

## Education

- ❖ Ph.D., The Pennsylvania State University (PSU), University Park, December 94.
- ❖ M.S., The University of Texas at El Paso (UTEP), El Paso, August 90.
- ❖ Post Graduate Diploma in Business Administration, IPM, Lucknow, India, January 88.
- ❖ B. Tech, The Govind Ballabh Pant University of Agriculture & Technology, Pantnagar, India, July 85.

## Professional License

- ❖ **Professional Engineer (PE)** Texas License No. 88219 since 2001

## Professional Experience

- ❖ **Prof., Assoc. Prof., Asst. Prof., and Res. Engineer**, Dept. of Civil Engineering, UTEP, Oct. 94 – Present
- ❖ **Undergraduate Program Director**, Dept. of Civil Engineering, UTEP, Sep. 07 – Aug. 09
- ❖ **Commercial Officer**, NAFED (India), Feb. 86- Aug. 88.

## Research

**Patent:** United States Patent No. 7,162,929 issued on Jan. 16, 2007, on "System and Method for Field Testing a Tack Coat Layer."

**Research Interests:** The sustenance of a community requires resilient infrastructure that enhances productivity, minimizes disruptions under stressed conditions, extends the life of existing infrastructure, and minimizes the frequency of maintenance. This has been the focus of my research.

My primary expertise lies in developing and evaluating innovative sustainable materials for highway infrastructure that generate a minimal carbon footprint of existing materials like asphalt, aggregate, asphalt concrete, soils, and Portland cement concrete. My work also includes the development of new materials like geopolymers.

My minor area of expertise includes (i) evaluating the impact of extreme climate events on transportation infrastructure (like flooding), (ii) use of computational tools for evaluating complex infrastructure materials, (iii) sustainable development approaches for smart cities, and (iv) modeling and simulation of infrastructure.

The main funding source for these projects has been the Texas Department of Transportation. However, I have also received funding from sources like the Department of Homeland Security, Federal Highway Administration, National Cooperative Highway Research Program, US Department of Transportation, National Nuclear Security Administration, etc. In addition, I have collaborated with faculty within the department, outside the department, and at other universities to promote sustainable development.

I have received an educational grant from the NSF, which focused on educating students with the mantra of more, faster, and better. The current focus of my educational effort is developing online modular courses.

**Pending Research Proposals (Outside Dept. and Outside Univ. are shown in Bold Italics)**

**Project Title:** *Modeling and Simulation Center for Resilience Enhancement and GHG Reduction (MSC-REGR)*

**Budget:** \$ 15,000,000

**Agency:** USDOT

**Researchers:** PI: Vivek Tandon, CO-PI: George Karniadakis (Brown), Paolo Gardoni (UIUC), Alex Mahalov (ASU), Vinod Kumar (ME); Rene Contreras (IMSE), Deepak Tosh and Shirley Moore (CS)

**Year(s):** November 2022 – October 2027

**Project Title:** *Efficient Waste Pre-processing: Using CSP and Machine Learning*

**Budget:** \$ 198,000

**Agency:** MSRDC

**Researchers:** PI: Vivek Tandon, CO-PI: Vinod Kumar (ME); Anthony Tarquin (CE)

**Year(s):** April 2022 – March 2024

**Project Title:** *Enhancing Resilience of EPWater Infrastructure in northwest Region*

**Budget:** \$ 138,364

**Agency:** El Paso Water

**Researchers:** PI: Vivek Tandon; CO-PI: Raed AlDuri (CE),

**Year(s):** August 2022 – January 2024

**Active Research Projects (Outside Dept. and Outside Univ. are shown in Bold Italics)**

**Project Title:** *The Rio Grande Consortium for Advanced Research on Exascale Simulation (Grande CARES)*

**Budget:** \$4,994,135 (UTEP funding amount 1,250,000)

**Agency:** US Department of Energy

**Researchers:** *Main Lead UNM.* UTEP PI: V. Kumar (ME); UTEP CO-PI: Arturo Bronson (ME), Deepak Tosh (CS), Vivek Tandon (CE).

**Year(s):** October 2022 – September 2027

**Project Title:** *Explore STEM Camps Summer 2020-21*

**Budget:** \$ 123,560

**Agency:** Texas Workforce Development

**Researchers:** PI: V. Kumar (ME); CO-PI: Vivek Tandon (CE), N. Agarwal (CASS), B. Argus-Calvo (COE)

**Year(s):** March 2020 – December 2021

**Completed Research Projects (Outside Dept. and Univ. are shown in Bold Italics)**

**Project Title:** *Evaluation of Techniques to Enhance the Water Infiltration Rate at Water Retention Ponds*

**Budget:** \$ 65,485

**Agency:** El Paso Water  
**Researchers:** PI: Vivek Tandon;  
**Year(s):** October 2016 – June 2018

**Project Title:** **Identification of Critical Transportation Infrastructure to Enhance Resiliency During and After Hydro-meteorological Event**  
**Budget:** \$ 61,823  
**Agency:** Department of Homeland Security  
**Researchers:** PI: Vivek Tandon  
**Year(s):** March 2019 – October 2020

**Project Title:** **Pre-Employment Transition Services Explore Stem Camps**  
**Budget:** \$ 32,690  
**Agency:** Texas Workforce Development  
**Researchers:** PI: V. Kumar (ME); CO-PI: Vivek Tandon (CE), N. Agarwal (CASS), B. Argus-Calvo (COE)  
**Year(s):** March 2019 – February 2020

**Project Title:** **Development of Decision-Making Framework for Enhancing Climate Resiliency of Transportation Infrastructure**  
**Budget:** \$ 25,000  
**Agency:** Department of Homeland Security  
**Researchers:** PI: Vivek Tandon  
**Year(s):** June 2018 – August 2018

**Project Title:** **Evaluation of Techniques to Enhance the Water Infiltration Rate at Water Retention Ponds**  
**Budget:** \$ 65,485  
**Agency:** El Paso Water  
**Researchers:** PI: Vivek Tandon;  
**Year(s):** October 2016 – June 2018

**Project Title:** **Understanding Climate Change Impact on Highway Hydraulic Design Procedures**  
**Budget:** \$ 90,000  
**Agency:** Southern Plans Transportation Center  
**Researchers:** PI: Vivek Tandon; CO-PI: V. Kumar (ME)  
**Year(s):** January 2016 – August 2018

**Project Title:** **Understanding the Consequences and Costs of Climate Change to the Texas Department of Transportation**  
**Budget:** \$ 249,903  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Vivek Tandon; CO-PI: V. Kumar (ME), S. Nazarian, C. M. Ferregut  
**Year(s):** June 2015 – August 2017

**Project Title:** **Cost Effective Alternatives to Seal Coats**  
**Budget:** \$ 448,765  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: A. Bhasin (UT Austin); CO-PI Vivek Tandon  
**Year(s):** January 2015 – August 2017

**Project Title:** **Use of Geocells in Pavement Design**  
**Budget:** \$ 329,671  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Vivek Tandon; CO-PI: Soheil Nazarian  
**Year(s):** September 2014 – August 2017

**Project Title:** **Cultivating a Culture of Technical Success and Leadership Excellence Among Hispanic Engineering Students: A Transformative Recruitment Model for Attracting High Achievers**  
**Budget:** \$ 579,697  
**Agency:** Division of Undergraduate Education, National Science Foundation  
**Researchers:** PI: Vivek Tandon CO-PI: Luis Contreras-Sapien (IE)  
**Year(s):** September 2009 – August 2015

**Project Title:** **Soil Stabilization Using Microbial Activity**  
**Budget:** \$79,956  
**Agency:** Rutgers University/US Department of Transportation  
**Researchers:** PI: Vivek Tandon  
**Year(s):** June 2013 – August 2014

**Project Title:** **RO Concentrate Minimization and Sustainable Utilization of By-Product Solids**  
**Budget:** \$25,000  
**Agency:** Anita Mochan Loya Fund, UTEP  
**Researchers:** PI: Anthony J. Tarquin; CO-PI: Vivek Tandon  
**Year(s):** June 2012 – January 2013

**Project Title:** **Performance Life of Various HMA Mixes in Texas**  
**Budget:** \$306,000  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Soheil Nazarian; CO-PI: Vivek Tandon, Carlos Chang Albitres, and Imad Abdallah  
**Year(s):** September 2011 – August 2013

**Project Title:** **IUSSTF/JC/Highway & Airport Pavement Engg./99-2007/2008-09**  
**Budget:** \$28,000  
**Agency:** Indo-US Science and Technology Forum  
**Researchers:** PI: M. Amarnatha Reddy, IIT KGP; CO-PI: Rajib Mallick ( WPI), Vivek Tandon, and Veeraraghavan, IIT Madras  
**Year(s):** September 2008 – March 2011

