The ATLAS T³ Bi-Annual Meeting will be held at Southwestern University. Founded in 1840 as the first institution of higher learning in Texas, Southwestern University has a rich history grounded in the pioneering spirit of those who settled the beautiful Texas Hill Country. Southwestern is a private, highly selective liberal arts institution encompassing the Brown College of Arts and Sciences and the Sarofim School of Fine Arts.

Located in historic Georgetown, just north of Austin, Southwestern’s serene residential campus occupies a small portion of 700 acres that include the San Gabriel River and areas reserved for biological and environmental research. As part of the conference, you will have the opportunity to learn about Southwestern University.

FOCUS OF ANNUAL MEETING

The bi-annual meeting program will consist of invited and selected papers emphasizing transdisciplinary, transnational and transcultural global problems. Plenary sessions and keynote panels will be presented by prominent speakers. The main theme of this bi-annual meeting is to understand the complex issues related to development of global sustainable society in all possible opportunities, both physical and social: from clean or renewable energy use, vibrant local economies, and sustainable agriculture, to community involvement in decision-making, biodiversity, and mixed-use urban planning as well as where people enjoy living and working together, now and in the future! A feasible model of Green Transdisciplinary Scientists’ Village will be also the main focus of the discussion during the annual meeting.

SPONSORED BY

The Academy of Transdisciplinary Learning & Advanced Studies (TheATLAS)
Southwestern University, Georgetown, Texas

CO-SPONSORED BY

City of Georgetown
Georgetown Chamber of Commerce
Georgetown Economic Development
Transdisciplinary Sustainable Energy Research Lab (T-SER), Texas Tech University

Academy of Transdisciplinary Studies (ATS), Texas Tech University
George Kozmetsky Endowment (GKE)
Texas Disposal Systems (TDS)

PARTNER

Earth Building Systems, Inc. Texas
Bi-Annual Meeting Theme
Transdisciplinary Sustainable Development

“Meet the needs for the present without compromising the ability of future generations to meet their own needs”
Brundtland Commission Report of 1987

“Earth provides enough to satisfy every man’s need, but not every man’s greed.”
Mahatma Gandhi

The world of nature is increasingly dominated by our behavior. Humanity must take no more from nature than nature can provide. Future generations should not be affected by our present actions. Global and shared resources such as atmosphere, oceans and shared ecosystems must be protected by all of us. All nations stand to gain from global sustainability and are threatened if we fail to attain it. Developing and underdeveloped countries must be helped to develop sustainably and protect not only their environments but also ours.

OPENING ADDRESS
W. Joseph King
Monday, May 24, 9:00 am - 9:30 am

Creative Destruction: The Innovation of Sustainability

Dr. W. Joseph King is executive director of the National Institute for Technology and Liberal Education and vice president for innovation at Southwestern University. Previously, he was the executive director of Connexions. In addition to his work in higher education, Dr. King is a serial entrepreneur. He was president of QOOP, a social commerce platform. He was president of Zama Networks, a quality of service internet backbone acquired by Mitsui & Co. He was also chief scientist of F5 Networks (Nasdaq: FFIV), which has become the industry leader in network traffic management. He was a research scientist at the Human Interface Technology Laboratory of the University of Washington, and he has conducted research at Hughes Research Laboratories, GTE Telecommunications Research, and the Advanced Telecommunications Research Institute. He is on the board of Fossil Rim Wildlife Center, chairman of Rice University Press, and board member of Connexions. He holds a B.A. with honors from Southwestern University and a Ph.D. from the University of Washington.

CONFERENCE KEYNOTE SPEAKER
Red McCombs
Monday, May 24, 9:30 am- 10:00 am

Red McCombs, born in Spur, Texas, attended Southwestern University and the University of Texas at Austin School of Business and School of Law. He left law school in his second year and began his career as a salesman in the automobile business in Corpus Christi in 1950. In 1958 he relocated to San Antonio where he is owner of Red McCombs Automotive. In addition to his auto interests, he is co-founder of Clear Channel Communications and of McCombs Energy in Houston and is active in a variety of other businesses. McCombs has served leadership roles in many national, state, and local organizations including Chamber of Commerce, United Way and San Antonio’s World Fair. He formerly served as Chairman of the Board of Trustees of Southwestern University where he has been honored as Distinguished Alumnus. He is past Chairman of the Board of Visitors of University of Texas M.D. Anderson Cancer Center in Houston. Mr. McCombs has chaired many fund drives and community

Jake B. Schrum
President
Southwestern University
Georgetown, Texas

OPENING RECEPTION
Jake B. Schrum
Sunday, May 23, 5:30 pm - 7:00 pm
Julie Pue tt How ry Center

Having lived in Texas, Georgia, Connecticut and Pennsylvania, Schrum has been an administrator at two major research universities and three liberal arts colleges. He is widely recognized as an author and speaker in the field of educational advancement and moral leadership in higher education. In his many civic, professional, and service activities, Schrum has served as Chair of the Council for Advance-

W. Joseph King
Vice President for Innovation
Southwestern University
Georgetown, Texas

McCombs Enterprises
Chairman & COO

McCombs has served leadership roles in many national, state, and local organizations including Chamber of Commerce, United Way and San Antonio’s World Fair. He formerly served as Chairman of the Board of Trustees of Southwestern University where he has been honored as Distinguished Alumnus. He is past Chairman of the Board of Visitors of University of Texas M.D. Anderson Cancer Center in Houston. Mr. McCombs has chaired many fund drives and community

OPENING ADDRESS
W. Joseph King
Monday, May 24, 9:00 am - 9:30 am

Creative Destruction: The Innovation of Sustainability
service organizations. He has been honored as Distinguished Alumnus of the University of Texas at Austin. He has also been honored with numerous local, state, and national recognitions including the San Antonio Business Hall of Fame, the National Automobile Dealers Hall of Fame, the Texas Business Hall of Fame, and the National Football College Hall of Fame. In the past, Mr. McCombs was the owner of the Minnesota Vikings, an NFL franchise based in Minneapolis/St. Paul. In addition, he has owned the San Antonio Spurs, a National Basketball Association team which he secured for San Antonio in 1972. He also owned the NBA Denver Nuggets which he sold in 1985. At age 25, he purchased his first professional sports team, the Corpus Christi Texas Clippers in the Big State Baseball League.

He is the namesake of the McCombs School of Business at the University of Texas at Austin (an honor given in recognition of a fifty million U.S. dollar donation to the University) and was named one of Forbes magazine’s 400 richest Americans for the past 10 years. McCombs’ carrier effort in business spans a broad spectrum, including the automotive industry, communications, sports industry, real estate development, exploration of oil and gas and finally various insurance companies.

KEYNOTE PANEL-I
Leadership in the 21st Century
Monday, May 24, 10:20 am- 12:00 pm
Organizer and Chair: Dr. Raymond T. Yeh

Panel objective
We live in a time of serious leadership failures at all levels of our society which has brought about the massive meltdowns of our families, educational and financial institutions. This panel will explore how effective leadership must be rooted in a clear understanding that inner perfection leads to outer achievements, integrity builds real wealth, and substance defines beautiful forms.

Dr. Yeh taught at several universities and helped two computer science departments to achieve top 10 ranking nationally as department chair. He has held endowed professorship at two universities and honorary professorship at five universities. He played a major role in helping Software Engineering developed into a formal academic discipline in his various roles such as the founding editor-in-chief of the IEEE Transactions on Software Engineering.

He was a serial entrepreneur co-founding several successful software companies. He had been a management consultant to many nations, worked with executives of many leading edge global companies as well as with founders of many start-up enterprises. He and his wife now live in a Buddhist community in northern California as long term volunteers.

KEYNOTE PANEL-I
DISTINGUISHED PANELISTS

Red McCombs
McCombs Enterprises
Chairman & COO

(see Keynote Speaker for short bio)

Pike Powers
Partner
Fulbright & Jaworski L.L.P.

A partner since 1978, Pike Powers is Of Counsel in Fulbright & Jaworski L.L.P.’s Austin office. Mr. Powers was Executive Assistant to Governor Mark White in 1983 and from 1972 to 1979 represented Jefferson County in the Texas House of Representatives. He has extensive experience in handling complex legal and political issues before state courts and federal courts, as well as federal and state agencies. Mr. Powers has been a member of the Board of Directors of the State Bar of Texas and has held various posts as well in the American Bar Association and in the Texas and American Bar Foundations. He is a former chairman of the Board of the Austin Chamber of Commerce. Mr. Powers is a member of the Maritime Law Association of the United States, the Federation of Insurance and Corporate Counsel and the National Association of Railroad Trial Counsel. He was named a “Texas Super Lawyer” in General Litigation law in the November 2003 issue of Law & Politics; and honored in The Best Lawyers in America in Administrative Law, Commercial Litigation, Government Relations Law in 2010. His tireless work for many years helped to build Austin and Texas into major technology centers.

Mr. Powers was a leader in creating the Texas Technology Initiative which was established in 2002 as a collaborative effort between the government, academia, and private industry. In response to the TTI strategy and the need to be globally competitive with incentive programs, the State of Texas created a $295 million Enterprise Fund under the leadership of Governor Perry and Powers. Mr. Powers received a B.A. in 1962 from Lamar University and a J.D. in 1965 from The University of Texas. He was admitted in 1965 to practice law in Texas.

Dr. Dharma Master Heng Sure was ordained as a Buddhist monk in 1976. For the sake of world peace, he undertook an over six hundred mile pilgrimage from South Pasadena to Ukiah, repeatedly taking three steps and one bow to cover the entire journey. In the entire two years taken to make the pilgrimage, he observed a practice of total silence. Rev. Heng Sure has an M.A. in Oriental Languages from UC Berkeley, and a Ph.D. from the Graduate Theological Union in Berkeley. He serves as the Managing Director of the Berkeley Buddhist Monastery and teaches on the staff at the Institute for World Religions. He lectures on the Avatamsak Sutra at the Berkeley Monastery every Saturday evening. He is actively involved in interfaith dialogue and in the ongoing conversation between spirituality and technology.

Reverend Heng Sure
Managing Director of the Berkeley Buddhist Monastery

Bob Block
Chairman
3-D Business Tools, CA
Robert S. Block is a serial entrepreneur and has a long and successful career in the computer software, communication and entertainment industries including pioneering roles in commercial and pay television and cellular telephone operating companies, and the new energy business. Block has contributed significantly to the creation and development of entertainment and communication technologies used worldwide. He has been granted more than 150 international patents. Block holds an Honorary Doctorate degree from the United States Sports Academy.

Dr. Juan M. Sanchez is the Vice President for Research at The University of Texas at Austin and holder of the Temple Foundation Endowed Professorship #4 in the Department of Mechanical Engineering. He obtained his B.S. in Physics at the University of Cordoba, Argentina, 1971; M.S. in Materials Science, 1974; and Ph.D. in Materials Science, 1977 at the University of California, Los Angeles. He is the author and co-author of over 140 technical publications covering materials science and engineering. His current research interests are in the electronic, thermodynamic and structural properties of materials including intermetallic compounds, magnetic and non-magnetic alloys, thin films and magnetic multilayers. His primary interest is the development and application of first principles computational methods for the construction of phase diagrams of multicomponent material systems.

