

TERRY RONALD WEST
EARTH & ATMOSPHERIC SCIENCES DEPARTMENT

1. Personal Data

Professor, Dept. of Earth and Atmospheric Sciences, courtesy appointment - Civil Engineering, Purdue University, West Lafayette, IN 47907-2051. Phone (765)494-3296, fax (765)496-1210, e-mail: trwest@purdue.edu

Post President, Association of Environmental and Engineering Geologists (AEG), 2007, with membership of 3400 professional geologists and engineers.

Author of college textbook

T.R. West, 1995, "Geology Applied to Engineering", Prentice Hall Inc., Englewood Cliffs, N.J., 560 p. ISBN# 0-02-425881-4. Revised Edition, 2010, Waveland Press, Inc., Long Grove, IL, ISBN # 978-1-57766-655-4.

Specialty areas - Construction and environmental aspects of geology and engineering; including slope stability, dams, underground openings, ground water geology, environmental site assessment, soils engineering, vibrational analysis, subsurface exploration, conventional and hazardous waste landfill studies; materials for construction, remote sensing and aerial photography, studies of soil and rock, reclamation of coal strip mines.

2. Education

B.A. Geology, Washington University (St. Louis, MO)
B.S. Geological Engineering, Washington University
M.A. Geology, Washington University
MSCE Civil Engineering, Purdue University
Ph.D. Engineering Geology, Purdue University

3. Memberships in Professional Societies

Geological Society of America - Fellow
Association of Environmental and Engineering Geologists
American Institute of Professional Geologists
American Society of Civil Engineers - Fellow
American Society for Testing and Materials
International Association of Engineering Geology
Indiana Academy of Science - Fellow
Registered Professional Engineer, Missouri (E10544)

4. Professional Experience & Accomplishments

a) Professional Activities

Engineering geologist and soils engineer - Reitz & Jens, Civil Engrs. and Planners, St. Louis, MO; 1959-61.

Principal consulting engineering geologist, ATEC Associates, Geotechnical Consultants, Indianapolis, and other major U.S. cities 1969-81.

Private consulting in engineering geology and environmental aspects, 1981-present.

Author of more than 300 consulting reports in the following specialty areas: Construction and environmental aspects of geology and engineering; including slope stability, dams, underground openings, ground water geology, environmental site assessment, soils engineering, vibrational analysis, subsurface exploration, conventional and hazardous waste landfill studies; materials for construction, remote sensing and aerial photography, studies of soil and rock, reclamation of coal strip mines.

Reports for major industrial companies, (examples: General Motors, General Electric, Ashland Oil Co., Inland Container Corp., Proctor & Gamble) state and federal agencies and private individuals. More than 500 undergraduate and graduate students (and thereby the Department and University) have benefited from this first-hand experience through classroom teaching. Also this has proved helpful in placing students in the profession and in providing contacts and subject matter for graduate thesis topics.

Member, Earth Science Committee, CLEP, Educational Testing Service (ETS), Princeton, NJ, 1973-74 (prepared testing information in earth sciences area).

Member, Committees C-9, Concrete and Concrete Aggregates and D-18, Engineering Properties of Soil and Rock, American Society for Testing and Materials (ASTM) - review and prepare standards used through out the industry.

Committee Member - Citizens Advisory Committee, Environmental Management Board, Indiana State Board of Health, now Indiana Department of Environmental Management, 1983 to 1987. Monthly meetings related to concerns for air, water and land pollution. Chairman of subcommittee on land pollution control.

Member, Executive Committee, Indiana Society of Mining and Reclamation (ISMR). Plan and sponsor annual meeting on coal mining and reclamation. Serve as university representative, appointed by Director, Indiana Department of Natural Resources.

b) Licenses/Registration

Registered Professional Engineer, Missouri since 1964; (E10544)
Certified Professional Geologist, 0735

5. Awards, Honors and Appointments

1983 - Received the Medallion Award of the Highway Geology Symposium (HGS). Highest award of the organization, presented for meritorious service. Less than 50 awarded in the 50+ year history of HGS (formed in 1950).

1983 - Selected as Fellow, Indiana Academy of Science.

1985 - Received Presidential Award from Association of Engineering Geologists for a major contribution to the organization. (As Awards Committee Chairman, initiated the Douglas Piteau Award, Outstanding Young Member Award, given annually by AEG).

1986 - Received special award, from Northcentral Section, Association of Engineering Geologists for encouraging students to participate in the professional activities of the organization.

2002 – Selected as Fellow, Geological Society of America

- Dept. of Earth & Atmospheric Sciences Award for 40 Years of Teaching Geology at Purdue University.
- West Lafayette, Indiana Citizens Recognition Award for 40 Years of Teaching Geology.

- Designated as “Sagamore of the Wabash”, highest award bestowed for service to Indiana, given by Frank O’Bannon, Governor of Indiana
- 2003 - Distinguished Practice Award given by Indiana Professional Geologists.
- 2006 – Distinguished Practice Award given by Engineering Geology Division, Geological Society of America

Presidential Citations by Association of Engineering and Environmental Geologists.

- Distinguished Service as Secretary, 2004
- Distinguished Service as Treasurer, 2006
- Distinguished Service as President Elect, 2006
- Distinguished Service as Past President, 2008
- Special Technical Session, AEG Annual Meeting, Sept. 2008
- New Orleans, LA “Tribute to T.R. West for 47 years of teaching engineering geology at Purdue University,” Organized by former graduate students.

2009 – Karl and Ruth Terzaghi Award, Outstanding Mentoring, Association of Environmental and Engineers Geologists (AEG).

2011 – Claire P. Holdrege Award, Association of Environmental and Engineering Geologist (AEG), for outstanding contribution to engineering geology for 2011, presented for the textbook “*Geology Applied to Engineering*, revised edition, 2010., Waveland Press, Long Grove, IL.

2013 – Honorary Member, Association of Environmental and Engineering Geologists (AEG), highest award of the Association, maximum of one awarded each year, 55 awards in 57 year history of AEG.

6. Leadership Positions in National & Regional Organizations

- Chairman of National Steering Committee (governing board) of the Highway Geology Symposium, 1979-1983
- Member of National steering Committee, Highway Geology Symposium, (governing board of organization which directs annual meetings of organization) 1968 to present.
- In charge of short course "Selected Geotechnical Design Principles for Practicing Engineering Geologists" one day short course (six lecturers including T.R. West) given in conjunction with the annual Assoc. of Engineering Geologists meeting in Chicago, Oct. 1979.
- Vice Chairman, Northcentral Section, Association of Engr. Geologists, Chicago, IL, 1981-83
- Chairman - Northcentral Section, Assoc. of Engr. Geol., 1983-85 and member, Board of Directors for Assoc. of Engr. Geologists - AEG is the preeminent organization in the field of Engineering Geology in the United States. T.R. West is a well-known member in the organization and through this association Purdue's engineering geology program is well recognized and has a national reputation.
- Chairman for 1983, Indiana Academy of Science, Geology-Geography Div.
- Co-Chairman of annual meeting, Highway Geology Symposium, 1984, held in Clarksville, Indiana (greater Louisville), May.
- Chairman, Awards Committee, Association of Engineering Geologists, 1985-87.
- Editor, Engineering Geology Division, Geological Society of America, 1985-1989
- National Membership Chairman, Association of Engineering Geologists 1986-1988.
- Member of Editorial Board, Geological Society of America (1987-90).
- Member, Host Committee for 34th Annual Meeting, Association of Engineering Geologists, October 1991, Chicago, IL. Served as Director of Short Courses at Meeting, seven short courses given during the week.
- Member, Selection Committee, Geological Society of America, Engr. Geol. Division, Jahns Distinguished Lectureship in Engineering Geology, 1992-93.

- Served as moderator of session, Education for Engineering Geologists and Geological Engineers, 36th Annual Meeting, Assoc. of Engineering Geologists, San Antonio, Texas, Oct. 1993.
- Chairman, Geology and Geography Section, Indiana Academy of Science for 1993 meeting at Purdue University, Nov. 1993, arranged and chaired technical session.
- Chairman, Engineering Section, Indiana Academy of Science for 1995, 1997, 1999. President, Indiana Academy of Science, 2002.
- Engineering Geology Division, Geological Society of America, Chairman 2002.
- Association of Environmental and Engineering Geologists (AEG), President, 2007.

7. National and International Recognition

Listing in American Men and Women in Science.

Nov. 1979 Requested to present discussion on education of engineering geologists at the Symposium on the engineering geology profession at the Annual Geol. Society of America meeting, Nov. 1979.

Sept. 1980 Offered position at full professor level, Geology Dept., Texas A & M University beginning Sept. 1980. Documentation available.

Jan. 1983 Selected to attend workshop sponsored by National Science Foundation on Evaluation of Research Needs in Engineering Geology, San Francisco.

May 1983 Received Medallion Award for Meritous Service, Highway Geology Symposium; highest award given by HGS.

8. Appointed as the Director of Indiana Mining and Mineral Resources Research Center (IMMRRC) effective August 1993. Selected by five member interdisciplinary panel based on a campus-wide faculty search. Served until 1996 when IMMRRC, and all other state mining institutes, disbanded by U.S. Bureau of Mines.

9. Teaching

a. Courses taught in the Department

<u>Course</u>	<u>Credits</u>	<u>Description</u>
EAS 191E	3	Environmental Geology - Taught several times, 1975-80.
143	1	Freshman Seminar in Solid Earth Science. Taught fall 1999-2006.
381	3	Geology for Engineers I - Taught every fall since 1966.
385	3	Principles of Engineering Geology - Taught spring semester since 1970.
582	3	Geology for Engineers II - Taught every fall semester, 1966-1985.
586	3	Engineering Geology - Taught every spring semester, 1966-1985.
640	3	Petrography of Aggregates - Taught once every 2 to 3 years 1968-present.
591T	3	Geology of Tunnels and Underground Openings - Taught once every 2 to 3 years since 1985.
591S	3	Stability of Rock Slopes - Taught once every 2 to 3 years since 1986.
591E	1	Engineering Geology Field Investigations - Taught during spring semester, 5 times in past 10 years.
583	3	Geology of Landfills - Taught every fall, 1985 - present.
591E	3	Engineering Geology, Consulting Case Histories, Maymester, 2004-present.

Have taught two courses per semester for past 25 years.

b. Published textbook, instructional material

Textbook "Geology Applied to Engineering", developed as class notes for GEOS 381 and GEOS 385, published by Prentice Hall, Inc, Englewood Cliffs, N.J., 1995, 560 p. ISBN# 0-02-425881-4.

c. Innovative Teaching Activity

EAS 143, Freshman Seminar course, revised from previous format, faculty members, alumni, graduate students and visitors present one-hour lecture on geologic subjects including job opportunities. Student group project and short term paper. Ample discussion opportunities. Two hour lab period with numerous local field trips in GEOS 191E; other GEOS labs are three hours in length typically one field trip per semester.

591E Engineering Geology Field Investigation. Spring field trip following final exams and before graduation. Students view geology and construction sites on one-week trip to eastern U.S. Report required, 1 hour credit.

Related aspects - Every course taught by T.R. West has at least one field investigation required. Advanced courses have 1 to 2 day field excursions.

d. Special Activities Related to Teaching Effectiveness and Research

Nat'l Science Foundation short courses and institutes attended:

Summer 1965 - Geology of Lake Superior Area, Michigan Tech, Univ. Houghton, MI; 2 week course

Summer 1968 - Astrogeology, Univ. of Northern Arizona, Flagstaff, AZ; 3 week course

April, 1970 - Applications of the Electron Microscope, Syracuse Univ., Syracuse NY; 1 week course

August 8-14, 1976 - Seminar on Underground Construction, Vail, CO, sponsored by U.S. D.O.T. Fifty faculty members from U.S. universities representing geotechnical engr., geol. engr. and engr. geology were selected on a competitive basis. All expenses paid by U.S. D.O.T.

October 1977 - Penrose Conf. on Landslides, Vail, CO, sponsored by the Geol. Society of America, 75 geologists and civil engrs. selected from universities and industry from U.S. and the world.

July 13-17, 1981 - Attended Short Course on Design of Rock Slopes, sponsored by Federal Highway Administration and presented by H.Q. Golder & Associates, Consulting Engineers, held at Asheville, NC. Fees for course covered by FHWA.