- Project Title:** **Development of a New Mix Design Method and Specifications required for the Asphalt Treated Base**  
**Budget:** \$237,000  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Soheil Nazarian; CO-PI: Vivek Tandon and Imad Abdullah  
**Year(s):** September 2008 – August 2010
- Project Title:** **Design, Constructability Review and Performance of Dual Base Stabilizer**  
**Budget:** \$229,098  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Soheil Nazarian; CO-PI: Vivek Tandon and Deren Yuan  
**Year(s):** September 2006 – August 2008
- Project Title:** **Role of Coarse Agg. Point and Mass Strength on Resistance to Load in HMA**  
**Budget:** \$273,000 (UTEP Share \$ 143,000)  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Soheil Nazarian; CO-PI: Vivek Tandon, and Eyad Masad (TTI)  
**Year(s):** September 2005 – August 2007
- Project Title:** **Use of NDT Equipment for Construction Quality Control of HMA**  
**Budget:** \$134,781  
**Agency:** Arizona Department of Transportation  
**Researchers:** PI: Soheil Nazarian; CO-PI: Vivek Tandon  
**Year(s):** October 2004- June 2006
- Project Title:** **Guidelines for Selecting HMA and Evaluation of Polymer-Modified Mixes**  
**Budget:** \$313,000 (UTEP Share \$ 160,000)  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Vivek Tandon; CO-PI: Soheil Nazarian, and Jorge Prozzi (UT Austin)  
**Year(s):** September 2003 – August 2006
- Project Title:** **Development of Tack Coat Field Acceptance Criteria**  
**Budget:** \$50,000  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Vivek Tandon  
**Year(s):** September 2004- August 2005
- Project Title:** **Mix Design and Performance Testing of Crumb Rubber Modified-Hot Mix Asphalt Concrete**  
**Budget:** \$200,748  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Vivek Tandon; CO-PI: Soheil Nazarian, and Kamil Kaloush (ASU)  
**Year(s):** September 2003- August 2005

**Project Title:** **Feasibility Study for Continuous Deflection Testing for Texas Pavements**

**Budget:** \$55, 792

**Agency:** Texas Department of Transportation

**Researchers:** PI: Vivek Tandon; CO-PI: Soheil Nazarian

**Year(s):** September 2003- August 2004

  

**Project Title:** ***Improved Test Procedure for Determining the Moisture Damage Susceptibility of Bituminous Pavements***

**Budget:** \$400, 000 (UTEP Share \$ 122,000)

**Agency:** National Cooperative Highway Research Program

**Researchers:** PI: Mansour Solemanian (PSU); CO-PI: Vivek Tandon, Maghsoud Tahmoressi (PaveTex), and Raymond Banaquist (AAT)

**Year(s):** March 2002- August 2005

  

**Project Title:** **Geophysical Applications in Highways**

**Budget:** \$29,502

**Agency:** Federal Highway Administration

**Researchers:** PI: Vivek Tandon; CO-PI: Soheil Nazarian

**Year(s):** August 2002 – July 2004

  

**Project Title:** **Development of an Objective Field Test to Determine Tack Coat Adequacy**

**Budget:** \$88, 114

**Agency:** Texas Department of Transportation

**Researchers:** PI: Vivek Tandon

**Year(s):** September 2002- February 2004

  

**Project Title:** **Evaluation of State Highway Agency Adoption of Practices for Utilizing SUPERPAVE Asphalt Materials and Mix Design**

**Budget:** \$68,396

**Agency:** Federal Highway Administration

**Researchers:** PI: Vivek Tandon

**Year(s):** August 2001 – January 2003

  

**Project Title:** **Development of Construction Management Course**

**Budget:** \$30,000

**Agency:** 3D/International (Houston)

**Researchers:** PI: Carlos Ferregut; CO-PI: Vivek Tandon

**Year(s):** August 2002 – December 2002

  

**Project Title:** ***Mitigating Reflection Cracking in AC Overlays Over PCC Joints Using Geo-Synthetics***

**Budget:** \$ 157, 130 (UTEP Share \$ 52,325)

**Agency:** Federal Highway Administration  
**Researchers:** PI: Khaled Sobhan (NMSU); CO-PI: Vivek Tandon  
**Year(s):** August 2000 – November 2002

**Project Title:** ***Identification of Alternative Pavement Binders and/or Pavement Materials***  
**Budget:** \$60, 019  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Vivek Tandon; CO-PI: Lawrence E. Murr (MME)  
**Year(s):** September 1999- August 2000

**Project Title:** **Evaluate the Reproducibility of the TxDOT FWD Fleet and Recommend Improvements to the FWD Calibration Procedure**  
**Budget:** \$295, 436  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Soheil Nazarian; CO-PI: Vivek Tandon  
**Year(s):** September 1999- August 2002

**Project Title:** ***Predicting Hot Mix Performance from Measured Properties***  
**Budget:** \$100, 000 (UTEP Share \$ 40,000)  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Emmanuel Fernando (TTI); CO-PI: Soheil Nazarian, and Vivek Tandon  
**Year(s):** September 1999- August 2000

**Project Title:** **Calibration Process for Devices Used for Structural Capacity Measurement**  
**Budget:** \$50, 000  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Soheil Nazarian; CO-PI: Vivek Tandon  
**Year(s):** January 1999- August 2000

**Project Title:** **Performance Monitoring of Tire Chip Embankment**  
**Budget:** \$216, 219  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Miguel Picornell; CO-PI: Vivek Tandon, S. Nazarian, and S. A. Ashur  
**Year(s):** March 1997- November 2000

**Project Title:** **Investigation of Electrokinetic Method to Reduce Sulfate Induced Heaving in Soils – A Laboratory Study**  
**Budget:** \$33, 661  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Miguel Picornell; CO-PI: Vivek Tandon  
**Year(s):** September 1997- August 1998

**Project Title:** **Development of Structural Field Testing of Flexible Pavement Layers**  
**Budget:** \$160,000

**Agency:** Texas Department of Transportation  
**Researchers:** PI: Soheil Nazarian; CO-PI: Vivek Tandon and Deren Yuan  
**Year(s):** September 1997- August 1999

**Project Title:** **Determining In-Place Engineering Properties of Lime or Cement Stabilized Pavement Layers**

**Budget:** \$46,306  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Soheil Nazarian; CO-PI: Vivek Tandon and Deren Yuan  
**Year(s):** September 1996- August 1997

**Project Title:** ***Development of Instrumentation Testing and Calibration Procedures and Facilities for Pavement Measurements***

**Budget:** \$140,306 (UTEP Share 45,000)  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Roger Walker (UT Arlington); CO-PI: Soheil Nazarian and Vivek Tandon  
**Year(s):** September 1996- August 1997

**Project Title:** **Evaluation of ECS for Predicting Moisture Susceptibility of HMA**

**Budget:** \$184,000  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Soheil Nazarian; CO-PI: Vivek Tandon and Miguel Picornell  
**Year(s):** September 1994- August 2000

**Project Title:** **Evaluation and Guidelines for Drainable Bases**

**Budget:** \$128,029  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Miguel Picornell; CO-PI: Soheil Nazarian and Vivek Tandon  
**Year(s):** September 1994- August 1996

**Project Title:** ***Recycled Materials in Vertical Moisture Barriers***

**Budget:** \$29,000  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Kent Wray (Texas Tech); CO-PI: Miguel Picornell and Vivek Tandon  
**Year(s):** September 1994- August 1996

**Unfunded Research Proposals (Outside Dept. and Outside Univ. are shown in Bold Italics)**

**Project Title:** ***21st Century Demographics Workforce Equipped with Modern Computational Tools to Systematically Solve Complex Engineering Problems Project***

**Budget:** \$ 484,691  
**Agency:** NSF



**Researchers:** PI: Vivek Tandon, CO-PI: V. Kumar (ME); S. C. Madathil (IMSE), R. AlDouri (CE), and P. Agarwal (CS)

**Proposed Year(s):** October 2022 – September 2025

**Project Title:** ***Enabling “glocalization” and power equity through Community DER Adoption***

**Budget:** \$ 380,748

**Agency:** MSI STEM Research & Development Consortium (NPO)

**Researchers:** PI: S. C. Madathil (ISME); CO-PI: Vivek Tandon (CE), A. Lopez (IMSE)

**Proposed Year(s):** May 2022 – April 2024

**Project Title:** ***Development of Diversified Workforce to Enhance Resilience of Critical Transportation Infrastructure***

**Budget:** \$ 469,986

**Agency:** Department of Homeland Security

**Researchers:** PI: Vivek Tandon; CO-PI Vinod Kumar (ME), S. C. Madathil (IMSE)

**Proposed Year(s):** December 2020 – November 2022

**Project Title:** ***Capturing Durability of High Recycled Binder Ratio (RBR) Asphalt Mixtures***

**Budget:** \$ 749,998

**Agency:** National Highway Cooperative Research Program

**Researchers:** PI: Vivek Tandon; CO-PI Hussain Bahia (UWM) Zhanping You (MTU)

**Proposed Year(s):** February 2021 – January 2024

**Project Title:** ***Partnership in AI Research for Engineering & Science (PAIRES)***

**Budget:** \$ 1,350, 000

**Agency:** US Department of Energy

**Researchers:** PI: Vinod Kumar (ME), CO-PI: Vivek Tandon

**Proposed Year(s):** January 2020 – December 2022

**Project Title:** ***The Consortium for Computational and Artificial Intelligence Research in Engineering and Science (C<sup>2</sup>AIRES)***

