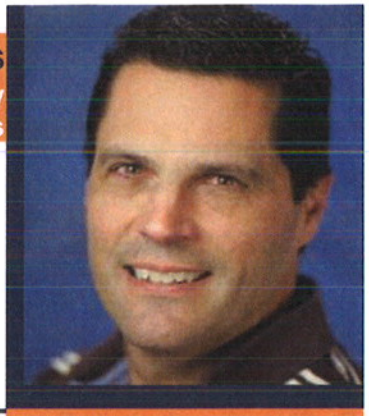
CONTACT

Campbell Building 706

(915) 747-5675
ejchristenberry @utep.edu

Steve L. Crites

Professor - Psychology
College of Liberal Arts



KEYWORDS

• Attitudes • Emotion, • Lie Detection • Social Neuroscience • Stereotypes

STRATEGIC AREAS

• National Defense & Border Security • Cross-cutting: U.S. –Mexico and Latin America: Social and Behavioral Issues

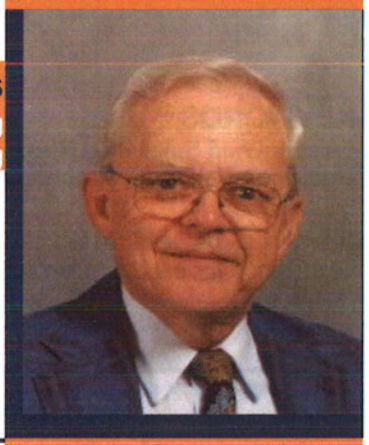
Dr. Crites' research focuses on the physiological and motivational processes that are associated with, and influence, cognitive processes and judgments. Research in his lab examines electrical brain activity (EEG) when people make like-dislike judgments (attitudes) or activate memories about categories of people (stereotypes). Attitudes are evaluative (like-dislike) judgments that help guide behavior – people use attitudes to decide with whom to associate, what foods to eat, what TV shows to watch, et cetera. Stereotypes are memory structures that help us understand and prepare for social interactions (especially with people we do not know well). Electrical brain activity that occurs when people see another person (or food, object, etc.) can be used to examine issues such as: how quickly we activate attitudes, do stereotypes activate automatically when we see a person, and how are attitudes influenced by emotions, moods and motivation states (e.g., how do food attitudes change when people are hungry). An objective of this research is to understand how the brain makes judgments and how it adjusts these judgments based on other relevant information when needed. Some research also explores whether brain activity can be used to assess a person's attitude even if they lie about it.

CONTACT
Psychology
222D

(915) 747-6571
scrites@utep.edu

Tom A. Davis

Professor - Civil Engineering
College of Engineering



KEYWORDS

• Desalination • Electrodialysis • Reverse Osmosis

STRATEGIC AREAS

• Energy & Environment • Other

Dr. Davis is a recognized expert in the science and technology of electrodialysis. He has performed diverse research in membrane processes (electrodialysis, dialysis, electrodeionization, reverse osmosis, gas permeation, fuel cells), biomedical engineering (blood substitutes, hemoperfusion, artificial kidney, glucose sensor, body support), activated carbon, ion exchange, organic reaction kine¬tics, textile finishes, heavy residual oil, hydrogen production and storage, CO2 and pollution control.

CONTACT

216

(915) 747-8453
tadavis2@utep.edu

Shafik Dharamsi

Professor - Public Health Sciences
College of Health Sciences

KEYWORDS

• Community Engagement • Global Health • Health Advocacy • Leadership • Population & Public Health. • Professionalism & Ethics • Social Accountability • Social Determinants Of Health • Social Pedagogy • Social Responsibility

STRATEGIC AREAS

• Education for the 21st Century Demographic • Global Enterprise & Border Studies • Cross-cutting: U.S. –Mexico and Latin America: Social and Behavioral Issues • Other

Questions around how to better prepare future health professionals to address health inequities and their causes are among the most pressing and challenging issues facing the health professions today. Dr. Dharamsi's research interests focus on these questions from the perspectives of the social determinants of health, professional ethics, social accountability, global health, and population & public health. Competencies in the areas of health advocacy, professionalism, inter-professional collaboration, communication and ethics are integral to the practice of healthcare and the social accountability of health professionals. Dr. Dharamsi's work focuses on improving the theoretical and practical understanding of these essential competencies, their integration into curricula and teaching practice, and their relevance in the practice of healthcare.

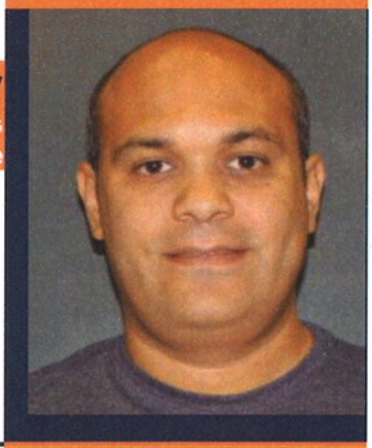
CONTACT

Health Sciences and Nursing Building
368Q

(915) 747-7201
shafikdharamsi@utep.edu

Ahmed A. El-Gendy

Assistant Professor - Physics
College of Science



KEYWORDS

• Magnetic Data Storage • Magnetic Hyperthermia • Magnetic Resonance Imaging • Material Science • Nanomagnetics • Nanotechnology • Permanent Magnets

STRATEGIC AREAS

• Education for the 21st Century Demographic • Energy & Environment • Health & Biomedical Sciences and Engineering • Cross-cutting: Emerging Technologies: Information Technology • Biotechnology & Nanotechnology

Dr. El-Gendy is a nanomagnetics physicist and material scientist with 15 years of experience in the field of applied physics. His major focus is on synthesis and optimization of monodispersed magnetic nanoparticles to be feasible for many industrial and medical applications such as data storage, permanent magnets, magnetic sensors, contrast agents for MRI, drug delivery, and hyperthermia treatment for cancer treatment. His expertise of working at different departments in science such as chemistry, physics, mechanical engineering and his extensive collaboration with biologists and biomedical scientists is revealing his ability for establishing interdisciplinary research group. Based on his research abilities in all the mentioned scientific areas, he can teach different types of courses for undergrad and graduate levels such as electricity and magnetism, molecular nanostructures, material science for physicists and engineers, mathematical physics, modern physics, nanotechnology, thermodynamics, advanced magnetism, and magnetochemistry. Dr. El-Gendy he has one published patented on the use of tiny nanomagnets for data storage applications. In addition, he just filed a new provisional patent regarding Brain Phantom using Casting and 3D Printing. His contribution to the research communities makes him one of the important researchers in his field.

CONTACT

Physical Sciences Building
221D

(915) 747-6382
aelgendy@utep.edu

Joao Batista Ferreira-Pinto

Associate Professor - Center for Interdisciplinary Health Research and Evaluation (CIHRE)
College of Health Sciences

KEYWORDS

• Evaluation Research • HIV/AIDS Prevention • Qualitative Research • Substance Abuse Prevention And Treatment

STRATEGIC AREAS

• Health & Biomedical Sciences and Engineering • Cross-cutting: U.S. –Mexico and Latin America: Social and Behavioral Issues

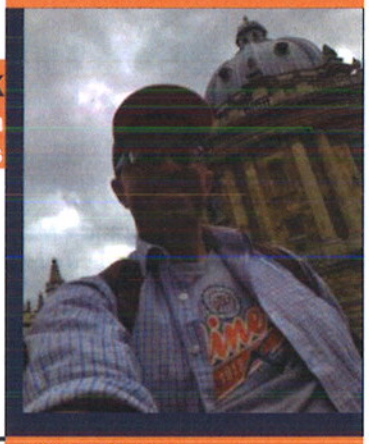
João Batista Ferreira–Pinto, PhD, is the Director for Research and Special Projects at the College of Health Sciences and Director for the Center for Interdisciplinary Health Research and Evaluation (CIHRE). Dr. Ferreira-Pinto's research interests center on HIV/AIDS/STD prevention and treatment, community and organizational development, and qualitative evaluation methodologies. Most of his work in based in fostering the collaboration between academics and community based organizations to improve community based participatory research.