Lily Yeh is an internationally celebrated artist and award-winning founder and former executive and artistic director of the Village of Arts and Humanities. Since 1986, with the help of neighborhood children and adults, Yeh has built the Village from an abandoned lot into an organization and a community. She has infused the Village with her own artistic sensitivity and vision, collaborating with other artists and community residents to create a place that brings art into both the physical space and daily rhythms of life. Expanding beyond North Philadelphia, Yeh’s work has taken her to communities in other parts of the country as well as abroad.

Lily Yeh, Founding Director and Lead Artist Barefoot Artists, Inc.

Creating Compassionate and Sustainable Community through Art

Guy Bailey became the fifteenth president of Texas Tech University on August 1, 2008. Although in his first year as president, Dr. Bailey has set an ambitious agenda for growth in both student enrollment and research productivity. Bailey came to Texas Tech from the University of Missouri-Kansas City (UMKC), where he served as chancellor from January 2006 until July 2008. He previously served as provost and executive vice president for academic affairs at the University of Texas-San Antonio (UTSA) from 1999 through 2005. He is the author of about 100 books and articles, many co-authored by his wife Dr. Jan Tillery. Bailey continues to do research on language variation and change, with special emphasis on the English of Texas and the American South, and in computational linguistics. Since 1984 he has brought almost a million dollars in external funding for his research.

Lilly Yeh is an internationally celebrated artist and award-winning founder and former executive and artistic director of the Village of Arts and Humanities. Since 1986, with the help of neighborhood children and adults, Yeh has built the Village from an abandoned lot into an organization and a community. She has infused the Village with her own artistic sensitivity and vision, collaborating with other artists and community residents to create a place that brings art into both the physical space and daily rhythms of life. Expanding beyond North Philadelphia, Yeh’s work has taken her to communities in other parts of the country as well as abroad.

Born in Kueizhou, China, Yeh studied traditional Chinese painting in Taiwan before coming to the United States in 1963. In 1968, she began teaching at the University of the Arts where she became professor of painting and art history.

Texas Tech University President Dr. Guy Bailey and University of Texas Vice President for Research Dr. Juan M. Sanchez will attend TheATLAS Luncheon as guests of honor to recognize the legacy of Red McCombs when he receives the Academy Gold medal of Honor.

The ATLAS LUNCHEON HONORING Red McCombs

Monday, May 24, 12:00 pm - 1:30 pm

Guy Bailey, President Texas Tech University Lubbock, TX

Dr. Juan M. Sanchez
Vice President for Research The University of Texas at Austin, TX

Margo Dover
Executive Director Skillpoint Alliance

(see Keynote Panel-III for short bio)
In 1998, she resigned from her tenured position to devote all her time to her work at the Village of Arts and Humanities. Under her leadership as founder, executive director and lead artist from 1998 to 2004, the Village has become a national model of community building through the arts. In the last five years of her tenure there, the Village has received several national awards including Coming Up Taller Award from the President’s Committee on Arts and Culture and the National Endowment for the Arts, Washington, D.C. in 2000 and the gold medal Rudy Bruner Award for Urban Excellence from Bruner Foundation in Cambridge, MA. In 2003, the Village received a Commonwealth of Pennsylvania Governor’s Award for Environmental Excellence. In the same year, Yeh received the prestigious “Leadership for the Changing World” Award from the Ford Foundation. In 2007, the Village is being honored with Champion in Action Award by Citizens Bank for its building community through the arts effort.

In 2004, Yeh left the Village to pursue her work internationally. She formed a new non-profit organization, Barefoot Artists, Inc., with the mission to bring the transformative power of art to the most impoverished communities in the world through participatory and multifaceted projects that foster community empowerment, improve the physical environment, promote economic development, and preserve indigenous art and culture. Yeh has conducted lectures, workshops and land transformation projects in many places in the world. Her current work, the Rwanda Healing Project, includes the construction of the 1994 Genocide Memorial and the transformation of a survivors village in the Rugerero district in West Rwanda. It has won her the SEGD (Society for Environmental Graphic Design) 2006 Design Award and the Earth Movers Award from Natural Home Magazine in 2007. Yeh’s work has impacted people and places in China, Columbia, Ecuador, Ghana, Kenya, Italy, Ivory Coast, Rwanda and the United States.

Dr. Juan M. Sanchez is the Vice President for Research at The University of Texas at Austin hold of the Temple Foundation Endowed Professorship #4 in the Department of Mechanical Engineering. He obtained his B.S. in Physics at the University of Cordoba, Argentina, 1971; M.S. in Materials Science, 1974; and Ph.D. in Materials Science, 1977 at the University of Cordoba, Argentina; and Ph.D. in Materials Science, 1977 at the University of California, Los Angeles. Dr. Sanchez is the author and co-author of over 140 technical publications on a wide range of topics in materials science and engineering. His current research interests are in the electronic, thermodynamic and structural properties of materials including intermetallic compounds, magnetic and non-magnetic alloys, thin films and magnetic multilayers. His primary interest is the development and application of first principles computational methods for materials design.


Dr. Marcy is a member of the National Society of Professional Engineers, the Texas Society of Professional Engineers, the Institute of Electrical and Electronics Engineers (IEEE), the Association for Computing Machinery, the IEEE Computer Society, the American Association for Engineering Education Association for Computing Machinery, the IEEE Computer Society, the American Association for Engineering Education Association for Computing Machinery, the IEEE Computer Society. He has been involved with research and teaching.
the construction of phase diagrams of multicomponent material systems. Other research interests include the development of laser-controlled selective chemical vapor deposition processes for metals, alloys and ceramics.

Dr. Sanchez serves on the Council of Federal Relations of the Association of American Universities; on the Board of Directors as Council Vice Chair for the Oak Ridge Associated Universities, and the Texas Nanotechnology Initiative. He also serves as a Representative to the Government-University-Industry Research Roundtable of the National Academies, as Trustee for the Southeastern Universities Research Association, Inc., as a Member of the Institutional Oversight Board Member for the National Partnership for Advanced Computing Infrastructure (NPACI), the Board of Visitors of the US Army War College, Member of the International Consulting Board, Advisory Board for the Texas Coalition for Capital, and the National Scientific and Policy Advisory Council for the Hogg Foundation for Mental Health.

**PLENARY SESSION-II**

**DISTINGUISHED SPEAKER**

**Julie Thompson Klein**

Professor, Humanities

Wayne State University

**Prospectus for a Shared Conceptual Framework of Transdisciplinarity**


Klein has received both national and international awards and invitations. She was elected to the Wayne State University Academy of Scholars and is a recipient of the President’s Award for Excellence in Teaching, the Graduate Mentor Award, the Board of Governor’s Distinguished Faculty Award, and the Board of Governors Distinguished Faculty Fellowship. She also won the final prize in the Esteren-Fluck & Van Lohuizen Foundation’s international competition for new research models, for her essay “Applying Interdisciplinary Models to Design, Planning, and Policy Making,” and received the Kenneth Boulding Award for outstanding scholarship on interdisciplinarity. In addition, she has represented the United States at an OECD-sponsored international symposium on interdisciplinarity in Sweden and at UNESCO-sponsored symposia on transdisciplinarity in Portugal and in France. In 1997-98, she was Senior Fellow at the Association of American Colleges and Universities (AACU), and in Fall 2008 she was an invited Visiting Fellow in the Institute for the Humanities at the University of Michigan. Klein consults widely throughout North America. In addition to helping numerous colleges and universities develop interdisciplinary programs, she was a member of AACU’s first national Task Force on Interdisciplinary Studies, served as a consultant for AACU’s Asheville Institute on General Education, and was a member of AACU’s national task force on Integrative Learning. From 1997–2000, Klein was a Member of the national Academic Assembly Council of The College Board, and from 1999–2000 served as a Member of the Association for Integrative Studies Task Force on Accreditation. In addition, she advised the National Institutes of Health, the National Academies of Science, and the National Science Foundation on interdisciplinary research and education.

Klein is active internationally as well. In 1978-79 she was Visiting Foreign Professor at Shimane University in Matsue, Japan; in 1987, a Fulbright Lecturer at Tribhuvan University in Nepal; in 1991, an Academic Specialist sponsored by the United States Information Agency in Kathmandu; and, in 1995, a Foundation Visitor at the University of Auckland, New Zealand. In addition, she has spoken on interdisciplinarity in Brazil, Mexico, Uruguay, Australia, and Russia; and served as invited member of the planning board for the Swiss National Science Foundation’s international conference on transdisciplinary approaches to sustainability in 2000. More recently, she has served as a member of the Academy of Finland’s Integrative Research team in Helsinki, a member of the (US) National Academies of Science task force on modernizing the National Science Foundation’s taxonomy for classifying fields of science and engineering, and an advisor to the Royal Netherlands Academy of Arts and Sciences on evaluation of inter- and transdisciplinary research.

**PLENARY SESSION-III**

**DISTINGUISHED SPEAKER**

**Christian Pohl**

Monday, May 24, 4:30 pm - 5:00 pm

**Co-Director**

**Transdisciplinary-net of the Swiss-Academies of Art and Science**

From Transdisciplinarity to Transdisciplinary Research

Dr. Christian Pohl is co-director of the transdisciplinary-net of the Swiss-Academies of Art and Science and senior researcher and lecturer at the Department of Environmental Sciences at ETH Zurich. He was trained in environmental sciences and wrote a doctoral thesis on how to handle uncertainties in environmental assessments by using fuzzy sets. As a postdoc he moved to the field of science and technology studies, where he analyzed the collaboration of natural and social scientist in Swiss and Swedish policy-driven environmental research. In 2003 he became co-director of td-net for transdisciplinary research of the Swiss Academies of Arts and Sciences (http://www.transdisciplinarity.ch/e). Td-net’s aim is to strengthen bridges academic as well as non-academic expert knowledge. During the last years Christian Pohl’s work at td-net focused on the methodological particularities of transdisciplinary knowledge production. Out of this work he published, amongst others, the Principles for Designing Transdisciplinary Research (2007) and co-edited the Handbook of Transdisciplinary Research (2008), both providing practical examples, theoretical basics and tools for collaborative knowledge production. Christian Pohl’s main field of research and publication is the analysis and design of transdisciplinary research, specifically in the field of sustainability sciences, and with a particular interest in the collaboration between natural and social sciences and the science-policy interrelation (http://www.envphil.ethz.ch/people/pohlc/index).
Admiral B. R. Inman
Managing Director of Gefinor Ventures and Limestone Ventures

Admiral Inman graduated from the University of Texas at Austin in 1950, and from the National War College in 1972. He became an adjunct professor at the University of Texas at Austin in 1987. He was appointed as a tenured professor by the Lyndon B. Johnson Centennial Chair in National Policy in August 2001. He served as interim Dean of the LBJ School of Public Affairs from January 1 to December 2005 and was appointed in January 2009 to serve as interim Dean a second time.

Admiral Inman served in the U.S. Navy from November 1951 to July 1982, when he retired with the permanent rank of Admiral. While on active duty he served as Director of the National Security Agency and Deputy Director of Central Intelligence. After retirement from the Navy, he was Chairman and Chief Executive Officer of the Microelectronics and Computer Technology Corporation (MCC) in Austin, Texas for four years and Chairman, President and Chief Executive Officer of Westmark Systems, Inc., a privately owned electronics industry holding company for three years. Admiral Inman also served as chairman of the Federal Reserve Bank of Dallas from 1987 through 1990.

