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EDUCATION

Texas A&M University , College Station, TX Dissertation : Performance-based approach to evaluate alkali-silica reaction potential of aggregate and concrete using dilatometer method	Ph.D in Civil Engineering	05/2008
Pusan National University , Pusan, Rep. of Korea Thesis : A Study on the effect of air void system on the frost resistance of fly ash concrete	M.S in Architectural Engineering	02/1999
Taegu University , Taegu, Rep. of Korea Thesis : An experimental study on the strength development of concrete using warm water curing method	B.S in Architectural Engineering	02/1997

PROFESSIONAL EXPERIENCE

Nazarbayev University , Astana, Kazakhstan	Assistant Professor in Civil Eng.	08/2014 Present
Texas A&M Transportation Institute , College Station, TX	Assistant Research Scientist in Materials & Pavement Division	11/2010 ó 07/2014
Texas A&M University , College Station, TX	Post-doctoral Research Associate in Civil Eng.	04/2008 ó 10/2010
Texas A&M University , College Station, TX	Research Associate in Civil Eng. Graduate Research Assistant in Civil Eng.	12/2007 ó 04/2008 05/2000 ó 11/2007

HONORS and AWARDS

Nominated TRB 2007 best annual meeting paper for Practice-Ready Paper Award	01/2007
Awarded Portland Cement Association (PCA) education foundation fellowship	09/2004
Awarded a medal for a superior research paper (Architectural Institute of Korea)	02/1997
Awarded a full academic scholarship, Taegu University, Taegu, Korea	03/1993 ó 12/1996
Awarded outstanding soldier commendation (Rep. of Korean Army)	09/1992

PROFESSIONAL SERVICE AND MEMBERS

Technical Committee	The Global Network of Korean Scientists and Engineers Texas Coal Ash Utilization Group (TCAUG)	09/2009 ó Present 06/2008 ó Present
Journal Reviewer	Journal of Testing and Evaluation (ASTM) Journal of Materials in Civil Engineering (ASCE) Journal of Construction and Building Materials Journal of Environmental Technology ACI Materials Journal	09/2007 ó Present
Professional Member	American Concrete Institute (ACI) American Society of Civil Engineering (ASCE) Korean-American Scientists and Engineers Association (KSEA)	01/2001 ó Present 01/2001 ó Present 03/2005 ó Present

	Korea Concrete Institute (KCI) Architectural Institute of Korea (AIK)	07/2001 ó Present 09/1996 ó Present
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TEACHING EXPERIENCE

Mentor	Assisted Jake Young, a student at Yoe High School in Cameron, TX with developing experimental programs and teaching the manufacture of earthen bricks for the regional competition of the Intel International Science and Engineering Science Competition. He won \$550 in prize and won second in mechanical and bioengineering category	10/2008 ó 03/2009
Graduate Teaching Assistant	Civil Engineering, Texas A&M University, College Station, Texas Teaching Focus <ul style="list-style-type: none"> Assisted students with Engineering Foundation (ENGR 111) course and Principles of Materials Engineering (ENGR 213) course by providing individual tutoring and group review sessions ranging in size from 45 to 100 students. Assisted professors with grading and record keeping 	Fall 2002 Spring 2003

RESEARCH INTERESTS

<ul style="list-style-type: none"> Construction material characterization & microstructural analysis of construction materials using optical microscope, SEM, TEM, & XRD Durability of concrete Development of high performance concrete / special concrete Utilization of chemical / mineral admixtures in construction application Sensing and monitoring techniques for structural health monitoring Subgrade and base-course stabilization in roadway construction Full depth reclamation (FDR) in roadway construction Design, behavior, and performance of rigid pavement

RESEARCH EXPERIENCE

Construction Material Characterization & Microstructural Analyses	<ul style="list-style-type: none"> Characterization of Sanitary Wastes as Pozzolanic Materials and Aggregates in Portland Cement Concrete (P.I.) Use and Characteristics of Modified Drilling Fluid for Roadway Construction (TxDOT 0-6581-TI-3) Evaluation of West Texas Natural Zeolite as an Alternative of ASTM Class F Fly Ash (TEES 510681-9000) New Aggregate Characterization Tests for Thermal and ASR Reactivity Properties A Study on the effect of air void system on the frost resistance of fly ash concrete 	10/2012 ó Present 09/2010 ó 08/2011 09/2007 ó 08/2008 09/2000 ó 08/2001 03/1997 ó 06/1998
Concrete Durability	<ul style="list-style-type: none"> Evaluation of Corrosion Inhibitors for Reducing Corrosion Potential of Reinforced Rebar in Chloride Contained Concrete (P.I.) ASR Testing: A New Approach to Aggregate Classification and Mix Design Verification (TxDOT 0-6656) Mitigation of ASR in Concrete Pavement ó Combinded Materials Testing (IPRF-01-G-002-03-2) Evaluation of Alkali Silica Reactivity of Mineral and Aggregate Using Dilatometer Method (IPRF-01-G-002-02-5.1) Handbook for Identification of Alkali-Silica Reactivity in Airfield Pavements (FAA 150/5380-8) Improvement of Anti-corrosion Performance of Concrete 	09/2008 ó 08/2013 09/2009 ó 08/2013 09/2005 ó 08/2009 09/2004 ó 08/2005 09/2001 ó 12/2003 03/1997 ó 02/1998