CONTACT
Health Sciences and School of Nursing Building
368-N

(915) 747-7295
joao@utep.edu

Andrew J. Fleck

Associate Professor - English
College of Liberal Arts



KEYWORDS

• Culture • Identity • Literature • Poetics • Prose • Science

STRATEGIC AREAS

• Other

I work on British Literature before 1800, with a particular interest in comparative approaches to national identity formation and with a developing interdisciplinary interest in the intersection of literature and science in early modern Britain.

CONTACT
Hudspeth Hall
121

(915) 747-0246
ajfleck@utep.edu

Wendy S. Francis

Professor - Psychology
College of Liberal Arts

KEYWORDS

• Bilingualism • Conceptual Representation • Lexical Access • Memory

STRATEGIC AREAS

• Education for the 21st Century Demographic • Cross-cutting: U.S. –Mexico and Latin America: Social and Behavioral Issues

Dr. Francis' research has focused on the question of how bilinguals access their vocabulary in comprehension and production using simple tasks such as picture naming, translation, and semantic classification. The experiments have examined how the speed of access to vocabulary and associated concepts changes as a function of learning, including both experimental and pre-experimental experience, and the impact of a single learning episode over time. The effects of identical and partial repetitions of these tasks on response time are used to derive the processes involved and to elucidate the mechanisms of learning involved in repetition priming. Other projects examine transfer of learning across languages and how the greater attentional demands and lower familiarity of a less fluent language impact explicit and implicit memory processes.

CONTACT

Psychology
214

(915) 747-8956
wfrancis@utep.edu

Michael Steve Garcia

Lecturer - Marketing and Management
College of Business Administration

KEYWORDS

• Government/Military. • IT • Operations • Quality

STRATEGIC AREAS

• Health & Biomedical Sciences and Engineering • National Defense & Border Security • Cross-cutting: Cyberinfrastructure and Collaborative Environments • Cross-cutting: Emerging Technologies: Information Technology • Biotechnology & Nanotechnology

I have two primary research interests: 1. The impact and effect of disparities in access to electronic information and information systems (internet and other digital/social media) on social outcomes and economies. 2. How the availability and design of Health Insurance effects individual healthcare behavior, patient outcomes, and the cost and delivery of healthcare services in the United States.

CONTACT

Business Administration Building
204

(915) 747-8631
msgarcia4@utep.edu

Ann C. Gates

Professor - Computer Science
College of Engineering

KEYWORDS

• Computing Education • Cyberinfrastructure • Requirements Engineering • Software Engineering • Undergraduate Research • Verification And Validation • Workflows

STRATEGIC AREAS

• Education for the 21st Century Demographic • Cross-cutting: Cyberinfrastructure and Collaborative Environments

Dr. Gates directs the NSF-funded Cyber-ShARE Center of Excellence. Cyber-ShARE's mission is to advance education and research through cyberinfrastructures that support information exchange and integration, as well as collaborative interdisciplinary research. As national leaders in the study of collaborative science and engineering, the Center has developed and applied models of team-based, cooperative learning, interdisciplinary teamwork, and knowledge integration and management. Dr. Gates also conducts research in software engineering. Her research focuses on development of technologies for monitoring software correctness and data quality. Specifically, the focus is on extending and defining software engineering methods and developing usable technology to support development of complex systems that are of high consequence, i.e., failure of the system will result in loss of life, equipment, security, or financial losses. Using properties to monitor systems can assist in detecting conflicts and errors during software execution or data acquisition. Dr. Gates also leads the Computing Alliance of Hispanic-Serving Institutions (CAHSI) that focuses on the recruitment, retention, and advancement of Hispanics in computing.

CONTACT

Chemistry and Computer Science Building 3.1002

(915) 747-7689
agates@utep.edu

Gaspare M. Genna

Professor - Political Science
College of Liberal Arts

KEYWORDS

• Globalization • International Cooperation • Political Economy • Political Psychology • Political Trust • Regional Integration • Social Trust

STRATEGIC AREAS

• Global Enterprise & Border Studies • National Defense & Border Security • Cross-cutting: U.S. – Mexico and Latin America: Social and Behavioral Issues • Other

Gaspare M. Genna is Professor of Political Science and Director of the North American Studies Program. He teaches courses on European Union politics, North American relations, international relations, international organizations, and international political economy. He is an advocate for the Global Reach community, which aspires to advance UTEP's commitment to scholarly and creative activities by institutionalizing best practices in extending our global reach and co-advocate for the Interdisciplinary Research and Education community, which aspire to expand our knowledge base and skills for effectively leading IDRE, and providing access to best practices, methods and tools that facilitate successful IDRE. His research explores the development and impact of regional integration in both economically and politically. His work to date involves analyzing state incentives and capabilities for integration as well as domestic public support. He is also Associate Research Fellow at the United Nations University Institute on Comparative Regional Integration Studies, Senior Research Fellow at the TransResearch Institute, and an associate editor of the journal Politics & Policy.

CONTACT

Benedict Hall 301

(915) 747-6066
ggenna@utep.edu

Taeko Hiroi

Professor - Political Science
College of Liberal Arts

KEYWORDS

• Democratization • Electoral Systems • Lawmaking • Political Accountability • Political Instability • Political Institutions

STRATEGIC AREAS

• Global Enterprise & Border Studies • National Defense & Border Security • Cross-cutting: U.S. – Mexico and Latin America: Social and Behavioral Issues • Other

Political institutions, legislative politics, electoral politics, executive-legislative relations, political representation, political accountability, democratization and consolidation, regime change, coups, political instability, corruption, comparative and international political economy, Latin American politics, Brazilian politics, Japanese politics, quantitative methods.

CONTACT
Benedict Hall
312

(915) 747-7983
thiroi@utep.edu

Gabriel Ibarra-Mejia

Assistant Professor - Public Health Sciences
College of Health Sciences

KEYWORDS

• Environmental Health • Ergonomics • Occupational Health

STRATEGIC AREAS

• Health & Biomedical Sciences and Engineering • Cross-cutting: U.S. –Mexico and Latin America: Social and Behavioral Issues

Dr. Ibarra-Mejia is currently an assistant professor in the Public Health Sciences at UTEP. His interests include environmental and occupational health, and ergonomics, with a specific focus on the prevention of work-related musculoskeletal disorders.

CONTACT
Health Sciences and Nursing Building
705

(915) 747-7270
gabmejia@utep.edu

Meagan Renee Kendall

Assistant Professor - Engineering (College of)
College of Engineering

KEYWORDS

• Biomechanics • Collaborative Design • Design Methodology • Engineering Education • Leadership Development • Student Motivation

STRATEGIC AREAS

• Education for the 21st Century Demographic • Health & Biomedical Sciences and Engineering • Other

Dr. Meagan R. Kendall is an Assistant Professor in the Department of Engineering Education and Leadership. She received her MS and PhD in Mechanical Engineering, with a concentration in Biomechanics, from The University of Texas at Austin. For over a decade, Dr. Kendall's research has focused on the design and validation of appropriate prosthetic components for developing communities. In this research, she is developing co-design methodologies that actively build empathy with and include the end-user as a participant in designing their own products - designing with, rather than for, the user of a product or service. To further this research, Dr. Kendall has recently embarked on a project to determine where Positive Deviance Inquiry and Human Centered Design can join to further improve the design of Assistive Technology, such as prosthetic devices. Dr. Kendall's research also branches into the area of engineering education. As an Assistant Professor in the Department of Engineering Education and Leadership, she has developed innovative curriculum to help kick off the first BS in Engineering Leadership in the nation. Her teaching and research focuses on enhancing student motivation, developing integrated course sequences, and methods for involving students in curriculum development and teaching.