**Budget:** \$ 5,000, 000

**Agency:** National Nuclear Security Agency US Department of Energy

**Researchers:** PI: Vinod Kumar (ME), CO-PI: Vivek Tandon, Krishna Kota, ME, NMSU, Peter Vorobieff, ME, UNM, Hamid Johari, ME, CSUN

**Proposed Year(s):** Oct. 2020 – September 2025

**Project Title:** ***Establish TxDOT Transportation Resilience Planning Scorecard and Best Practices***

**Budget:** \$ 399,856

**Agency:** Texas Department of Transportation

**Researchers:** PI: Vivek Tandon; CO-PI: J. Weidner, and R. AlDauri

**Proposed Year(s):** September 2020 – January 2023

**Project Title:** *Development of an Accurate Method of Structural Design of Overlaid Milled Pavements through Advanced Modeling and Field Testing*  
**Budget:** \$ 353, 878  
**Agency:** Asphalt Institute Foundation  
**Researchers:** PI: Rajib B. Malick (WPI), CO-PI: Vivek Tandon, E. R. Brown (NCT), A. De, and M. El-KHakim (MC), L.M. Masciarell and iN. Karanjgaokar(WPI),  
**Proposed Year(s):** January 2020 – December 2022

**Project Title:** **Evaluation of the Performance of Rumble Strips on Pavements Where Seal Coats Have Been Applied**  
**Budget:** \$ 299,999  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Vivek Tandon  
**Proposed Year(s):** June 2019 – August 2021

**Project Title:** **Synthesis of Engineered Cementitious Composites (ECC) for Applications in Texas**  
**Budget:** \$ 64,981  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Vivek Tandon  
**Proposed Year(s):** July 2019 – June 2020

**Project Title:** **Influence of Extreme Events on Resiliency of Watershed and Surrounding Critical Assets**  
**Budget:** \$ 48,964  
**Agency:** El Paso Water  
**Researchers:** PI: Vivek Tandon  
**Proposed Year(s):** January 2018 – Oct 2018

**Project Title:** *Development of Advanced Geopolymeric Materials Utilizing Agricultural Waste Useful for Infrastructural Applications*  
**Budget:** \$ 396,320  
**Agency:** Indo US Science and Technology Endowment Fund (2017)  
**Researchers:** PI: S. Amritphale (CSIR-AMPRI Bhopal, India); CO-PI Vivek Tandon  
**Proposed Year(s):** March 2018 – February 2020

**Project Title:** **Synthesis of Alternate Reinforcements for Enhanced Corrosion Resistance in TxDOT Bridges**  
**Budget:** \$ 64,969  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Guikuan Yue; CO-PI: Vivek Tandon, Devesh Misra  
**Proposed Year(s):** September 2017 – August 2018

**Project Title:** **Developing Performance Specification for High Performance Concrete**  
**Budget:** \$ 444,995

**Agency:** Texas Department of Transportation  
**Researchers:** PI: Vivek Tandon; CO-PI: Devesh Misra  
**Proposed Year(s):** September 2017 – August 2020

**Project Title:** **Planning the Next Generation of Seal Coat Equipment**  
**Budget:** \$ 735,154  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Vivek Tandon; CO-PI: V. Kumar, Thompson Sarkodi-Gyan, R. Alduri  
**Proposed Year(s):** September 2017 – August 2020

**Project Title:** ***Center for Safe, Efficient and Reliable Preservation of Roads and Bridges***  
**Budget:** \$11,700,000 (UTEP Portion 1,875,000)  
**Agency:** US Department of Transportation  
**Researchers:** PI: Rajib Mallick; CO-PI: Vivek Tandon, M. Solaimanian (PSU), S. Brena (UMASS), E. Fini (NCA&T)  
**Proposed Year(s):** September 2016 – August 2021

**Project Title:** **Maximize Savings and Minimizing Air Pollution with On-site Manufacturing of Embankment Soils (Deliverable Base)**  
**Budget:** \$ 309,875  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Wen-Whai Li; CO-PI: Vivek Tandon, Adeeba Raheem  
**Proposed Year(s):** September 2016 – August 2018

**Project Title:** ***Understanding Interdependency of Resilient Transportation Infrastructure Development, Global Climate, and Local Air Pollution: A Holistic Approach***  
**Budget:** \$573,930  
**Agency:** United States-India Educational Foundation  
**Researchers:** PI: Vivek Tandon CO-PI: Wen-Whai Li, Vinod Kumar (ME) and Amit Goel BITS-P (India)  
**Proposed Year(s):** September 2016 – August 2019

**Project Title:** ***Integration Of Peer-led Team Learning And Dynamic Cyberlearning Model To Evaluate Impact Of Peer-led Learning on Retention of Basic Engineering Knowledge Leading to Higher Undergraduate Retention***  
**Budget:** \$ 600,001  
**Agency:** US Department of Education  
**Researchers:** PI: Vivek Tandon CO-PI: Vinod Kumar (ME) and L. Contreras (MSIE)  
**Proposed Year(s):** January 2016 – December 2018

**Project Title:** **Developing a Surface Drainage rating for inclusion in TxDOT's Asset Management System**  
**Budget:** \$ 174,387

**Agency:** Texas Department of Transportation  
**Researchers:** PI: Vivek Tandon CO-PI: Carlos Chang  
**Proposed Year(s):** September 2015 – August 2017

**Project Title:** **Innovations Around Successful Lettings**  
**Budget:** \$ 104,108  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Austin Marshall CO-PI: Adeeba A. Raheem and Vivek Tandon  
**Proposed Year(s):** September 2015 – January 2017

**Project Title:** **Use of Geothermal Energy for De-icing Approach Pavement Slabs and Bridge Decks**  
**Budget:** \$ 49,999  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Vivek Tandon CO-PI: V. Kumar (ME)  
**Proposed Year(s):** September 2014 – August 2015

**Project Title:** **Engineering the Properties of Asphalt Mixtures Using Carbon Nanotubes**  
**Budget:** \$ 239,955  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Vivek Tandon; CO-PI: Ramana Chintalapalle (ME)  
**Proposed Year(s):** September 2014 – August 2016

**Project Title:** **EXP: Explore, assess, and refine (EAR) personalized cyber-interventions to alleviate learning barriers**  
**Budget:** \$ 549,942  
**Agency:** Division of Cyber-Learning Infrastructure, National Science Foundation  
**Researchers:** PI: Vinod Kumar (ME) CO-PI: Vivek Tandon, Luis Everett (ME)  
**Proposed Year(s):** September 2014 – August 2017

**Project Title:** **Perf. Evaluation, Specification, and Implementation of Trackless Tack**  
**Budget:** \$ 215,387  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Vivek Tandon  
**Proposed Year(s):** September 2013 – February 2015

**Project Title:** **Sodium Silicates: Alternative Binders for Highways**  
**Budget:** \$227,778  
**Agency:** Federal Highway Administration  
**Researchers:** PI: Vivek Tandon, CO-PI: Soheil Nazarian, Arturo Bronson (M. E.)  
**Proposed Year(s):** Sept. 2013 – May 2014

**Project Title:** **Development of an American-Indo Collaborative Program for Sustainable Transportation Systems**  
**Budget:** \$748,659  
**Agency:** US INDIA EDUCATIONAL FOUNDATION (INTL)

**Researchers:** PI: Vivek Tandon; CO-PI: Carlos Ferregut, M. A. Reddy, IIT Kharagpur  
**Proposed Year(s):** July 2013 – June 2016

**Project Title:** ***Perf. Studies and Future Directions for Mixes Containing RAP and RAS***  
**Budget:** \$532,370  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Vivek Tandon CO-PI: Soheil Nazarian; C. Chang Albitres, and J. Prozzi, UT Austin  
**Proposed Year(s):** September 2012 – August 2015

**Project Title:** ***Establishing Defensible Laboratory Curing Protocols for HMA***  
**Budget:** \$348,655  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Vivek Tandon CO-PI: Soheil Nazarian and Jose Garibay  
**Proposed Year(s):** September 2012 – August 2015

**Project Title:** ***Validation of TxDOT Flexible Pavement Skid Prediction Model***  
**Budget:** \$340,506  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Carlos Chang Albitres; CO-PI: Soheil Nazarian; Vivek Tandon and Jorge Prozzi, UT Austin  
**Proposed Year(s):** September 2012 – August 2014

**Project Title:** ***Development of a Procedure for Gathering and Storing Pavement Layer and Work History Information***  
**Budget:** \$285,121  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Carlos Chang Albitres; CO-PI: Soheil Nazarian; Vivek Tandon and Raed Aldouri  
**Proposed Year(s):** September 2012 – August 2014

**Project Title:** ***New HMA Shear Resistance and Rutting Test for Texas Mixes***  
**Budget:** \$313,478  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Soheil Nazarian; CO-PI: Vivek Tandon and Imad Abdallah  
**Proposed Year(s):** September 2012 – August 2014

**Project Title:** ***Performance Tests for Thin Asphalt Layers***  
**Budget:** \$349,990  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Jorge Prozzi, UT Austin; CO-PI: Vivek Tandon and Soheil Nazarian  
**Proposed Year(s):** September 2012 – August 2014