Development of High Performance / Special Concretes	<ul style="list-style-type: none"> Evaluation of Structural Lightweight Concrete Containing Expanded Polypropylene (EPP) Bead (P.I.) 	01/2012 ó 12/2013
	<ul style="list-style-type: none"> Method and Composition for Enhancing the Insulating Properties of a Trafficked Surface (TEES 510681-3000) (P.I.) 	01/2009 ó 12/2011
	<ul style="list-style-type: none"> Evaluation of Frost Resistance in Cellular Concrete Exposed to Slow Freeze-Thaw Cycles 	01/2007 ó 12/2007
	<ul style="list-style-type: none"> Alkali-Silica Reactivity Resistance of High-Volume Fly Ash Cementitious System 	06/2000 ó 08/2001
	<ul style="list-style-type: none"> Development of High Strength Concrete Using Rice Husk Ash 	03/1997 ó 12/1998
Utilization of Chemical / Mineral Admixtures in Construction Application	<ul style="list-style-type: none"> Development of Lightweight Roadside Safety Barriers Using Foaming Admixture: Phase I-Properties of Flue Gas Desulfurization (FGD) Cellular Concrete 	01/2006 ó 12/2006
	<ul style="list-style-type: none"> Utilization of Off-ASTM Specification Ash such as Fluidized Bed Combustion (FBC) ash in Construction Application (TEES 510681-4000) (Co-P.I.) 	09/2003 ó 08/2010
	<ul style="list-style-type: none"> Evaluation of Curing Membranes Effectiveness to Reduce Evaporation (TxDOT 0-5106) 	09/2003 ó 08/2006
	<ul style="list-style-type: none"> Utilization of Lithium Compound for Controlling ASR Expansion 	09/2001 ó 08/2002
	<ul style="list-style-type: none"> Application of Modified ASTM C1260 Test for Fly AshóCement Mixtures 	09/2000 ó 08/2004
Subgrade and Base-Course Stabilization / Construction	<ul style="list-style-type: none"> Characterization of Mellowing Process to Stabilize High Sulfate-Bearing Soils in US 82, Sherman (TxDOT 409162-00013) 	03/2013 ó 07/2013
	<ul style="list-style-type: none"> Implementation of Technology for Rapid Field Detection of Sulfate and Organic Content in Soils (TxDOT 5-6362-01) (P.I.) 	02/2011 ó 12/2011
	<ul style="list-style-type: none"> Alternative Methods of Flexible Base Compaction Acceptance (TxDOT 0-6587-2) 	09/2010 ó 08/2011
	<ul style="list-style-type: none"> Utilization of Stockpiled Refuse at Ft. Hood 	09/2004 ó 05/2009
	<ul style="list-style-type: none"> Incorporation of Fly Ash and Calcium Chloride in Roadway Construction 	09/2004 ó 08/2007
Full Depth Reclamation (FDR)	<ul style="list-style-type: none"> FDR Evaluation of FM 148 	11/2011 ó 03/2012
	<ul style="list-style-type: none"> Full-Depth Reclamation (FDR): New Test Procedures and Recommended Updates to Specifications (TxDOT 0-6271-2) 	09/2010 ó 03/2011
Sensing and Monitoring Techniques for Structural health Monitoring	<ul style="list-style-type: none"> Evaluation of Building Structures for Korean Telecom Shinam and Western Daegu Telecom Company 	03/1997 ó 02/1997
	<ul style="list-style-type: none"> Crack Prevention and Quality Improvement of Floor Mortar 	03/1996 ó 12/1996

GRANTS (as principal investigator or co-principal investigator)