1981 - Summer Workshop (6 weeks) at Purdue - Attended "College Teaching Workshop" sponsored by Center for Instructional Services.

March 29 - April 1, 1982 - Attended four day short course on Subsidence Engineering, St. Louis, MO.

January 1983 - Attended three day workshop on evaluation of research needs in engineering geology. Sponsored by National Science Foundation. Invited participants from universities, federal agencies and industry. All expenses paid by NSF, San Francisco, CA.

October 1983 - attended two-day short course, 1) Landslides and 2) Soil Stratigraphy Dating Fault Displacement, Assoc. of Engineering Geologists, Sand Diego, CA.

October, 1987, attended one-day short course, Geology and Site Characterizations of Hazardous Waste Site, Assoc. of Engineering Geologists, Atlanta, GA.

October 1989, attended one-day short course, Environmental Site Assessments, Assoc. of Engineering Geologists, Chicago, IL.

October 1991, attended two-day short course, Innovative Approaches to Rock Slope Stability Analysis, Assoc. of Engineering Geologists, Chicago, IL.

July 1997, attended Geologan Conference, American Society of Civil Engineers and participated in a panel discussion on teaching engineering, geology in the undergraduate Civil Engineering curriculum.

October, 2000, lecturer at Short Course, Advances in Site Characterization for Environmental and Engineering Projects at Glacial Sites, Midwest Science Group, lecture title, "Geotechnical Analysis of Glacial Successions", Minneapolis, MN.

- e. Graduate students supervised (served as major professor and/or thesis advisor)
 M.S. non thesis option only available in Dept. until about 1983, M.S. students on sponsored research typically required to write theses since 1970.
 Note: 1a, M.S. non thesis; 1b, M.S. thesis; 1c, Ph.D.
- 1a Gorton, Quentin A., Jr., MSCE, non thesis, June 1968.
 - 2a Ludwig, Nelson G., M.S., June 1970, non thesis, research paper titled "Quantitative Measures for Rock Texture".
 - 3a Rundle, Ralph, T., M.S., August 1971, non thesis, research paper titled "Urban Planning Considerations for the Lafayette, Indiana Area".
 - 1b Woodring, Stanley, A., M.S., August 1973, thesis title "Engineering Soils Mapping from Multispectral Remote Sensing Data using Computer - Assisted Analysis".
 - 2b Bartolucci, Luis, M.S., August 1973, thesis title "Computer-aided Processing of Remotely Sensed Data for Temperature Mapping of Surface Water from Aircraft Altitudes".
 - 4a Hyndman, Norman, M.S., August 1973, non thesis research paper titled "Flood Plain Regulations in Cook and DuPage Counties (Chicago), Illinois".
 - 3b Stohr, Christopher J., M.S., May 1974, thesis title "Delineation of Sinkholes and the Topographic Effects on Spectral Response".
 - 4b Johnson, Steven, M.S., May 1974, thesis title "A Comparison of Thermal Conductivity with Elastic Properties for Six Igneous Rock Types".
 - 5a Wilkerson, J. Mark, M.S., August 1974, non thesis research paper titled "Applications of Geology to Land Use Planning in Boone County, Indiana".
 - 1c Saltzman, Uzi, Ph.D., May 1975, thesis title "Rock Quality Determination for Large-Sized Stone used in Protective Blankets".
 - 5b Roberts, William S., M.S., May 1976, thesis title "Regionalized Feasibility Study of Cold Weather Earthwork".
 - 6b Richardson, Graham T., M.S., May 1976, thesis title "Environmental Geology Applied to Highway Site Selection, West Lafayette, Indiana".
 - 6a Roepke, Harlan, M.S., May 1976, non thesis research paper titled "Development of Data Base for Land use Studies, Yorktown, Indiana".
 - 7a Harpole, Kenneth, M.S., 1976, non thesis research paper titled "Evaluation of Underground Mine Openings for Long Term Stability Relative to Storage of Manufactured Products".
 - 8a Sung, Sung Mo, M.S., May 1976, non thesis research paper titled "Engineering Geology and Environmental Aspects of Geothermal Power Plant Siting".
 - 9a Jordan, Stephen G., M.S., December 1976, non thesis research paper titled "Multispectral Remote Sensing Data Correlated with Physical Properties of Earth Materials".
 - 7b Otto, Ellen E., M.S., May 1977, thesis title "Engineering and Environmental Geology of Clinton County, Indiana".
 - 10a Hume Howard R., M.S., August 1977, non thesis research paper titled "Evaluation of Comparison of Tunnel Boring Machines".
 - 11a Buckley, David W., M.S., August 1977, non thesis research paper titled "Evaluation of Refraction Seismic Data for Shallow Bedrock Area".
 - 12a Kodu, John B., M.S., December 1977, non thesis research paper titled "Engineering geology Problems due to Fluid Pressure in Rock".
 - 13a Gansfuss, John E., M.S., December 1977, non thesis research paper titled "Application of Geophysics to Archeology, Tippecanoe County, Indiana".
 - 2c Hasan, Syed E., Ph.D., May 1978, thesis title "Standardization of Cell Size for Environmental Geology Data Base and Generation of Decision Making Criteria for Land Use Planning".
 - 14a Roenick, Mala M., M.S., May 1978, non thesis research paper titled "Ground Water Study for the City of Mitchell, South Dakota".

- 15a Shakoor, Abdul, M.S., December 1978, non thesis research paper titled "Slope Stability Studies in Pakistan".
- 8b Ramirez, Abelardo L., M.S., May 1979, thesis title "Preliminary Engineering Geology Study for the Proposed Portuguese Diversion Tunnel, Ponce, Puerto Rico".
- 9b Worland, V. Peter, M.S., May 1979 thesis title "Geologic and Engineering Aspects Regarding the Elimination of Combined Sewer Discharge in Indianapolis, Indiana by Underground Conveyance and Storage".
- 10b Bannister, Timothy Allen, M.S., August 1979, thesis title "Engineering Geology Assessment for the Reclamation of an Abandoned Strip Mine".
- 11b Brodie, Gregory A., M.S., August 1979, thesis title "Engineering and Environmental Geology for Land Use Planning in Hamilton County, Indiana".
- 12b Okagbue, Celestine, O., M.S., August 1979, thesis title "Grain Size Analysis and Petrographic Evaluation of a Gravel Deposit to Discuss Origin and Determine Engineering Quality".
- 16a Zellouf, Khemissi, M.S., December, 1980, non thesis research paper titled "Engineering Geology Potential, Saoura Region, Algeria".
- 13b Baker, Charles H., M.S., May 1981, thesis title "Slope Stability Investigation of the Snake River Shale, Hudson Valley Region, New York".
- 3c Okagbue, Celestine O., Ph.D., December 1981, thesis title "Geologic and Engineering Aspects Concerning Slope Stability and Surface Coal Mine Spoils".
- 14b Greengold, Gerald E., M.S., December 1981, thesis title "Engineering Geology of an Operating Area Strip Mine, Pike county, Indiana".
- 17a Huang, Chen-Tair, M.S., December 1981, non thesis research paper titled "The Relationship of Joints to Rock Slope Stability".
- 4c Shakoor, Abdul, Ph.D., May 1982, thesis title "Evaluation of Methods for Predicting Durability Characteristics of Argillaceous Carbonate Aggregates for Highway Pavements".
- 18a Hattingh, Johanus, M., M.S., May 1982 non thesis research paper titled "Engineering Geology Aspects of Rock Fractures".
- 15b Perry, Christopher J., M.S., December 1982, thesis title "Coal Exploration and Overburden Evaluation, Northeastern Pike County, Indiana - A Stratigraphic and Engineering Geology Analysis".
- 5c Teme, So-ngo Clifford, Ph.D., December 1982, thesis title "Physical Modelling in Rock Slope Stability Evaluations".
- 16b Crosby, George W., M.S., May 1983, thesis title "Engineering and Environmental Geology of Hancock County, Indiana".
- 17b Fein, Matthew R., M.S., May 1983, thesis title "An Engineering Geology Investigation of an Underground Limestone Mine, Indianapolis, Indiana".
- 6c Watts, Chester F., Ph.D., May 1983, thesis title "Development, Testing and Evaluation of a Microcomputer System for Rapid Collection and Analysis of Geologic Structure Data Related to Rock Slope Stability".
- 19a Gefell, Edward M., M.S., August 1983, non thesis research paper "A Review of the History, Development and Modern Methods and Techniques of Subaqueous Soft Ground Tunneling".
- 7c Hume, Howard R., Ph.D., August 1983, thesis title "Geotechnical Slope Analysis, B & G Sector, Bingham Canyon Open Pit, Utah with a Consequent Investigation of Methods for Delineating Rock Mass Fracture Domains".
- 18b Frey, Leo J., III, M.S., December 1983, thesis title "Rock Slope Stability Analysis Along Selected Areas of I-287 in Northern New Jersey".
- 19b Hummeldorf, R. George, M.S., May 1984, thesis title "The Classification and Evaluation of Roof Rocks for an Underground Coal Mine by Sonic Logging".
- 8c Huang, Chen Tair, Ph.D., May 1984, thesis title "Feasibility of Longwall Mining in the Spurgeon Coal Field, Park and Warrick Counties, Indiana, (granted in Civil Engineering with T.R. West as sole major professor).
- 20b Okonkwo, Ignatius O., M.S., December 1984, thesis title "Geology and Engineering Evaluation of Reservoir 29 Dam, Greene-Sullivan State Forest, Indiana".

- 21b Oschman, Kurt P., M.S., December, 1984, thesis title "Slope Stability for a Strip Mine Box Cut, Williamson County, Illinois".
- 22b Dombrowski, Richard P., M.S., May 1985, thesis title "Engineering Geology of Friar Tuck Strip Mine Area, Greene-Sullivan Counties, Indiana, to Provide Basic Information for Surface Reclamation".
- 23b Jordan, Paul, M.S., August 1986, thesis title "Geology and Hydrogeology of a Proposed Sanitary Landfill Site, Marion County, Indiana".
- 24b Kuo, Kung Chia, M.S., December, 1986, thesis title "Compression Strength Determination of Springfield Coal (No. 5), Pike County, Indiana".
- 25b Sudar, Sue A., M.S., May 1987, thesis title "Subsurface and Hydrologic Investigation Concerning the Existing South Side Sanitary Landfill and its Proposed Expansion, Marion County, Indiana".
- 26b Hoover, Julie A, M.S., May 1988, thesis title "Hydrodynamic and Hydrogeologic Investigation of a Coastal Landfill in Southern Lake Michigan".
- 27b Lewis, Jonathan C., M.S., August, 1988, thesis title "Engineering Geology of Lacustrine Deposits Associated with Coal Strip Mining, Southwest Indiana".
- 28b Loughnane, Brian K., M.S., August 1988, thesis title "Further Geologic Investigation of A Superfund Landfill Site, Montgomery County, Pennsylvania".
- 29b Petersen, William K., M.S., May 1989, thesis title "Geotechnical Assessment for the Reclamation of the Friar Tuck Abandoned Strip Mine Site, Southwestern Indiana".
- 9c Kuo, Kung Chia, Ph.D., May 1990, thesis title "Engineering Geology, Hydrogeology, and Reclamation Design for the Friar Tuck Abandoned Mine Lands Site in Southwest Indiana".
- 30b Kaya, Abidin, M.S., Dec. 1991, thesis title "Rock Slope Stability Along the Pigeon River on Interstate Highway 40 in Western, North Carolina".
- 31b Choi, Jung Chan, M.S., Dec. 1991, thesis title "Evaluation of Treatment Methods for Acid Mine Drainage at Friar Tuck Abandoned Strip Mine Site, Southwestern, Indiana".
- 32b O'Hara, Kevin, M.S., May 1992, thesis title "Evaluation of Coarse Coal Refuse as a Material for Access Road Construction".
- 33b Pittenger, Robert, M.S., May 1993, thesis title "Hydrogeologic Assessment and Landfill Design Considerations, Jackson County Landfill Expansion, Jackson County, Indiana".
- 34b Lary, Barbara, M.S., May 1993, "Erosion Analysis of the Northwest Gob Pile, Friar Tuck Mine Site Indiana".
- 10c Brifcani, Mohamed T.A., Ph.D., August 1993, "Prediction of Subsidence Effects Caused by Longwall Coal-Mining in Pike County, Southwest Indiana".
- 11c Kayabali, Kamil, Ph.D., December, 1993, "Earthquake Hazard Analysis for the City of Evansville, Indiana".
- 12c Cooper, Barbara C., Ph.D., May 1994, "The Hydrogeology and Hydrogeochemistry of Volo Bog, Lake County, Illinois".
- 35b Lovell, Janet E., M.S., May 1994, "Evaluation of Leachate Volume Generated from Indiana Landfill Sites".
- 13c Choi, Jung Chan, Ph.D., Aug. 1995, "Environmental Evaluation, Characterization, Final Reclamation Design and Acid Mine Drainage Analysis for the Friar Tuck Abandoned Coal Mine Site, Southwestern Indiana".
- 36b Bruner, Douglas W., M.S., December, 1995, "An Assessment of Aggregate Properties Influencing the Frictional Performance of Bituminous Surfaces in Indiana".
- 14c Pittenger, Robert A., Ph.D., August 1997, "Evaluation and Statistical Analysis of Ground Water Monitoring Data for Waste Disposal Facilities".
- 15c Park, Hyuck Jin, Ph.D., August 1999, "Risk Analysis of Rock Slope Stability and Stochastic Properties of Discontinuity Parameters in Western North Carolina".
- 37b Grover, Susan E., M.S., Dec. 1999, "Development of a Chemically Bonded Alumina Ceramic using Berlinite as a Bonding Phase".
- 16c Cho, Kyu H., Ph.D., Dec. 2002, "Deterministic and Probabilistic Analysis of Rock Slope Stability under Earthquake Loading Conditions."