CONTACT
Engineering Building 230.A

(915) 747-7829
mvaughan@utep.edu

Michael Kenney

Professor - Biological Sciences
College of Science

KEYWORDS

• Central Nervous System • Neuroscience • Sympathetic Nervous System • Sympathoimmune

STRATEGIC AREAS

• Health & Biomedical Sciences and Engineering

The long-term objective of Dr. Kenney's research program is to determine how sympathetic nerve regulation is altered by aging, environmental and immune stress, and pathophysiological conditions. The primary experimental approach combines central and peripheral electrophysiological methods with molecular biological techniques to study integrative mechanisms regulating central sympathetic outflow. Central sympathetic neural networks regulate the basal level of activity and the sympathetic nerve discharge (SND) bursting pattern, as well as the acute responsiveness of the sympathetic nervous system. Current studies seek to determine how advancing age alters central mechanisms regulating SND under basal conditions and in response to acute physical stress. The basic approach capitalizes on knowledge of central sympathetic regulatory strategies to probe the fundamental mechanistic interactions between aging and SND regulation using an integrative experimental approach involving electrophysiological, central microinjection, molecular biological, and proteomic approaches. A more complete understanding of central sympathetic neural circuits is critical for determining the role of the sympathetic nervous system in physiological regulation, disease processes, and advancing age.

CONTACT
Chemistry and Computer Science Building 3.0308

(915) 747-7540
mjkenney@utep.edu

Fadi Khasawneh

Associate Professor - Pharmacy
School of Pharmacy

KEYWORDS

• Cardiovascular Disease • G- Protein Coupled Receptors/GPCRs • Platelets • Regulators Of G-Protein Signaling/RGS Proteins • Thirdhand Smoke • Thrombosis

STRATEGIC AREAS

• Health & Biomedical Sciences and Engineering

The Khasawneh laboratory research is focused on the study of thrombosis and platelet biology. The primary goal is to delineate signaling pathways involved in platelet activation and to investigate their role in the pathogenesis of thrombotic diseases. They employ a host of molecular, biochemical and pharmacological approaches, as well as thrombosis models in their studies. Their ultimate goal is to identify novel therapeutic agents and/or targets for the management of thromboembolic disorders, such as heart attacks and stroke.

CONTACT
Campbell Building 711

(915) 747-8187
fkhasawneh@utep.edu

Maissa Khatib

Lecturer - Languages and Linguistics
College of Liberal Arts

KEYWORDS

• Curriculum Development • Innovative And Inclusive Teaching • Proposal Writing And Research.

STRATEGIC AREAS

• Other

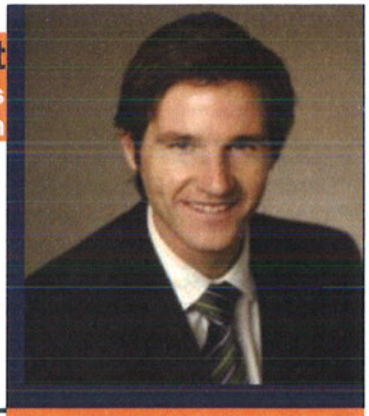
Health Disparities,Migration, Adaptation & Mental Health.

CONTACT
Liberal Arts Building 117

(915) 747-7031
mkhatib@utep.edu

David S. Knight

Assistant Professor - Educational Leadership and Foundations
College of Education



KEYWORDS

• Cost-effectiveness Analysis • Economics Of Education • Educator Labor Markets • School Finance

STRATEGIC AREAS

• Education for the 21st Century Demographic

Dr. Knight's research focuses on equity in the allocation of educational resources, educator labor markets, and the use of cost-effectiveness analysis. His recent research includes analyses of the effects of the Great Recession on school finance equity in Texas, the impacts of teacher layoffs in the Los Angeles Unified School District, and the cost-effectiveness of dual language instructional models in the El Paso Independent School District. His research is published in Educational Researcher, Educational Evaluation and Policy Analysis, Educational Policy Analysis Archives, Journal of Staff Development, and the Journal of Education Finance. Dr. Knight received his PhD in urban education policy and MA in economics from the University of Southern California and bachelor's degrees in economics and anthropology from the University of Kansas.

CONTACT
Education Building 105C

(915) 747-5949
dsknight@utep.edu

Olga M. Kosheleva

Associate Professor - Teacher Education
College of Education

KEYWORDS

• Applied Mathematics • Curriculum Development With Focus On STEM Integration • Mathematics Education In Teacher Preparation

STRATEGIC AREAS

• Education for the 21st Century Demographic

Dr. Kosheleva's areas of expertise are in mathematics education in teacher preparation, curriculum development with focus on Science, Technology, Engineering and Mathematics (STEM) integration and applied mathematics. Her primary education goal is to motivate student teachers to teach mathematics and science effectively so that they will create the same love for those topics that she herself developed as a young child. Dr. Kosheleva completed her Ph.D. in Computer Engineering at the University of Texas at El Paso in 2003. The focus of her research was on solving mathematical optimization problem in the context of using state-of-the art JPEG2000 compression on three-dimensional meteorological data. In her research, she worked with a variety of scientific data (meteorological, radar, medical), applied statistical data analysis and analyzed different approaches to constructing meaningful quality metrics for evaluating and comparing different data compression algorithms. These studies have since proven to be transferrable to educational data analysis in her current work. Dr. Kosheleva has two Master's degrees. The first is in Mathematics and Applied Mathematics from Novosibirsk University, Novosibirsk, Russia, 1978 (Diploma Summa Cum Laude). During five years of her study she worked with the prominent academician, A.D. Alexandrov, a leader in the area of Geometry and Geometry education.

CONTACT
Education Building 607

(915) 747-7588
olgak@utep.edu

Kristin Ann Kosyluk

Assistant Professor - Rehabilitation Counseling
College of Health Sciences

KEYWORDS

• Assistive Technology • Community-engaged Scholarship • Homelessness • Mental Illness • Peer Support • Positive Deviance • Psychiatric Disability • Rehabilitation Counseling • Social Justice • Stigma • Treatment Engagement • Vocation

STRATEGIC AREAS

• Education for the 21st Century Demographic • Health & Biomedical Sciences and Engineering • Cross-cutting: U.S. –Mexico and Latin America: Social and Behavioral Issues • Other

As a rehabilitation scientist, Dr. Kosyluk's research interests center around promoting empowerment and recovery for individuals with disabilities so that they might live the life they desire. As a rehabilitation counselor, Dr. Kosyluk views meaningful vocation—including employment, the pursuit of education, and community engagement—as a key factor in recovery and empowerment. A great deal of Dr. Kosyluk's research has focused on stigma reduction surrounding psychiatric disability in postsecondary settings, where many students are experiencing symptoms of mental illness for the first time. Stigma is a major barrier to achieving postsecondary success and to engagement with support and treatment. Dr. Kosyluk's most recent research includes: A study funded by the Oklahoma Department of Rehabilitation Services using a Positive Deviance Inquiry approach to improve employment outcomes for individuals with psychiatric disabilities. A study funded by the Community-Academic Partnership Capacity Building Program (CAP2), which is examining the impact of a Photovoice intervention on individuals with lived experience with homelessness, exploring the perceptions of policy makers surrounding homelessness, and developing a Speakers' Bureau to reduce stigma surrounding homelessness.