Admiral Inman’s primary activity since 1990 has been investing in start-up technology companies, where he is a Managing Director of Gefinor Ventures and Limestone Ventures. He is a member of the Board of Directors of Massey Energy Company and of several privately held companies. He serves as a Trustee of the American Assembly and the California Institute of Technology. He is an elected Fellow of the National Academy of Public Administration.

Conference Dinner
Monday, May 24, 2010, 7:00 pm - 9:30 pm
Lynda McCombs Room

SPECIAL EVENTS ON
Tuesday, May 25, 2010

PLENARY SESSION-IV
DISTINGUISHED SPEAKER
Basarab Nicolescu
Tuesday, May 25, 9:00 am - 9:30 am

Methodology of Transdisciplinarity - Levels of Reality, Logic of the Included Middle and Complexity

Theoretical physicist at the Centre National de la Recherche Scientifique (CNRS), Paris, France. Professor at the Babes-Bolyai University, Cluj-Napoca, Romania. Member of the Romanian Academy. Founding member of ISSR, President-Founder of the International Center for Transdisciplinary Research and Studies (CIRET), a non-profit organization (165 members from 26 countries), which has a web site at: http://basarab.nicolescu.perso.sfr.fr/ciret/index.html. Founder and Director of the Transdisciplinarity Series, Rocher Editions, Monaco, of the Romanians in Paris Series, Oxus Editions, Paris and of the Science and Religion Series, Curtea Veche, Bucharest (in collaboration with Magda Stavinschi). A specialist in the theory of elementary particles, Basarab Nicolescu is the author of 130 articles in leading international scientific journals, has made numerous contributions to science anthropology and participated in several dozen French radio and multimedia documentaries on science. Basarab Nicolescu is a major advocate of the transdisciplinary reconciliation between Science and the Humanities. He published many articles on the role of science in the contemporary culture in journals in USA, France, Romania, Italy, United Kingdom, Brazil, Argentina and Japan. His books include: Manifesto of Transdisciplinarity, State University of New York (SUNY) Press, New York, 2002; Nous, la particule et le monde, Rocher, Monaco, 2002 (2nd edition); Science, Meaning and Evolution - The Cosmology of Jacob Boehme, Parabola Books, New York, 1991. He edited recently Transdisciplinarity - Theory and Practice, Hampton Press, Cresskill, New Jersey, 2008. A complete biobibliography of Dr. Basarab Nicolescu can be found on the page: http://basarab.nicolescu.perso.sfr.fr/Basarab/index.html

GOLD MEDAL OF HONOR LECTURE SERIES
C. V. Ramamoorthy
Tuesday, May 25, 9:30 am - 10:00 am

C. V. Ramamoorthy
University of California
Berkeley, CA

Dr. Ramamoorthy’s distinguished career tracks back to the 1960s. In 1961, while working as a scientist for Honeywell, Ramamoorthy developed the entire microcode to handle instruction sequencing and control for the H290, Honeywell’s first transistorized system. The H290 was a general-purpose, stored-program digital computer designed for process monitoring and control. In the late 1960s, Ramamoorthy joined the University of Texas, Austin, as a professor of electrical engineering and computer science, later becoming chair of the computer science department. At UC Berkeley, where he joined the faculty in 1972, Ramamoorthy is an emeritus professor of Electrical Engineering and computer science. Most recently, his research investigations have focused on service industries, functions, features, and control and the relationships between software and service engineering. IEEE Society has honored Ramamoorthy’s achievements with the Taylor L. Booth Education Award in 1989, the Richard E. Merwin Distinguished Service Award in 1993, Golden Core recognition in 1966, and Tsutomu Kanai Award in 2000. He also received the IEEE Centennial Medal and the IEEE Third Millennium Medal. He has been an IEEE Fellow since 1978 and is a Fellow of the Society for Design and Process Science, from which he received the R.T. Yeh Distinguished Achievement Award in 1997. A longtime Computer Society volunteer, Ramamoorthy was founding editor in chief of IEEE Transactions on Knowledge and Data Engineering and served as editor in chief of IEEE Transactions on Software Engineering. He holds two undergraduate degrees in Physics from India. He obtained two graduate degrees in Mechanical Engineering from University...
of California at Berkeley, and two graduate degrees in Applied mathematics and Computer Sciences from Harvard.

KEYNOTE PANEL-III
Making The World A “Better Place”
Looking for long-term sustainable solutions
Tuesday, May 25, 10:20 am- 12:00 pm
Chair: Dr. Fuad Gattaz Sobrinho

Service to Humanity: Get to know the poor in your country. Love them. Serve them.

Mother Teresa

KEYNOTE PANEL-III
DISTINGUISHED PANELISTS

Lily Yeh
Founding Director and Lead Artist
Barefoot Artists, Inc.
(see Luncheon Speaker for short bio)

Reverend Heng Sure
Managing Director of the Berkeley Buddhist Monastery
(see Keynote Panel-I for short bio).

Bob Block
Chairman
3-D Business Tools, CA
(see Keynote Panel-I for short bio)

Amy Wong Mok
CEO
Asian American Cultural Center, and
President
Asian American Community Partnership
A psychotherapist by training, Amy is the Founder and CEO of the Asian American Cultural Center and the President of the Asian American Community Partnership. Amy has chaired the Telecommunication Commission for the City of Austin and was the Vice Chair of the Citizen Advisory Committee of the 2004 City Bond. Amy has served on leadership role of National and State Board on ending violence against women. Locally, she has served on the boards of Capital Area United Way, the People Community Clinic and the Austin Children’s Museum. Amy is currently on the board of the Long Center for Performing Arts and is a community council member of the Community Action Network. She is a member of the Dashboard Committee and a member of the 2010 Census Complete Count Committee.

Amy is devoted to the betterment of society through her active involvement in social issues, particularly those concerning cultural diversity and the welfare of women. Because of her promotion of cultural understanding, her love for diversity, her passion for social justice and her efforts to create social change, Amy has been honored with her being selected as one of the American Trustees (www.americantrusteesproject.org).

Margo Dover
Executive Director
Skillpoint Alliance
Margo Dover, has been the executive director of Skillpoint Alliance since June 1996. Skillpoint builds partnerships among industry, education and the community leading to college and career success for Central Texans, while meeting employers’ needs for a qualified workforce. Dover’s greatest strength is her 100% belief that every life has meaning and that it is imperative that everyone served by Skillpoint will realize their best potential. Prior to coming to Skillpoint she spent much of her career as an international business specialist. During the 1980s she lived in Spain and Argentina where she was a co-founder and marketing director for Columbus International College, an American Community College program created for foreign students hoping to continue their post-secondary educations in the United States. Upon her return from Argentina, Dover did international business consulting until she was hired as the Director of the Texas International Center for the Texas Department of Economic Development where she planned, implemented and managed programs, events and initiatives designed to increase trade activity between Texas businesses and foreign markets. After leaving government service Dover became the Founder and CEO of Trade Catalyst, Inc., a firm that combined technology with strategic partnerships to offer qualified trade leads for small and medium-sized companies worldwide. As Austin’s economy shifted in 2000 Dover had the opportunity to move in a new direction and became the Vice President for Development for Meals on Wheels and More where she had sole responsibility for a $3.2 million capital campaign as well as the day-to-day fund raising for the organization. She has been a volunteer and/or board director for Austin Shelter Rescue, the Equestrian Aid Foundation “The Ride for Hope”, Ninos Para Ninos/Kids for Kids and many other charitable organizations throughout the years.

Panel objective
How should our higher educational system respond to the massively interconnected diversity, rapidly changing and explosive world of 21st century? This panel will explore the necessity of a transdisciplinary, transcultural, and transnational (T³) curriculum as a key part of our response.

Reverend Heng Sure
Managing Director of the Berkeley Buddhist Monastery
(see Keynote Panel-I for short bio)

Bob Block
Chairman
3-D Business Tools, CA
(see Keynote Panel-I for short bio)

Amy Wong Mok
CEO
Asian American Cultural Center, and
President
Asian American Community Partnership
A psychotherapist by training, Amy is the Founder and CEO of the Asian American Cultural Center and the President of the Asian American Community Partnership. Amy has chaired the Telecommunication Commission for the City of Austin and was the Vice Chair of the Citizen Advisory Committee of the 2004 City Bond. Amy has served on leadership role of National and State Board on ending violence against women. Locally, she has served on the boards of Capital Area United Way, the People Community Clinic and the Austin Children’s Museum. Amy is currently on the board of the Long Center for Performing Arts and is a community council member of the Community Action Network. She is a member of the Dashboard Committee and a member of the 2010 Census Complete Count Committee.

Amy is devoted to the betterment of society through her active involvement in social issues, particularly those concerning cultural diversity and the welfare of women. Because of her promotion of cultural understanding, her love for diversity, her passion for social justice and her efforts to create social change, Amy has been honored with her being selected as one of the American Trustees (www.americantrusteesproject.org).

Margo Dover
Executive Director
Skillpoint Alliance
Margo Dover, has been the executive director of Skillpoint Alliance since June 1996. Skillpoint builds partnerships among industry, education and the community leading to college and career success for Central Texans, while meeting employers’ needs for a qualified workforce. Dover’s greatest strength is her 100% belief that every life has meaning and that it is imperative that everyone served by Skillpoint will realize their best potential. Prior to coming to Skillpoint she spent much of her career as an international business specialist. During the 1980s she lived in Spain and Argentina where she was a co-founder and marketing director for Columbus International College, an American Community College program created for foreign students hoping to continue their post-secondary educations in the United States. Upon her return from Argentina, Dover did international business consulting until she was hired as the Director of the Texas International Center for the Texas Department of Economic Development where she planned, implemented and managed programs, events and initiatives designed to increase trade activity between Texas businesses and foreign markets. After leaving government service Dover became the Founder and CEO of Trade Catalyst, Inc., a firm that combined technology with strategic partnerships to offer qualified trade leads for small and medium-sized companies worldwide. As Austin’s economy shifted in 2000 Dover had the opportunity to move in a new direction and became the Vice President for Development for Meals on Wheels and More where she had sole responsibility for a $3.2 million capital campaign as well as the day-to-day fund raising for the organization. She has been a volunteer and/or board director for Austin Shelter Rescue, the Equestrian Aid Foundation “The Ride for Hope”, Ninos Para Ninos/Kids for Kids and many other charitable organizations throughout the years.

Panel objective
How should our higher educational system respond to the massively interconnected diversity, rapidly changing and explosive world of 21st century? This panel will explore the necessity of a transdisciplinary, transcultural, and transnational (T³) curriculum as a key part of our response.

Reverend Heng Sure
Managing Director of the Berkeley Buddhist Monastery
(see Keynote Panel-I for short bio)

Bob Block
Chairman
3-D Business Tools, CA
(see Keynote Panel-I for short bio)

Amy Wong Mok
CEO
Asian American Cultural Center, and
President
Asian American Community Partnership
A psychotherapist by training, Amy is the Founder and CEO of the Asian American Cultural Center and the President of the Asian American Community Partnership. Amy has chaired the Telecommunication Commission for the City of Austin and was the Vice Chair of the Citizen Advisory Committee of the 2004 City Bond. Amy has served on leadership role of National and State Board on ending violence against women. Locally, she has served on the boards of Capital Area United Way, the People Community Clinic and the Austin Children’s Museum. Amy is currently on the board of the Long Center for Performing Arts and is a community council member of the Community Action Network. She is a member of the Dashboard Committee and a member of the 2010 Census Complete Count Committee.