- 38b. Lu, Yunhua, M.S., 2003, “Stability analysis of the Rock Ridge Dam in the CUP-Thornton Quarry Reservoir, Thornton, Illinois”.
- 39b. Liu, Huagen, M.S., 2004. “Soil texture classification using Landsat TM data”.
- 17c. Zhao, Lin, Ph.D., 2005, “Probabilistic Analysis of Seismic Hazards in Southwest Indiana”.
- 40b. Fairfax, Spencer, M.S., May 2007, “Evaluation of a Road Construction Failure in Compressible Soils, Lindberg Road Improvement Project, West Lafayette, Indiana”.
- 18c. Sui, Yinghui, Ph.D., Dec. 2007, “Potential Impact of Controlled Drainage in Indiana Watersheds”.
- 41b. Carbajo, Cristina, M.S., August, 2008, “Spatio-Temporal Distribution of Birth Defects in Indiana with Respect to Atrazine in Drinking Water”.
- 42b. Weinkauff, Denise Caroline, M.S., August, 2008, “To Adopt or Not to Adopt: Factors Affecting Agricultural Best Management Practice Acceptability and Adoption”.
- 43b. Sylvester, Linda, M.S., December, 2008, “Characterization and Analysis of a Natural Wetland Receiving Agricultural Runoff”.
- 44b. Fisher, Richard, M.S., August, 2011, “Secondary Use for Old Mineral Lands Related to Energy Generation and Storage”.
- 45b. Farny, Nicholas, M.S., August 2012, “Field Methods of Measuring Discontinuities for Rock Slope Stability, Analysis on Price Mountain, Virginia”.

Summary: 82 students supervised, 18 Ph.D. graduates and 64 M.S. graduates, (19 nonthesis, 45 thesis options); 1968-present.

- also serve as member on 4 or more graduate committees for Master's and Ph.D. students in Civil

Engr. each year for the past fifteen years.

f. Employment Details Concerning Former Graduate Students, by Categories

a). University Teaching

Bartolucci, Luis, M.S. (West), Ph.D. (Levandowski) - Murray State Univ.
 Hasen, Syed, Ph.D., Univ. of Missouri, Kansas City
 Hattingh, Johanus, M.S., Potchefstroom University, South Africa
 Kayabali, Kamil, Ph.D., University of Ankara, Ankara, Turkey
 Okabue, Celestine, Ph.D. University of Nsukka, Nsukka, Nigeria
 Roepke, Harlan, previous Ph.D., University of Texas, M.S. Purdue, Professor, Ball State Univ.
 Saltzman, Uzi, Ph.D. - Tel Aviv University, Israel
 Shakoor, Abdul, Ph.D., Kent State University
 Teme, So-ngo, Ph.D., University of Science & Technology, Port Harcourt, Nigeria
 Watts, Chester F., Ph.D., Radford University, Radford VA
 Choi, Jung Chan, Ph.D., Puk Yong National University, Korea
 Kaya, Abidin, M.S. Purdue, Ph.D., Civil Engr., Lehigh Univesity, now at Dokuz Eylul University, Ismir, Turkey
 Park, Huck-Jin, Ph.D., Sejong University, Seoul, S.Korea.

b). State and Local Agencies

Crosby, George, M.S., Indiana Dept. of Natural Resources, Division of Water
 Gefell, Edward, M.S., Indiana Dept. of Environmental Management
 Otto, Ellen, M.S., Area Planning Agency, State of Washington
 Stohr, Christopher, M.S., Illinois State Geological Survey
 Sung, Sung Mo., M.S., Engineer, City of Portland, Oregon

c). Research Institutes and Laboratories

Hume, Howard, Ph.D., Batelle Institute, Columbus, OH
 Rameriz, Abelardo, M.S., Livermore National Laboratory, Livermore, CA
 Perry, Christopher, M.S., Batelle Institute, Columbus OH

d). International Graduates, Non University Affiliation

Ludwig, Nelson, M.S., Chief Geologist, Hydroelectric Consortium, Sao Paulo, Brazil
 Kodi, John, M.S., Engineering Geologist, Geological Survey of Nigeria
 Zellouf, Khemizzi, M.S., Geologist, National Oil Company of Algeria
 Huang, Chen-Tair, Ph.D., Deputy Director Resource Technology Division, Industrial
 Technology Research Institute, Taipei, Taiwan

e). U.S. Federal Agencies

Richardson, Graham T., M.S., Photo interpreter, Central Intelligence Agency,
 Washington, D.C., Retired
 Brodie, Gregory, M.S., Engineering Geologist, Tennessee Valley Authority,
 Chattanooga, TN, Retired

f). Engineering geologists, consulting firms in U.S.

Hyndman, Norman, M.S.	Hummeldorf, R. George, M.S.
Johnson, Steven, M.S.	Oschman, Kurt, M.S.
Wilkerson, J. Mark, M.S.	Okankwo, Ignatius, M.S., (Ph.D. Civil Engr.)
Harpole, Kenneth, M.S.	Dombrowski, Richard, M.S.
Buckley, David, M.S.	Jordan, Paul, M.S.
Gansfuss, John, M.S.	Kuo, Kung Chia, M.S., Ph.D.
Roenick, Mala, M.S.	Sudar, Sue, M.S.
(Mrs. A. DeBernardo)	Lewis, Jonathan, M.S.
Bannister, Timothy, M.S.	Loughnane, Brian, M.S.
Baker, Charles, M.S.	Petersen, William, M.S.
Frey, Leo, M.S.	O'Hara, Kevin, M.S.
Gorton, Quentin, M.S.	Lary, Barbara, M.S.
Grover, Susan, M.S.	Bruner, Douglas, M.S.

g). Other Categories

Rundle, Ralph, M.S., U.S. Army, retired
 Roberts, William, M.S., now an M.D., living in Seattle, Washington
 Jordan, Stephen, M.S., Attorney at Law, Environmental Aspects
 Worland, V. Peter, M.S., Ph.D. in Civil Engr., New Mexico State University
 Greengold, Gerald, M.S., Exploration Geologist, Tenneco Oil Company
 Fein, Matthew, M.S., Geological Engineer, Shell Oil Co., Coal Division

10. Research

a. Sponsored Research

July 2000-June 2002 EAS Dept. faculty: Harbor, West, Granger, Filley and Braile
 "Dam Removal Science and Engr., a New Thrust", Showalter Trust
 Fund, \$100,000

Feb. 1998-Jan. 2000	"Development of a Procedure to Identify Aggregates for Bituminous Surfaces in Indiana", Phase II, U.S. Dept. of Transportation, Federal Highway Administration. \$85,000
Mar.-Sept. 1998	"Evaluate Aggregates for Bituminous Surfaces", Sellersburg Stone Co., \$10,000.
Apr. 1997-Jan. 1998	"Angularity of Aggregates for Bituminous Pavements", \$17,000.
Nov. 1995-June 1998	"Effects of Salt on Aggregates for Bituminous Pavements", Phase II, \$85,000
Jan. 1995-June 1995	"Effects of Salt on Aggregates for Bituminous Pavements", Phase I, INDOT and FHWA, \$10,000
Feb. 1993-Sept. 1995	"Development of a Procedure to Identify Aggregates for Bituminous Surfaces in Indiana", Phase I, U.S. Dept. of Transportation, Federal Highway Administration. \$124,000
Jan. 1993-May 1994	Allotment Grant, Indiana Mining and Mineral Resources Research Center, U.S. Bureau of Mines. \$58,793
Jan. 1992-May 1993	"Engineering Geology Support for Reclamation at Friar Tuck Abandoned Mine Lands Area" Division of Reclamation, Indiana Dept. of Natural Resources. \$75,717
June 1989 - Dec. 1991	"Engineering Geology Support for Reclamation at Friar Tuck Abandoned Mine Lands Area" Division of Reclamation, Indiana Dept. of Natural Resources. \$164,889
June 1987 - May 1989	Division of Reclamation, Indiana Dept. Natural Resources, "Engineering geology and ground-water analysis of Friar Tuck Site, near Dugger, Indiana". \$30,000+ per year for two years
1988 - present	Served as advisor for several graduate research grants, Indiana Academy of Science, \$500 to \$1200 each.
1980 to 1995	Direct graduate research, various engineering geology application to mining in Indiana and adjacent areas, Indiana Mining and Minerals Research Institute IMMRI, U.S. Bureau of Mines
Jan. - Dec. 1981	Evaluation of Methods of Predicting Durability Characteristics of Argillaceous Carbonate Rocks. Joint Highway Research Project, Ind. State Highway Comm.
Aug. 1981 - July 1982	Technical Assistance on Rehabilitation of Abandoned Mine Land, Ind. Dept. Natural Resources, Div. of Reclamation, through Laboratory for Applications of Remote Sensing (LARS).
Aug. - Sept. 1979	Analyze sites for dredge material disposal along the Illinois River for Argonne Nat'l Laboratory. Dept. of Energy. \$5,000
Jan. - Aug. 1979	Research grant from Indiana Highway Commission and U.S. Federal Highway Administration. Slippiness of Aggregates in Bituminous Pavements. \$6,500
1978 - 1979	Research grant from Argonne National Laboratory, U.S. Dept. of Energy, to study ground water conditions at strip-mine reclamation site. \$2500.
1977 - 1978	Spectral Response of Soils, using Exotech Field Spectrometer, as Related to Engineering Properties of Soils, funded by NASA through Johnson Space Center, Houston. \$50,000
1976 -1982	Mining Fellowships for HEW. Direct research for graduate students from engineering geology area on projects in mining related studies.
1975 - 1977	Applications of remote sensing to selected engineering geology problems in Indiana, funded by NASA through office of Univ. Affairs to the Laboratory for Applications of Remote Sensing (LARS).