Characterization of Sanitary Wastes as Pozzolanic Materials and Aggregates in Portland Cement Concrete (P.I., Niagara Conservation,\$60,000)	10/2012 ó 12/2013
Evaluation of Corrosion Inhibitors for Reducing Corrosion Potential of Reinforced Rebar in Chloride Contained Concrete (Co-P.I., TETRA Technologies, Inc., \$137,000)	09/2008 ó 08/2013
Evaluation of Structural Lightweight Concrete Containing Expanded Polypropylene (EPP) Bead (P.I., Earl Stenger, \$51,000)	01/2013 ó 12/2013
Implementation of Technology for Rapid Field Detection of Sulfate and Organic Content in Soils (P.I., TxDOT, \$98,235)	02/2011 ó 12/2011
Method and Composition for Enhancing the Insulating Properties of a Trafficked Surface (Co-P.I., Earl Stenger, \$26,000)	02/2009 ó 12/2011
Mitigation of ASR in Concrete ó Combined Materials Test Procedure (Staff, IPRF, \$350,000)	01/2005 ó 01/2007

PUBLICATION JOURNAL / CONFERENCE PROCEEDING / TECHNICAL REPORT

Refereed Journal Papers (Published, Accepted, or Submitted)

Published / Accepted for Publication

- 1) **Chang-Seon Shon** and Young-Su Kim, "Evaluation of West Texas Natural Zeolite as an Alternative of ASTM Class F Fly Ash," *Construction and Building Materials*, Vol. 47, pp. 389-396, 2013.
- 2) **Chang-Seon Shon**, Youn Su Jung, Don Saylak, Surendra Mishra, "Development of Synthetic Aggregate Using Off-ASTM Specification Ashes," *Construction and Building Materials*, Vol. 38, pp. 700-707, 2013.
- 3) **Chang-Seon Shon**, Youn Su Jung, and Don Saylak, "Evaluation of Synthetic Aggregates Using Off-ASTM Specification Ashes As Road Base Course Materials," *Construction and Building Materials*, Vol. 38, pp. 508-514, 2013.
- 4) **Chang-Seon Shon**, Don Saylak, and Suren Mishra, "Combined Use of Calcium Chloride and Fly Ash in Road Base Stabilization," *Transportation Research Record 2186*, pp. 120-129, 2010.
- 5) Gleb G. Mejeoumov, **Chang-Seon Shon**, Donald Saylak, and Cindy K. Estakhri, "Beneficiation of Stockpiled Fluidized Bed Coal Ash in Road Base Course Construction," *Construction and Building Materials*, Vol. 24, No.11, pp.2072-2078, 2010.
- 6) Chul-Woo Chung, **Chang-Seon Shon**, and Young Su Kim, "Chloride Ion Diffusivity of Fly Ash and Silica Fume Concretes Exposed to Freeze-Thaw Cycles," *Construction and Building Materials*, Vol. 24, No.9, pp.1739-1745, 2010.
- 7) Dan Ye, **Chang-Seon Shon**, Anal K. Mukhopadhyay, and Dan G. Zollinger, "New Performance-Based Approach to Assure Quality Curing During Construction," *ASCE Journal of Materials in Civil Engineering*, Vol. 22, No.7, pp.687-695, 2010.
- 8) **Chang-Seon Shon**, Anal K. Mukhopadhyay, Donald Saylak, Dan G. Zollinger, and Gleb G. Mejeoumov, "Potential Use of Stockpiled Circulating Fluidized Bed Combustion Ashes in Controlled Low Strength Material (CLSM) Mixture," *Construction and Building Materials*, Vol. 24, No.5, pp.839-847, 2010.
- 9) **Chang-Seon Shon**, Don Saylak, and Dan G. Zollinger, "Potential Use of Stockpiled Circulating Fluidized Bed Combustion Ashes in Manufacturing Compressed Earth Brick," *Construction and Building Materials*, Vol. 23, No.5, pp.2062-2071, 2009.
- 10) Don Saylak, Surendra K. Mishra, Gleb G. Mejeoumov, and **Chang-Seon Shon**, "Fly Ash-Calcium Chloride Stabilization in Road Construction," *Transportation Research Record 2053*, pp. 23-29, 2008.
- 11) **Chang-Seon Shon**, Anal K. Mukhopadhyay, and Dan G. Zollinger, "Alkali-Silica Reactivity Potential of Aggregate and Concrete Evaluated by Dilatometer Method: Performance-Based Approach," *Transportation Research Record 2020*, pp. 10-19, 2007.
- 12) Anal K. Mukhopadhyay, **Chang-Seon Shon**, and Dan G. Zollinger, "Activation Energy of Alkali Silica Reaction and Dilatometer Method," *Transportation Research Record 1979*, pp. 1-11, 2006.
- 13) **Chang-Seon Shon**, Shondeep L Sarkar, and Dan G. Zollinger, "Testing the Effectiveness of Class C and Class F Fly Ash in Controlling Expansion Due to Alkali-Silica Reaction Using Modified ASTM C 1260 Test Method," *ASCE Journal of Materials in Civil Engineering*, Vol. 16, No.1, pp. 20-27, 2004.
- 14) **Chang-Seon Shon**, Dan. G. Zollinger, and Shondeep L. Sarkar, "Application of Modified ASTM C 1260 Test for Fly Ash-Cement Mixtures," *Transportation Research Record 1834*, pp. 93-106, 2003.