Amy is devoted to the betterment of society through her active involvement in social issues, particularly those concerning cultural diversity and the welfare of women. Because of her promotion of cultural understanding, her love for diversity, her passion for social justice and her efforts to create social change, Amy has been honored with her being selected as one of the American Trustees (www.americantrusteesproject.org).
W.T. Chen is the president of the National Tsing Hua University in Taiwan. He has been with the National Tsing Hua University since 1976 and is currently a Chair Professor of the Department of Computer Science. He has served as Department Chairman, Dean of College of Electrical Engineering & Computer Science, and Director of Science & Technology Advisory Office, Ministry of Education. He has consulted in various levels of Taiwan Government and served as a member of many planning and technical review boards. For 15 years, Professor Chen has served as Co-Chairman and Chairman of the Technical Evaluation Board of the Ministry of Economic Affairs for Promoting High-Tech Products and Technologies, which is recognized as most pivotal in promoting industrial technologies in Taiwan. Professor Chen pioneered the design of computer networks and parallel systems in early 1980s. He is currently leading a project for design and applications of advanced information networks. He has received numerous awards for his achievements in computer networking and parallel processing, including Outstanding Research Awards of the National Science Council, National Chair of the Ministry of Education, and Technical Achievement Award of the IEEE Computer Society. Professor Chen was the General Chair of the 2000 IEEE International Conference on Distributed Computing Systems and the Founding General Chair of the IEEE International Conference on Parallel and Distributed Systems. He is an IEEE Fellow.

Dr. Fuad G. Sobrinho received a double-major PhD in Computer Science and Management Science from the University of Maryland in 1984. He is a Distinguished Professor at the University of Dortmund, a Distinguished Research Professor at the New Jersey Institute of Technology and a Fellow of the Society for Design and Process Science (SDPS). Dr. Sobrinho is the former Executive Director of EMBRAPA, the Brazilian Research Enterprise for Agriculture which networks the Brazilian National Research Centers in multiple areas of knowledge. He is also founder of the National Research Center for Agriculture Informatics within EMBRAPA and he served as the Secretary Executive on the Board of Directors of the Brazilian International Institute on Systems Integration (IIISis) from 1993 through 2002. He is the founder of P3 Technology and the Software Plant Process Technology integrating Business and Software Development as a Transdisciplinary Environment and he is founder and Coordinator of the first Software Plant Process Initiative in Brazil 1985–1990. Dr. Sobrinho unified the conflicting concepts of business and software components as a Whole Transdisciplinary Concept of Components. He is the founder of the First Public Cooperation Network for the Design and Simulation of Processes which greatly improved competence and creativity which has contributed to the wealth and prosperity of all human beings. Dr. Sobrinho was a board member of the Journal of Systems Integration. He has published several papers and books which illuminate transdisciplinary problems and he is currently developing a transdisciplinary curriculum for design and process science to be shared in a Transnational Collaboration Network.

Dr. Jeffrey J.P. Tsai received his Ph.D. degree in Computer Science from Northwestern University in Evanston, Illinois. He is a Professor of Computer Science and the Director of the Distributed Real-Time Intelligent Systems Laboratory at the University of Illinois at Chicago. He is also a Chair Professor at National Chiao-Tung University, a Senior Research Fellow of IC2 at the University of Texas at Austin, and an Adjunct Professor in the School of Public Health and Tropical Medicine at Tulane University. He was a Visiting Computer Scientist in the U.S. Air Force Rome Laboratory in 1994. His research has been supported by U.S. National Science Foundation, U.S. Air Forces Research Laboratory, U.S. Army Research Laboratory, the Defense Advanced Research Projects Agency in the U.S. Department of Defense, Motorola, Fujitsu, etc. The technology on knowledge-based software engineering developed by him and his research team resulted in the world first complete transformation of an embedded software product in 1993 and is now used to produce communication software systems world wide. He is an author of 10 books and over 230 publications in the areas of knowledge-based software engineering, software architecture, formal modeling and verification, distributed real-time systems, bioinformatics, sensor networks, ubiquitous computing, trustworthy computing, intrusion detection, multimedia systems, and intelligent agents. He has chaired or co-chaired over 20 IEEE-sponsored international conferences including the 16th IEEE International Symposium on Software Reliability Engineering, the 9th IEEE International Symposium on Multimedia, the 1st IEEE International Conference on Sensor Networks, Ubiquitous, and Trustworthy Computing, the 3rd IFIP International Conference on Ubiquitous Intelligence and Computing, and the 5th IEEE International Symposium on Bioinformatics and Biotechnology. He also chaired the IEEE Technical Committee on Multimedia Computing and was on the steering committee of the IEEE Transactions on Multimedia. Currently, he is the Editor-in-Chief of Book Series on Health Informatics, the Co-Editor-in-Chief of International Journal of Artificial Intelligence Tools, and is on the editorial board of International Journal of Web Services.
Research, Journal of Ubiquitous Computing and Intelligence, Encyclopedia of Computer Science and Engineering, Wiley, International Journal of Cognitive Informatics and Natural Intelligence, International Journal of Semantic Computing, and International Journal of Software Engineering and Knowledge Engineering. He has also served on the DARPA ISAT working group and on the review panel for NSF and NIH. He was an IEEE Distinguished Speaker from 1993 to 1996. He received an Engineering Foundation Research Award from the IEEE and the Engineering Foundation Society in 1988, a University Scholar Award from the University of Illinois Foundation in 1994, an IEEE Meritorious Service Award from the IEEE Computer Society in 1994, and an IEEE Technical Achievement Award from the IEEE Computer Society in 1997. He was the Founding President of Asia University and is a Fellow of the AAAS, the IEEE, and the SDPS.

Dr. Clifford B. Fedler
Professor Civil and Environmental Engineering,
Associate Dean, Graduate School, Texas Tech University

Dr. Fedler completed his undergraduate studies in 1979 at Iowa State University in Agricultural Engineering with a specialty in Structures and Environment. After receiving his dual MS degrees in Civil Engineering (Environmental Engineering) and Agricultural Engineering at Iowa State in 1981, he continued his studies at the University of Illinois. Upon receiving his Ph.D. degree in June of 1985 he moved to Texas Tech University. Since arriving at Texas Tech, Dr. Fedler has published more than 160 technical papers and has obtained over 75 research grants totaling over $9 million. Dr. Fedler has been involved in various activities related to waste processing/recycling, waste to energy, biomass production from waste, and mathematical modeling. His research emphasis has included use of wetlands for waste treatment, on-site surface application systems, single cell protein and algae production from wastewater, energy production from agricultural crops, use of additives for enhanced waste fermentation, and the production of high-value products from wastewater. Two of Dr. Fedler’s publications have received the Top 10 Paper awards in the TRANSACTIONS of ASABE and has received the Technical Paper and Presentation Award from the American Society for Engineering Education. Dr. Fedler was also named the Engineer of the Year for the Texas Section of ASABE. He has worked as a consultant to the largest land application systems in Texas and serves on the board for a biomass gasification company.

PLENARY SESSION-V
DISTINGUISHED SPEAKER
Bruce M. Kramer
Tuesday, May 25, 3:30 pm - 4:00 pm

Dr. Bruce M. Kramer
National Science Foundation
Senior Advisor for Engineering and coordinator of interdisciplinary and cross-directorate activities in the Division of Civil, Mechanical and Manufacturing Innovation.

Encouraging Interdisciplinary Research at the National Science Foundation

BRUCE M. KRAMER is a graduate of the Massachusetts Institute of Technology (B.S., M.S. 1972, Ph.D. 1979). Dr. Kramer co-founded and was Director of Engineering of Zoom Technologies, Inc. of Boston, Massachusetts, a NASDAQ company and leading producer of modems and wireless networking products marketed under the Zoom, Hayes, Practical Peripherals, and Global Village brands. He is the holder of three U.S. patents and has consulted to and conducted research projects on behalf of major industrial companies including General Electric, United Technologies, Boeing, Lockheed and Cincinnati Milacron. He served on the faculty of Mechanical Engineering at MIT from 1979 to 1985 and of George Washington University from 1985 to 1995. Since 1991, he has been at the National Science Foundation, as Program Director for Materials Processing and Manufacturing, Director of the Division of Design, Manufacture and Industrial Innovation, Director of the Division of Engineering Education and Centers, and coordinator of Nanoscale Science and Engineering Centers for the Directorate for Engineering. He is currently the Senior Advisor for Engineering and coordinator of interdisciplinary and cross-directorate programs in the Division of Civil, Mechanical and Manufacturing Innovation. Dr. Kramer studied Japanese manufacturing industries as a visiting researcher in the Department of Mechanical Engineering for Production at the University of Tokyo in 1989. During the 1998-99 academic year, he taught product development and manufacturing at the University of California, Berkeley as a visiting scholar in the Department of Mechanical Engineering. Professor Kramer was conferred the rank of Fellow of the School of Engineering at the University of Tokyo in 2007. He has also been awarded the F.W. Taylor Medal of the International Institution for Production Engineering Research, the Blackall Award of the American Society of Mechanical Engineers and the R.F. Bunshah Medal of the International Conference on Metallurgical Coatings, all in recognition of outstanding contributions to the manufacturing research literature. In 1996, he received the Distinguished Service Award, the highest honorary award granted by the National Science Foundation.
Atila Ertas has been the driving force behind the conception and the development of the transdisciplinary model for education and research. His pioneering efforts in transdisciplinary research and education have been recognized internationally by several awards of Society for Design and Process Science (SDPS). Dr. Ertas established The Academy for Transdisciplinary Learning and Advanced Studies (TheATLAS) as non-profit organizations that fund transdisciplinary research and educational activities. In 2008, he created a non-profit organization called International Transdisciplinary Scientists’ Village (Its-Village). Currently, he is the founding president of this organization and looking for extraordinary people to develop the organization. He has developed the Transdisciplinary Learning and Advanced Studies (TheATLAS) as an educational initiative.

Vicki Rainey is a native of Dyersburg, Tennessee. She received her B.S. in Secondary Education from the University of Tennessee – Martin (1968), an M.S. in Mathematics from the University of Mississippi (1970), a Ph.D. in Higher Education (mathematics concentration) at the University of Mississippi (1979), and an M.A. in Counseling from Amberton University (2001). Dr. Rainey began her career as a math teacher for the Memphis City Schools from 1969 through 1975. In the Fall of 1975, she joined the mathematics staff at Shelby State Community College (consolidated as a part of Southwest Tennessee Community College) where she attained the rank of Associate Professor of Mathematics. In November of 1980, Dr. Rainey left West Tennessee to work as a software engineer for E-Systems, a small defense company in the suburbs of Dallas, Texas. In 22 years at the Texas location, including acquisition by the defense giant Raytheon, she rose to the rank of Director, Software Engineering responsible for the management and technical direction of up to 850 engineers.

As Director, Software Engineering, Dr. Rainey worked with several universities to aid in the coordination of industrial needs and academic curricula. She was also active in the efforts to integrate engineering concepts into other academic areas through sponsoring of transdisciplinary education. Dr. Rainey presented her ideas through publications, national presentations, international presentations, and development of societies and academies to further these ideas. Her involvement with the theory behind the way engineering processes blend with other subjects and the way engineers approach problem solving, led her to pursue a degree in counseling. After completing her counseling degree and “retiring” from Raytheon to return home, Dr. Rainey was hired as an instructor of developmental mathematics at Dyersburg State Community College. Currently, Dr. Rainey is the President of the Academy of Transdisciplinary Learning and Advanced Studies (TheATLAS).