1971 - Aug. 1975	Analyze multispectral remote sensing data collected over various test sites, Federal Highway Administration, Dept. of Transportation, T.R. West principal investigator. \$300,000
1972 - 1974	Nat'l Science Foundation, RANN "Properties of Geologic Materials", (with D. Dewitt, Mechanical Engr. and W.R. Judd, Civil Engr.)

b. Invited Lectures and Conferences

- Invited lecture - lecture on the spectral response of land surface materials at the short course "Application of Remote Sensing to Regional Planning" Univ. of Wisconsin.
- Invited conferences - U.S. DOT Seminar on Underground Construction, Vail, CO.
- Penrose Conf. - on landslides, Vail, CO, sponsored by Geol. Soc. of America, see B5.
- Invited Lectureship, Texas A & M University, "Engineering Geology Regarding the use of Dredged Materials for Surface - Mined Reclamation along the Illinois River Waterway".
- Invited Lectureship, Univ. of Missouri, Rolla, Dept. of Geological Engineering, three lectures on engineering geology-related to coal strip mining, slope stability and construction in karst terrain.
- Invited Workshop on Evaluation of Research needs in Engineering Geology, National Science Foundation, San Francisco, CA (also listed under teaching).
- Invited Lecture for Panel Discussion, Hazardous Waste Generation and Disposal, Indiana Academy of Science Annual Meeting.
- Invited lecturer to Conference on Groundwater Concerns for Contamination, sponsored by ICFAR (Indianapolis Center for Advanced Research), presentation concerning monitoring well placement and geologic evaluation.
- Invited attendee of Short Course "Engineering Seismology", U.S. Army Corps of Engineers, Waterways Experiment Station, Vicksburg, MS.
- Invited lecturer, University of Illinois at Urbana, Engineering geology/geotechnical engineering seminar, "Rock Slope Stability Analysis Based on Computer Techniques".
- Invited lecturer for short course on identification of deleterious particles in aggregates for highway construction. Indiana Mineral Aggregates Association, Jan. 1998, Indianapolis, IN.
- Invited banquet speaker, slide presentation, "Rock Slope Stability with Pore Pressure Considerations", Northcentral Section, Assoc. of Engr. Geologists, Dec. 1998, Chicago, IL.
- Invited attendee for two short courses by FEMA, "Flood Mitigation Design Course", and "Earthquake Mitigation Design Course", July and August 1998, Emmitsburg, MD.
- Invited lecturer for short course, engineering properties of aggregates, in deleterious particles in aggregates for highway construction for INDOT personnel and aggregate producers, April 3, 4 and 5, 2000 in South Bend, Indianapolis and Seymour, IN, respectively.
- Invited lecturer, "Rock Slope Failures: planar, wedges and topples, including pore pressure and intact rock", Puk Yong National University, Pusan, Korea and Yonsei University, Seoul, Korea, July 8 and 10, 2000, respectively.
- Invited lecturer, conference on Advances in Site Characterization for Environmental and Engineering Projects at Glaciated Sites, by Midwest Science Group, lecture title "Geotechnical Analysis of Glacial Successions", Oct. 5-7, 2000, Minneapolis MN.
- Invited lecturer, University of Dayton, Civil Engineering Seminar, Geology and Engineering Considerations for Rock Slope Stability, Oct., 2001.
- Invited lecturer, Indiana Geologists, "Fundamentals of Rock Slope Stability", Indianapolis IN, July, 2002.
- Invited lecturer, Dept. of Geology, Northern Illinois University, "Rock Slope Stability, Basic Concepts and Applications", DeKalb, IL, Nov., 2002.
- Invited lecturer, 12 Noon Club, Franklin, IN, "Air, Surface Water and Groundwater Concerns of Indiana", Summer, 2006.
- Invited lecturer as President of AEG, 18 sections and chapters throughout the United States, 2007.

c. Talks Presented, Local Area

- North Central Section, Assoc. of Engr. Geol., Chicago. "Current Studies in Rock Slope Stability, Engineering Geol. Area, Purdue University".
- Seminar for AMAX Coal Co., Indianapolis, Ind. "Coal Strip Mining in Lacustrine Clays, Pike County, Indiana.
- Color slide lecture "Rivers and Cities of Eastern Europe", local organization, Nov. 1998.
- Color slide lecture "Geology and Scenic Details, Australia and New Zealand", local organization, Dec., 2000.
- EAS Dept. Seminar, Purdue University, Nov. 2001, Aspects of Rock Slope Stability: Concepts and Applications.
- WALLA, Wabash Adult Lifetime Learning Association, presented two week short courses, Basic Geology for Tourists and Travellers, Fall 2005, 2006, West Lafayette, IN.
- Invited lectures as President, Association of Environmental and Engineering Geologists (AEG), 20 talks given to local sections of this international organization, five topics to choose from, Dec. 2006-Dec. 2007.
- ANWR, Arctic National Wildlife Refuge and Climate Change, Southwest Florida Indiana Society, Fort Myers, FL, March 2008.
- ANWR Arctic National Wildlife Refuge and the Alaska Pipeline, Prudhoe Bay Alaska.
Purdue University Retirees Organization, July 2008.
Daybreak Rotary Club, August 2008.
Westminster Village Mens Club, Sept. 2008.
- University of Pennsylvania, The History of Solid Waste Disposal, Past, Present and Future, Philadelphia, PA, Oct. 2008.
- Delaware Valley GeoInstitute, American Society of Civil Engineers, Rock Slope Stability Analysis, Philadelphia, PA, Oct. 2008.

11. Theses and Publications

a) Theses (T.R. West)

- M.A. Thesis "Vibrational Phenomena of Loess", 1962, Washington University - unpublished.
- Ph.D. Thesis "Textural Analysis of Aggregates in Relation to Engineering Tests and Aggregate Degradation", 1966, Purdue Univ., - published almost in total by the Highway Research Board - see West, Johnson and Smith, 1970 listed in the refereed papers section.

b) Publications in Refereed Journals

i) Publications of National Scope

- T.R. West, N.M. Smith and R.B. Johnson, 1967, "The Use of Statistical Analysis in Quarry Evaluation", Proceedings, Third Forum of Geology of Industrial Minerals, State Geol. Survey of Kansas, Lawrence, Kansas, pp. 10-25.
- T.R. West, R.B. Johnson and N.M. Smith, 1970, "Tests for Evaluating Degradation of Base Course Aggregates", SBN 309-01885-4, Nat'l Cooperative Highway Research Program (NCHRP), Report 93, Highway Research Board, Washington, D.C., 92 pages.
- T.R. West, 1972, "Engineering Soils Mapping from Multispectral Imagery using Automatic Classification Techniques", Highway Research Record Number 421, Highway Research Board, pp. 58-65.
- H.L. Matthews, J.E. Cunningham, J.E. Cipra, and T.R. West, 1973, "Application of Multispectral Remote Sensing to Soil Survey Research in Southeastern Pennsylvania", Soil Science of America Proceedings, vol. 37, no. 1, Jan. - Feb., pp. 88-93.
- S.E. Hasan and T.R. West, 1978, "Environmental Geology Base in Land-use Planning", Proceedings III International Congress of Engineering Geology, Sept. 4-8, 1978, Madrid, Spain, vol. I, pp. 209-218.

- S.E. Hasan and T.R. West, 1982, Development of an Environmental Geology Base for Land-use Planning, Bulletin, Assoc. of Engineering Geologists, vol. XIX, no. 2, pp. 177-132.
- A. Shakoor, T.R. West and C.F. Scholer, 1982, "Physical Characteristics of some Indiana, Argillaceous Carbonates Regarding their Freeze-Thaw Resistance in Concrete", Bulletin of the Assoc. of Engr. Geologists, vol. XIX, no. 4, pp. 371-384.
- C.F. Watts, H.R. Hume and T.R. West, 1983, "Field Evaluation of a Rapid Data Collection System for Slope Stability Analysis", Transportation Research Record 873, by Transportation Research Board, Washington, D.C., pp. 50-56.
- T.R. West and D.L. Warder, 1983, "Geology of Indianapolis, Indiana, United States of America", third paper in a series, Geology of the Cities of the World, Bulletin of the Assoc. of Engr. Geologists, vol. XX, no. 2, pp. 105-124.
- T.R. West and A. Shakoor, 1984, "Influence of Petrography of Argillaceous Carbonates on their Frost Resistance in Concrete", Cement, Concrete and Aggregates, vol. 6, Number 2, American Society for Testing and Materials, pp. 84-89.
- C.F. Watts and T.R. West, 1985, "Electronic Notebook Analysis of Rock Slope Stability of Cedar Bluff, Virginia", Bulletin of the Assoc. of Engineering Geologists, Vol. XXII, No. 1, pp. 67-85.
- T.R. West and I.O. Okonkwo, 1984, "Site Investigation of a Leaking Dam Constructed from Cast Over Strip Mine Spoil, Greene-Sullivan State Forest, Indiana", Proceedings of National Symposium on Reclamation of Abandoned Mine Lands", Bismark, North Dakota, L. Schloesser et al. Editors, pp. 215-248, Science Reviews Ltd., England.
- C.J. Stohr and T.R. West, 1985, "Terrain and Look-Angle Effects Upon Multispectral Scanner Response", Jour. of Photogrammetry & Remote Sensing, vol. 51, No. 2, Feb., 1985, pp. 229-235.
- C.F. Watts and T.R. West, 1986, "Discontinuity Significance Index and Electronic Data Collection for Rock Slope Stability Studies", Bulletin of the Association of Engineering Geologists, vol. XXIII, No. 3, pp. 265-278.
- T.R. West, 1988, Citation for Gordon W. Prescott on election to Honorary Member, Association of Engineering Geologists, Bulletin Assoc. of Engr. Geol., Volume XXV, No. 1, pp. 1-3.
- B. Bailey, E. Bloom, and T.R. West, 1988, "Excessive Seepage Losses at Westwood Lake Dam, East Central Indiana", Preceedings, Second International Conference on Case Histories in Geotechnical Engineering, St. Louis, Missouri, June 1-5.
- K.C. Kuo and T.R. West, 1990, "Reclamation of a Gob Pile in Southwest Indiana, An Innovative Approach", Proceedings, 1990 National Symposium on Mining, Knoxville, TN, pp. 181-190.
- T.R. West, K.C. Kuo and W.K. Petersen, 1990, Site Investigation of A Coal Strip Mine Area, Southwest, Indiana, USA, to Provide Geotechnical and Hydrologic Data for Reclamation Design, Proc., Sixth International Congress, International Association of Engineering Geology, pp. 1491-1500, Amsterdam, Netherlands.
- T.R. West, 1991, Geology Field Trip to Baraboo Wisconsin, in Field Trip Guidebook, 34th Annual Meeting, Association of Engineering Geologists, October, Chicago IL, 63 p. (reviewed by Illinois State Geological Survey).
- T.R. West, 1991, "Five-Day Investigation of Engineering Geology Construction Sites: An Excellent Complement to Class Room Studies", pp. 33-36, and "Engineering Geology and Geological Engineering Programs at Purdue University", pp. 59-61, in Academic Preparation for Careers in Engineering Geology and Geological Engineering, Special Publication No. 2, Edited by J.D. Higgins and J.W. Williams, Association of Engineering Geologists.
- D.L. Eggert, A.C. Samuelson, J.D. Bray, S.W. Chang, W.R. Eckhoff, J.D. Frost, K. Kayabali, E.J. McClees, T.R. West, M.C. Woodfield, and B. Zheng, 1994, "Final Report to the City of Evansville, Shear-Wave and Earthquake Hazard Mapping of Evansville, Indiana", Indiana University, Indiana Geological Survey, Open File Report 94-19, 50 p.