CONTACT

Campbell Building 218

(915) 747-7843
kkosyluk@utep.edu

Vladik Y. Kreinovich

Professor - Computer Science
College of Engineering

KEYWORDS

• Decision Making Under Uncertainty • Interval Computations • Uncertainty • Use Of Symmetries

STRATEGIC AREAS

• Health & Biomedical Sciences and Engineering • Cross-cutting: Cyberinfrastructure and Collaborative Environments

Dr. Kreinovich's main area of expertise is dealing with uncertainty and imprecision. There are two main aspects to uncertainty and imprecision. The first aspect is that data comes from measurements, and measurements are never absolutely accurate. It is important to analyze how this uncertainty affects our predictions, and how to make decisions under such uncertainty. Traditional statistical techniques assume that we know the probabilities of different measurement inaccuracies, but in many cases, we only know the upper bound on the measurement error. For example, if the measured value is 1 V and we know that the measurement error does not exceed 0.1 V, then the only information that we have about the actual voltage is that it is somewhere in the interval [0.1, 1.1]. Different values from these intervals may lead to different results of data processing. It is desirable to find the range of possible values. Interval computations also help when we know bounds on probabilities. The second aspect is that experts often describe their knowledge not in terms of precise rules, but by using imprecise words from natural language. It is then necessary to describe this knowledge in precise computer-understandable terms in order to process this knowledge. This area of research is extremely important to interdisciplinary research, where we need to combine different research areas with different levels of rigor.

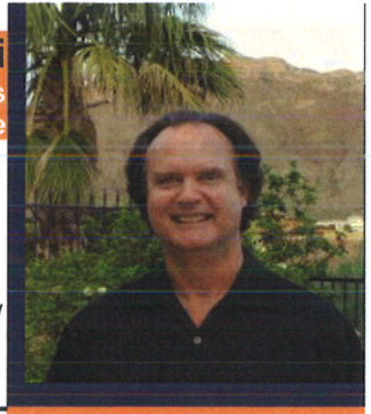
CONTACT

Chemistry and Computer Science Building 3.0404

(915) 747-6951
vladik@utep.edu

James David Kubicki

Professor - Geological Sciences
College of Science



KEYWORDS

• Aerosols • Computational Chemistry • Environmental Chemistry • Reaction Kinetics

STRATEGIC AREAS

• Energy & Environment • Cross-cutting: Cyberinfrastructure and Collaborative Environments • Cross-cutting: Emerging Technologies: Information Technology • Biotechnology & Nanotechnology

Kubicki is a 2016 Interdisciplinary Research (IDR) Fellow responsive to the Office of Research and Sponsored Projects as well as the Office of the Provost. As an IDR Fellow, he will form a research team and broader community of practice that will explore the impacts of atmospheric aerosols on climate and/or health from both a chemical and physical perspective. These aerosols are one of the largest sources of uncertainty in current climate models. Kubicki intends to widen the group of experts who typically study this to include geographers, biologists, and medical professionals from UTEP, internal and external research centers, as well as other academic institutions.

CONTACT
Geological Sciences Building 101

(915) 747-6552
jdkubicki@utep.edu

Saurav Kumar

Research Assistant Professor - Civil Engineering
College of Engineering

KEYWORDS

• Airborne And Spaceborne Remote Sensing • Environmental Data Analysis And Informatics • Watershed Management

STRATEGIC AREAS

• Energy & Environment • Cross-cutting: Cyberinfrastructure and Collaborative Environments • Cross-cutting: Emerging Technologies: Information Technology • Biotechnology & Nanotechnology • Other

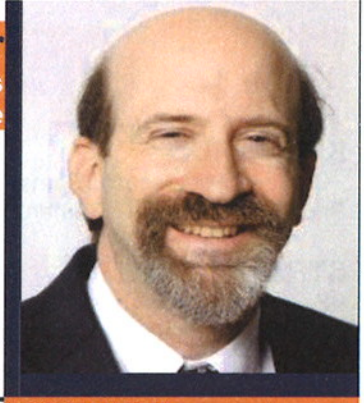
Dr. Kumar's research is interdisciplinary, primarily focused on the intersection of the water resources management, human systems, and informatics. He is passionate about using the power of data and modeling to design environmental solutions. His research encompasses all three aspects of data lifecycle: acquisition, analysis, and presentation. He is involved in in-situ and remote sensing of natural systems to acquire data, developing statistically and physically based model to understand the systems, and developing interactive web-based visualization to aid decision making.

CONTACT
Engineering Building A-226

(915) 747-6329
skumar2@utep.edu

Larry M. Lesser

Professor - Mathematical Sciences
College of Science



KEYWORDS

• Equity • Humanistic Mathematics • Language And Culture • Mathematics Education • Statistics Education • Teacher Education

STRATEGIC AREAS

• Education for the 21st Century Demographic

Statistics/math educator Lawrence (Larry) Lesser's teaching (in CO, GA, TX) is enhanced by prior experiences as a state agency statistician, full-time high school math teacher, and UTEP teaching center director. His statistics/math education interests include teacher education, misconceptions/intuition, language/ELL/culture, equity, and engagement. His research/scholarship includes 100 peer-reviewed papers and books and has led to awards, service on 5 (inter)national research or editorial boards, and on elected/appointed offices/committees in national organizations, and grants (such as 2012-16 and 2015-18 NSF grants, for which he is PI). His teaching innovations have generated textbooks, invited plenaries at regional/national conferences, radio/TV appearances, and recognitions including: 2016 Minnie Stevens Piper Professor award, a 2011 Regents' Outstanding Teaching Award from the Univ. of Texas System, the 2010 Distinguished Teaching of Mathematics Award from the MAA's Southwestern Section, and an award-winner in several recent national education contests. See www.math.utep.edu/Faculty/lesser/background.html for more information.

CONTACT
Bell Hall
213

(915) 747-6845
Lesser@utep.edu

Lin Li

Assistant Professor - Physics
College of Science

KEYWORDS

• Bioinformatics • Biophysics • Computational Biology • Molecular Biology • Molecular Motors • Protein Protein Interactions

STRATEGIC AREAS

• Health & Biomedical Sciences and Engineering

Dr. Li's research interests focus on Computational Biophysics. His main goals are: 1. Developing state of art software packages for modeling and simulations of biological systems. 2. Using computational approaches to study important biological systems.

CONTACT
Physical Sciences
Building
215E

(915) 747-8423
lli5@utep.edu

Felicia S. Manciu

Professor - Physics
College of Science

KEYWORDS

• Confocal Microscopy (Raman And Fluorescent) • Infrared Absorption Spectroscopy • Photoluminescence • Raman Scattering Spectroscopy

STRATEGIC AREAS

• Energy & Environment • Health & Biomedical Sciences and Engineering • Cross-cutting: Emerging Technologies: Information Technology • Biotechnology & Nanotechnology

Dr. Manciu's research interests focus on optically and microscopically tailoring the properties of soft and hard condensed matter materials. Such studies, of both fundamental and applied interest, provide important insights for procedure optimization in fabricating new materials and in developing reliable nano- and micro-structures important to emerging technological applications, from nanoelectronics and nanophotonics, to medical diagnostics. Supporting this affirmation is the broad range of collaborative projects that she has conducted, which include simultaneous, label-free detection of neurotransmitters using confocal Raman mapping; bioimaging analysis of cancer cells and tissue; exploring ways of improving the characteristics of doped diamond materials, metal oxides, and transition metal chalcogenide alloys for biosensors and infrared device development; gaining new insights into the formation and prevention of kidney stones; characterizing highly energetic solid materials for use as rocket fuels; and studying changes that occur in the submicroscopic structure of Maya pigments. These collaborations not only enabled her to secure, as Principal Investigator, sustainable external funding from DOD-MDA, DOE, NSF, and the Mayo Clinic in Rochester, Minnesota, but also led to the successful completion of many degree programs by her students (5 Ph.D. and 11 M.S. graduates from 2007 to present).