- 15) **Chang-Seon Shon**, Young-Su Kim, and Jae-Dong Jeong, "ASR Resistance of Ternary Cementitious Systems Containing Silica Fume-Fly Ash Using Modified ASTM C 1260 Method," *International Journal of Concrete Structure and Materials*, Vol.15, No.3, pp.497-503, 2003.
- 16) **Chang-Seon Shon**, Dan G. Zollinger, and Shondeep L Sarkar, "Evaluation of Modified ASTM C 1260 Accelerated Mortar Bar Test for Alkali-Silica Reactivity," *Cement and Concrete Research*, Vol.32, No.12, pp.1981-1987, 2002.
- 17) **Chang-Seon Shon**, Dan. G. Zollinger, and Shondeep L. Sarkar, "Alkali-Silica Reactivity Resistance of High-Volume Fly Ash Cementitious Systems," *Transportation Research Record 1798*, pp. 17-21, 2002.
- 18) **Chang-Seon Shon**, Soo-Geon Kang, and Young-Su Kim, "ASR Effectiveness of High Volume Fly Ash Cementitious Systems Using Modified ASTM C 1260 Test Method," *International Journal of Concrete Structure and Materials*, Vol.14, No.2, pp.76-80, 2002.
- 19) **Chang-Seon Shon** and Young-Su Kim, "A Study on the Effect of Air Void System on the Frost Resistance of Fly Ash Concrete," *Journal of the Architectural Institute of Korea*, Vol.15, No.5, pp.127-134, 1999 (In Korean).
- 20) **Chang-Seon Shon**, Chul-Woo Chung, Dong-Su Kang, and Young-Su Kim, "Effect of Pozzolans to Anti-Corrosion of Embedded Steel in oncrete Structure," *Journal of Research Institute of Industrial Technology*, Vol.53, pp.113-119, 1997 (In Korean).

Under Review / Prepared for Submission

- 1) **Chang-Seon Shon** and Cindy Estakari, "Feasibility of Modified Drilling Fluid Waste as a Base Course Material in Roadway Construction," *Prepared for Submission, Journal of Hazardous Materials*, May, 2014.
- 2) **Chang-Seon Shon**, Tom Scullion, Stephen Sebesta, and Jimmy Si, "Implementation of Technology for Rapid Field Detection of Sulfate Content in Soils," *Prepared for Submission, Canadian Geotechnical Journal*, May, 2014.
- 3) **Chang-Seon Shon**, Dong-Un Lee, Young-Su Kim, and Don Saylak, "Evaluation of Frost Resistance of Ternary Cementitious Concretes with Cement-Fly Ash-Silica Fume," *Prepared for Submission, Journal of Construction and Building Materials*, May, 2014.
- 4) **Chang-Seon Shon** and Dan G. Zollinger, "An Integrated Approach to Assess Alkali-Silica Reactivity Potential of Aggregate and Concrete Using Modified ASTM C 1260 and C 1293 Test Methods," *Prepared for Submission, ACI Material Journal*, May, 2014.
- 5) **Chang-Seon Shon** and Dan G. Zollinger, "Revisiting Accelerated Mortar Bar Tests: Pore Solution Alkalinity and Microstructure," *Prepared for Submission, ACI Material Journal*, May, 2014.

Refereed Conference Proceedings/Abstract (Published / Accepted / Under Review / Prepared)

Published / Accepted for Publication

- 1) **Chang-Seon Shon**, Don Saylak, and Suren Mishra, "Evaluation of Manufactured Fluidized Bed Combustion Ash Aggregate as Road Base Course Materials," *2011 World of Coal Ash (WOCA) Conference on Science, Application, and Sustainability*, Denver, CD-Rom, May, 2011.
- 2) Don Saylak, Gleb G. Mejeoumov, **Chang-Seon Shon**, Cindy K. Estakhri, and Suren Mishra, "Sampling, Characterization, and Beneficiation of Stockpiled Fluidized Bed Coal Ash in Road Base Course Application," *2009 World of Coal Ash (WOCA) Conference on Science, Application, and Sustainability*, Lexington, CD-Rom, April, 2009.
- 3) **Chang-Seon Shon**, Don Saylak, and Dan. G. Zollinger, "Development of Lightweight Roadside Safety Barriers Using Foaming Admixture: Properties of Flue Gas Desulfurization Cellular Concrete," *Proceedings of 9th CANMET/ACI International Conference on Advances in Concrete Technology*, Warsaw, SP-243, pp.1-18, May 2007.