- K. Kayabali and T.R. West, 1994, "Prediction of Site Response of Surficial Deposits in Evansville, Indiana", *Environment & Engineering Geoscience*, vol. 1, No.2, summer, pp. 191-206.
- T.R. West and A. Kaya, 1994, "Rock Slope Stability Analysis Along the Pigeon River, Interstate Highway 40, Western North Carolina, USA", *Proceedings, Seventh International Congress, International Association of Engineering Geology*, pp. 2137-2144, September, Lisbon, Portugal.
- J.C. Choi and T. R. West, 1995. "Evaluation of Phosphate Pebble as a Precipitant for Acid Mine Drainage Treatment", *Environmental & Engineering Geoscience*, Vol. 1, No. 2, Summer, pp. 163-171.
- D.L. Eggert, A.C. Samuelson, J.D. Bray, S.W. Chang, W.R. Eckhoff, J.D. Frost, K. Kayabali, E.J. McClees, T.R. West, M.C. Woodfield, and B. Zheng, 1995, "Final Report to the Indiana Department of Fire and Building Services, Indiana's Seismic Risk: Implications of the Uniform Building Code, Geotechnical Data, and Evidence of Prehistoric Earthquakes", Indiana University, Indiana Geological Survey, Open File Report 95-10, 26 p.
- K.Kayabali and T. R. West, 1995, "Prediction of Site Response of Surficial Deposits in Evansville, Indiana", *Environmental & Engineering Geoscience*, Vol.1, No.2, Summer, pp. 191-206.
- T.R. West, 1996, "The Effects of Positive Pore pressure on Sliding and Toppling of Rock Blocks with some Considerations of Intact Rock Effects", Vol. II, No.3, Fall, pp. 339-353, *Environmental & Engineering Geoscience*.
- J.C. Choi, T.R. West and Y. Seol, 1997, "Application of MINTEQA2 to the Evaluation of Apatite as a Precipitant for Acid Mine Drainage Treatment", *Environmental & Engineering Geosciences*, Vol. III, No. 2, p. 217-223.
- T.R. West, 2000, Book Review, "Roadside Geology of Indiana," by Mark J. Camp and Graham T. Richardson, in *Environmental and Engineering Geoscience*, Vol. VI, No. 1, February, pp. 90-91.
- K.H. Cho and T.R. West, 2000, "Stability of Toppling Blocks Regarding Pore Pressure and Unit Weight", *Environmental and Engineering Geosciences*, Vol. VI, No. 4, November, pp. 413-416.
- T.R. West, J.C. Choi, D.W. Bruner, H.J. Park and K.H. Cho, 2001, "Evaluation of Dolomite and Related Aggregates Used in Bituminous Overlays for Indiana Pavements", *Transportation Research Record*, No. 1757, pp. 137-147.
- H.J. Park and T.R. West, 2001, "Development of a Probabilistic Approach for Rock Wedge Failure", *Engineering Geology*, Vol. 59, Nos 3-4, pp. 233-251, Elsevier, The Netherlands.
- T.R. West, K.H. Cho and H.J. Park, 2001, "Rock Slope Failure Along Interstate 40, Western North Carolina, USA", *Proceedings, International Conference on Landslides; Causes, Impacts and Countermeasures*, pp. 109-118, Davos, Switzerland, June.
- T.R. West, 2002, "Subsurface Investigations of Several Glacial Successions Related to Engineering Construction", *Proceedings of the Indiana Academy of Science*, Vol. 111, No. 1, pp. 9-20.
- T.R. West, 2002, "Role of GSA Engineering Geology Division, Past, Current and Future", Program with Abstracts, Association of Engineering Geologists, Reno, NV, Sept., Full paper on CD Rom,"Symposium: Visioning the Future of Engineering Geology, Sustainability and Stewardship".
- H.J. Park, T.R. West, and I. Woo, 2005, "Probabilistic Analysis of Rock Slope Stability and Random Properties of Discontinuity Parameters, Interstate Highway 40, Western North Carolina, USA", *Engineering Geology*, Elsevier Publisher, Amsterdam, The Netherlands.
- T.R. West, L. Zhao and K. Cho, 2006, "Abandoned Gravel Pit Complex Provides Land for Expansion of Purdue Campus, West Lafayette, Indiana". *Proceedings, International Association of Engineering Geologists*, Aug., Nottingham, England.

T.R. West, 2007, "Landslides and Society: Recognition, Impacts and Mitigation", Proceedings, First North American Landslide Conference, Hard Copy Proceedings and CD, Vail CO, June, Invited paper.

ii) Indiana Academy of Science (full papers, mostly for experience of students)

- T.R. West and D.J. Barr, 1965, "Economic Groundwater Problems Encountered in the Development of a Housing Area near West Lafayette, Ind.", Proceedings of the Indiana Academy of Science for 1964, vol. 74, pp. 259-26.
- T.R. West and R.B. Johnson, 1966, "Analysis of Textural and Physical Factors Contributing to Abrasion Resistance of some Indiana Carbonate Aggregates", Proceedings of the Indiana Academy of Science for 1965, vol. 75, pp. 153-216.
- T.R. West, 1972, "Engineering Soils Mapping in Indiana by Computer from Remote Sensing Data", Proceedings of the Indiana Academy of Science for 1971, vol. 81, pp. 210-216.
- J.M. Wilkerson, R.J. Sette and T.R. West, 1974, "Environmental Geology and Land-use Planning in Boone and Tippecanoe Counties, Indiana", Proceedings, Indiana Academy of Science for 1973, vol. 83, pp. 269-277.
- J.M. Wilkerson and T.R. West, 1975, "Applications of Geology in Developing a Master Plan in Boone County, Indiana", Proceedings, Indiana Academy of Science for 1974, vol. 84, pp. 336-342.
- G.T. Richardson and T.R. West, 1977, "Post-Glacial Deltas in the Region of the Great Bend of the Wabash River", Proceedings of the Indiana Academy of Science for 1976, vol. 86, pp. 317-325.
- E.E. Otto and T.R. West, 1978, "Applications of Geology to Land-use Planning, Clinton County, Indiana", Proceedings of the Indiana Academy of Science for 1977, vol. 87, pp. 299-310.
- V. Peter Worland and T.R. West, 1979, "Abatement of Combined Sewer Overflow and Urban Runoff Pollution in Indianapolis, Indiana using Deep Tunnel Conveyance and Storage", Proceedings for the Indiana Academy of Science for 1978, vol. 88, pp. 256-262.
- G.A. Brodie and T.R. West, 1980, "Environmental Geology for Land-use Planning in Hamilton County, Indiana", vol. 89, pp. 300-309.
- G.E. Greengold and T.R. West, 1981, "Engineering Geology of an Operating Area Strip Mine, Southwestern Indiana", vol. 90.
- G. Crosby and T.R. West, 1982, "Engineering and Environmental Geology of Hancock County, Indiana", vol. 91.
- C. Huang and T.R. West, 1983, "Geologic Conditions Related to Longwall Coal Mining, Pike And Warrick Counties, Indiana", vol. 92.
- J.C. Lewis and T.R. West, 1988, "Engineering Characteristics of Lacustrine Deposits Associated with Coal Strip Mining, Southwest Indiana, vol. 97.

iii) Publications in Conference Proceedings (not reviewed)

- T.R. West and N.B. Aughenbaugh, 1964, "Role of Aggregate Degradation in Highway Construction", Proceedings, 15th Annual Highway Geology Symposium pp. 117-132.
- R.W. Lounsbury and T.R. West, 1965, "Petrography of Some Indiana Aggregates in Relation to their Engineering Properties", Proceedings 16th Annual Highway Geology Symposium, pp. 24-29.
- T.R. West, 1969, "Textural Analysis and Engineering Testing of Degrading Base Course Aggregates", Proceedings, Seventh Annual Engineering Geology and Soils Engineering Symposium pp. 247-270.
- T.R. West, 1970, "The Application of Remote Sensing to Highway Locations", Proceedings, 21st Annual Highway Geology Symposium, Univ. of Kansas, pp. 125-149.

- T.R. West, 1973, "Computer-Aided Analysis of Multispectral Remote Sensing Data Applied to Highway Engineering Geology", Proceedings of the First Panamerican Conference on Remote Sensing, Panama City, Panama, pp. 197-198.
- C.J. Stohr and T.R. West, 1974, "Delineation of Sinkholes using Thermal Infrared Imagery", Proceedings of Third Annual Remote Sensing of Earth Resources Conference, Tullahoma, TN.
- T.R. West, S.A. Mundy and M.C. Moore, 1976, "Evaluation of Gravel Deposits using Remote Sensing Data, Wabash River Valley North of Terre Haute, Indiana, Proceedings, 27th Highway Geology Symposium, Orlando, FL.
- W.S. Roberts, C.W. Lowell and T.R. West, 1978, "Predicting Feasibility of Cold Weather Earthwork, ASCE Specialty Conference on Cold Regions, Anchorage, Alaska, May 1978.
- A. Shakoor and T.R. West, 1979, Petrographic Examination of Aggregates used in Bituminous Overlays for Indiana Pavements as Related to their Polishing Characteristics, Proceedings, 30th Highway Geology Symposium, Portland, OR, pp. 185-210.
- C.F. Watts and T.R. West, 1981, "A System for Rapid Collection and Evaluation of Geologic Structure Data for Rock Slope Stability Analysis", 32nd Highway Geology Symposium, May, Gatlinburg, TN, pp. 89-115.
- S.C. Teme and T.R. West, 1982, "Determination of Friction Angle Values for Rock Discontinuities in Regard to Stability of Highway Cuts", Proceedings, 33rd Highway Geology Symposium, Vail, CO, Spec. Publ. 22, Colorado Geological Survey, Denver, CO, pp. 212-230.
- A. Shakoor and T.R. West, 1983, "Relationships Between Insoluble Residue Content and Pore Characteristics for Carbonate Aggregates", Proceedings, 18th Forum on the Geology of Industrial Minerals, Bloomington, IN, April 1982, Occasional Paper 37, Indiana Geological Survey, Bloomington, IN.
- H. Hume, T.R. West and W.R. Judd, 1982, "A New Technique for Domain Delineation of Rock Mass Discontinuities, Proceedings, 23rd U.S. Symposium on Rock Mechanics, August, Berkeley, CA, pp. 104-115.
- T.R. West and M.R. Fein, 1983, Geologic and Economic Aspects Regarding the Development of an Underground Mine, Indianapolis, Indiana, Proceedings, 34th Annual Highway Geology Symposium, May, Atlanta, GA.
- S.C. Teme and T.R. West, 1983, Some Secondary Toppling Failure Mechanisms in Discontinuous Rock Slopes, Proceedings, 24th U.S. Symposium on Rock Mechanics, June, College Station, TX, pp. 193-204.
- T.R. West and R.G. Hummendorf, 1985, Use of Sonic Logs in Evaluating Roof-Rock Strength for an Underground Coal Mine, Proceedings of the 36th Annual Highway Geology Symposium Clarksville, IN, pp. 174-202.
- T.R. West, 1987, "Highway Construction in the Lake Bed Deposits, Southwestern Indiana", Proceedings, 38th Annual Highway Geology Symposium, May, Pittsburgh, PA, pp. 181-184.
- T.R. West and Q.A. Gorton, 1989, "Demolition and Removal of Structures Prior to Land Reclamation", 40th Annual Highway Geology Symposium, May, Birmingham, Alabama, 11 pages.
- K. O'Hara and T.R. West, 1992, "Evaluation of Coal Refuse for Access Road Construction at an abandoned Minelands Site, Southwest Indiana", Proceedings, 43rd Highway Geology Symposium, August 1992, Fayetteville, AK, pp. 38-63.
- J.C. Choi and T.R. West, 1992, "Laboratory Testing to Evaluate the Effectiveness of Limestone and Apatite for Acid Mine Drainage Control", Proceedings, 35th Annual Meeting, Association of Engineering Geologists, pp. 441-447, Long Beach, CA, October 7.
- T.R. West, 1992, "Retrofitting Perimeter Leachate Collection Systems for Existing Sanitary landfills: A Challenging Problem", Proceedings, Second Federal Interagency Symposium on Stabilization of Soils and Other Materials, Nov. 2-5, 1992, New Orleans, LA, pp. 6-13 to 6-18.