**Project Title:** ***Longer Lasting Permeable Friction Courses (PFCs)***  
**Budget:** \$348,460  
**Agency:** Texas Department of Transportation

**Researchers:** PI: Jorge Prozzi, UT Austin; CO-PI: Vivek Tandon and Soheil Nazarian  
**Proposed Year(s):** September 2012 – August 2014

**Project Title:** ***Educational Resource: Response to Climate Dynamics through Sustainable Watershed Management Project***  
**Budget:** \$ 298,567  
**Agency:** US Department of Agriculture  
**Researchers:** PI: Vivek Tandon (IE); CO-PI: Vinod Kumar (ME) and John Walton  
**Proposed Year(s):** September 2012 – August 2014

**Project Title:** ***Transforming Undergraduate Engineering Education through Access and Excellence: Study of Organizational Dynamics in the Business of Learning Engineering***  
**Budget:** \$ 199,820  
**Agency:** Engineering Education, Division of Undergraduate Education, NSF  
**Researchers:** PI: Arun Kumar Pennathur (IE); CO-PI: Vivek Tandon, L. C.-Sapien (IE), and S. C. Riccillo (Communications)  
**Proposed Year(s):** September 2011 – August 2013

**Project Title:** ***Improving Fracture Resistance Measurement in Asphalt Binder Specification with Verification on Asphalt Mixtures Cracking Performance***  
**Budget:** \$437,009  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Vivek Tandon; CO-PI: Soheil Nazarian  
**Proposed Year(s):** September 2011 – August 2014

**Project Title:** ***EXP: Engineering Education for the Facebook Generation: Tapping into Student Virtual Presence for Empowering Engineering Learning***  
**Budget:** \$ 549,468  
**Agency:** Cyber learning: Transforming Ed, Div. of Undergraduate Education, NSF  
**Researchers:** PI: Arun Kumar. Pennathur (IE); CO-PI: Vivek Tandon, and L. Contreras-Sapien (IE)  
**Proposed Year(s):** September 2011 – August 2014

**Project Title:** ***Addressing the Permeability of Superpave Mixes in New Mexico***  
**Budget:** \$220,000 (UTEP Share \$ 95,000)  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Paola Bandini (NMSU); CO-PI: Vivek Tandon and Soheil Nazarian  
**Proposed Year(s):** July 2011 – June 2013

**Project Title:** ***Use of Recycled Asphalt Shingles in HMA***  
**Budget:** \$348,250 (UTEP Share 195,250)  
**Agency:** Texas Department of Transportation

**Researchers:** PI: Vivek Tandon; CO-PI: Samer Dessouky (UTSA), Soheil Nazarian, and Tom Papagiannakis (UTSA)

**Proposed Year(s):** September 2010- August 2012

**Project Title:** ***Evaluate Binder and Mixture Aging for Warm Mix Asphalts***

**Budget:** \$460,697 (UTEP Share 229,937)

**Agency:** Texas Department of Transportation

**Researchers:** PI: Samer Dessouky (UTSA); CO-PI: Soheil Nazarian, Vivek Tandon, and Tom Papagiannakis (UTSA)

**Proposed Year(s):** September 2010- August 2013

**Project Title:** ***Search for a Test Fracture Potential of Asphalt Mixes***

**Budget:** \$282,000

**Agency:** Texas Department of Transportation

**Researchers:** PI: Soheil Nazarian CO-PI: Vivek Tandon, Seong Choi, Jose Garibay, Sergio Rocha

**Proposed Year(s):** September 2010- August 2012

**Project Title:** ***NSF-CCLI: Development of an Undergraduate Course on Nondestructive Testing and Evaluation of Civil Engineering Infrastructure***

**Budget:** \$200,000 (UTEP Share \$ 79,986)

**Agency:** National Science Foundation

**Researchers:** PI: Rajib Mallick of WPI; CO-PI: Vivek Tandon and Soheil Nazarian

**Proposed Year(s):** January 2010 – December 2012

**Project Title:** ***Developing a Fundamental Understanding of the Chemistry of Warm Mix Additives***

**Budget:** \$260,000 (UTEP Share 115,000)

**Agency:** Texas Department of Transportation

**Researchers:** PI: Samer Dessouky (UTSA); CO-PI: S. Nazarian, Vivek Tandon, Tom Papagiannakis (UTSA)

**Proposed Year(s):** September 2010- August 2011

**Project Title:** ***Performance Evaluation and Mix Design for High Rap Mixtures***

**Budget:** \$448,794 (UTEP Share 288,000)

**Agency:** Texas Department of Transportation

**Researchers:** PI: Soheil Nazarian; CO-PI: Vivek Tandon and Tom Papagiannakis (UTSA)

**Proposed Year(s):** September 2009- August 2011

**Project Title:** ***Properties and Performance of Warm Mix Asphalt Technologies***

**Budget:** \$849,944

**Agency:** National Cooperative Highway Research Program

**Researchers:** PI: Vivek Tandon; CO-PI: Rajib Mallick (WPI), and L. Allen Colley (BCD)

**Proposed Year(s):** March 2009- May 2012

**Project Title:** *Engineering Properties, Emissions, and Field Performance of Warm Mix Asphalt Technologies Mix Design Practices for Warm Mix Asphalt*

**Budget:** \$899,940

**Agency:** National Cooperative Highway Research Program

**Researchers:** PI: *Vivek Tandon*; CO-PI: *Rajib Mallick (WPI) and L. Allen Colley (BCD, Inc.)*

**Proposed Year(s):** March 2008- *June 2011*

  

**Project Title:** **Performance Histories of Thermally Segregated HMA**

**Budget:** \$450,000

**Agency:** Texas Department of Transportation

**Researchers:** PI: Soheil Nazarian; CO-PI: *Vivek Tandon* and Parisa Shokouhi

**Proposed Year(s):** December 2008- *November 2011*

  

**Project Title:** **Water Retention Techniques for Roadside Vegetation Establishment in Arid Regions of Texas**

**Budget:** \$220,849

**Agency:** Texas Department of Transportation

**Researchers:** PI: John Walton; CO-PI: *Vivek Tandon*

**Proposed Year(s):** September 2008- *August 2009*

  

**Project Title:** **Laboratory Evaluation of Influence of Operational Tolerance (Acceptance Criterion) on Performance of HMA**

**Budget:** \$221,139

**Agency:** Texas Department of Transportation

**Researchers:** PI *Vivek Tandon*; CO-PI: Soheil Nazarian, and *Tzu-Liang Tseng (IE)*

**Proposed Year(s):** September 2008- *August 2009*

  

**Project Title:** **Alternatives to Asphalt Concrete Pavement Subbases for Concrete Pavement**

**Budget:** \$235,000

**Agency:** Texas Department of Transportation

**Researchers:** PI: Soheil Nazarian; CO-PI: *Vivek Tandon*; I. Abdallah, and N. Gharibeh

**Proposed Year(s):** September 2008- *August 2009*

  

**Project Title:** *Mix Design Practices for Warm Mix Asphalt*

**Budget:** \$499,999

**Agency:** National Cooperative Highway Research Program

**Researchers:** PI: *Vivek Tandon*; CO-PI: *Rajib Mallick (WPI) and L. Allen Colley (BCD, Inc.)*

**Proposed Year(s):** February 2007- *January 2010*

  

**Project Title:** **Use of Radio Frequency Identification (RFID) Tags in Hot Mix Asphalt**

**Budget:** \$147,500

**Agency:** Federal Highway Administration

**Researchers:** PI: *Vivek Tandon*; CO-PI: Parisa Shokouhi

**Proposed Year(s):** October 2006- *September 2007*



**Project Title:** **Evaluation of Warm Mix Asphalt New Technology**  
**Budget:** \$215,831  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Vivek Tandon; CO-PI: Soheil Nazarian  
**Proposed Year(s):** September 2006- August 2008

**Project Title:** **Using Cement Paste Rheology to Predict PCC Mix Design Problems**  
**Budget:** \$241,000  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Vivek Tandon; CO-PI: Soheil Nazarian  
**Proposed Year(s):** September 2006- August 2008

**Project Title:** **Beneficial Use of Scrap Tire Bales in Highway Projects**  
**Budget:** \$290,375 (UTEP Share 161,993)  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Vivek Tandon; CO-PI: Soheil Nazarian and Anand Puppala (UTA)  
**Proposed Year(s):** September 2006- August 2008

**Project Title:** **The Evaluation of a System for Measuring Seal Coat Quality**  
**Budget:** \$230,145  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Vivek Tandon; CO-PI: G. Rosiles, B. Usevitchand and V. Krenovich (EE and CS)  
**Proposed Year(s):** September 2005- August 2007

**Project Title:** **Nanotechnology Synthesis Study**  
**Budget:** \$67,432  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Vivek Tandon; CO-PI: Gregory Lush (EE)  
**Proposed Year(s):** September 2005- August 2006

**Project Title:** **Evaluation of Using Waste Lime-Silica Sludge in Concrete and Roadway Base Materials**  
**Budget:** \$74,980  
**Agency:** Southwest Consortium for Environmental Research and Policy  
**Researchers:** PI: Anthony Tarquin; CO-PI: Vivek Tandon  
**Proposed Year(s):** June 2005- May 2006