- 4) Don Saylak, Surendra K. Mishra, and **Chang-Seon Shon**, "Calcium Activated Stabilization and Construction of Road with Fly Ash," *SME Annual Meeting and Exhibit and Colorado Mining Association 109th National Western Mining Conference 07-098*, Denver, Colorado, February, 2007.
- 5) **Chang-Seon Shon**, Anal K. Mukhopadhyay, and Dan G. Zollinger, "Evaluation of Alkali-Silica reaction Potential of Aggregate Using Dilatometer Method," *ASCE Conference on Airfield and Highway Pavement-Meeting Today's Challenges with Emerging Technologies*, Atlanta, pp. 647-658, April, 2006.
- 6) **Chang-Seon Shon**, Shondeep L. Sarkar, and Dan. G. Zollinger, "Evaluation of ASR Resistance of Fly Ash-Slag Combinations Using Modified ASTM C 1260 Test Method," *Proceedings of 8th CANMET/ACI International Conference on Fly Ash, Silica Fume, Slag and Natural Pozzolans in Concrete*, Las Vegas, SP-221, pp.249-264, May 2004.
- 7) Anal K. Mukhopadhyay, Gleb Mejeoumov, **Chang-Seon Shon**, Don Saylak, and Shondeep L. Sarkar, "Finite Characterization of Ashes from a Circulating Fluidized Bed Combustion Thermal Powder Plant," *Proceedings of 26th International Conference on Cement Microscopy*, San Antonio, CD-Rom, April 2004.
- 8) **Chang-Seon Shon**, Shondeep L. Sarkar, and Dan. G. Zollinger, "A New Rapid Test Method to Predict LiNO₃ dosage for Controlling ASR Expansion," *Proceeding of 7th CANMET/ACI International Conference on Superplasticizers and Other Chemical Admixtures in Concrete*, Berlin, SP-217, pp.423-436, October 2003.
- 9) **Chang-Seon Shon**, Shondeep L. Sarkar, and Dan. G. Zollinger, "Can Modifications of ASTM C 1260 Alkali Silica Reactivity Test Method Alleviate Its Inherent Limitations?" *International Center for Aggregates Research Proceedings of the 11th Annual Symposium*, Austin, CD-Rom, April 2003.
- 10) **Chang-Seon Shon**, Shondeep L. Sarkar, and Dan. G. Zollinger, "Alkali-Silica Reactivity Test for Class C and Class F Fly Ash-Cement Mixtures Using Modified ASTM C 1260 Method," *Proceeding of 15th ASCE Engineering Mechanics Conference*, New York, CD-Rom, June 2002.
- 11) **Chang-Seon Shon**, Dan. G. Zollinger, and Shondeep L. Sarkar, "A New Rapid Test Method for Predicting Expansion Due to ASR in Airfield Concrete Pavement," *Proceedings of the FAA Airport Technology Transfer Conference*, Atlantic City, May 2002.
- 12) **Chang-Seon Shon**, Seungwook Lim, Dan. G. Zollinger, Shondeep L. Sarkar, and Mukhopadhyay K. Anal, "New Aggregate Characterization Tests for Thermal and ASR Reactivity Properties," *International Center for Aggregates Research Proceedings of the 10th Annual Symposium*, Baltimore, April 2002.
- 13) **Chang-Seon Shon**, and Young-Su Kim, "A Study on the Air-Void Factor of Fly Ash Concrete," *Architectural Institute of Korea at Pusan-Kyounghnam Conference*, Busan, Vol.5, No.1, pp.399-404, 1998 (In Korean).
- 14) Yang-Go Mun, **Chang-Seon Shon**, Chul-Woo Chung, and Young-Su Kim, "A Study on the Chloride Diffusivity of Frost Concrete Containing Pozzolanic Materials," *Architectural Institute of Korea at a Fall Conference*, Ulsan, Vol.18, No.2, pp.539-544, October, 1998 (In Korean).
- 15) **Chang-Seon Shon** and Young-Su Kim, "Effect of Air Void System on the Frost Resistance of Fly Ash Concrete," *Architectural Institute of Korea at a Fall Conference*, Ulsan, Vol.18, No.2, pp.593-598, October, 1998 (In Korean).
- 16) **Chang-Seon Shon**, Yoo-Dong Jun, and Young-Su Kim, "Corrosion of Steel in Concrete Containing Chloride," *Architectural Institute of Korea at Busan-Kyounghnam Conference*, Pusan, Vol.4, No.2, pp.743-748, November, 1997 (In Korean).
- 17) **Chang-Seon Shon**, Kwang-Woo Jeun, Jong-In Kim, Yong-Wha Choi, and Jae-Dong Jaung, "An Experimental Study on the Strength Development Process of Concrete by Using Warm Water Curing Method," *Architectural Institute of Korea at a Fall Conference*, Iksan, Vol.16, No.2, pp.743-748, October, 1996 (In Korean).