- R.A. Pittenger and T.R. West, 1993, "Investigation for Landfill Expansion in a Bedrock Area, Southcentral Indiana", Proceedings, 44th Annual Highway Geology Symposium, pp. 88-99, Tampa, FL, May.
- D.L. Eggert, N.K. Blueur, J.D. Bray, W.R. Eckhoff, K. Kayabali, C.A. Munson, P.K. Munson, A.C. Samuelson, and T.R. West, 1994, "Seismic Hazards in the Midwest: What we have learned in Indiana," Proceedings, 5th U.S. National Conference on Earthquake Engineering, Earthquake Engineering Research Institute, Vol. 3, pp. 429-442, July 10-14, Chicago, IL.
- D.W. Bruner, J.C. Choi and T.R. West, 1994, "Evaluation of Indiana Aggregates for Use in Bituminous Highway Overlays", Proceedings, 45th Highway Geology Symposium, pp. 201-212, August, Portland, Oregon.
- T.R. West, 1995, "Evolution of a Technique: Petrography of Aggregates for Concrete and Bituminous Pavements," Proceedings, 46th Highway Geology Symposium, pp. 166-176, May, Charleston, West Virginia.
- J.C. Choi and T.R. West, 1995, "Iron and Aluminum Removal from Acid Mine Drainage Using an Apatite Drain System", 17th Annual Conference, National Association of Abandoned Mine Lands Programs, October, French Lick, IN.
- T.R. West and H.J. Park, 1996, "Rock Durability of Argillaceous Carbonate Rocks in Cut Slopes for Indiana Highways", Proceedings, 47th Highway Geology Symposium, pp. 183-205, Cody, WY, Sept. 6-9.
- T.R. West and R.A. Pittenger, 1997, "Computer Analysis of Required Statistical Parameters for Sites with Multiple Monitoring Wells Measured for an Extended Period of Time", Proceedings, 48th Highway Geology Symposium, Knoxville, TN, May.
- T.R. West, 1998, "Evaluation of Crushed Stone Used for High Traffic Bituminous Pavement Wearing-Courses in Indiana", Proceedings 49th Highway Geology Symposium, Sept., pp. 388-398, Prescott, AZ.
- H.J. Park and T.R. West, 1999, "Discontinuity Orientation Measurements for Rock Slope Design in Western North Carolina", Proceedings. 50th Highway Geology Symposium, pp. 348-362, Roanoke, VA, May.
- T.R. West, 2000, "Pore Pressure Effects on Sliding and Toppling of Rock Blocks Including some Aspects of Intact Rock", International Symposium on Landslides, Protection and Control, Korea Institute of Construction Technology, pp. 1-36, Seoul, Korea, July.
- T.R. West, 2000, "Deleterious Constituents in Indiana Aggregates: A Challenge for Non-Geologists to Identify", Proceedings, 51st Highway Geology Symposium, pp. 61-64, Seattle, WA, August.
- K.H. Cho and T.R. West, 2001, "Evaluation of Carbonate Aggregates for Bituminous Overlays in Indiana", Proceedings, 52nd Highway Geology Symposium, pp. 81-90, Rocky Gap, MD, May.
- T.R. West and K.H. Cho, 2002, "Petrography of Gravel Aggregates for Indiana Bituminous Pavement Overlays", Proceedings Highway Geology Symposium, San Luis Obispo, CA, Aug., pp. 316-327.
- Y.Lu and T.R. West, 2003, "Stability Analysis of the Rock Dam Below Interstate 80/94, Thornton quarry, Chicago, Illinois, Proceedings 54th Highway Geology Symposium, pp. 422-442, Burlington, VT, September.
- T.R. West, Y. Sui, and H. Liu, 2004, "Remote Sensing Studies, Carroll and Tippecanoe Counties, Indiana with Engineering Geology Applications", Proceedings 55th Highway Geology Symposium, pp. 67-80, Kansas City, MO, August.
- T.R. West, L. Zhao and K. Cho, 2004, "Geotechnical Classification of Soils Regarding Earthquake Shaking, Southwest Indiana", USA, 32nd International Geological Congress, Florence, Italy, August.
- H. Gee and T.R. West, 2004, Proceedings, 25th Annual Indiana Water Resources Association, "Flood Control for Thorn Creek, South Cook County, Illinois, Part of CUP and Deep Tunnel Project", Valparaiso, IN, June.

- T.R. West and J. O'Brien, 2005, "A Coarse Aggregate Paradox for Indiana Highway Pavements, Less is Better", Proceedings, 56th Highway Geology Symposium, Wilmington, NC, June.
- T.R. West and L. Zhao, 2005, "Liquefaction Analysis of Highway Embankments in Southwest Indiana, USA, Regarding Earthquake Emergency Route Planning", Geoline International Conference, International Association of Engineering and Environmental Geology, Lyon, France, May.
- T.R. West, B.J. Calaya and J.E. Haddock, 2006, "Petrography of Coarse Aggregates Used in the Design of Stone Matrix Asphalt Pavements in Indiana", Proceedings, 57th Highway Geology Symposium, Breckenridge, CO.
- T.R. West and K.Y. Cho, 2006, "Abandoned Gravel Pit Complex Provides Land for Expansion of Purdue Campus, West Lafayette, IN, USA. International Association of Engineering and Environmental Geology, Nottingham, England, September.
- T.R. West, 2007, "Geologic Constraints and Geohazards, An Overview of Engineering Geology Concerns", 6th Asian Conference on Geohazards in Engineering Geology, Seoul, Korea, October.
- T.R. West and K. Kowalski, 2008, "Petrographic Evaluation of Coarse Aggregates Used in a Flexible Pavement Study on Noise and Frictional Characteristics", Proceedings 59th Highway Geology Symposium, Santa Fe, NM.
- N. Farny and T.R. West, 2012, Field Methods of Measuring Discontinuities for Rock Slope Stability Analysis on Price Mountain, Virginia, Highway Geology Symposium, Redding, CA.

iv) Published Abstracts

- B. Lowell and T.R. West, 1968, "A Topographic Map of Bedrock Surface of Tippecanoe County, Indiana as Drawn by a Computer", Proceedings of the Indiana Academy of Science for 1967, vol. 77 (abstract only).
- T.R. West, 1969, "Subsurface Investigation for a Power Transmission Line in Northwestern Indiana", Abstracts of Program for Annual National Meeting, Geological Society of America, Atlantic City, NJ.
- N.G. Ludwig and T.R. West, 1971, "Quantitative Measurements of Rock Textures", Proceedings, of the Indiana Academy of Science for 1970, vol. 80 (abstract only).
- T.R. West, 1972, "Quantitative Measurement of Rock Textures Related to Rock Strength", Abstract of Programs for Annual Nat'l Meeting, Geol. Society of America, Minneapolis, MN.
- S.G. Jordan and T.R. West, 1976, "Highway Route Location Utilizing Remote Sensing Techniques, Ft. Wayne, Indiana", Proceedings of the Indiana Academy of Science for 1975, vol. 85 (abstract only).
- E.E. Otto and T.R. West, 1977, "Extending Agricultural Soils Map Data for Land-use Planning and Special Construction Applications, and Example: Clinton County, Indiana", Abstracts of Program for Northcentral Section Meeting, Geol. Society of America, Carbondale, IL.
- T.R. West, 1977, "Subsurface Investigation for- and Damage Problems Associated with- Sewer Line Construction in a Shallow-Bedrock, Urbanized Area", Abstracts of a Program for Annual Meeting of the Association of Engineering Geologists, Seattle, WA.
- A.L. Rameriz and T.R. West, 1979, "Estimating Support Requirements for a Proposed Tunnel using Rock Classification Methods", Abstracts of Programs, Annual Meeting, Association of Engineering Geologists, Chicago, IL.
- T.A. Bannister, T.R. West and W. Harrison, 1979, "Geohydrology of an Abandoned Strip Mine Site, Ottawa, Illinois", Abstracts of Programs for Annual Meeting, Geological Society of America, San Diego, Calif.

- T.R. West and C.O. Okagbue, 1980, "Grain Size Analysis and Petrographic Examination of a Gravel Deposit Relative to Engineering Quality", W. Lafayette, Indiana, Abstracts of Programs for North Central Section Meeting, Geological Society of America, Bloomington, IN.
- G.E. Greengold and T.R. West, 1980, "Engineering Geology of an Operating Strip Mine, Southwestern Indiana", Abstracts of Programs of Annual Meeting, Association of Engineering Geologists, Dallas, TX.
- C.H. Baker and T.R. West, 1981, "Sliding Resistance of Rock Fractures in Shale Relative to Slope Stability for a Power Plant Project, Hudson Valley Region, N.Y.", Abstracts of Programs for Annual National Meeting, Geological Society of America, Cincinnati, OH.
- Syed E. Hasan and T.R. West, 1982 "A Technique for Evaluation of Geologic Factors in Land Use Planning", Abstracts of Programs for North-Central Meeting, Geological Society of America, W. Lafayette, IN.
- S.C. Teme and T.R. West, 1982, "Some Patterns of Slope Behavior for Rock Masses Controlled by Discontinuities", Abstracts of Programs, North-Central Meeting of Geological Society of America, W. Lafayette, IN.
- S.C. Teme and T.R. West, 1982, A Method of Data Analysis and Interpretation of Behavior for Rock Slope Movement Controlled by Discontinuities, 25th Annual Meeting, Association of Engineering Geologists, October, Montreal Canada, Abstracts of Program.
- T.R. West, L.J. Frey and C.F. Watts, 1983, "Field Application of a Rapid Data Collection System for Rock Slope Stability Analysis, Highlands Province, New Jersey", 26th Annual Meeting, Association of Engineering Geologists, October, San Diego, CA, Abstracts of Program.
- T.R. West, C.F. Watts and H.R. Hume, 1983, "Decisions Concerning Data Collection on Rock Discontinuities for Slope Stability Analysis", Abstracts of Program, Annual Meeting, Geological Society of America, Indianapolis, IN.
- T.R. West and L.J. Frey, III, 1984, Detailed Office, Field and Laboratory Analysis to Discern Rock Slope Stability, Interstate Highway 287, Northeastern New Jersey, Proceedings, 35th Annual Highway Geology Symposium, August, San Jose, CA, Abstract only.
- T.R. West and C.F. Watts, 1984, "Applications of the Electronic Notebook Method for Slope Stability Analysis, Cedar Bluff, Virginia", A Symposium Paper for Microcomputers in Engineering Geology, Abstracts of Program, 27th Annual Meeting, Association of Engineering Geologists, October, Boston, Mass.
- K. Kuo and T.R. West, 1984, Compressive Strength of Springfield Coal, Coal 5, Pike County, Indiana, Vol. 93, Indiana Academy of Science, abstract only.
- I.O. Okonkwo and T.R. West, 1985, "Engineering Geological Evaluation of Reservoir 29 Dam, Greene-Sullivan State Forest, Indiana, Abstracts of Program 28th Annual Meeting, Association of Engineering Geologists, October, Winston-Salem, N.C.
- T.R. West, 1985, Engineering Geology of Indiana Lake Bed Deposits and their Effect on Coal Mining, vol. 94, Indiana Academy of Science, abstract only.
- T.R. West, 1985, "Engineering Geology and Ground Water Considerations for Sanitary Landfills in Wisconsin-Aged Morainal Deposits of Central Indiana", Abstracts of Programs, 98th Annual Meeting, Geol. Society of America, November, Orlando, Florida.
- T.R. West and J. Lewis, 1986, "Slope Stability of Lacustrine Clays, Indiana Coal Strip Mines: Present Concerns and Estimated Effects from Large Earthquakes", Abstracts of Programs, 29th Annual Meeting, Association of Engineering Geologists, Oct., San Francisco, CA.
- T.R. West, 1986, "Fracture in Glacial Till Related to Increased Permeability and Concern for Sanitary Landfill Siting in Central Indiana", Abstracts of Programs, 99th Annual Meeting, Geol. Society of America, November, San Antonio, TX.
- T.R. West, 1987, "Five-Day Field Investigation of Engineering Geology Construction Sites: An Excellent Complement to Class Room Studies", Abstracts of Programs, 30th Annual Meeting, Association of Engineering Geologists, October, Atlanta, GA.