**Project Title:** **Noise Level Adjustments for Highway Pavements in TxDOT**  
**Budget:** \$452, 053  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Nasir Gharaibeh; CO-PI: Vivek Tandon  
**Proposed Year(s):** January 2004- August 2008

**Project Title:**           **Integration of Structure Property Performance Relationships and Self-Compensating Concept for Development of Smart PCC Composite**

**Budget:**                 \$651,026

**Agency:**             NSF CAREER Grant

**Researchers:**       PI: Vivek Tandon

**Proposed Year(s):** April 2003 – March 2008

**Project Title:**           **Non-Destructive Evaluation for Quality Control/Quality Assurance**

**Budget:**                 \$29,504

**Agency:**             Federal Highway Administration

**Researchers:**       PI: Soheil Nazarian; CO-PI: Vivek Tandon

**Proposed Year(s):** August 2002 – January 2003

**Project Title:**           **Reevaluate Current Potential Vertical Rise (PVR) Design Procedures**

**Budget:**                 \$169, 370

**Agency:**             Texas Department of Transportation

**Researchers:**       PI: Vivek Tandon; CO-PI: Soheil Nazarian and Carlos Ferregut

**Proposed Year(s):** September 2002- August 2004

**Project Title:**           **Use of Alternative Water Sources in Construction Operations**

**Budget:**                 \$136, 811

**Agency:**             Texas Department of Transportation

**Researchers:**       PI: Vivek Tandon; CO-PI: Charles Turner

**Proposed Year(s):** September 2001- August 2003

**Project Title:**           **Develop a Simple Mixture Test to Determine Binder Viscosity**

**Budget:**                 \$138, 537

**Agency:**             Texas Department of Transportation

**Researchers:**       PI: Vivek Tandon; CO-PI: Soheil Nazarian

**Proposed Year(s):** September 2001- August 2003

**Project Title:**           ***Feasibility Study for Continuous Deflection Testing on Pavement Surfaces***

**Budget:**                 \$59, 920 (UTEP Budget: 44, 920)

**Agency:**             Texas Department of Transportation

**Researchers:**       PI: Vivek Tandon; CO-PI: Roger Walker (UT Arlington)

**Proposed Year(s):** September 2001- August 2002

**Project Title:**           **Development of Smart Self Compensating Portland Cement Concrete Based on Structure-Property Performance Relationships**

**Budget:**                 \$ 373,580

**Agency:**             NSF CAREER Grant

**Researchers:**       PI: Vivek Tandon

**Proposed Year(s):** March 2001 – March 2006

**Project Title:** **Analysis and Development of Asphalt Quality Assurance Procedures**  
**Budget:** \$ 202, 137  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Vivek Tandon  
**Proposed Year(s):** September 2000 – August 2002

**Project Title:** ***Use of Innovative Materials to Control Drying Shrinkage Cracking of Concrete Bridge Decks***  
**Budget:** \$ 416, 900  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Vivek Tandon; CO-PI: Carlos Ferregut and Shailendra K. Varma (MME)  
**Proposed Year(s):** September 2000 – August 2004

**Project Title:** **Non-Destructive Test Methods for Determination of Debonding between Different Pavement Layers**  
**Budget:** \$ 4,500  
**Agency:** URI UTEP  
**Researchers:** PI: Vivek Tandon  
**Proposed Year(s):** October 1999

**Project Title:** **Assessment of Cohesionless Materials to be used as Compacted Fill**  
**Budget:** \$ 58, 197  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Miguel Picornell; CO-PI: Vivek Tandon  
**Proposed Year(s):** September 1998 – August 1999

**Project Title:** ***Use of Whole Tires and Fly Ash in Earth Retaining Structures***  
**Budget:** \$ 173, 961 (UTEP Share 132, 561)  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Miguel Picornell; CO-PI: Vivek Tandon and C. Vipulanandan (UH)  
**Proposed Year(s):** September 1998 – August 2000

**Project Title:** **Evaluate the Uses for Scrap Tires in Transportation Facilities**  
**Budget:** \$ 47, 346  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Miguel Picornell; CO-PI: Vivek Tandon  
**Proposed Year(s):** September 1997 – August 1998

**Project Title:** **Performance Characteristics of Asphaltic Materials Utilizing Light Weight Aggregate**  
**Budget:** \$ 100, 000  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Soheil Nazarian; CO-PI: Vivek Tandon and Deren Yuan  
**Proposed Year(s):** September 1997 – August 1999

**Project Title:** Development Thermal Coefficient of Expansion Test  
**Budget:** \$ 99, 487  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Miguel Picornell; CO-PI: Vivek Tandon  
**Proposed Year(s):** September 1996 – August 1997

**Project Title:** Characterization of Asphalt with Ultrasonic Waves  
**Budget:** \$ 110, 384  
**Agency:** ARP/ATP  
**Researchers:** PI: Soheil Nazarian; CO-PI: Vivek Tandon, Miguel Picornell, and D.Yuan  
**Proposed Year(s):** October 1997 – September 1999

**Project Title:** Evaluation of Bituminous Patching Materials for Maintenance Applications  
**Budget:** \$ 76, 008  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Miguel Picornell; CO-PI: Vivek Tandon  
**Proposed Year(s):** September 1996 – August 1998

**Project Title:** Effectiveness Comparison of Former HMAC Specifications and the most Current QA/QC Specification for HMAC  
**Budget:** \$ 61, 280  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Miguel Picornell; CO-PI: Vivek Tandon  
**Proposed Year(s):** September 1996 – August 1998

**Project Title:** Dynamic Behavior of Frozen-Thawed Pavement-Subgrade Systems  
**Budget:** \$ 258, 360  
**Agency:** ARP/ATP  
**Researchers:** PI: Miguel Picornell; CO-PI: Vivek Tandon and Soheil Nazarian  
**Proposed Year(s):** October 1996– September 1999

**Project Title:** Specifications for Backfill of Reinforced Earth Retaining Walls  
**Budget:** \$ 130,356  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Soheil Nazarian; CO-PI: Vivek Tandon and Miguel Picornell  
**Proposed Year(s):** September 1995 – August 1997

**Project Title:** Compare Lime/Cement Subgrade Stabilization  
**Budget:** \$ 44, 306  
**Agency:** Texas Department of Transportation  
**Researchers:** PI: Miguel Picornell; CO-PI: Vivek Tandon and Soheil Nazarian  
**Proposed Year(s):** September 1995 – August 1997

**Project Title:** Guideline for Using Hydrated Flyash as a Flexible Base  
**Budget:** \$ 25, 189  
**Agency:** Texas Department of Transportation

**Researchers:** PI: Miguel Picornell; CO-PI: Vivek Tandon and Soheil Nazarian  
**Proposed Year(s):** September 1995 – August 1997

## Teaching

### Philosophy

The first semester I taught a course at the University of Texas at El Paso (UTEP), my teaching evaluations were below my expectations. That eventually led to major discussions with the Department Chair. In the end, we agreed to enhance my teaching skills by attending the ExCEED Teaching Workshop offered by the Military Academy at West Point (supported by ASCE). The workshop, decades of teaching, research, and learning have shaped my teaching philosophy. Since the goal of faculty is to educate future generations, the most effective approach is to motivate students to be life-long learners.

Even though the literature suggests various teaching styles and delivery approaches, it is almost impossible to incorporate various learning styles and delivery approaches in a classroom. Based on decades of experience, I feel that UTEP students are best motivated by showing them real-life applications of the concepts (experiential learning style). According to McKeachie, the experiential learning technique improves the understanding of concepts and motivates students to seek further knowledge. Experiential learning allows the conversion of abstract concepts to a meaningful experience when students are exposed to “real-life” phenomena. Besides, the field and laboratory experience simulate questions in students’ minds that lead to active learning. Most importantly, the experience can link learning, thinking, and practice.

Another important aspect I consider to be a part of teaching philosophy is the assessment of the information provided to students. Even though various assessment tools are available, the selection of appropriate assessment tool(s) is important to gauge the knowledge gained. Besides, the assessment analysis can be used to modify course content and delivery.

### Courses Developed and Taught

- Geotechniques of Landfill: In Summer 2021, I have developed a new course to teach landfill design with emphasis on geotechnical aspects of landfill design.
- Sustainable Engineering Design: In Spring 2016, a new course to teach sustainable design with an emphasis on Life Cycle Assessment was developed. The students were provided with an opportunity to design a facility using conventional and sustainable technology to identify the challenges and benefits.
- Advanced Civil Engineering Materials: In Fall 02, I taught this course for the first time and had regularly been teaching. The fundamentals of hot asphalt concrete and Portland cement concrete mix design process are covered in this course. I also assign students papers to read and expose them to the process of how to critique

and write research papers. The students also have an opportunity to visit and learn about asphalt concrete and Portland cement concrete construction process.