CONTACT
Physical Sciences Building 221B

(915) 747-8472
fsmanciu@utep.edu

Lynnsay Marsan

Postdoctoral Fellow - Campus Office of Undergraduate Research Initiatives (COURI)
College of Science

KEYWORDS

• Cultural Competency • Mentoring • Neuroscience Of Learning • Science Education • Scientific Identity • Scientific Literacy

STRATEGIC AREAS

• Education for the 21st Century Demographic • Health & Biomedical Sciences and Engineering

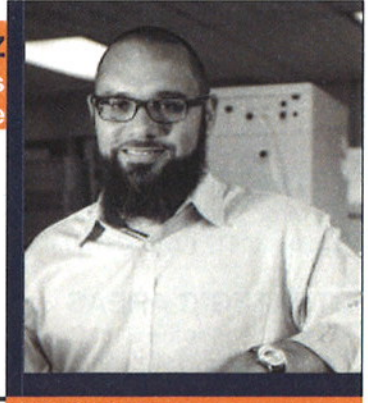
My research interests focus on the impact of cultural influences on the development of learning pathways in the brain. More specifically, how early implementation of active learning practices influence critical thinking and research design skills. This is critically important for the successful training, and retention of underrepresented students in the STEM fields.

CONTACT
Bioscience Research Building 226

lmarsan@utep.edu

Luis R. Martinez

Associate Professor - Biological Sciences
College of Science



KEYWORDS

• Antimicrobial Drug Development • Dermatology • Diversity Issues In STEM • Immunology • Infectious Diseases • Nanotechnology

STRATEGIC AREAS

• Health & Biomedical Sciences and Engineering • Cross-cutting: Emerging Technologies: Information Technology • Biotechnology & Nanotechnology

Luis R. Martinez received his B.S. in Industrial Microbiology from the University of Puerto Rico-Mayaguez and M.S. from LIU Brooklyn. His thesis project on the thermal tolerance of the AIDS-associated fungus, Cryptococcus neofomans, conducted at Albert Einstein College of Medicine in the Bronx, N.Y. His master's studies were supported by a National Institutes of Health (NIH) minority bridge to the doctorate award. This facilitated his externship at a research-oriented institution where he met mentors that encouraged him to pursue a career in science. Later, he enrolled in the Ph.D. program in the laboratory of Arturo Casadevall, Ph.D., at Einstein, where he was responsible for characterizing biofilm formation in Cryptococcus neofomans. Upon successfully completing his Ph.D., Martinez joined the laboratory of Joshua D. Nosanchuk, Ph.D., at Einstein to extend his work on microbial pathogenesis and the biology of the immune system. In the course of his post-doctoral training supported by an NIH-Molecular Pathogenesis Training Grant, he successfully led a project that characterized the wound healing and antimicrobial properties of nitric oxide nanoparticles, technology that has been licensed by a biotech company and is in advanced preclinical development. Martinez earned his M.B.A. degree from Pace University and has completed scholarly work at the Woods Hole's Marine Biological Laboratory and Cold Spring Harbor Laboratories (N.Y.).

CONTACT

Bioscience Research Building
2.170

(915) 747-6537
lmartinez43@utep.edu

Antonio Moises Martinez

Staff - Latino Alcohol and Health Disparities Research Center (LAHDR)

KEYWORDS

• Alcohol • Brief Motivational Interventions • Implementation • Public Health • Strength-based Interventions

STRATEGIC AREAS

• Cross-cutting: U.S. –Mexico and Latin America: Social and Behavioral Issues

Mr. Antonio Moises Martinez currently serves LAHDR as Community Coordinator. As Community Coordinator, he is charged with coordinating grant activities, co-developing research plans, assisting with community event planning, marketing, and fostering collaborations with external agencies in our region. His educational background consists of a Master of Science in Psychology and a Bachelor of Arts in Biological Sciences. Prior to his involvement with LAHDR, he was working part-time in the Department of Psychology with Dr. Wiebe as a Research Assistant in his lab. Concurrently, he was serving the City of El Paso Department of Public Health as a Surveillance and Prevention Specialist. Before the City of El Paso, he worked for the local AIDS Service Organization as Director of Programs. Before working for 7 years in the field of HIV/AIDS, he built his early experience in the field of the pharmaceutical industry by working in hospital pharmacies for 6 years. His research interests are in assessing character strengths in vulnerable populations. Currently, he is working on qualitatively analyzing stakeholder interviews for a manuscript to inform the field of Dissemination and Implementation Research.

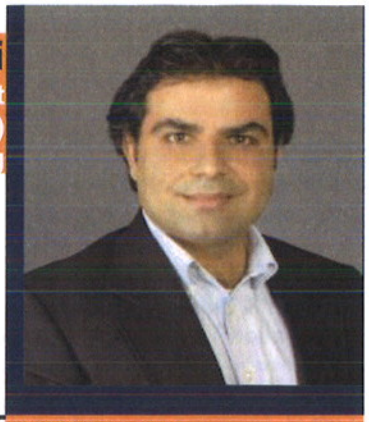
CONTACT

Psychology
102

(915) 747-7371
ammartinez@utep.edu

Ali Mirchi

Research Assistant Professor - Center for Environmental Resource Management (CERM)
College of Engineering



KEYWORDS

• Environmental Systems Analysis And Modeling • Hydraulic And Hydrologic Engineering • Sustainability And Sustainable Development • Water Resources Planning And Management

STRATEGIC AREAS

• Education for the 21st Century Demographic • Energy & Environment • Cross-cutting: Cyberinfrastructure and Collaborative Environments

Dr. Mirchi has a joint appointment with the Department of Civil Engineering and Center for Environmental Resource Management. He holds a Ph.D. in Civil/Water Resources Engineering from Michigan Technological University, a Master's in Water Resources from Lund University, and a B.S. in Civil/Water Engineering from the University of Tabriz. His research primarily focuses on water resources planning and management, hydrologic engineering, and environmental systems modeling to inform resource management frameworks, and derive policy insights that promote sustainability. He applies systems thinking, systems analysis techniques, geographic information systems (GIS), simulation, and optimization modeling to advance understanding of coupled human-natural systems at different scales. Dr. Mirchi is currently working on two large, interdisciplinary research projects in the Rio Grande region and south Florida, U.S.A., investigating water resources management strategies in the face of continuous growth, competing demands, and climate change.

CONTACT
Engineering Building A-206

(915) 747-6908
amirchi@utep.edu

Eva Margarita Moya

Associate Professor - Social Work
College of Health Sciences

KEYWORDS

• Community-engaged Scholarship. • Homelessness • Intimate Partner Violence • Photovoice Methodology • Sexual And Reproductive Health • Tuberculosis

STRATEGIC AREAS

• Education for the 21st Century Demographic • Global Enterprise & Border Studies • Cross-cutting: Emerging Technologies: Information Technology • Biotechnology & Nanotechnology • Cross-cutting: U.S. –Mexico and Latin America: Social and Behavioral Issues

Dr. Moya's scholarly work spans the public health and macro practice areas, where she has conducted funded research. Areas of specialization are health and social work. Eva has conducted research on knowledge, attitudes and practices in tuberculosis; TB stigma; HIV/AIDS; advocacy; Photovoice; intimate partner violence, and sexual and reproductive health. Her research is considered innovative and can be replicated by others. Examples include the validation of the TB Stigma Scale with Mexican populations which led to the incorporation of the scales in the first Knowledge, Attitudes and Practice (KAP) in Tuberculosis in Mexico study (2010-11). The findings of the KAP in TB Study in Mexico were presented to the leadership of the National TB Program in Mexico in 2011. The findings of the study informed Mexico's TB national education strategy and produced four -10 minute Spanish educational programs on DVDs for clinicians, health professionals', and the public's use. Dr. Moya is particularly interested in these three cross-cutting themes: Cross-culturally competency; social and behavioral health sciences and transnational social work studies.