- T.R. West and S.A. Sudar, 1987, "Detailed Subsurface Investigation in Glacial Terrain Benefits Design for Sanitary Landfill Expansion, Marion County, Indiana", Abstracts of Programs, 100th Annual meeting, Geological Society of America, November, Phoenix, AZ.
- T.R. West, 1988, "Construction of A New Interchange for the Indiana Toll Road, Complicated by Poor Soil Conditions and Presence of a Sanitary Landfill", Proc., 39th Annual, Highway Geology Symposium, Park City, Utah, August.
- T.R. West and B.K. Loughnane, 1988, "Further Geological Investigation of A Superfund Site, Montgomery County, Pennsylvania", Abstracts of Programs, 31st, Annual Meeting, Association of Engineering Geologists, Oct., Kansas City, Missouri.
- W.P. Petersen and T.R. West, 1988, "Pre-Reclamation, Engineering Geology Assessment of the Abandoned Friar Tuck Coal Mine Complex, Southwest Indiana", Abstracts With Programs, Annual meeting, Geological Society of America November, Denver, CO.
- T.R. West, 1989, "Geological Details for Sanitary Landfill Siting, Indianapolis, (Marion County), Indiana" Abstracts and Programs, 32nd Annual Meeting, Association of Engineering Geologists, October, Vail, CO.
- T.R. West and W.K. Petersen, 1989, "Geological Investigation for Reclamation of the Friar Tuck, Abandoned Strip Mine Area, Southwest Indiana", Abstracts with Programs, Indiana Academy of Science, November.
- M. Henderson, T.R. West and D. Leap, 1989, "Engineering Geology Investigation, Part of A Multi-Discipline Study of Two Landfills in Glacial Till", Abstracts with Programs, Annual Meeting, Geological Society of America, November, St. Louis, MO.
- T.R. West and M.F. Brifceni, 1990, "Predicting Subsidence Effects from Underground Coal Mining in Southwest Indiana, Engineering Geology/Hydrogeology Implications" Abstracts with Programs, Annual Meeting, Geological Society of America, November, Dallas, TX.
- T.R. West and M.F. Brifceni, 1990, Predicting Structural Damage and Hydrogeology Effects from Coal Mine Subsidence, Southwest Indiana, Abstracts with Programs Indiana Academy of Science, November.
- T.R. West, 1990, An Engineering Geology Investigation to Determine Pathways for Contamination Transport in Limestone Terrain, Annual Meeting, Geological Society of America, Abstracts with Program.
- K. Kayabali and T.R. West, 1992, "Evaluation of Engineering Properties and Ground Motion Characteristics of Unconsolidated Deposits in the City of Evansville, Vanderburgh County, Indiana", Abstracts with Programs, Annual Meeting, Geological Society of America, Cincinnati, Ohio, Oct. 1992.
- T.R. West and B.E. Lary, Oct. 1993, "Evaluating Erosion Rates of an Abandoned, Coal Refuse Pile, Southwest Indiana Using Contrasting Techniques", Abstracts with Programs, 36th Annual Meeting, Association of Engineering Geologists, San Antonio, TX.
- J.C. Choi and T.R. West, Oct. 1993, "Dam Failure at an Abandoned Mine Lands Site, Southwest Indiana", Abstracts with Programs, 1993 Annual Meeting, Geological Society of America, Boston, MA.
- D.W. Bruner, J.C. Choi and T.R. West, Nov. 1993, "Evaluation of Indiana Aggregates for use in Bituminous Highway Overlays", Fall Meeting, Indiana Academy of Science, Purdue University, West Lafayette, IN.
- J. Lovell and T.R. West, Nov. 1993, Volume of Leachate Generation for Selected Indiana Landfills, Fall Meeting, Indiana Academy of Science, Purdue Univ., West Lafayette, IN.
- T.R. West, 1994, "Pore Pressure Effects on Sliding and Toppling of Rock Blocks", Abstracts of Programs for Annual Meeting, Geological Society of America, October, Seattle, WA.
- J.E. Lovell and T.R. West, 1994, "Evaluation of Leachate Volume Generated at Selected Indiana Landfill Sites", Abstracts of Programs of Annual Meeting, Association of Engineering Geologists, October, Williamsburg, VA.
- D.W. Bruner, J.C. Choi and T.R. West, 1994, "Assessment of Aggregate Properties Influencing Frictional Performance of Indiana Bituminous Overlays" Fall Meeting, Indiana Academy of Science, South Bend, IN.

- K.J. Storm and T.R. West, 1994, "Evaluation of the Scoring Procedure for NPL (Superfund) Sites in Indiana", Abstracts of Programs, Fall Meeting, Indiana Academy of Science, November, South Bend, IN.
- T.R. West and S. Ludlow, 1994, "Effects of Glacial Stratigraphy on the Flow Pattern of Gasoline Contaminants from a Leaking Underground Storage Tank", Abstracts of Programs, Annual Meeting, Indiana Academy of Science, November, South Bend, IN.
- T.R. West, R. Pittenger, and J. Johnston, 1995, "Mapping Subsurface Clay Layers for Environmental Purposes", Abstracts of Programs for Annual Meeting, Geological Society of America, Nov., New Orleans, LA.
- J.C. Choi, T.R. West, and T. Branam, 1995, "Ferric Iron and Aluminum Removed from Acid Mine Drainage Using an Apatite Drain System", Abstracts of Programs of Annual Meeting, Association of Engr. Geologists, Oct., Sacramento, CA.
- T.R. West, 1995, "Comparison of the Effects of Pore Pressures on the Stability of Soil and Rock Slopes Based on Static Equilibrium Analysis", Abstracts of Programs of Annual Meeting, Association of Engr. Geologists, Oct., Sacramento, CA.
- T.R. West and J.M. Harbor, 1995, "Environmental Class Project, Celery Bog, Tippecanoe County, Indiana", Fall meeting, Indiana Academy of Science, Indianapolis, IN.
- H.J. Park and T.R. West, 1995, "Evaluation of Rock Durability for Cut Slopes on Indiana Highways," Abstracts of Programs, Fall Meeting, Indiana Academy of Science, Nov., Indianapolis, IN.
- R. Pittenger, T.R. West and J. Johnston, 1995, "Investigation of the Nature and Extent of Clay at the Abandoned Gravel Site Adjacent to the Purdue University Campus," Indiana Academy of Science meetings, Nov., Indianapolis, IN.
- T.R. West and R. Pittenger, 1996, "Development of Computer Procedures to Accomplish Required Statistical Analysis of Ground Water Data at Waste Disposal Facilities", Abstracts with Programs, Annual meeting Association of Engineering Geologists, East Brunswick, NJ, Sept. 24-29.
- T.R. West, 1996, "Environmental Exploration for Buried Capacitors at an Electrical Maintenance Facility, Central Indiana", Abstracts with programs, Annual Meeting, Geological Society of America, October, Denver, CO.
- T.R. West, 1996, Blast Vibrations from Operating Limestone Mines in Urban Areas of Indiana", Abstracts of Programs, Indiana Academy of Science, Nov., Greencastle, IN.
- T.R. West, 1996, "Reclamation of Friar Tuck Abandoned Coal Mine Area, Greene-Sullivan Counties, Indiana", poster paper, Ind. Soc. of Mining & Reclamation, Vincennes, IN, Dec.
- T.R. West, 1997, "Retrofitting Leachate Collection Systems for Existing Landfills as Contrasted to Newly-Constructed Sanitary Landfills", International Symposium on Geology and Environment. Abstracts with Programs, Istanbul, Turkey, Sept. 1-5.
- T.R. West, 1997, "Investigation of a Dolomite Quarry Regarding Bituminous Pavement Deterioration Caused by Aggregate Pitting", Abstracts with Programs, Annual meeting, Geological Society of America, October, Salt Lake City, UT.
- T.R. West and S. Grover, 1997, "Evolution of Containment Systems for Sanitary Landfills from the 1950s to Yield Current Stringent Requirements", Envir. Sci. and Engr. Institute, poster session, Purdue Univ., Oct.
- T.R. West and S. Grover, 1997, "Evolution of Containment Systems for Sanitary Landfills from the 1950s to Yield Current Stringent Requirements", Indiana Society of Mining and Reclamation, poster session, Vincennes, IN, Dec.
- T.R. West and S. Grover, 1998, "Engineering Geology Evaluation of Alternative Routes, Proposed Interstate Highway 69, Indianapolis to Evansville, IN", Abstracts with Programs, 41st Annual Association of Engineering Geologists, Seattle, WA, Oct.
- T.R. West, 1998, "Rock Texture, Porosity and Durability of Aggregates for Highway Pavements in Indiana", Abstracts with Programs, Annual Meeting, Geological Society of America, Toronto, Ontario, Oct.

- S. Grover, and T.R. West, 1998, "Encapsulation of Low-Level Radiation Wastes in Ceramics for Hazardous Waste Stabilization Abstracts with Programs, 114th Annual Meeting, Indiana Academy of Science, Indianapolis, IN, Oct.
- J.E. Piehl and T.R. West, 1998, "Disposal of Ash and Solid Waste for the Mass Burn Facility, Marion County, Indiana: A Study Revisited", Indiana Society of Mining and Reclamation, poster session, Jasper, IN, Dec.
- T.R. West, H.J. Park and S. Grover, 1999, "Effects of De-Icing Salts on Aggregates for Bituminous Pavements in Indiana" Abstracts with Programs, Annual Meeting, Geological Society of America, Denver, CO, Oct.
- S. Grover and T.R. West, 1999, "Cericrete Versus Portland Cement as a Waste Form for Stabilizing and Solidifying Low Level and Low Level mixed Wastes", ESEI Conf., Purdue University, Oct. and poster session, Indiana Society of Mining and Reclamation, Jasper, IN, Dec.
- T.R. West and J.E. Piehl, 1999, Disposal of Ash and Solid Waste for the Mass Burn Facility, Marion County, Indiana: A Study Revisited; Abstracts with Programs, 115th Annual Meeting, Indiana Academy of Science, Evansville, IN, Nov.
- T.R. West, H.J. Park and S. Grover, 1999, "Effects of De-icing Salts on Aggregates for Bituminous Pavements in Indiana", Abstracts with Programs, Annual Meeting, Geological Society of America, Denver CO, Oct.
- T.R. West, 2000, "Legal Restrictions Regarding Extraction of Construction Materials and Energy Resources, and Land Disposal of Solid Wastes, State of Indiana, USA", Poster Paper and Oral Presentation, 31st International Geological Congress, Rio de Janeiro, Brazil, Aug. 6-11.
- H.J. Park and West, T.R., 2000, "Probabilistic Analysis of Rock Slope Stability", Abstracts with Programs, 43rd Annual Meeting Association of Engineering Geologists, Sept., San Jose CA.
- T.R. West, 2000, "Curriculum in Applied Geology, Environmental Versus Engineering Geology", Abstracts with Programs, Annual Meeting, Geological Society of America, Nov., Reno NV.
- T.R. West and Choi, J.C., 2000, "Reclamation of Friar Tuck Abandoned Mine Lands (AML) Site, Greene-Sullivan Counties, Indiana", Abstracts with Programs, Annual Meeting Geological Society of America, Nov., Reno NV. Invited paper Topical Session 74, Environmental Restoration of Abandoned Mine Lands.
- T.R. West, 2000, "Legal Restrictions Concerning: Extraction of Construction Materials and Energy Resources, and Land Disposal of Solid Wastes in Indiana", Programs and Abstracts, Indiana Academy of Science, 116th Meeting, Richmond IN, Nov.
- T.R. West and J.E. Piehl, 2000, "Disposal of Ash and Solid Waste for the Mass Burn Unit (Resource Recovery) Facility, Marion County, Indiana", Programs and Abstracts, Indiana Academy of Science, 116th Meeting, Richmond IN, Nov.
- T.R. West, 2000, "Legal Restrictions Regarding Extraction of Construction Materials and Energy Resources and Land Disposal of Solid Waste, State of Indiana, USA", Program Abstracts, 31st International Geology Congress, Rio de Janeiro, Brazil, August.
- K.H. Cho and T.R. West, 2001, "Analysis of Rock Slope Stability Under Earthquake Loading", Abstracts with Programs, Annual Meeting, Geological Society of America, Boston, November.
- T.R. West and K.H. Cho, 2001, "Exploration for Sand and Gravel Deposits in Glacial Terrain", Program Abstracts, Indiana Academy of Science, Ft. Wayne, November.
- T.R. West, K.H. Cho and H.J. Park, 2001, "Acid Insoluble Residue Content and Rock Durability for Indiana Highway Cuts in Carbonate Rock". Abstracts with Programs, Annual meeting, Association of Engineering Geologists, St. Louis, MO, October.