Technical Reports

- 1) Stephen Sebesta, and Tom Scullion, Cindy Estakhri, Pat Harris, **Chang-Seon Shon**, Omar Harvey, and Keisha Rose-Harvey, *Full-Depth Reclamation: New Test Procedures and Recommended Updates to Specifications*, Technical Report to Texas Department of Transportation, **Report No. FHWA/TX-11/0-6271-2**, Texas Transportation Institute, July, 2012.
- 2) **Chang-Seon Shon**, Stephen Sebesta, and Tom Scullion, *Implementation of Technology for Rapid Field Detection of Sulfate and Organic Content in Soils*, Technical Report to Texas Department of Transportation, **Report No. FHWA/TX-12/5-6362-01-1**, Texas Transportation Institute, June, 2012.
- 3) **Chang-Seon Shon**, Instructions for Detecting Sulfates Using the Veris 3150, Technical Report to Texas Department of Transportation, **Report No. FHWA/TX-12/5-6362-01-P2**, Texas Transportation Institute, June, 2012.
- 4) Stephen Sebesta, **Chang-Seon Shon**, and Tom Scullion, *Alternative Methods of Flexible Base Compaction Acceptance*, Technical Report to Texas Department of Transportation, **Report No. FHWA/TX-12/0-6587-2**, Texas Transportation Institute, February, 2012.
- 5) Stuart Anderson, Curtis Beaty, Liang Ding, David Ellis, Jon Epps, Cindy Estakhri, Brianne Glover, Michelle Hoelscher, Nick Norboge, Rajat Rajbhandari, Tara Ramani, Tom Scullion, Jeff Shelton, **Chang-Seon Shon**, William Stockton, Sharada Vadali, Steven Venglar, and Joe Zietsman, *TxDOT Administration Research: Tasks Completed FY2011*, Technical Report to Texas Department of Transportation, **Report No. FHWA/TX-12/0-6581-TI-3**, Texas Transportation Institute, October, 2011.
- 6) Hassan A Ghanem, Fayez Morjan, **Chang-Seon Shon**, Dan G. Zollinger, Robert L. Lytton, and Don Saylak, *Utilization of Stockpiled Refuse at FT HOOD for Construction and / or Rehabilitation of On-site Tank Trails*, Technical Report to U.S. Army Corps of Engineers, **Report No. W45XMA42472681**, Texas Engineering Experimental Station, Texas A&M University, May, 2009.
- 7) **Chang-Seon Shon**, Cindy Estakhri, Donal Saylak, and Gleb Mejeoumov, *Evaluation of Natural Zeolite for Marfa, Texas for Use as A Supplementary Cementitious Material (SCM) in Construction Application*, Technical Report to Alamito Zeolite, Zachry Department of Civil Engineering, Texas A&M University, January, 2008.
- 8) **Chang-Seon Shon**, Sehoon Jang, and Dan G. Zollinger, *Evaluation of Frost Resistance in Cellular Concrete Exposed to Slow Freeze-Thaw Cycles*, Technical Report to SoilTech Inc., Texas Transportation Institute, Texas A&M University, December, 2007.
- 9) **Chang-Seon Shon**, Dan G. Zollinger, and Donald Saylak, *Development of Lightweight Roadside Safety Barriers Using Flue Gas Desulfurization (FGD) Material (Properties of Flue Gas Desulfurization Cellular Concrete)*, Technical Report to Texas Transportation Institute Center for Transportation Safety, Texas Transportation Institute, Texas A&M University, December, 2006.
- 10) Don Saylak, , David Trejo, Ceki Halmen, and **Chang-Seon Shon**, *Market Opportunities for Utilization of Stockpiled Twin Oaks Power Station Coal Combustion By-Products*, Technical Report to Twin Oaks Power Station, Zachry Department of Civil Engineering, Texas A&M University, December, 2005.
- 11) Anal Mukhopadhyay, Dan G. Zollinger, and **Chang-Seon Shon**, Evaluation of Alkali Silica Reactivity of Mineral and Aggregate Using Dilatometer Method, Technical Report to Innovative Pavement Research Foundation (IPRF), **Report No. IPRF-01-G-002-02-5.1**, Skokie, IL, June, 2005.
- 12) Don Saylak, Anal K. Mukhopadhyay, **Chang-Seon Shon**, and Gleb Mejeoumov, *Stockpile Sampling, Characterization, and Beneficiation of Twin Oaks Power Station Coal Combustion By-products*, Technical Report to Twin Oaks Power Station, Department of Civil Engineering, Texas A&M University, December, 2004.
- 13) Shondeep L. Sarkar, Dan G. Zollinger, Mukhopadhyay K. Anal, Seungwook Lim, and **Chang-Seon Shon**, *Handbook of Identification of Alkali-Silica Reactivity in Airfield Pavements*, Federal Aviation Administration, **Report No. AC No. 150/5380-8**, February, 2004.