Dr. Gunay Anlas is the chairman of the Mechanical Engineering Department and the Vice President for Industrial Relations at the Bogazici University. He is the founder (2003) and previous director (2003-2004) of Automotive Engineering Program at this university. He has served as the associate provost in charge of international programs of the university between 2001-2004. He obtained his B.S. in Mechanical Engineering from the Middle East Technical University, Turkey in 1985; his M.S. in Mechanical Engineering from Texas Tech University in 1988, and his Ph.D. in Mechanical Engineering, from University of Delaware in 1992. His current research interests are in the area of fracture mechanics of FGMs and Shape Memory Alloys. He is also working on automotive engineering projects in collaboration with Turkish Automotive Industry.
A Potential Cooperative Initiative between TheATLAS, Iyengar Medical & Educational Foundation (IMEF), Village and Others

Proposal Submitted to Its-Village

by

Puneeth Iyengar, MD, PhD
Radiation Oncology
UT Southwestern Medical Center, Dallas, TX

The Development and Implementation of Clinical Trials for Underrepresented Groups in Southern India – Providing Education and Knowledge while Preventing Exploitation

Proposal Description

Historically, in the United States and developed countries, the use of medications and treatments for various illnesses including cancer, diabetes, heart disease, etc. are approved by federal agencies and validated by evaluation in randomized, prospective clinical trials. Only those treatments or medications thought to provide benefit in the medical care of individuals are deemed appropriate for use.

By definition, a phase III clinical trial is a process by which new treatments or medications are tested on human subjects to determine whether they are more advantageous to patients than our current options. There are many difficulties in conducting clinical trials – cost of running the trial, attempts at accruing a diverse, yet uniform patient population allowing for generalization of results, the long follow-up needed to ensure efficacy of treatment with limited side effects, potential bias of trials if financially supported by the companies that make the medications, etc. Recent efforts have been made to create public-private enterprises that optimally run these clinical trials while maintaining some financial and professional integrity.

In developing countries, many of these difficulties in conducting clinical trials are amplified. Federal agencies are not equipped to handle the complex oversight necessary to promote efficacious studies, the money to drive these trials is lacking which places a greater need on industry causing potentially greater conflicts of interest, and there exists a larger potential selection bias. This is disheartening from purely a question of statistical significance: in India, for instance, due to the large patient population, a clinical trial could theoretically accrue 100,000-500,000 individuals when compared to studies in the US that may at best accrue 20,000 people. Leveraging the large Indian populations to generate robust randomized, clinical trial results which would be able to clearly show statistical significance even for small benefits is a must.

And yet, in certain urban and rural centers here in the US and poverty stricken centers of India, there are limited opportunities for these individuals to be represented in clinical trials or their outcomes. All too often, studies performed in developed countries leave out minority ethnic groups, leading to results from these trials that may not always be generalizable to these people. In developing countries, these same trials do more than ignore minority groups. They attempt to accrue individuals onto trials of poor socioeconomic status with the offer of limited compensation. This is done without clearly educating these individuals of the true pros and cons of taking part in these clinical studies, i.e. the lack of an informed consent process.

Through a multi-organizational approach of non-profit and academic enterprises, we propose creating a new system and process of incorporating both underrepresented and socioeconomically challenged individuals onto prospective clinical trials in developing countries. Part of this effort will be to provide more education on the benefits and risks of becoming part of these studies. Another function will be to ensure adequate representation of all groups in the randomization procedures for these clinical trials.

As part of our vision at IMEF, we have begun to work with local villages and their people in Southern India to provide greater access to basic, fundamental treatments and physicians-driven care. What we have observed, however, is a significant disregard for standard treatments and preventive healthcare among these villagers. As we attempt to help in developing a health care infrastructure for these people, we also wish for them to be part of a proper clinical trials system that may provide them with great benefits in the future. Without education and access, these villagers will be left behind from a health care prospective. Newer methods of preventive medicine measures could be tested in very controlled settings of clinical trials within these villages to promote the most basic healthcare tenets with the right financial and structural backing. Our ultimate goal is to create an environment through which underrepresented minorities and those of poor socioeconomic backgrounds can take part in clinical trials with adequate education and safeguards to ensure the lack of any form of exploitation. Such a system should be of benefit to all individuals in developing countries, hence driving a vested interest from NGOs, the government, academic institutions, and industry.
Jim Brazell's life work is about moving from knowledge to action and engaging real world challenges and opportunities to create new possibilities for the world. His work over the past ten years is situated within the practice of transdisciplinarity—acting beyond disciplines and institutional boundaries. In 2010, Jim will speak at two transdisciplinary congresses in the US in addition to educating over 20,000 teachers about the role transdisciplinarity and innovation play in the 21st century. His vision for integrated academic, arts and career and technical education was heard by the President’s Council of Advisors on Science and Technology (PCAST) in October of 2009.

Jim’s view is that science, technology, engineering and mathematics (STEM) are keys to innovation dependent on the inclusion of the humanities and arts for primary and secondary education practice. Jim advocates a shift from narrowly defined STEM initiatives to TEAMS embracing transdisciplinarity—movement beyond disciplines to engage the world systematically and holistically.

Jim Brazell is a professional speaker, workshop leader and analyst. His customers include schools, workforce boards and economic development groups globally. His publications include emerging technology forecasts, analysis and strategy for economic development, workforce, and education stakeholders. Jim is a Discovery Institute, Gilder’s Fellow in High Technology, Entrepreneurship and Public Policy. He graduated in 1995 from Bradley University with a degree in Sociology (emphasis, Sociology of Science), Summa Cum Laude. Brazell’s mentor is Francis X. Kane (USAF. Lt. Col., ret.), a principal member of “Project Forecast,” was recognized as the military father of the global positioning system (GPS) by US Space and Missile Command in March of 2010.

Daniel E. Cooke serves as the Paul Whitfield Horn Professor of the Computer Science Department at Texas Tech University and as Director of its Center for Advanced Intelligent Systems. Previously, Dr. Cooke served as the Manager of NASA’s Intelligent Systems Program, a national research initiative in computer science aimed at NASA relevant problems. Cooke led the activities to establish the technical content of the program, took it from formulation to implementation, and helped establish the program office, which he headed at NASA Ames Research Center in Mountain View, California.

Since 1990, Dr. Cooke has published more than 90 technical papers in the areas of computer language design and software engineering. He has served as PI or Co-PI on research grants totaling more than $14 million, edited many journal special issues, published a book on Computer Language Design, edited a book on Computer Aided Software Engineering, and served as chair or vice-chair for 17 international conferences or workshops. He currently serves as the Chair of the NASA Ames Research Institute for Advanced Computer Science Scientific Advisory Council, Software Engineering Area Editor for IEEE Computer, the Formal Methods Area Editor of the International Journal of Software Engineering and Knowledge Engineering, and as an editor of the International Journal of Semantic Computing.

Dr. Cooke has been an American Electronics Association Fellow, a MacIntosh-Murchison Faculty Fellow, and held the MacIntosh-Murchison Chair in Engineering at U.T. El Paso. In 1996 he was the recipient of the University of Texas at El Paso’s Distinguished Achievement in Research Award. In 2001, Dr. Cooke received the NASA Ames Research Center Information Sciences Award for leadership in establishing a Model Strategic Research Initiative for NASA. In 2002, he received the NASA Exceptional Achievement Medal and the NASA Group Award, for Contributions to the CICT program. In 2006 he was the recipient of the IEEE Computer Society's Technical Achievement Award.

Dr. Cooke discovered two new computational laws upon which computing can be based, leading to the language SequenceL. SequenceL has been used to prototype Guidance, Navigation, and Control Systems for the space shuttle and the crew exploration vehicle.

A byproduct of the laws is the identification of parallelisms inherent in a problem solution. In June, 2009 Texas Multicore Technologies, Inc was founded to commercialize a SequenceL to multicore compiler. The company is now working with leading software and hardware companies to improve their ability to parallelize their codes for multicore processing.

Panel Objective

In India, an unfortunately large percentage of the economically deprived population falls prey to diseases which are largely preventable and treatable in the western world. Poverty, illiteracy and lack of access to basic healthcare have been the major causes contributing to this. The objective of this Keynote Panel is focused on transnational healthcare resources, practices and perspectives.

Sitharma S. Iyengar
Roy Paul Professor
Computer Science Department
Louisiana State University

Dr. S.S. Iyengar is currently the Roy Paul Daniels Professor and Chairman of the Computer Science Department at Louisiana State University. He heads the Wireless Sensor Networks
Laboratory and the Robotics Research Laboratory at LSU. He has been involved with research in high Performance Algorithms, Data Structures, Sensor Fusion, Data Mining, and Intelligent Systems. Since receiving his Ph.D. degree in 1974 from MSU, USA. He has directed over 40 Ph.D. students and 100 Master’s students, many of whom are faculty at major universities worldwide or scientists or engineers at national labs/industries around the world. He has published more than 380 research papers and has authored/co-authored 6 books and edited 7 books. His books are published by John Wiley & Sons, CRC Press, Prentice Hall, Springer Verlag, IEEE Computer Society Press etc. One of his books titled “Introduction to Parallel Algorithms” has been translated to Chinese. His research has been funded by National Science Foundation (NSF), Defense Advanced Research Projects Agency (DARPA), Multi-University Research Initiative (MURI Program), Office of Naval Research (ONR), Department of Energy / Oak Ridge National Laboratory (DOE/ORNL), Naval Research Laboratory (NRL), National Aeronautics and Space Administration (NASA), US Army Research Office (URO) and various state agencies and companies. He has served on US National Science Foundation and National Institute of Health Panels to review proposals in various aspects of Computational Science and has been involved as an external evaluator (ABET-accreditation) for several Computer Science and Engineering Departments. Dr. Iyengar’s contributions to teaching and research have been recognized by numerous honors and awards.

Dr. Shalin J. Shah is presently a doctor at the MD Anderson Cancer Center, Houston, TX. He obtained his M.D. from Albert Einstein College of Medicine and the undergraduate degree from Cornell University. His specialty is Radiation Oncology which explores different aspects of treatments.

Dr. Puneeth Iyengar is currently a resident at MD Anderson Cancer research center. He obtained his M.D., Ph.D. from Albert Einstein College of Medicine and he has published large numbers of papers in the areas of cancer related sciences. He obtained his undergraduate degree from MIT.

Dr. Ganguly has 18 years of professional experience in Computing Science & Engineering industry. His research work is concentrated around networking, very large distributed systems and information security. His career has spanned companies like Novell Inc, Iomega, Xyratex Corp, etc. His current entrepreneurial emphasis is in health care and information systems in the health network segment. He is currently the Chairman and President of MedGoline, LLC. The motivation of MedGoline is to create an enabling platform for consumer driven medical information network for users to store their medical and health information. MedGoline strives to be a central portal for medical information health related data points. It will help build a healthy consumer society.

Dr. Ganguly has 18 years of professional experience in Computing Science & Engineering industry. His research work is concentrated around networking, very large distributed systems and information security. His career has spanned companies like Novell Inc, Iomega, Xyratex Corp, etc. His current entrepreneurial emphasis is in health care and information systems in the health network segment. He is currently the Chairman and President of MedGoline, LLC. The motivation of MedGoline is to create an enabling platform for consumer driven medical information network for users to store their medical and health information. MedGoline strives to be a central portal for medical information health related data points. It will help build a healthy consumer society.