CONTACT
Health Sciences and Nursing Building 368U

(915) 747-8493
emmoya@utep.edu

Stanley T. Mubako

Research Assistant Professor - Center for Environmental Resource Management (CERM)

KEYWORDS

• Environmental Assessment • Environmental-economic Accounting • Geographic Information Systems And Remote Sensing • Irrigation And Soil Science • Water Footprint Analysis • Water Resources Planning And Policy

STRATEGIC AREAS

• Energy & Environment

I have wide interdisciplinary research interests that include water resources and ecosystem sustainability, hydrological processes at watershed level, virtual water and life cycle analysis, and geospatial applications. My current research involves the development of an environmental-economic accounting framework for water use in the United States, where I am collaborating with researchers from different departments across UTEP. This work also focuses on assessing economic, environmental, and social sustainability indicators in relation to water use in arid regions. The research is supported through Interdisciplinary Research Enhancement Program Level II funding, a program made possible through the UTEP Office of Research and Sponsored Projects and the Office of the Provost. I am also collaborating with researchers at Arizona State University and Michigan Technological University on a project whose focus is adaptive water management in the Great Lakes Region of the United States, supported by the Great Lakes Protection Fund. The core of the research is on the value of water and ecosystem impacts of human economic activities. Finally, I like pursuing international collaboration opportunities involving water, climate change and other current environmental issues. I recently co-authored a book chapter on climate change adaptation issues in the Limpopo River Basin, and a journal article on Schistosomiasis (biharzia) prevalence in the Lake Chilwa Basin, both in southern Africa.

CONTACT
Kelly Hall
210

(915) 747-7372
stmubako@utep.edu

Sarah A. Norman

Clinical Assistant Professor - Pharmacy
School of Pharmacy

KEYWORDS

• Collaborative Practice • Interprofessional Education • Medication Assisted Treatment • Medication Education • Mental Illness • Mental Illness Stigma • Psychiatric Medication-induced Adverse Effects • Psychiatric Pharmacist • Serious Mental Illness • Substance Use • Underserved Populations

STRATEGIC AREAS

• Education for the 21st Century Demographic • Health & Biomedical Sciences and Engineering • Cross-cutting: U.S. –Mexico and Latin America: Social and Behavioral Issues

Dr. Norman is Board Certified in Psychiatric Pharmacy Practice. She completed her Doctorate in Pharmacy at The University of Arizona College of Pharmacy and completed her psychiatric pharmacy residency training at University of Maryland School of Pharmacy. She has been engaged in mental health research since 2011.

CONTACT
Campbell Building
712

(915) 747-8184
sanorman@utep.edu

Maria L. Ordaz

Staff - Science (College of)
College of Science

KEYWORDS

• Compliance. • Initiatives • Research Development • Science

STRATEGIC AREAS

• Other

Maria Ordaz is the Assistant Director for Research Initiatives in the College of Science. Her Bachelor's in Biochemistry and Masters' in Microbiology & Immunology and in Public Administration, as well as over 7 years of experience in biomedical research and over 8 in research development and compliance allow her to understand the complexities of research in academia and public institutions. Maria has been a member of the National Organization of Research Development Professionals since 2010.

CONTACT

Chemistry and Computer Science Building 3.0410

(915) 747-8624
mlordaz@utep.edu

Margie Esther Padilla

Clinical Associate Professor - Pharmacy
School of Pharmacy

KEYWORDS

• Anticoagulation • Co-curricular • Community Health Centers • Cultural Sensitivity • Diabetes • Disease State Management (DSM) • Immunizations • Interprofessional Practice And Education • Medication Theraphy Management (MTM) • Professional Development • Smoking Cessation

STRATEGIC AREAS

• Other

Dr. Padilla is a Clinical Associate Professor The UTEP School of Pharmacy. She has been engaged in the field of clinical pharmacy since May 2005. Dr. Padilla has a Bachelor's degree of Art in Science from Our Lady of the Lake University and Doctorate in Pharmacy from the University of Texas at Austin College of Pharmacy. She completed a post-graduate residency program in Ambulatory Care at Blackstock Family Practice in collaboration with the University of Texas at Austin College of Pharmacy. Her areas of research and passion interest include immunizations/vaccines (perceptions, barriers, misconceptions, beliefs) in underserved/uninsured communities, chronic disease state management in Hispanic populations, and vaccine usage in student (higher education) populations. Other areas of interest include; development of clinic practice settings and patient care; development of collaborative practice agreements between pharmacists and providers; development of clinic or pharmacy policy and procedures; establishment of prescriptive authority; and enhancement of current clinical services in a both a federally-qualified community health center and private family medicine clinic. Dr. Padilla maintains a clinic site for development of her current research. Her interest in community-based research allows her to work with an interdisciplinary group of providers and members within the community.

CONTACT

Campbell Building 702

(915) 747-8532
meperez@utep.edu

Celia M. Pechak

Associate Professor - Physical Therapy
College of Health Sciences

KEYWORDS

• Global Health Education • International Clinical Education • International Service-learning • Linguistic Competence / Linguistic Safety In Physical Therapist Education

STRATEGIC AREAS

• Education for the 21st Century Demographic

Rehabilitation and global health are the overarching themes of Dr. Pechak's 4 primary lines of research: international service-learning, international clinical education, global health competencies, and linguistic competence in physical therapist education. While there is no broadly accepted definition, Koplan et al define global health as "an area for study, research, and practice that places a priority on improving health and achieving health equity for all people worldwide." (p1995) Dr. Pechak's research has focused on determining how physical therapists should prepare for, and pursue, effective and ethical engagement with underserved populations. Reflecting the fact that global health issues transcend borders, her research is motivated by questions with both international and local relevance. Her newest research line, linguistic competence, explores how to most effectively integrate Spanish language training across a doctor of physical therapy (DPT) curriculum and. Her vision is that the UTEP DPT Program will be the exemplary educational model of how to prepare health professions students to effectively work with low English proficiency Spanish-speaking patients. 1. Koplan JP, Bond TC, Merson MH, Reddy KS, Rodriguez MH, Sewankambo NK, et al. Towards a common definition of global health. Lancet. 2009;373:1993-1995.

CONTACT
Campbell Building 311

(915) 747-7289
cmpechak@utep.edu

Deana D. Pennington

Associate Professor - Geological Sciences
College of Science

KEYWORDS

• Geospatial • Integrated Modeling And Analysis • Interdisciplinary Teamwork • Knowledge Representation • Scenario Analysis • Socio-environmental Systems

STRATEGIC AREAS

• Energy & Environment • Cross-cutting: Cyberinfrastructure and Collaborative Environments

Dr. Deana Pennington conducts research in three interrelated areas: 1. Land change, sustainability science, and human/environmental systems; 2. Emerging technologies in science, and data- and cyber-enabled science; and 3. The science of synthesis and interdisciplinary team science. Most of her projects incorporate elements of all three.

CONTACT
Geological Sciences Building 305C

(915) 747-5867
ddpennington@utep.edu

Rebeca Perez

Assistant Professor - Accounting and Information Science
College of Business Administration

KEYWORDS

• Corporate Governance • Corporate Social Responsibility • Executive Compensation

STRATEGIC AREAS

• Other

Rebeca conducts research in financial accounting using primarily archival data. Her fields of interest are corporate governance, specifically, the effects of personal attributes of board members and executives on firm outcomes; incentives for board members and executives, such as compensation; and the determinants, outcomes, and implications of corporate social responsibility.