- 14) Don Saylak, Shondeep L. Sarkar, Anal K. Mukhopadhyay, Gleb Mejeoumov, and **Chang-Seon Shon**, *Stockpile Sampling and Characterization of Twin Oaks Power Station Coal Combustion By-products*, Technical Report to Twin Oaks Power Station, Department of Civil Engineering, Texas A&M University, November, 2003.
- 15) **Chang-Seon Shon**, Shondeep L. Sarkar, and Dan G. Zollinger, *Application of Modified ASTM C 1260 Test Method for Binary and Ternary Cementitious Blends*, Technical Report to TCAUG, Texas Transportation Institute, June, 2003.
- 16) **Chang-Seon Shon**, Shondeep L. Sarkar, and Dan G. Zollinger, *Alkali-Silica Reactivity Test for Class C and Class F Fly Ash-Cement Mixture Using Modified ASTM C 1260 Method*, Technical Report to TCAUG, Texas Transportation Institute, April, 2002.
- 17) **Chang-Seon Shon**, Shondeep L. Sarkar, and Dan G. Zollinger, *Evaluation of Modified ASTM C 1260 Accelerated Mortar Bar Test for Alkali-Silica Reactivity*, Technical Memorandum to TCAUG, Texas Transportation Institute, May, 2001.
- 18) Dan G. Zollinger, Shondeep L. Sarkar and **Chang-Seon Shon**, *Development of a Test Apparatus to Measure Thermal Expansion of Concrete Aggregate* Technical Memorandum to TxDOT, Texas Transportation Institute, October, 2000.
- 19) Young-Su Kim, Dong-Su Kang, and **Chang-Seon Shon**, *Development of High Strength Concrete with Rice Husk Ash*, Technical Memorandum to Research Institute of Industrial Technology, Busan National University, June, 1999 (In Korean).
- 20) Young-Su Kim, Dong-Su Kang, **Chang-Seon Shon**, and Chul-Woo Chung, *A Study on the Improvement of Anti-Corrosion Performance about LG Metro City Apartment Complex in Busan*, Technical Report to Research Institute of Urban Problems, Busan National University, October, 1998 (In Korean).

PRESENTATIONS / INVITED LECTURES

Presentation/Talks

- 1) Chang-Seon Shon, Don Saylak, and Suren Mishra, "Evaluation of Manufactured Fluidized Bed Combustion Ash Aggregate as Road Base Course Materials," **Aggregates Session III at 2011 World of Coal Ash (WOCA) Conference on Science, Application, and Sustainability**, Denver, May 9-12, 2011.
- 2) Don Saylak, Gleb G. Mejeoumov, **Chang-Seon Shon**, Cindy K. Estakhri, and Suren Mishra, "Sampling, Characterization, and Beneficiation of Stockpiled Fluidized Bed Coal Ash in Road Base Course Application," **Aggregates/Geotechnology I Session at 2009 World of Coal Ash (WOCA) Conference on Science, Application, and Sustainability**, Lexington, May 4-7, 2009.
- 3) Don Saylak, Surendra K. Mishra, Gleb G. Mejeoumov, and **Chang-Seon Shon**, "Fly Ash-Calcium Chloride Stabilization in Road Construction," **Physicochemical Behavior of Recycled and Earthen Materials Session in Transportation Infrastructure Session at the TRB 87th Annual Meeting**, Washington, D.C., January 13-17, 2008.
- 4) **Chang-Seon Shon**, Anal K. Mukhopadhyay, and Dan G. Zollinger, "Performance-Based Approach to Evaluate ASR Potential of Aggregate and Concrete Using the Dilatometer Method," **Emerging Concrete Technologies Session at the TRB 86th Annual Meeting**, Washington, D.C., January 21-25, 2007.
- 5) Anal K. Mukhopadhyay, **Chang-Seon Shon**, and Dan G. Zollinger, "Determination of Activation Energy of Alkali Silica Reaction for Minerals and Aggregates Using Dilatometer Method," **Emerging Concrete Technologies Session at the TRB 85th Annual Meeting**, Washington, D.C., January 22-26, 2006.
- 6) Don Saylak, Suren K. Mishra, and **Chang-Seon Shon**, "The Beneficial Effect of Calcium Chloride Treated Roadways Containing Fly Ash," **Aggregates/Geotechnology I Session at 2005 World of Coal Ash (WOCA) Conference**, Lexington, KY, April 11-15, 2005.