Dr. Ganguly has 18 years of professional experience in Computing Science & Engineering industry. His research work is concentrated around networking, very large distributed systems and information security. His career has spanned companies like Novell Inc, Iomega, Xyratex Corp, etc. His current entrepreneurial emphasis is in health care and information systems in the health network segment. He is currently the Chairman and President of MedGoline, LLC. The motivation of MedGoline is to create an enabling platform for consumer driven medical information network for users to store their medical and health information. MedGoline strives to be a central portal for medical information health related data points. It will help build a healthy consumer society.

Dr. Shalin J. Shah is presently a doctor at the MD Anderson Cancer Center, Houston, TX. He obtained his M.D. from Albert Einstein College of Medicine and the undergraduate degree from Cornell University. His specialty is Radiation Oncology which explores different aspects of treatments.

Dr. Puneeth Iyengar is currently a resident at MD Anderson Cancer research center. He obtained his M.D., Ph.D. from Albert Einstein College of Medicine and he has published large numbers of papers in the areas of cancer related sciences. He obtained his undergraduate degree from MIT.

Dr. Ganguly has 18 years of professional experience in Computing Science & Engineering industry. His research work is concentrated around networking, very large distributed systems and information security. His career has spanned companies like Novell Inc, Iomega, Xyratex Corp, etc. His current entrepreneurial emphasis is in health care and information systems in the health network segment. He is currently the Chairman and President of MedGoline, LLC. The motivation of MedGoline is to create an enabling platform for consumer driven medical information network for users to store their medical and health information. MedGoline strives to be a central portal for medical information health related data points. It will help build a healthy consumer society.

Dr. Shalin J. Shah is presently a doctor at the MD Anderson Cancer Center, Houston, TX. He obtained his M.D. from Albert Einstein College of Medicine and the undergraduate degree from Cornell University. His specialty is Radiation Oncology which explores different aspects of treatments.

Dr. Puneeth Iyengar is currently a resident at MD Anderson Cancer research center. He obtained his M.D., Ph.D. from Albert Einstein College of Medicine and he has published large numbers of papers in the areas of cancer related sciences. He obtained his undergraduate degree from MIT.

Dr. Ganguly has 18 years of professional experience in Computing Science & Engineering industry. His research work is concentrated around networking, very large distributed systems and information security. His career has spanned companies like Novell Inc, Iomega, Xyratex Corp, etc. His current entrepreneurial emphasis is in health care and information systems in the health network segment. He is currently the Chairman and President of MedGoline, LLC. The motivation of MedGoline is to create an enabling platform for consumer driven medical information network for users to store their medical and health information. MedGoline strives to be a central portal for medical information health related data points. It will help build a healthy consumer society.

Dr. Shalin J. Shah is presently a doctor at the MD Anderson Cancer Center, Houston, TX. He obtained his M.D. from Albert Einstein College of Medicine and the undergraduate degree from Cornell University. His specialty is Radiation Oncology which explores different aspects of treatments.

Dr. Puneeth Iyengar is currently a resident at MD Anderson Cancer research center. He obtained his M.D., Ph.D. from Albert Einstein College of Medicine and he has published large numbers of papers in the areas of cancer related sciences. He obtained his undergraduate degree from MIT.

Dr. Ganguly has 18 years of professional experience in Computing Science & Engineering industry. His research work is concentrated around networking, very large distributed systems and information security. His career has spanned companies like Novell Inc, Iomega, Xyratex Corp, etc. His current entrepreneurial emphasis is in health care and information systems in the health network segment. He is currently the Chairman and President of MedGoline, LLC. The motivation of MedGoline is to create an enabling platform for consumer driven medical information network for users to store their medical and health information. MedGoline strives to be a central portal for medical information health related data points. It will help build a healthy consumer society.

Dr. Shalin J. Shah is presently a doctor at the MD Anderson Cancer Center, Houston, TX. He obtained his M.D. from Albert Einstein College of Medicine and the undergraduate degree from Cornell University. His specialty is Radiation Oncology which explores different aspects of treatments.

Dr. Puneeth Iyengar is currently a resident at MD Anderson Cancer research center. He obtained his M.D., Ph.D. from Albert Einstein College of Medicine and he has published large numbers of papers in the areas of cancer related sciences. He obtained his undergraduate degree from MIT.

Dr. Ganguly has 18 years of professional experience in Computing Science & Engineering industry. His research work is concentrated around networking, very large distributed systems and information security. His career has spanned companies like Novell Inc, Iomega, Xyratex Corp, etc. His current entrepreneurial emphasis is in health care and information systems in the health network segment. He is currently the Chairman and President of MedGoline, LLC. The motivation of MedGoline is to create an enabling platform for consumer driven medical information network for users to store their medical and health information. MedGoline strives to be a central portal for medical information health related data points. It will help build a healthy consumer society.

Dr. Shalin J. Shah is presently a doctor at the MD Anderson Cancer Center, Houston, TX. He obtained his M.D. from Albert Einstein College of Medicine and the undergraduate degree from Cornell University. His specialty is Radiation Oncology which explores different aspects of treatments.

Dr. Puneeth Iyengar is currently a resident at MD Anderson Cancer research center. He obtained his M.D., Ph.D. from Albert Einstein College of Medicine and he has published large numbers of papers in the areas of cancer related sciences. He obtained his undergraduate degree from MIT.

Dr. Ganguly has 18 years of professional experience in Computing Science & Engineering industry. His research work is concentrated around networking, very large distributed systems and information security. His career has spanned companies like Novell Inc, Iomega, Xyratex Corp, etc. His current entrepreneurial emphasis is in health care and information systems in the health network segment. He is currently the Chairman and President of MedGoline, LLC. The motivation of MedGoline is to create an enabling platform for consumer driven medical information network for users to store their medical and health information. MedGoline strives to be a central portal for medical information health related data points. It will help build a healthy consumer society.

Dr. Shalin J. Shah is presently a doctor at the MD Anderson Cancer Center, Houston, TX. He obtained his M.D. from Albert Einstein College of Medicine and the undergraduate degree from Cornell University. His specialty is Radiation Oncology which explores different aspects of treatments.

Dr. Puneeth Iyengar is currently a resident at MD Anderson Cancer research center. He obtained his M.D., Ph.D. from Albert Einstein College of Medicine and he has published large numbers of papers in the areas of cancer related sciences. He obtained his undergraduate degree from MIT.

Dr. Ganguly has 18 years of professional experience in Computing Science & Engineering industry. His research work is concentrated around networking, very large distributed systems and information security. His career has spanned companies like Novell Inc, Iomega, Xyratex Corp, etc. His current entrepreneurial emphasis is in health care and information systems in the health network segment. He is currently the Chairman and President of MedGoline, LLC. The motivation of MedGoline is to create an enabling platform for consumer driven medical information network for users to store their medical and health information. MedGoline strives to be a central portal for medical information health related data points. It will help build a healthy consumer society.
Mr. Chung Chieh Sun works at Attabu Cultural Foundation at Taiwan as a project manager. He has been working on cultural assets preservation for more than 20 years, in particular, the Wufeng Lin Family Cultural Assets Reconstruction. He also works on transcommunity ecosystems to create a balance of human beings and nature. He has been co-teaching the course “Wufeng Studies” at Asia University for six years attempting to integrate community assets and university resources.

As a professional electronics and software engineer, system developer, tester, and evaluator for the past 26 years, Dr. Paul has held many positions in the field of software engineering. Currently, Dr. Paul serves as the technical director for command and control (C2) Policy. In this position, Dr. Paul manages network enabled command and control systems engineering development for objective, quantitative and qualitative measurements. Dr. Paul’s current research focus is on a dynamic integrated theoretic approach to C2 networks from multiple levels from dyadic to global. Understanding multiple concepts, theories at multiple levels along with attributes of nodes and the links may provide insight to better understand C2 organizational networks that are created, maintained, and reconstituted. Lastly, Dr. Paul is developing a methodology for dynamic environment decision making pertaining to real time data from sensors, software/systems and related processes and the risk identification and management framework that includes internal and external variabilities.

Dr. Paul holds a doctorate in software engineering and is an active “Fellow” member of the IEEE Computer Society and SDPS. He has published chapter in 4 books and more than 84 articles on software engineering in various technical journals and symposia proceedings, primarily under DoD and IEEE sponsorship.

**Workshop objective**

The objective of this workshop is to identify transdisciplinary challenges and opportunities for the sustainable design of energy, transportation, building, and manufacturing systems.
Modeling and Simulation of Articular Human Joint Using a Physics Engine by KAHELD ALRASHDAN, MOHAMMAD ALRASHIDI, IBRAHIM ESAT, Brunel University, Department of Mechanical Engineering, Uxbridge, UK.

A Common Collection Assessment Framework for Image Screening Experiments by RICHARD LANDIS, Intelligence and Information Systems, Raytheon Company, Garland, Texas.

A Model for Systematic Strategic Planning and Management by BULENT GUMUS and VERDA DEMIR, TOBB University of Economics and Technology, Ankara, Turkey.

### TECHNICAL PAPER PRESENTATIONS

<table>
<thead>
<tr>
<th>SESSION - 1</th>
<th>Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tools</td>
<td></td>
</tr>
<tr>
<td>Monday May 24</td>
<td>5:00 pm - 5:30 pm</td>
</tr>
<tr>
<td>Organizer and Chair</td>
<td>Dr. D. Tate, Texas Tech University</td>
</tr>
</tbody>
</table>

Emergence as a Tool to Evaluate Complex Systems by JOHN HARMS, Raytheon Company, Dallas, Texas.

Buoy Control Device for the Disabled by MARTY GARCIA, Raytheon Company, Dallas, Texas.

<table>
<thead>
<tr>
<th>SESSION - 2</th>
<th>Human Body Motion Modeling &amp; Generic Optimal Control Algorithms- I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Body Motion Modeling &amp; Generic Optimal Control Algorithms- I</td>
<td></td>
</tr>
<tr>
<td>Wednesday, May 26</td>
<td>3:00 pm - 3:30 pm</td>
</tr>
<tr>
<td>Organizer and Chair</td>
<td>Dr. I. Esat and Dr. N. Ozada</td>
</tr>
</tbody>
</table>

Human Joint Modeling by NERIMAN OZADA, IBRAHIM ESAT, Brunel University, Department of Mechanical Engineering, Uxbridge, UK.

### SESSION - 3

#### Transdisciplinary Aspects of Systems Engineering

Wednesday, May 26, 4:00-5:00 pm
Organizer and Chair: Dr. John Zanoff


Transdisciplinary Tools for Innovative Design Exploration by CHRISTOPHER ADAMS, Network Centric Systems, Raytheon Company, Dallas and DERRICK TATE, Texas Tech University, Mechanical Engineering Department, Lubbock, Texas.


Uncovering the Secrets of Past Disasters Through Transdisciplinary Research, by BOBBY MCPEAK, Raytheon Company, Dallas, Texas.

### SESSION - 4

#### Development of Transdisciplinary Methods, Systems and Management-A

Wednesday May 26, 5:00 pm - 5:45 pm
Organizer and Chair: Dr. Richard Landis

Software Factories Applied to Systems Engineering by RICHARD KOSHAK, Intelligence and Information Systems, Raytheon Company, Garland, Texas.