CONTACT

Business Administration Building
215

(915) 747-6028
rperez43@utep.edu

Denise I. Pinal

Clinical Assistant Professor - Pharmacy
School of Pharmacy

KEYWORDS

• Asthma • Cystic Fibrosis • Health Disparities • Health Outcomes • Medication Adherence • Medication Safety • Patient/caregiver Education • Pediatric Chronic Disease • Pediatric Pharmacy

STRATEGIC AREAS

• Health & Biomedical Sciences and Engineering • Other

Dr. Pinal completed her Doctor of Pharmacy degree at the University of Texas at Austin College of Pharmacy. She received postgraduate training at Texas Tech University Health Sciences Center School of Pharmacy where she completed a pharmacy practice residency with a pediatric focus. Her research interests include antibiotic use/resistance in cystic fibrosis and pediatric patients, clinical outcomes research, medication adherence, medication literacy, health disparities, patient/caregiver education, and preventative strategies for optimization of health and medication use. Dr. Pinal has a passion for research related to medication safety and pediatric chronic diseases. She is a member of the Pediatric Pharmacy Advocacy Group and the Cystic Fibrosis Pharmacist Practice-Based Research Network. She particularly enjoys the opportunities these organizations provide to establish connections with other scholars on a national and international level.

CONTACT

Campbell Building

(915) 747-5884
denisepi@utep.edu

Michael Pokojovy

Visiting Assistant Professor - Mathematical Sciences
College of Science

KEYWORDS

• Big Data Analytics • Nonparametric And Semiparametric Techniques • Robust Statistics • Statistical And Scientific Computing • Statistical Quality Control

STRATEGIC AREAS

• Energy & Environment • Cross-cutting: Cyberinfrastructure and Collaborative Environments • Cross-cutting: Emerging Technologies: Information Technology • Biotechnology & Nanotechnology

Dr. Pokojovy's research interests are manifold. They include, but are not limited to, nonparametric and robust techniques with application to big data analytics, statistical quality control, data mining, computational statistics, design and control of stochastic spatiotemporal systems, functional data analysis, etc. He has many years of successful experience with statistical and scientific computing and programming in R, Matlab, C/C++, etc. Dr. Pokojovy also has a strong background in various areas of applied mathematics.

CONTACT
Bell Hall
227

(915) 747-6761
mpokojovy@utep.edu

William H. Robertson

Professor - Teacher Education
College of Education

KEYWORDS

• Action • Constructivism • Curriculum • Education • Integration • Learning • Problem-based • Science • Technology

STRATEGIC AREAS

• Education for the 21st Century Demographic • Cross-cutting: U.S. –Mexico and Latin America: Social and Behavioral Issues

Dr. William H. Robertson is a Professor in the Teacher Education Department in the College of Education at the University of Texas, El Paso. His academic areas of expertise are in science education, curriculum development and technology integration in the K-12 levels. A long time participant and performer in skateboarding with over 40 years in the sport, Dr. Robertson has developed Dr. Skateboard's Action Science (http://www.drskateboard.com), which addresses physical science concepts for middle school students utilizing skateboarding and bicycle motocross (BMX). He is the author of Action Science: Relevant Teaching and Active Learning. Additionally, he develops, researches and teaches materials related to problem-based learning and action science. Dr. Robertson was a recipient of the 2009 University of Texas Regents' Outstanding Teaching Award for Tenure-Track Faculty and in 2008, Dr. Robertson was selected as a Fulbright US Scholar and worked in Santiago, Chile at the Universidad Metropolitana de Ciencia de la Educación (UMCE) in the department of Physics. Previous to coming to UTEP, Dr. Robertson was an employee at Los Alamos National Laboratory (LANL). Dr. Robertson completed his Ph.D. in Multicultural Teacher and Childhood Education with an emphasis in science and technology at the University of New Mexico in 2000.

CONTACT
Education Building
414

(915) 747-5572
robertson@utep.edu

Jessica M. Shenberger-Trujillo

Clinical Assistant Professor - Pharmacy
School of Pharmacy

KEYWORDS

• Assessment • Attitude And Behavior Change • Community-Based Participatory Research • Cultural Change • Cultural Conflict • Cultural Identity • Evidence-Based Practices • Military Social And Behavioral Research • Program Evaluation • Scholarship Of Teaching And Mentoring • Social Psychology • Statistical Methods

STRATEGIC AREAS

• Education for the 21st Century Demographic • National Defense & Border Security • Cross-cutting: U.S. –Mexico and Latin America: Social and Behavioral Issues

Dr. Shenberger-Trujillo engages in social and behavioral research related to intergroup conflict, culture, and religion. Additionally, she investigates factors that predict health attitudes and behaviors. As the Director of Assessment and Evaluation for UTEP's School of Pharmacy, Dr. Shenberger-Trujillo leads accreditation efforts, assessment of student outcomes, and program evaluation. Dr. Shenberger actively mentors undergraduate, graduate, and professional (PharmD) students on research projects.

CONTACT
Campbell Building
110-D

(915) 747-8518
jmshenberger@utep.edu

Melissa L. Silverstein

Staff - Office of Technology Commercialization (OTC)

KEYWORDS

• Commercialization • Patent • Patent Licensing • Patent Marketing • Startup Support • Technology Transfer

STRATEGIC AREAS

• Other

Melissa Silverstein, J.D., is the Director of UTEP's Office of Technology Commercialization. She manages UTEP's patent portfolio, including protecting, marketing, and licensing all UTEP technologies. Melissa is a patent attorney and received her J.D. from Texas A&M School of Law in 2007, and her B.S. in biology, magna cum laude, from the University of Texas at San Antonio. After law school, Melissa practiced patent preparation and prosecution for a boutique patent law firm based out of Albuquerque. During her five years in private practice, Melissa's client base included Xerox, Honeywell, IBM, LSU, the Department of Energy, NIST, and UTEP.

CONTACT
Administration Building
209

(915) 747-8030
msilverstein@utep.edu

Bess Sirmon-Taylor

Associate Professor - Speech-Language Pathology
College of Health Sciences

KEYWORDS

• Concussion • Ethics Education • Legislation • Policy

STRATEGIC AREAS

• Other

Dr. Bess Sirmon-Taylor has been a member of the Concussion Management Clinic (CMC) team since 2007, and her research interests have primarily focused on legislation and policy implementation related to concussion management at the state and federal level. In 2013, she was appointed as Associate Dean of the Graduate School at UTEP on a half-time basis, and her scholarly interests now include questions related to patterns in student funding for graduate education, dual credit curricula for high school teachers providing college-level coursework, models of mentoring and leadership, and access to graduate education for under-represented minority students. One of her current areas of inquiry deals with models of ethics education curriculum in graduate clinical education. In the past eleven years, Dr. Sirmon-Taylor has presented and published on a range of topics including etiology, epidemiology, and prevention of concussion, legislation and policy, and ethics education.

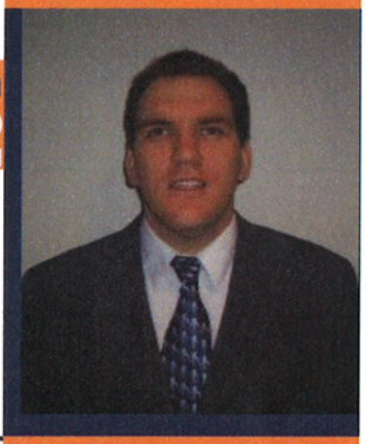
CONTACT

Campbell Building
416

(915) 747-7278
sirmontaylor@utep.edu

Eric D. Smith

Associate Professor - Industrial, Manufacturing, and Systems Engineering (IMSE)
College of Engineering



KEYWORDS

• Cognitive Biases • Industrial Engineering • Systems Engineering • Tradeoff Studies

STRATEGIC AREAS

• Education for the 21st Century Demographic • Energy & Environment

Teaching initiatives within the Systems Engineering Program and the IMSE Department should now be directed toward increasingly networking with industries of practice in order to draw in industry knowledge and at the same time plug-in students to their personally discovered career paths and areas of contribution.