- Graphics Fundamental in Engineering Design: I received a grant from Model Institute of Excellence (at UTEP) to develop computer-based instruction and develop various models to improve visualization of 3-D objects from 2-D drawings or vice versa. A customized version of the book has also been developed for the course. Also, supplemental instructions have been developed to enhance understanding of the graphics fundamentals. The supplemental instructions include AutoCAD lessons, models for drawing, and a website to provide students access to the lesson plans. Additionally, students were provided with an opportunity to design and draw their dream house.
- Geotechnical Site Investigation: To teach this course, I collaborate with the local consulting firms to demonstrate field boring, collaborate with the geophysics department to demonstrate geophysical field measurement, and invite local contractors to present site investigation from their perspective along with site visit to expose them to practice.
- Pavement Material Characterization: I developed this course based on Professor Training Course offered by the National Center for Asphalt Technology, Auburn. Also, I have setup UTEP's SHRP laboratory for performing SUPERPAVE volumetric mix design of asphalt concrete mixtures. The combination of theoretical and hand's on experience enhances students understanding of pavement material. A field trip is also organized with the help of local asphalt concrete manufacturers to expose students to the asphalt concrete production process.
- Civil Engineering Materials: This course was introduced in the spring 2001. For this course, I developed course content, multimedia-based instructions, and laboratory manual. The laboratory sessions include a visit to the local asphalt plant and a safety session. The course also includes a site visit to a production plant for the experiential learning experience.
- Advanced Geotechnical Engineering (Previously known as Advanced Soil Mechanics): This is a graduate-level course, and course content included shear strength, slope stability, and consolidation of soils.
- Introduction to Engineering and Design: I had offered this freshmen level course in Fall 99. In this course, students learned about various engineering majors and participated in a group project to learn the concept of design.
- Geology for Engineers: Traditionally, this course is taught by the Department of Geological Sciences. However, the shortage of instructors leads to transfer of this course to the Department of Civil Engineering. I taught this course for the first time in the spring of 2003. I modified the course content and PowerPoint presentations. I had developed two sets of presentations. One set was for students with missing components to encourage student interaction while the other set was for an instructor that included answers to the missing components. This eliminated

- monotony present with PowerPoint Presentations. A website was also developed to provide students access to the lessons, homework assigned, and solutions.
- *Slope Stability*: In Fall 10, I taught this course for the first time. The course covers shear strength of the soils, hand calculation methods for slope stability analysis, use of computer software for the analysis, and slope stability management methods.
  - *Mechanics, Dynamics, and Statics*: I teach these sophomore-level courses on a need basis and use YouTube to deliver the concept.

### **MS Students Graduated**

|                         |  |
|-------------------------|--|
| <b>Student Names:</b>   | Jose Ramirez Guerrero  |
| <b>Thesis Title:</b>    | <b>Recycling of Glass in Portland Cement</b>   |
| <b>Degree Expected:</b> | May 2022   |
| <b>Student Names:</b>   | Herman Serrato   |
| <b>Thesis Title:</b>    | <b>Identification and Evaluation of Critical Transportation Infrastructure Resilience After Hydro-meteorological Event</b> |
| <b>Degree Awarded:</b>  | December 2021  |
| <b>Student Names:</b>   | Armando Esquivel   |
| <b>Thesis Title:</b>    | <b>Application of Machine Learning in Flood Depth Prediction</b>   |
| <b>Degree Awarded:</b>  | May 2021   |
| <b>Student Names:</b>   | Jorge Navarrette   |
| <b>Thesis Title:</b>    | <b><i>Influence of Gypsum on Drainability of Water Retention Pond</i></b>  |
| <b>Degree Awarded:</b>  | August 2018  |
| <b>Student Names:</b>   | Anjuman Ara Akhtar   |
| <b>Thesis Title:</b>    | <b>The influence of Extreme Rainfall Event on Bridge Scour</b>   |
| <b>Degree Awarded:</b>  | December 2018  |
| <b>Student Names:</b>   | Aliasghar Dormohammadi   |
| <b>Thesis Title:</b>    | <b><i>Influence of overlay thickness on interface bonding</i></b>  |
| <b>Degree Awarded:</b>  | August 2017  |
| <b>Student Name:</b>    | Arturo Arias   |
| <b>Project Title:</b>   | <b>Optimization of ME-Darwin Pavement Design Method using RealCost</b>   |
| <b>Degree Awarded:</b>  | December 2013  |
| <b>Student Name:</b>    | Maria Gisel Hernandez  |
| <b>Project Title:</b>   | <b><i>Low-Calcium Fly Ash- Based Geopolymer-An Alternative to Portland Cement</i></b>                                      |
| <b>Degree Awarded:</b>  | August 2013  |

|                        |   |
|------------------------|---|
| <b>Student Name:</b>   | Bijoy K. Halder   |
| <b>Thesis Title:</b>   | <b>Sustainable Disposal of Concentrated Brine</b>   |
| <b>Thesis Defended</b> | May 2012  |
| <b>Student Name:</b>   | Laith A Al Sabty  |
| <b>Thesis Title:</b>   | <b>Selection of Sustainable Rigid Pavement Using The Mechanistic-Empirical Pavement Design Guide</b>    |
| <b>Thesis Defended</b> | December 2011   |
| <b>Student Name:</b>   | Vamsi K. Pinnamaneni  |
| <b>Thesis Title:</b>   | <b>Applicability of MEPDG for India based on Texas Pavement and Environmental Conditions</b>            |
| <b>Thesis Defended</b> | December 2010   |
| <b>Student Name:</b>   | Kiran Kumar Manick  |
| <b>Project Title:</b>  | <b><i>Predicting Rutting Potential of HMAC</i></b>  |
| <b>Degree Awarded</b>  | May 2008  |
| <b>Student Name:</b>   | Srinivasa R. Edula  |
| <b>Thesis Title:</b>   | <b><i>Evaluate Feasibility of the UTEP Pull-Off Tack Coat Device</i></b>                                |
| <b>Thesis Defended</b> | May 2007  |
| <b>Student Name:</b>   | Gina Hrdlicka   |
| <b>Thesis Title:</b>   | <b><i>Estimation of Hot Mix Asphalt Concrete Rutting Potential from Repeated Creep Binder Tests</i></b> |
| <b>Thesis Defended</b> | December 2006   |
| <b>Student Name:</b>   | Rajpal Sugandh  |
| <b>Thesis Title:</b>   | <b><i>Rutting Potential of Polymer Modified HMAC</i></b>  |
| <b>Thesis Defended</b> | December 2005   |
| <b>Student Name:</b>   | Vaibhav Swami   |
| <b>Thesis Title:</b>   | <b><i>Development and Evaluation of Crumb-Rubber Hot Mix Asphalt Concrete Mixtures</i></b>              |
| <b>Thesis Defended</b> | August 2005   |
| <b>Student Name:</b>   | Surendra Varma Sagi   |
| <b>Thesis Title:</b>   | <b><i>Effect of Construction Variability on Moisture Susceptibility of HMAC</i></b>                     |
| <b>Thesis Defended</b> | November 2004   |
| <b>Student Name:</b>   | Indranil Deysarkar  |
| <b>Thesis Title:</b>   | <b><i>Test Set-up to Determine Quality of Tack Coat</i></b>   |
| <b>Thesis Defended</b> | June 2004   |



**Student Name:** Babu S. Kambham  
**Thesis Title:** *Evaluation of Simple Performance Tests for Predicting Moisture Damage of Hot Mix Asphalt Concrete*  
**Thesis Defended:** August 2003

**Student Name:** Sheetalnath Mahalungkar (Mechanical Engineering student)  
**Thesis Title:** *Influence of a Discontinuity on Stress Concentrations in Composite Layered Material System*  
**Thesis Defended:** January 2003

**Student Name:** Xuequn Bai  
**Thesis Title:** *Assessment of Relationship between Complex and Seismic Moduli of Asphalt Concrete Mixtures*  
**Thesis Defended:** August 2002

**Student Name:** Marios Kofteros  
**Thesis Title:** *Development of smart mortar based on self-compensating concept*  
**Thesis Defended:** May 2001

**Student Name:** Daniel Velazco  
**Project Title:** *Design and Installation of Instrumentation for Performance Monitoring of Tire Chip Embankments*  
**Degree Awarded:** December 1999

#### **Ph.D. Students Graduated**

**Student Names:** Megha Sharma  
**Dissertation Title:** *Understanding Influence of Climate on Pavement Performance*  
**Degree Awarded:** August 2018

**Student Name:** Sundeep Inti  
**Dissertation Title:** *A Decision Making Approach For Selection Of Sustainable Pavements In Texas By Integrating Life Cycle Cost Analysis (LCCA), Life Cycle Assessment Of Environmental And Social Impacts*  
**Degree Awarded:** June 2016

**Student Name:** Gottumkkala Bharath (Joint Director with Dr. K. S, Reddy of IIT-Kharagpur)  
**Dissertation Title:** *Performance Characteristics of Bituminous Mixtures Containing Recycled Asphalt Pavement Material*  
**Degree Awarded:** August 2016

#### **Ph.D. Students in Pipeline:**

**Student Names:** Sharron Murillo  
**Dissertation Title:** *Use of Metakolin in Portland Cement Concrete*

**Degree Expected:** December 2024

**MS Students in Pipeline:**

**Student Names:** Jose Carrasco  
**Thesis Title:** Use of Pecan in Portland Cement Concrete  
**Degree Expected:** May 2023