### SESSION - 5

#### Advanced Research of Entrepreneurship CARE Methodology

Thursday May 27, 9:00 am - 9:30 am
Organizer: Dr. Shu Liao, Asia Univ., Taiwan

This session will be on advanced research of entrepreneurship demonstration.

### SESSION - 6

#### Development of Transdisciplinary Methods, Systems and Management-B

Thursday May 27, 9:30 am - 10:00 am
Organizer and Chair: Dr. Richard Landis

A knowledge component framework for improving transdisciplinary knowledge assimilation by JOHN CARBONE, Intelligence and Information Systems Chief Engineer, Raytheon Compaby, Dallas and STEPHEN EKWARO-OSIRE, Texas Tech University, Lubbock, Texas.

Defining Transdisciplinarity by TOM KOLLMAN and ATILA ERTAS, Texas Tech University, mechanical Engineering Department, Lubbock, Texas.

Electric/Pneumatic Serial Hybrid vehicle by CHRISTIAN JOAQUIN CRUZ, Raytheon Company, Dallas, Texas.
SESSION - 7
Simulation, Optimization, Management
Thursday May 27, 1:00 pm - 2:00 pm
Organizer and Chair: Dr. Tad Gonsalves

Effective Cost Management in Software Development Project by T. GONSALVES and K. ITOH, Department of Information and Communication Sciences, Tokyo, Japan.

Delivering Optimal Customer Satisfaction in Service by T. GONSALVES, K. YAMAGISHI and K. ITOH, Department of Information and Communication Sciences, Tokyo, Japan.

Conditional Fault Detection Compatibility and Test Response Compaction with Array of Two-Input Linear Logic by A. R. APPLEGATE1, S. R. DAS1, 2, S. N. BISWAS3, A. HOSSAIN2, and M. H. ASSAF2.1Dep. of Computer Science, Troy University, Montgomery, AL, 2School of Information Technology and Engineering, University of Ottawa, Ottawa, Canada, 3Department of Electronics Engineering, Norfolk State University, Norfolk, VA.

Socially Viral Impacts of Health Networking by S. GANGULY and MOUSHUMI GANGULY, MedGoline, LLC, CA.

SESSION - 8
Energy/Environment/Design
Thursday May 27, 2:00 pm - 3:00 pm
Organizer and Chair: Dr. Houshang Masudi

Geometrical Information and Chemical Properties of Sand Particles in Qatar’s Environment by H. MASUDI and K. HASSIBA, Texas A&M University at Qatar, Doha, Qatar.

Wind Energy Measurements in Qatar by MASUDI, H. HINRICHS, R., HASSIBA, K., SAIFAR, M. and AL-MUHANNADI, K., Texas A&M University at Qatar, Doha, Qatar.

SESSION - 9
Human Body Motion Modeling & Generic Optimal Control Algorithms-II
Thursday, May 27, 3:00 - 3:30 pm
Organizer and Chair: Dr. I. Esat and Dr. N. Ozada

Use of 3D Scientific visualization in teaching by OTHMANE BOUHALI, ALI SHEHARYAR and KHALID WARRAICH, Texas A&M University at Qatar, Doha, Qatar.

Report of the NSF US-Tanzania Workshop on Advancing the Structural Use of Earth-based Bricks by DERRICK TATE, Texas Tech University, Lubbock, Texas, ESTHER OBONYO, Rinker School of Building Construction, University of Florida

Human Joint Simulator with Feedback Control System by NAWAF ALHAIFI, SIMON POLI, IBRAHIM ESAT, Brunel University, Department of Mechanical Engineering, Uxbridge, UK.

Automatic Knowledge Acquisition Through Regression Models for Finite Element Mesh Generation by JIE JIN1, SHENGJI YAO2, YONG ZENG1, A. BEN HAMZA1, 1Concordia Institute for Information Systems Engineering Faculty of Engineering and Computer Science Concordia University Montreal, Quebec, Canada, 2Department of Mechanical Engineering University of New Brunswick, New Brunswick, Canada.

Beam-Pendulum Oscillator Simulation Using ADAMS by EMRAH GUMUS and ATILA ERTAS, Texas Tech University, Mechanical Engineering Department, Lubbock, TX.

Blessing and Chakrabarti’s Design Research Methodology (DRM): A Critical, Transdisciplinary Evaluation by DERRICK TATE and NEERAJ KRISHNAMOORTHY, Texas Tech University, Lubbock, Texas.

SESSION - 10
Human Body Motion Modeling & Generic Optimal Control Algorithms-III
Thursday, May 27, 4:00 - 4:30 pm
Organizer and Chair: Dr. I. Esat and Dr. N. Ozada

Post-operative Assessment of a Reversed Shoulder by N. ABULKAIR, I. ESAT, M. CHIZARI, Brunel University, Department of Mechanical Engineering, Uxbridge, UK.

Elbow Joint Laxity And Stability Using Image-Based Analysis by KHALED ALRASHDAN, MOHAMMAD ALRASHIDI, IBRAHIM ESAT, Brunel University, Department of Mechanical Engineering, Uxbridge, UK.

Evaluating the human joint laxity using Stewart Platform mechanism; an experimental study by KHALED ALRASHDAN, MOHAMMAD ALRASHIDI, IBRAHIM ESAT, Brunel University, Department of Mechanical Engineering, Uxbridge, UK.

SESSION - 11
General Design
Thursday May 27, 4:30 pm - 5:30 pm
Organizer and Chair: Dr. D. Tate
HONORING
International Transdisciplinary Scientists’ Village
Founding Fellows
Monday May 24, 9:00 pm

Dr. Fuad Gattaz Sobrinho
Ambiencia Information Systems, Ltd,
Campinas, Brazil

Dr. Allam Appa Rao
Jawaharlal Nehru Technological
University, Kakinada, India

Dr. Yong Zeng
Concordia University,
Montreal, Quebec, Canada

Dr. Sitharma S. Iyengar
Louisiana State University

Dr. I. Esat
Brunel University, UK

Dr. Yamaguchi Hiroshi
Chuo University, Tokyo, Japan

Dr. Jeffery J.P. Tsai
Asia University, Taichung, Taiwan

Dr. Gunay Anlas
Bogazici University
Istanbul, Turkey

TheATLAS Its - Village Founding Fellows

Its - Village Vision

An “open laboratory” for the “global mind”: a place where great minds gather to collaborate and facilitate transformations in solving complex global problems while creating a place where eminent researchers gather to develop new transdisciplinary approaches.

The world is becoming increasingly interconnected as new opportunities and highly complex problems tie us to the rest of the world in ways we are only beginning to understand. When we don’t solve these problems correctly and in a timely manner, they rapidly become crises. These problems, such as hunger and the global water crisis, threaten the very existence of the world as we know it today. For example, a new crisis is emerging, a global food catastrophe that will reach further and be more crippling than anything the world has ever seen (Financial Post, May 2008). The new face of hunger from global food shortages has taken everyone by surprise. (April 17, 2008, From The Economist, print edition).

And the world water crisis is one of the largest public health issues of our time. Nearly 1.1 billion people (roughly 20% of the world’s population) lack access to safe drinking water (Water Aid, 2005). Other problems such as pollution, energy shortages, transportation, humanitarian needs, security, natural disasters, health, international development, ethnic violence and terrorism, military conflict, and lack of emergency response are among the few global complex problems facing humankind in the 21st century. For more information see www.theatlas.org.
The Academy of Transdisciplinary Learning and Advanced Studies (The ATLAS) is pleased to present an award “The Academy Gold Medal of Honor” for distinguished contribution to the advancement of Transdisciplinary Foundational ideas and activities. The award comes with Honorary lifetime Membership in the Academy. The Academy Gold Medal of Honor recognizes unusual accomplishment in transdisciplinary education and research, public service, and other allied pursuits beneficial to design and process science. Award ceremony will be during the Conference Dinner on May 24th, 2010.

2009 Academy Gold Medal of Honor Recipient

Professor Muhammad Yunus
Nobel Laureate

Professor Muhammad Yunus is probably best known for his work in microeconomics as a way to raise the living standards for some of the poorest people around the world. The effort earned him a Nobel Peace Prize in 2006.

As founder of the Grameen Movement, Professor Muhammad Yunus is a revolutionary. His ideas couple capitalism with social responsibility and have changed the face of rural economic and social development forever. The Grameen Bank operates 1,092 branches in 36,000 rural Bangladesh villages, providing credit to over two million of the country’s poorest people in Bangladesh. Since its inception, Grameen has loaned more than $2 billion. This new banking system of providing unsecured credit to the poorest of the poor began as an action-research project at Chittagong University, and later grew into a full-fledged bank. Grameen Bank’s patrons are 94% women who have an unparalleled repayment rate of 98%.

Professor Yunus is responsible for many innovative programs benefiting the rural poor. In 1974, he pioneered the idea of Gram Sarker (village government) as a form of local government based on the participation of rural people. This concept proved successful and was adopted by the Bangladeshi government in 1980. In 1978, Yunus received the President’s award for Tebhaga Khamar (a system of cooperative three-share farming, which the Bangladeshi government adopted as the Packaged Input Program in 1977).

A Fulbright Scholar at Vanderbilt University, Professor Yunus received his Ph.D. in Economics in 1969. Later that year, he became an assistant professor of Economics at Middle Tennessee State University, before returning to Bangladesh where he joined the Economics Department at Chittagong University.

The UN Secretary General appointed Professor Yunus to the International Advisory Group for the Fourth World Conference on Women in Beijing from 1993 to 1995. Professor Yunus has also served on the Global Commission of Women’s Health (1993-1995), the Advisory Council for Sustainable Economic Development (1993-present), and the UN Expert Group on Women and Finance. He also serves as the chair of the Policy Advisory Group (PAG) of Consultative Group to Assist the Poorest (CGAP). Yunus has also served on many committees and commissions dealing with education, population, health, disaster prevention, banking, and development programs. He is currently on the boards of many international organizations including Amanah Ikhtiar Malaysia (a Grameen replication project), the International Rice Research Institute in the Philippines, and Credit and Savings for the Poor in Malaysia. Professor Yunus also sits on the board of the Calvert World Values Fund, the Foundation for International Community Assistance, the National Council for Freedom From Hunger, and the International Council of Ashoka Foundation, all of which are located in the US.

Professor Yunus has received the following International awards: the Ramon Magsaysay Award (1984) from Manila; the Aga Khan Award for Architecture (1989) from Geneva; the Mohamed Shabdeen Award for Science (1993) from Sri Lanka; and the World Food Prize by World Food Prize Foundation (1994) from the US. Within Bangladesh, he has received the President’s Award (1978), Central Bank Award (1985), and the Independence Day Award (1987), the nation’s highest award.

2009 Academy Gold Medal of Honor Recipient

Lily Yeh
Founding Director and Lead Artist
Barefoot Artists, Inc.