CONTACT

Engineering Building (Engineering and Sciences Complex)
A-245

(915) 747-5205
esmith2@utep.edu

Charles Thomas Spencer

Assistant Professor - Biological Sciences
College of Science

KEYWORDS

• Animal Models • Bacteria • Immune Response • Immunology • Infectious Disease

STRATEGIC AREAS

• Health & Biomedical Sciences and Engineering • National Defense & Border Security

Charles T. Spencer, Ph.D., is an Assistant Professor of Biological Sciences. Dr. Spencer's research interests are in zoonotic and re/emerging bacterial infectious diseases and the disease burdens of such accumulating at national boundaries. Inflammation is a critical part of our immune response to infectious diseases. However, certain infectious diseases –e.g., Francisella tularensis, Ebola, pandemic influenza, hantavirus, SARS and MERS– trigger an exuberant host inflammatory response defined by excess production of pro-inflammatory cytokines by immune cells, a condition termed "cytokine storm." For these diseases, the production of this pathological cytokine storm is the direct cause of acute respiratory distress (ARDS), hemorrhage, hypovolemic shock, pneumonia, tissue damage, and ultimately of death of the patient. Currently, the laboratory focuses on Francisella tularensis, the causitive agent of tularemia and rabbit fever and a potential bioweapon. The objective of my research program is to define the immune response elicited by inflammatory infectious diseases with the ultimate goal of determining commonalities that could be targeted for therapeutic intervention. For this, we seek to analyze the cellular activation, serum cytokines, tissue proteins and lipids, metabolic activity, and transcriptional activation of the immune response. These data will be compared to direct comparisons and previous results obtained with conventional infections.

CONTACT
Bioscience Research Building 5.148

(915) 747-8776
ctspencer@utep.edu

Connie Summers

Associate Professor - Speech-Language Pathology
College of Health Sciences

KEYWORDS

• Language Impairment • Language Performance In Bilingual Children • Mediated Learning Strategies • Speech Language Pathology

STRATEGIC AREAS

• Health & Biomedical Sciences and Engineering • Cross-cutting: U.S. –Mexico and Latin America: Social and Behavioral Issues

Dr. Summers conducts research on language development and disorders in children. She has participated in projects focused on the social skills of children with language impairment and language interventions using mediated learning strategies. Her current research focuses on language performance in bilingual children including the areas of working memory tasks and narratives. Combined with her clinical experiences, this research is aimed at informing best practices for assessment and intervention of language in bilingual children.

CONTACT
Campbell Building 418

(915) 747-8226
clsummers@utep.edu

April Gile Thomas

Assistant Professor - Psychology
College of Liberal Arts

KEYWORDS

• Adolescence • Adolescent Development • Developmental Psychology • Parents • Peers • Risk • Social Influence

STRATEGIC AREAS

• Other

Dr. April Gile Thomas is a developmental psychologist and Assistant Professor in the area of Legal Psychology. Her expertise centers on adolescent development, particularly as it pertains to risk-taking and juvenile delinquency. Her research examines causes and consequences of both normative and atypical risk behavior during adolescence. Her recent work has focused on adolescents' susceptibility to parental and peer influence. Through her research, Dr. Thomas seeks to use developmental science to inform public policy regarding how youth should be treated in the justice system. For example, she has used research on adolescent development to argue against the use of laws that view sexting by minors as child pornography, as well as to advocate for policies that raise the age at which a juvenile can be tried as an adult in court.

CONTACT

Psychology
107

(915) 747-6572
athomas5@utep.edu

Andrea L. Tirres

Staff - Research and Sponsored Projects (Office of)

KEYWORDS

• Collaborative • Community Of Practice • Interdisciplinarity • Interdisciplinary Education • Sustainability • Sustainable • Transdisciplinary

STRATEGIC AREAS

• Energy & Environment • Cross-cutting: Cyberinfrastructure and Collaborative Environments

Andrea Tirres is the Interdisciplinary Network Manager. As the first person to fill this position, she is helping create a framework through which research teams, communities of practice, centers, and individuals are provided with strategic opportunities, tools, and knowledge to advance interdisciplinary research and activities. Tirres manages the Interdisciplinary Research Enhancement Program which provides seed money to interdisciplinary teams, provides strategic support to Expertise Connector, helps launch communities of practice, creates opportunities for researchers to connect with each other in formal and informal settings, and elevates the challenges and successes of interdisciplinary efforts on campus. She is co-advocate for the Interdisciplinary Research and Education Community of Practice and also serves on UTEP's Interdisciplinary Research Building Committee and the President's Advisory Committee on Campus Sustainability. Tirres has contributed to a variety of projects during her career, including shared water resources in the context of individual, community and government management, affordable lending products within the financial services sector, and community development. She holds an M.P.Aff. from the University of Texas at Austin and a B.A. from Stanford University.

CONTACT

Kelly Hall
710A

(915) 747-7352
altirres2@utep.edu

Elsa Y. Villa

Clinical Assistant Professor - Teacher Education
College of Education

KEYWORDS

• Communities Of Practice • Cooperative Learning • Engineering Identity • Inquiry-based Learning • Problem-based Learning • Situated Learning

STRATEGIC AREAS

• Education for the 21st Century Demographic

Dr. Villa shares her appointment between the UTEP Office of Research and Sponsored Projects and the UTEP College of Education where she is director of the Center for Education Research and Policy Studies. She has taught at numerous levels: grades 7 through12, community college, and university in the disciplines of mathematics, science, education, engineering, and computer science. Dr. Villa recently led an NSF-funded grant Latinas in Computer Science and Engineering, an investigation of identity and agency of undergraduate Latina students with co-PIs from the UTEP Colleges of Engineering, Liberal Arts, and Education. Currently, Villa is PI of a U.S. Department of Education grant with co-PIs from the UTEP Colleges of Engineering, Science, and Education. Since 1994, Villa has led and co-led numerous STEM grants from corporate foundations and state and federal agencies, and has publications in refereed journals and edited books. Her research interests include communities of practice, gender, STEM teacher education, transformative learning, and identity.

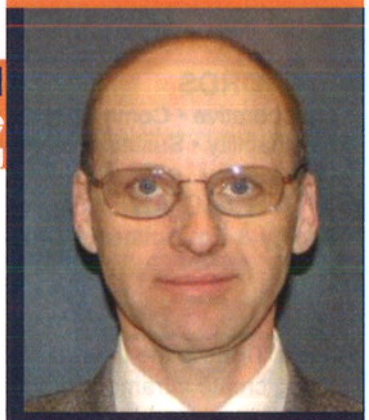
CONTACT

Education Building
EDUC 100E

(915) 747-6948
evilla@utep.edu

Nigel Ward

Professor - Computer Science
College of Engineering



KEYWORDS

• Cross-cultural Communication • Information-retrieval • Prosody • Spoken Dialog Systems • Turn-taking

STRATEGIC AREAS

• Cross-cutting: Cyberinfrastructure and Collaborative Environments • Cross-cutting: Emerging Technologies: Information Technology • Biotechnology & Nanotechnology

Ward's research areas are at the intersection of spoken language and human-computer interaction. Current topics include the subtle non-lexical and prosodic signals that enable inference of a dialog partner's needs, intentions, and feelings at the sub-second level; techniques for modeling these phenomena; and applications of the models for more accurate speech recognition, for better audio search, for more responsive dialog systems, and for more efficient codecs. These projects apply multiple methods --- linguistic, statistical, systems-building, and experimental --- towards the goal of providing excellent user experiences.

CONTACT

Chemistry and Computer Science Building
3.0408

(915) 747-6827
nigel@utep.edu