**Student Names:** Mauricio Esquivel  
**Dissertation Title:** Glass Recycling in Asphalt Concrete  
**Degree Expected:** December 2024

**Thesis Committee**

**Master's:** 30+

**Ph.D.** 10+

**Undergraduate Students Supported on Fellowship under NSF Grant (2009-2015)**

| First Name | M. | Last Name  | First Name  | M. | Last Name | First Name | M. | Last Name |
|------------|----|------------|-------------|----|-----------|------------|----|-----------|
| Dijon      | M  | Anderson   | Luis        |    | Gutierrez | Jazmin     |    | Porras    |
| David      |    | Artalejo   | Alejandro   |    | Hernandez | Isaiah     | J  | Portillo  |
| Andres     | G  | Arvizo     | Zachary     | T  | Jackson   | Luis       | A  | Portillo  |
| Angelica   |    | Bailey     | Christopher | D  | Llamas    | Leslie     |    | Prat      |
| Ismael     |    | Beltran    | Daniel      |    | Llausas   | Paul       | A  | Rascon    |
| Juan       | N  | Cano       | Magali      |    | Lopez     | Michael    |    | Rivera    |
| Mariana    |    | Chaidez    | Edgar       | A  | Lopez     | Christian  | I  | Rodarte   |
| Mark       | T  | Chavez     | Manuel      | A  | Lozano    | Diana      |    | Rodriguez |
| David      | R  | Delacruz   | Lorenzo     |    | Luevano   | Ileana     |    | Rubio     |
| Laura      |    | Delgado    | Santiago    | S  | Macias    | Alejandra  |    | Salinas   |
| Luis       |    | Delgado    | Humberto    |    | Marquez   | Paul       |    | Sanchez   |
| Daniel     |    | Duran      | Jorge       |    | Martinez  | Jessica    |    | Segovia   |
| Roya       |    | Edalatpour | Noel        | P  | Martinez  | Daniel     | A  | Seyffert  |
| Melissa    | I  | Escalante  | Omar        |    | Medina    | Macie      | Z  | Subia     |
| Elizabeth  | v  | Favela     | Karla       | E  | Montano   | Trent      |    | Tynan     |
| Juan       |    | Fernandez  | Martin      | A  | Morales   | Victor     |    | Velasco   |
| Ruben      |    | Gamez      | Ulises      |    | Munoz     | Steven     | V  | Velazquez |
| Alan       | E  | Garcia     | Jonathan    |    | Navarrete |            |    |           |
| Stephen    | T  | Gavilanes  | Andres      | G  | Navarro   |            |    |           |
| Kevin      |    | Godina     | Arturo      |    | Ortiz     |            |    |           |
| Sergio     | A  | Guerrero   | Dylan       |    | Ott       |            |    |           |
| Mario      |    | Guillen    | Ian         | T  | Perez     |            |    |           |

### **Undergraduate Students Actively Participated in Research Under My Guidance**

- ❖ Ms. Adriana Geiger, Research Experience for Undergraduate, Model Institute of Excellence (MIE), UTEP
- ❖ Ms. Marisol Sarabia, Research Experience for Undergraduate, MIE, UTEP
- ❖ Ms. Marisol Sarabia, Recipient of Eisenhower Undergraduate Scholarship
- ❖ Ms. Crystal Franco, Research Experience for Undergraduate, MIE, UTEP
- ❖ Mr. Ivan Avelar, Research Experience for Undergraduate, MIE, UTEP
- ❖ Mr. Christopher Carlos Villa, Research Experience for Undergraduate, MIE, UTEP
- ❖ Ms. Susana Facio, Alliance for Minority Participation, UTEP
- ❖ Mr. Edward Paganini, Eisenhower Fellowship, FHWA
- ❖ Mr. Jorge Gomar, Research Experience for Undergraduate, MIE, UTEP
- ❖ Mr. Isaac Puentes, Alliance for Minority Participation, UTEP
- ❖ Mr. Jesus Salina, Undergraduate Research Assistant
- ❖ Mr. Ubaldo Ortega, Undergraduate Research Assistant
- ❖ Mr. Edgar Guerrero, Undergraduate Research Assistant
- ❖ Ms. Valeria Lopez, Undergraduate Research Assistant
- ❖ Ms. Sofia Martin, Undergraduate Research Assistant
- ❖ Ms. Catherine Nadour, Undergraduate Research Assistant
- ❖ Mr. Jose Luis Aria, Undergraduate Research Assistant
- ❖ Mr. Armando Esquivel, Undergraduate Research Assistant
- ❖ Mr. Sadeer Mustafa, Undergraduate Research Assistant
- ❖ Mr. Rafael Silva, Undergraduate Research Assistant

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19. Avelar, I., and Tandon, V., “SUPERPAVE Adoption by State Highway Agencies: Implementation Status, Assessment, and Benefits,” Report No. DTFH-02-104-1S, Center for Highway Materials Research, El Paso, Texas, 2002.
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21. Nazarian, S., Yuan, D., Tandon, V. and Arellano, M., “Quality Management of Flexible Pavement Layers with Seismic Methods,” Report No. TX-02 1735-3F, Texas Department of Transportation, 2002.
22. Rocha, S., Nazarian, S. and Tandon, V., “A comprehensive Calibration Strategy for the Texas Department of Transportation Falling Weight Deflectometer Fleet, Report No. TX-02 1784-2, Texas Department of Transportation, 2002.
23. Rocha, S., Nazarian, S. and Tandon, V., “The Impact of Solid and Split Load Plates on the Response of the Falling Weight Deflectometer,” Report No. TX-02 1784-3F, Texas Department of Transportation, 2002.
24. Rocha, S., Tandon, V., and Nazarian, S., “Reproducibility of Texas Department of Transportation Falling Weight Deflectometer Fleet,” Report No. TX02 1784-1, Texas Department of Transportation, 2001
25. Kofteros, M. and Tandon, V., “Development of Smart Mortar Based on Self-Compensating Concept,” Report No. TX-01 1786 -1F, Center for Highway Materials Research, El Paso, Texas, 2001
26. Velazco, D., Rashid, M.H., Tandon, V., Nazarian, S., Picornell, M., and Ashur, S., “Design and Installation of Instrumentation for Monitoring Performance of Tire Chip Embankments,” Report No. TX-00 4930-1F, Center for Transportation Infrastructure Systems, The University of Texas at El Paso, El Paso, Texas, 2001.
27. Tandon, V. and Nazarian, S., “Modified Environmental Conditioning System: Validation and Optimization,” Report No. TX-00 1826-1F, Texas Department of Transportation, 2001.
28. Tandon, V. and Picornell, M., “Investigation of Electrokinetic Method to Reduce Sulphate Induced Heaving in Soils- A Laboratory Study,” Report No. TX-01 3954-1F, Texas Department of Transportation, 2001.
29. Velazco, D., Tandon, V., Nazarian, S., Picornell, M., and Ashur, S., “Design and Installation of Instrumentation for Monitoring Performance of Tire Chip Embankments,” Report No. TX-00 4930-1F, Center for Highway Materials Research, El Paso, Texas, 2000.
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31. Tandon, V. and Nazarian, S., "Calibration Procedures for Seismic and Deflection-Based Devices," Report No. TX-98 2984-2F, Texas Department of Transportation, Texas, 1998.
32. Nazarian, S., Yuan, D., and Tandon, V., "Specifications for Tools Used in Structural Field Testing of Flexible Pavement Layers," Report No. TX-98 1735-1, Texas Department of Transportation, Texas, 1998.
33. Alam, M.M., Vemuri, N., Tandon, V., Nazarian, S., and Picornell, M., "A Test Method for Identifying Moisture Susceptible Asphalt Concrete Mixes," Report No. TX-98 1455-2F, Texas Department of Transportation, Texas, 1998.
34. Nazarian, S., Tandon, V., Crain, K., and Yuan, D., "Feasibility Study on Improvements to Dynamic Cone Penetrometer," Report No. TX-97 3903-2, Texas Department of Transportation, Texas, 1997.
35. Tandon, V., and Picornell, M., "Evaluation and Guidelines for Drainable Bases," Report No. TX-96 1456-1F, Texas Department of Transportation, Texas, 1996.
36. Tandon, V., Vemuri, N., and Nazarian, S., "A Comprehensive Evaluation of Environmental Conditioning Systems," Report No. TX-96 1455-1, Texas Department of Transportation, Texas, 1996.
37. Wray, W.K., Tandon, V., Picornell, M., Narayan, R.S., and Mikel, N.J., "Recycled Materials in Vertical Moisture Barrier," Report No. 1354-1F, Texas Department of Transportation, Texas, 1996.
38. Tandon, V., "Streamlining, Calibration, and Validation of Preliminary SHRP Thermal Cracking Performance Prediction Model," Ph.D. Dissertation, Department of Civil and Environmental Engineering, The Pennsylvania State University, 1994.
39. Tandon, V. and Nazarian, S., "Comprehensive Evaluation of Sensors Used for Pavement Monitoring," Research Report 913-1F, Center for Highway Materials Research, The University of Texas at El Paso, 1991.
40. Tandon, V. and Nazarian, S. "An Absolute Calibration System for Nondestructive Testing Devices," (with Tandon), Research Report 913-2, Center for Geotechnical and Highway Materials Research, UTEP, September 1990.
41. Tandon, V. and Nazarian, S. "User's Manual to Program CALIBRAT," Research Report 913-3, Center of Geotechnical and Highway Materials Research, UTEP, September 1990.
42. Tandon, V., "Development of an Absolute Calibration System for Nondestructive Testing Devices," Master of Science Thesis, Department of Civil Engineering, The University of Texas at El Paso, August 1990.