(see Luncheon Speaker for short bio).
2010 ACADEMY GOLD MEDAL OF HONOR RECIPIENT

2010 Academy Gold Medal of Honor Recipient

Red McCombs
McCombs Enterprises, Chairman & COO
(see Keynote Speaker for short bio)

2010 TheATLAS RAMAMOORTHY & YEH TRANSDISCIPLINARY DISTINGUISHED ACHIEVEMENT AWARD RECIPIENTS

Dr. Julie Thompson Klein
Professor
Wayne State University

Dr. Basarab Nicolescu
President, International Center for Transdisciplinary Research and Studies [(CIRET)-France]

Dr. Christian Pohl
Co-Director of the Transdisciplinary-net of the Swiss-Academies of Art and Science

Dr. Jeffrey J.P. Tsai
Founding President
Asia University, Taichung, Taiwan

Margo Dover
Executive Director
Skillpoint Alliance
Austin, Texas
CONFERENCE COMMITTEE

Honorary Chairmen
George Garver
Mayor
Georgetown, Texas, USA
Mel Pendland, President
Chamber of Commerce
Georgetown, Texas, USA

Conference Chairmen
James Smith
Texas Tech University
Lubbock, Texas, USA
W. Joseph King
Southwestern University
Georgetown-Texas, USA

Program Chairman
Atila Ertas
Texas Tech University
Lubbock, Texas, USA

Program Vice-Chairmen
Kiyoshi Itoh
Sophia University
Tokyo, Japan
Ibrahim I. Esat
Brunel University
London, UK
John Zanoff
Network Centric Systems
Raytheon Company

GEORGETOWN CITY AND HOTEL INFORMATION

The Comfort Suites® hotel is located 30 miles north of Austin, just east of Interstate 35. This Georgetown hotel is ideally situated with easy access to Southwestern University, Inner Space Cavern and Lake Georgetown. A local hot spot is Blue Hole, a scenic lagoon and natural swimming hole on the San Gabriel River.

The parks in and around Georgetown offer miles of hiking and biking trails, as well as tennis courts, swimming pools and many golf courses. A tour of downtown reveals many historic buildings, galleries, museums and live music venues.

Be sure to enjoy Market Days every second Saturday, featuring handmade arts and crafts, jewelry, unique clothing, woodcrafts, festive foods, antiques, collectibles, stained glass, entertainment and much more. The nearby outlet mall is a shopper’s paradise, offering 77 stores and a large movie theater.

Restaurants run the gamut from Tex-Mex cuisine to fried catfish to barbecue and everything in between. A number of eateries and lounges can be found in the surrounding area.

CONFERENCE REGISTRATION FEES AND POLICIES

Link for registration is:

$395 who register before May 7, 2010
$450 who register after May 7, 2010

Cancellations must be submitted in writing and received by TheATLAS before May 7, 2010. If the cancellation is made before May 7th, there will be a $150 processing fee that will be charged. After May 7, no refunds can be made.

Conference registration fee ($395) includes:
- TheATLAS Welcome Reception on Sunday
- Conference Dinner on Monday
- Conference Luncheon on Monday
- BBQ Party on Tuesday
- Lunch on Tuesday, Wednesday and Thursday
- TDS Dinner and Tour on Wednesday
- Coffee Breaks every day

FOR MORE INFORMATION CONTACT:

Dr. Atila Ertas
Texas Tech University
Mechanical Engineering Department
Lubbock, Texas 79409-1021
Phone: (806) 742-3563, Ext:236;
Fax: (806) 742-3540
e-mail: (aertas@coe.ttu.edu)
Professor John Warfield (1925-2009) received the Bachelor of Arts in 1948, Bachelor of Science in Electrical Engineering in 1948, and Master of Science in Electrical Engineering in 1949 from the University of Missouri, Columbia, Missouri. He received the Doctor of Philosophy degree from Purdue University, West Lafayette, Indiana in 1952. John Warfield is widely recognized as the father of systems science. He has been an educator, a research scientist in complex systems and organizational dynamics, and a leader in integrating an extensive body of research into an organized hierarchy of systems sciences. Dr. Warfield and his colleagues analyzed complexity and human cognition for over forty years and developed the founding relationships for the still-emerging systems science discipline that underpins significant portions of modern systems engineering. His rich body of work embodies analytical methods and frameworks, behavioral science and philosophies that formalize our understanding of complexity in our world. He holds IEEE Centennial Medal. In 2006 John N. Warfield was awarded the Joseph G. Wohl Award for Career Achievement and in 2007 he received INCOSE Pioneer Award and was also awarded the IEEE Third Millennium Medal.

Co-Editors-in-Chief

Prof. Basarab Nicolescu
President, International Center for Transdisciplinary Research and Studies (CIRET)-France

Dr. John van Breda
Co-ordinator:
Transdisciplinary Doctoral Programme
Stellenbosch University, South Africa
Stellenbosch, South Africa

Associate Editors

Dr. Christian Pohl
Co-Director of the Transdisciplinary-net of the Swiss-Academies of Art and Science, Switzerland

Prof. Sue Mc Gregor
Mount Saint Vincent University
Faculty of Education
Canada

Prof. Nidhal Guessoum
American University of Sharjah (AUS)
Physics Department, UAE

Prof. Gunay Anlas
Bogazici University
Mechanical Engineering
Istanbul, Turkey

Researchers are encouraged to submit manuscript issues related to global complex problems such as transportation, humanitarian needs, security, natural disasters, health, international development, environment, sustainable development; societal systems, green engineering and science and international research ethics. In addition to primary research articles, Transdisciplinary Journal of Engineering & Science also publishes papers in transdisciplinary education. The journal aims to be the voice of the worldwide Transdisciplinarians community.
such regional staples as chili, ribs, and Tex-Mex plus steak, seafood, cajun-cooking, and deli.

Inner Space Caverns in Georgetown, Texas
Exploring a Natural Wonder
Friday, May 28, 9:00 am

Inner Space Caverns was discovered in 1963 during construction of I-35. Hidden for 10,000 years, Inner Space Cavern is one of the best preserved caves in Texas and one of the few places where remains of prehistoric animals were unearthed. Explore this limestone cavern and discover beautiful examples of nature’s perfect artwork such as “The Flowing Stone of Time”, the mysterious “Lake of the Moon” and the intricate “Soda Straw Balcony”. Among the amazing variety of formations found within the cavern you will see beautiful helicites, ancient flowstones, and giant columns. Entrance is by cable car, and sound and light effects enhance the cave’s atmosphere.

“Live Music Capital of the World”
Austin, Texas
6th Street Entertainment
Thursday, May 27
7:00 pm.

Bus service will be provided to 6th Street on Thursday after the technical paper sessions.

Sixth Street (formerly known as Pecan Street) is lined with many historical houses and commercial buildings dating from the late 1800's and early 1900's. The storiied old buildings now house numerous bars, a host of live entertainment venues, art galleries, casual cafes, and upscale restaurants. Live music of every genre abounds. From jazz, blues, and country to rock, hip-hop, beat, progressive, metal, punk and derivations of these, there's something to whet everyone's musical palate. Great food is a staple on Sixth Street, featuring

The non-profit Texas Life-Sciences Collaboration Center (TLCC) has focused its value proposition on emerging biotechnology, nanotechnology and life-sciences companies that are past the initial incubation stage and into the “post-incubation” stage of development where product or service commercialization is imminent. TLCC and its commercial development partner, Georgetown South Commercial Properties, provides Class-A office and laboratory space at low cost along with shared resources such as reception, IT infrastructure, video conference facilities, wet labs and nanotech clean rooms and equipment. TLCC also provides educational opportunities for faculty research, student internships and even teacher externships to leverage this incredible new community and regional resource.

Want to Know More About Georgetown and Southwestern University?
Tour to Texas Life-Sciences Collaboration Center
Texas Disposal Systems will sponsor the Wednesday evening event, which will consist of: bus transportation from Southwestern University to their facility near Austin departing at 6:30 pm, a tour of their state-of-the-art solid waste disposal and recycling facility, a tour of their exotic game ranch, dinner at their beautiful pavilion and return bus transportation to hotel.

Inside the TDS facility, the exotic game ranch is complete with approximately 1175 acres that is home to more than 1,600 animals from over 50 different species. Most of these animals are not indigenous to Texas or even North America. Our wildlife ranch consists of many foreign inhabitants from Africa, Asia Minor, Australia, England, Israel, India, Middle East, and Pakistan.

History of TDS

Brothers Bob and Jim Gregory founded Texas Disposal Systems, Inc. (TDS), in 1977. With a commitment to customer satisfaction and environmental preservation, TDS has become the largest independently owned, solid waste collection and disposal company in Austin and central Texas and one of the largest in the nation. The Grego-rys founded the company with only $10,000, one customer, one truck and plenty of determination. TDS now has offices in Austin, San Antonio and Georgetown, as well as the TDS landfill, recycling and compost facility located in southeast Travis County, approximately 15 miles southeast of downtown Austin.

TDS has grown and expanded operations since those early days in 1977, now offering a variety of services and products. TDS opened the state’s first totally integrated landfill in 1991. The landfill conducted compost production and recycling operations from the start. TDS expanded their operations into San Antonio in 1995 and into Georgetown in 1998. TOP (Texas Organic Products) was established in 1997, which is a large-scale composting and soil blending operation. Garden-Ville was acquired in 2001 and was established as a retail center for TOP products, which are widely used by horticulture professionals and home gardeners.

The Texas Disposal Systems Exotic Game Ranch and Pavilion is used as a working ranch and invited guest entertainment facility operation. The ranch land is comprised of land that is under permit for future landfill expansion and a portion of the buffer zone next to the landfill and compost operations. Cattle and other animals are raised and sold. The wildlife reserve is used primarily for animal production and sale to other ranches as well as endangered species conservation.

In 2001, Garden-Ville was purchased by Texas Organic Products (a division of Texas Disposal Systems of Austin, Texas) and continues to honor the commitment to quality natural garden products and our personal responsibility to the environment. TOP diverts green waste, brush, tree trimmings and fruit and vegetable matter from taking up space in our landfills and creates premium quality composts and living mulches.
**2010 TheATLAS Transdisciplinary-Transnational-Transcultural Annual Meeting**

**PROGRAM SCHEDULE**

### Opening Reception

**Julie Puett Howry Center**

**Sunday, 5:30 pm - 7:00 pm, May 23, 2010**

Dr. Jake B. Schrum, President, Southwestern University, Georgetown, Texas

### Monday, May 24, 2010

**Meeting Room: Red and Charline McCombs Campus Center**

Marsha Shields and Connie McNab Rooms

Lily Yeh, Luncheon Speaker, 12:30 pm-1:00 pm (TheATLAS Luncheon: 12:00 pm - 1:30 pm)--Lynda McCombs Room

Admiral B. R. Inman, Dinner Speaker, 8:00 pm-8:30 pm (TheATLAS Dinner: 7:00 pm - 9:30 pm)--Lynda McCombs Room

### Tuesday, May 25, 2010

**Meeting Room: Marsha Shields and Connie McNab**

Lunch will be provided at 12:00 pm--

Lynda McCombs Room

### Wednesday, May 26, 2010

**Meeting Room: Marsha Shields and Connie McNab**

Lunch will be provided at 12:00 pm--

Lynda McCombs Room

### Thursday, May 27, 2010

**Meeting Room: Marsha Shields and Connie McNab**

Lunch will be provided at 12:00 pm--

Lynda McCombs Room

### Friday, May 28, 2010

**ENTERTAINMENT AND TOURS**

---

**Parking Information**

Parking for the reception held in the Howry Center can be found in the lot adjacent to the Howry Center. Directions: From Hwy. 29 (University Avenue) turn north on Southwestern Blvd. Take the first right into the parking lot.

Parking for the conference can be found in the Finch Plaza. Directions: From Hwy 29 (University Avenue) turn north on Southwestern Blvd. Take the 3rd left into the Finch Plaza lot which is directly behind the Lois Perkins Chapel. Additional parking may be found behind the McCombs Student Center or along Southwestern Blvd.