- 7) **Chang-Seon Shon**, Dan. G. Zollinger, and Shondeep L. Sarkar, "Evaluation of ASR Resistance of Fly Ash-Slag Combinations Using Modified ASTM C 1260 Test Method," *Session 9-General at Proceedings of 8th CANMET/ACI International Conference on Fly Ash, Silica Fume, Slag and Natural Pozzolans in Concrete*, Las Vegas, SP-221, pp.249-264, May 2004.
- 8) **Chang-Seon Shon**, Dan. G. Zollinger, and Shondeep L. Sarkar, "Application of Modified ASTM C 1260 Test for Fly Ash-Cement Mixtures," *Materials-Cement and Concrete Session at the TRB 82nd Annual Meeting*, Washington, D.C., January 12-16, 2003.
- 9) Shondeep L Sarkar, **Chang-Seon Shon**, and Dan G. Zollinger, "Evaluation of ASR-Resistance of Fly Ash-Cement Mixtures Using Modified ASTM C 1260 Test," *The Research in Progress Session at the ACI 2002 Fall Convention*, Phoenix, AZ, October 27-November 2, 2002.
- 10) **Chang-Seon Shon**, Shondeep L. Sarkar, and Dan. G. Zollinger, "Alkali-Silica Reactivity Test for Class C and Class F Fly Ash-Cement Mixtures Using Modified ASTM C 1260 Method," *Recent Advances in Materials Characterization and Modeling of Pavement Systems I Session at Proceeding of 15th ASCE Engineering Mechanics Division Conference*, New York, June 2002.
- 11) **Chang-Seon Shon**, Dan. G. Zollinger, and Shondeep L. Sarkar, "A New Rapid Test Method for Predicting Expansion Due to ASR in Airfield Concrete Pavement," *Pavement Maintenance and Management Session at Proceedings of the FAA Airport Technology Transfer Conference*, Atlantic City, May 2002.
- 12) **Chang-Seon Shon**, Seungwook Lim, Dan. G. Zollinger, Shondeep L. Sarkar, and Mukhopadhyay K. Anal, "New Aggregate Characterization Tests for Thermal and ASR Reactivity Properties," *Aggregate in Concrete Pavements Session at International Center for Aggregates Research Proceedings of the 10th Annual Symposium*, Baltimore, April 2002.
- 13) **Chang-Seon Shon**, Dan G. Zollinger, and Shondeep L Sarkar, "Development of a Rational Test Methodology for AAR," *Materials-Cement and Concrete Session at the TRB 81st Annual Meeting*, Washington, D.C., January 13-17, 2002.
- 14) **Chang-Seon Shon**, Dan G. Zollinger, and Shondeep L Sarkar, "Alkali-Silica Reaction Resistance of High-Volume Fly Ash Cementitious Systems Using Modified ASTM C 1260 Test Method," *Materials-Cement and Concrete Session at the TRB 81st Annual Meeting*, Washington, D.C., January 13-17, 2002.
- 15) **Chang-Seon Shon**, Dan G. Zollinger, and Shondeep L Sarkar, "A New Super Accelerated Test Method for Predicting Expansion due to ASR of Aggregate," *The Opening Paper Session at the ACI 2001 Fall Convention*, Dallas, TX, October 27-November 2, 2001.

Invited Lectures

- 1) **Chang-Seon Shon**, "Sulfate Attack, Alkali-Silica Reaction, and Fly Ash in Concrete," *Seminar at Korea Institute of Construction Technology*, Goyang-Si, Gyeonggi-Do, South Korea, March 31, 2009.
- 2) **Chang-Seon Shon**, "Sulfate Attack, Alkali-Silica Reaction, and Fly Ash in Concrete," *Texas Coal Ash Utilization Group (TCAUG) Annual Meeting*, Austin, TX, November 13, 2008.
- 3) **Chang-Seon Shon**, "Evaluation of Corrosion Inhibitors for Reducing Corrosion Potential of Reinforced Rebar in Chloride-Contained Concrete," *Calcium Chloride in Civil Engineering Applications Workshop*, Lake Charles, LA, September 26, 2008.
- 4) **Chang-Seon Shon**, Shondeep L. Sarkar, Dan. G. Zollinger, and Don Saylak, "Evaluation of Modified ASTM C 1260 Test Method for ASR of Cement-Fly Ash Mixtures," *ACAA-TCAUG Dallas Winter Meeting*, Dallas, January 26-28, 2004.