## **National and State Committee Member**

- ❖ Technical Panel Member National Cooperative Highway Research Program Project 52-10 "Subsurface Drainage Practices in Pavement Design, Construction, and Maintenance."
- ❖ Handling Editor, Transportation Research Record Editorial Board, 19-current.
- ❖ Member Committee AKG30 (Committee on Geo-Environmental and Climatic Impacts on Geomaterials), Transportation Research Board 20-25.
- ❖ Member Committee AFP50 (Seasonal Climatic Effects on Transportation Infrastructure), Transportation Research Board, 19-20.

- ❖ Technical Advisor for the Materials and Design, Team of our Technical Advisory Council, Greenroads Foundation, 19-21.
- ❖ Technical Panel Member National Cooperative Highway Research Program Project 9-52 “Short-Term Laboratory Conditioning of WMA Mixtures for Mix Design and Performance Testing”
- ❖ Technical Advisory Panel Member (Research Management Committee for Pavements) of the Texas Department of Transportation, 95-Current.
- ❖ Chair, Professional Engineers in Higher Education, Texas Society of Professional Engineers, Sep. 11-15.
- ❖ Chair, ASCE Construction Institute (CI) Bituminous Materials Sub-Committee, 14-15.
- ❖ Member Committee AFK20 (Characteristics of Bituminous Materials), Transportation Research Board, 08-11.
- ❖ Member Committee AFK30 (Characteristics of Nonbituminous Components of Bituminous Paving Mixtures), Transportation Research Board, 01-10.
- ❖ Member Committee AFS60 (Subsurface Drainage), Transportation Research Board, 99-07.
- ❖ Member, ASCE Construction Institute (CI) Bituminous Materials Sub-Committee, 00-Current.
- ❖ Tuning Oversight Committee Member, Texas Higher Education Coordinating Board, 10-12.

## **University Committee Member**

- ❖ Committee on Committee 16-18, 21-23
- ❖ Graduate Council, 15-18
- ❖ Student Grievance Committee 13-20
- ❖ Undergraduate Curriculum Committee 11-14
- ❖ Chair, Undergraduate Curriculum Committee 13-14
- ❖ Faculty Senate 00-02
- ❖ Teaching Effectiveness Committee 03-06
- ❖ Chair Student Conduct Committee 00-03
- ❖ Customer Service Committee 02-05
- ❖ Chair Library Coffee Committee (a subcommittee of Customer Service Committee) 02-03
- ❖ Chair Student Advising Committee (a subcommittee of Customer Service Committee) 03-04
- ❖ Assistant Dean of Student Search Committee 03-04

## **Department/College Committee Member**

- ❖ ABET Co-Coordinator, Construction Engineering and Management Program, 20-21
- ❖ Engineering Faculty Council 19-current
- ❖ Dean Search Committee 15-16
- ❖ College Safety Committee, 14-18

- ❖ College Curriculum Committee 11-19
- ❖ Chair, College Curriculum Committee, 14-16
- ❖ Structural Faculty Search Committee, 03-04, 08-09, 10-12
- ❖ Geotechnical Faculty Search Committee, 10-12
- ❖ Water-Energy Nexus Faculty Search Committee, 10-11
- ❖ Faculty/Staff Budget Process Team, 02-03
- ❖ Public Health Policy Faculty Search Committee, 01-02
- ❖ College Strategic Goal Committee, 07-08
- ❖ College Scholarship Committee, 03-09
- ❖ ABET Coordinator for the Department of Civil Engineering, 99-09
- ❖ Undergraduate Program Director, Department of Civil Engineering 07-09

## **Workshops/Courses Attended**

- ❖ Higher Innovation for Students in Hispanic Serving Institutions (HIS in HSIs), NSF Conference For Hispanic Serving Institutions, September 10-11, Albuquerque, New Mexico-2016.
- ❖ 2015 Professor Training workshop, PCA Education Foundation, July 20-24.
- ❖ NSF Grant Training Workshop February 22-23, 2010 at NSF Headquarters, Arlington, VA
- ❖ Attended Professor Training Course on Driven Piles Offered by PDCA in Logan, Utah, June 2006.
- ❖ Attended The Exceed Teaching Workshop Offered by American Society of Civil Engineers in US Military Academy, July 2002.
- ❖ LTPP Data Analysis Professor Training Workshop Sponsored by American Society of Civil Engineers and Federal Highway Administration, University of Reno, Dec. 2001.
- ❖ Seventh Faculty Enhancement Workshop on Repair, Monitoring, and Rehabilitation of Concrete Structures Sponsored by ACBM/PCA, Purdue University, July 2000.
- ❖ Integrating Design Across the Undergraduate Engineering Curriculum, University of Oklahoma, July 2000.
- ❖ Professor Training Course in Asphalt Technology, National Center for Asphalt Technology, June 1996.
- ❖ SHRP Superpave Mix Design Course, Asphalt Institute, May 1995.

## **Workshops Organized**

- ❖ Conference Chair 2012, Gulf-Southwest Section of American Society of Engineering Education
- ❖ Organizing Committee Member: INDO-US Workshop on Recent Developments in Highway and Airport Pavement Engineering 07-08 Aug. 2009 held at IIT Madras, India

## **Miscellaneous/International Activities**

- ❖ Invited to be Panel Member at the Vaishwik Bharatiya Vaigyanik Summit (Vaibhav), October 2020.
- ❖ Invited to be Speaker at the XI Regional Congress of Civil Engineering Students - COREIC 2019, organized by the Academic Program of Civil Engineering of the UDEP Engineering School, Universidad de Piura, Peru.
- ❖ Invited to be a Keynote Speaker at the International Conference on Pavements and Computational Approaches Organized by CRRI on November 16-17, 2018.
- ❖ Invited to teach “Holistic Approach For Design, Construction, And Maintenance Of Resilient Road Pavement Infrastructure,” course by Global Initiative of Academic Network (Sponsored by the Government of India) at the National Institute of Technology, Tiruchirappalli (May 2018).
- ❖ Invited to teach “Maintenance and Preservation Treatment of Highways to Economically Enhanced Service Life in Sustainable Manner,” course by Global Initiative of Academic Network (Sponsored by the Government of India) at the National Institute of Technology, Rourkela (December 2016).
- ❖ Editorial Board of Journal of Sustainability Research.
- ❖ Editorial Board of International Journal of Engineering Technology and Sciences.
- ❖ Invited to be Keynote Speaker at the CTRG 2015, 3rd Conference of the Transportation Research Group of India held between 17-20 December 2015.
- ❖ Invited to Attend National Seminar on Moisture Sensitivity (attendance by invitation)
- ❖ Invited Speaker: INDO-US Workshop on Highway and Airport Pavement Engineering: Challenges and Opportunities 30-31 July 2010 at IIT Kharagpur, India.
- ❖ Organized INDO-US Workshop on Recent Developments in Highway and Airport Pavement Engineering 07-08 August 2009 held at IIT Madras India.
- ❖ Reviewed Miscellaneous papers for various journals and proceedings:
  - American Society of Civil Engineering (Geotechnical Institute, Journal of Materials in Civil Engineering)
  - Eastern Asia Society for Transportation Studies, Japan
  - AFS60 (Subsurface Drainage), Transportation Research Board
  - AFK40 (Characteristics of Asphalt-Aggregate Combinations To Meet Surface Requirements), Transportation Research Board
  - AFK30 (Characteristics of Nonbituminous Components of Bituminous Paving Mixtures), Transportation Research Board
  - AFK20 (Characteristics of Bituminous Materials), Transportation Research Board
  - AF000 (Design and Construction Group), Transportation Research Board
  - Association of Asphalt Paving Technologists
  - International Journal for Pavement Engineering
  - Conference of Transportation Research Group, India.
  - Gulf Southwest Section of American Society of Engineering Education
  - Construction and Building Materials
  - Journal of Testing and Evaluation
  - Journal of Hazardous Materials
  - Journal of Transportation in Developing Economy



- International Scientific Committee, Eastern Asia Society for Transportation Studies
- Iranian Journal of Science and Technology
- ❖ Books Reviewed:
  - Fundamentals of Graphics Communications (by Bertoline et al.)
  - Engineering Design Communication, Lockhart/Johnson
  - Report on the Use of Fly Ash in Concrete 232.2R, ACI Technical Committee Document
  - Elements of Nature and Properties of Soils, Brady, and Well.
- ❖ Reviewed Proposals from:
  - University of Rhode Island Transportation Center (URITC), University Of Rhode Island Transportation Center
  - Mid-Atlantic Universities Transportation Center (MAUTC), Pennsylvania State University
  - Southern Plains Transportation Center (SPTC)
- ❖ A reviewer of the Fulbright Specialist Program