- T.R. West, J.C. Choi, D.W. Bruner, H.J. Park and K.H. Cho, 2001, "Evaluation of Dolomite and Related Aggregates Used in Bituminous Overlays for Indiana Pavements". Program Abstracts, Transportation Research Board, Washington, D.C., January.
- T.R. West, 2002, "Evaluation of a Concrete Floor Slab Placed Under Freezing Conditions", Indiana Academy of Science Program Abstracts, Indianapolis, IN, Oct.
- T.R. West, 2002, "Construction Aggregates, Engineering Structures, and Human Activity", Abstracts with Programs, Annual Meeting, Geological Society of America, Denver, CO, Nov.
- T.R. West and Y. Lu, 2003, "Stability Analysis of the Rock Ridge Dam, Chicago Underflow Project (CUP) Thornton Quarry Reservoir", Abstracts with Programs, Annual Meeting, Association of Engineering Geologists, Sept., Vail, CO.
- W. Solomon, M. Santagata and T.R. West, 2003, "Coal Mine Spoil as a Source of Borrow Material for Indiana Highways", Abstract with Programs, Indiana Academy of Science, Oct., Anderson University, Anderson, IN.
- Sui, Y. and T.R. West, 2003, "Engineering Geology and Remote Sensing Along Proposed Highway Location, SR25, Tippecanoe and Carroll Counties, Indiana", Abstracts with Programs, Indiana Academy of Science, Oct., Anderson University, Anderson, IN.
- L. Zhao and T.R. West, 2003, "Probabilistic Analysis of Seismic Hazard in Southwest Indiana Regarding Highway Embankments", Abstracts with Programs, Annual Meeting, Indiana Academy of Science, Oct., Anderson University, Anderson, IN.
- K.H. Cho and T.R. West, 2003, "Petrographic Study of Gravels for Indiana Highways", Abstracts with Programs, Annual Meeting, Indiana Academy of Science, Oct., Anderson University, Anderson, IN.
- K.H. Cho and T.R. West, 2003, "Parametric Study of Rock Slopes Considering Earthquake Effects", Abstracts with Programs, Annual Meeting, Geological Society of America, Nov., Seattle, WA.
- L. Zhao and T.R. West, 2003, "Probabilistic Analysis of Seismic Hazard in Southwest Indiana Regarding Highway Embankments", poster paper, Abstracts with Programs, Annual Meeting, Geological Society of America, Nov., Seattle, WA.
- Sui, Y. and T.R. West, 2003, "Engineering Geology and Remote Sensing along Proposed Highway Location, SR25, Tippecanoe and Carroll Counties, Indiana", poster paper, Indiana Society of Mining and Reclamation, Dec., Jasper, IN.
- L. Zhao and T.R. West, 2003, "Probabilistic Analysis of Seismic Hazard in Southwest Indiana Regarding Highway Embankments", poster paper, Indiana Society of Mining and Reclamation, Dec., Jasper, IN.
- T.R. West and L. Zhao, 2004, poster paper, Earth Fissure Development During Earthquake Shaking, Southwest, Indiana, First AEG Shlemon Conference, Earth Fissures, El Paso, TX, April.
- Y. Sui, H. Liu and T.R. West, 2004, "Remote Sensing Studies, Carroll County, Indiana with Engineering Geology Applications", Abstracts with Programs, Annual Meeting, Association of Engineering Geologists, Dearborn, MI, Sept.
- L. Zhao and T.R. West, 2004, "Earthquake Effects in Southwest Indiana Regarding Earth Embankments for Highways", Annual Meeting Association of Engineering Geologists, Dearborn MI, Sept.
- T.R. West, Y. Sui and H. Liu, 2004, "Remote Sensing Studies, Carroll County Indiana, Providing Background for Assessing Geologic Constraints", Abstracts with Programs, Annual Meeting, Geological Society of America, Denver, CO, October.
- T.R. West, 2004, "Development of Summer Maymester Course, Case Histories in Consulting and Research", Indiana Academy of Science, Hanover College, IN, November.

- L. Zhao and T.R. West, 2004, poster paper, "Earthquake Effects in Southwest Indiana and Susceptibility of Roadway Fills", Indiana Society of Mining and Reclamation, Jasper, IN, Dec.
- L. Zhao and T.R. West, 2004, poster paper, "Earthquake Effects in Southwest Indiana and Susceptibility of Roadway Fills", Indiana Society of Mining and Reclamation, Jasper, IN, Dec.
- T.R. West, 2005, "Aggregates for Highway Pavements, Petrography and Standard Laboratory Testing", Annual Meeting, Association of Engineering Geologists, Las Vegas, NV, Sept.
- T.R. West and L. Zhao, 2005, "Seismic Stability of Highway Embankments in Southwest Indiana", plus Y. Sui, T.R. West and J. Frankenberger, 2005, the Drainage Effects of Nitrate in Indiana Watersheds: both presentations, Indiana Academy of Science, Terre Haute, IN
- T.R. West, 2005, A New Innovative Course Offering: Consulting Case Histories in Engineering Geology, Abstracts with Programs, Annual Meeting, Geological Society of America, Salt Lake City, Oct.
- Y. Sui, T.R. West and S. Frankenberger, 2005, "Nitrate Leaching Through a Tile Drained Watershed Using SWAT, Soil and Water Analysis Tool", poster paper, Indiana Society of Mining and Reclamation, Jasper, IN, Dec.
- T.R. West, 2006, "Mass Wasting in a Disturbed Terrain, Abandoned Coal Mine Site Southwest Indiana", Annual Meeting, Association of Environmental and Engineering Geologists, Philadelphia, PA, November.
- T.R. West and S. Fairfax, 2006, "Evaluating a Road Construction Failure, Semester Project for Capstone Course in Applied Geology". Abstracts with Programs, Annual Meeting, Geological Society of America, Boston, MA, October.
- S. Fairfax and T.R. West, 2006, "Lessons Learned from Problems Encountered During the Planning, Design and Construction of a Highway Across the Celery Bog, West Lafayette, IN", poster paper, Indiana Society of Mining and Reclamation, Jasper, IN, Dec.
- T.R. West and T. Bannister, 2007, "Major Site Transformation Provides New Life for Sanitary Landfill Through Construction of a Soil-Bentonite Cut-off Wall, Indianapolis, IN", Annual Meeting, Association of Environmental and Engineering Geologists, Los Angeles, CA, Sept.
- T.R. West and S. Fairfax, 2007, Annual GSA meeting, Forensic Study of Road Construction Across An Organic Deposit, Lindberg Road Expansion, West Lafayette, Indiana.
- L. Sylvester and T.R. West, 2007, "Bedrock High in Glacial Terrain Controls Groundwater Supplies, Tippecanoe County, Indiana", poster paper, Indiana Society of Mining and Reclamation, Jasper, IN., December.
- L. Sylvester, L. Bowling, P. Owens, B. Cooper, and T.R. West, 2008, "Characterization and Analysis of an Isolated Wetland Receiving Agricultural Runoff", North-Central Section, Geological Society of America, April.
- T.R. West, L. Sylvester, 2008 "Bedrock High in Glacial Terrain Yields Groundwater Supply and Construction Problems for Residential Areas, Tippecanoe County, Indiana", Geological Society of America, April.
- T.R. West, 2008, "A Half Century of Teaching University Level Geology and The Related Professional Experience", Association of Engineering Geologists, New Orleans, LA, Sept. 15-21.
- T.R. West and L. Sylvester, 2008, "Groundwater Supply and Construction Problems Related to a Bedrock High in Glacial Terrain, West Lafayette, Tippecanoe County, Indiana; Geological Society of America, Houston, TX, Oct. 5-8.
- T.R. West, 2008, "Drainage Problems Affect Housing Area, West Lafayette, Indiana: A Consequence of Topography and Soil Type", Indiana Academy of Science, Evansville, IN, October.

- T.R. West, 2009, "Drainage Problems Affect Housing Area, West Lafayette, Indiana; A Consequence of Topography and Soil Type", North-Central Section, Geological Society of America, Rockford, IL, April.
- T.R. West and R. Fisher, 2009, "Environmental Opportunities Related to Underground and Surface Coal Mines in Southwest Indiana, Geological Society of America, October.
- T.R. West and K.H. Cho, 2010, "Combined Geologic Conditions Result in Slope Instability and Failure; Two Case Study Examples", North-Central Section, Geological Society of America, April.
- T.R. West, 2010, "Delamination of Reinforced Concrete Structures Due to Saltwater Attack, A Case Study: Fort Myers Beach, Florida", Association of Environmental and Engineering Geologists, Charleston, SC, September.
- T.R. West and R. Fisher, 2010, "Urbanization of a Prominent Glacial Geology Feature and Bedrock High, Along the Western Boundary, West Lafayette, Tippecanoe County, IN", Geological Society of America, November.
- T.R. West, 2011, "Geologic History of Wabash River in West Lafayette, Indiana and its Affect on Residential Construction in Rural Areas", North-Central Section, Geological Society of America, March.
- T.R. West and N. Johansen, 2011, "Construction on Reclaimed Coal Mining Land in Southwestern Indiana", Indiana Academy of Science, Indianapolis, IN, March 5.
- T.R. West, 2011, "Concrete Deterioration from Salt Water Attack: What Florida and Indiana Have in Common", Indiana Academy of Science, Indianapolis, IN, March 5.
- T.R. West, 2011, "Concern for Groundwater Protection Along the Wabash River Greenway, Urban and Rural Segments, Tippecanoe County, Indiana", Indiana Water Resources Association, Muncie, IN, June 1-2.
- T.R. West and K.H. Cho, 2011, "A Combination of Geologic Factors Lead to Slope Instability and Failure, Two Contrasting Examples from Indiana and Alaska", Annual Meeting, Association of Environmental and Engineering Geologists, Anchorage, Alaska, Sept. 19-24.
- T.R. West and D. Dudley, 2011, "Engineering Geology Study to Determine Source of Elevated Arsenic Values in Groundwater near Mt. Vernon, IN", Geological Society of America, October.
- T.R. West and D. Dudley, 2011, "Engineering Geology Study to Determine Source of Elevated Arsenic Values in Groundwater Near Mt. Vernon, Indiana", poster paper, Indiana Society of Mining and Reclamation, December 5.
- T.R. West, 2012, "Local Terrain Geologic Features and Site Conditions of Battle of Tippecanoe, November 7, 1811, Northwest, Indiana", North-Central Section, Geologic Society of America, Dayton, OH, April 24.
- T.R. West, 2012, "Minor Rock Slides Along the Ohio River Yields Damage to Residential Structures", 2nd North American Landslide Conference, Banff, Alberta, Canada, May 31-June 8.
- T.R. West, 2012, "Review of Recent Studies in Applied Geology, Tippecanoe County, Northwest Indiana", Annual Meeting, Association of Environmental and Engineering Geologists, Salt Lake City, Sept. 15-21.
- Z. Umperovitch and T.R. West, 2012, "Indiana's Waste: From a Burden to a Resource Through Landfill Mining", poster paper, Indiana Society of Mining and Reclamation, Jasper, IN, Dec.
- T.R. West, 2013, "Age Dating of Wood Fragments from Tippecanoe County, Northwest Indiana", Association of Environmental and Engineering Geologists, Seattle, WA, Sept.
- T.R. West and K. Warden, 2013, "Verification of a Predictive Model for Locating Subsidence-Prone Underground Coal Mines, Southwest Indiana", Geological Society of America, Denver, CO, Oct.

d) Editorships and Contributions to Technical Volumes

- T.R. West and E.J. Yoder, Editors, "Proceedings, Eighteenth Annual Highway Geology Symposium", Purdue University Engineering Extension Series No. 127, vol. LI, no. 4, July 1967, 153 pages.
- T.R. West, Editor, Short Course Notes, "Selected Geotechnical Design Principles for Practicing Engineering Geologists", held in conjunction with annual meeting, Association of Engineering Geologist, Chicago, Ill., October, 1979, 342 pages, Publication available for sale through AEG Nat'l Organization.
- T.R. West, Editor, "Proceedings of 36th Annual Highway Geology Symposium", meeting held in Clarksville, IN (greater Louisville) in May 1985.
- T.R. West, 1990, Short Course Notes, Geologic Aspects and Design of Municipal Solid Waste Landfills, for course presented at Annual Meeting, Association of Engineering Geologists, October, Pittsburgh, PA., 50 p.
- T.R. West, 1991, "Geology Field Trip to Baraboo, Wisconsin", in Field Trip Guidebook, 34th Annual Meeting, Association of Engineering Geologists, October, Chicago, IL, 63 p.

e) Other Publications, Technical Reports, and Technical Presentations

- Instructor's Manual, for T.R. West textbook, 1996, "Geology Applied to Engineering", 200 pages- overview of chapters and solved problems presented.
- Bruner, D.W., J.C. Choi and T.R. West, 1996, "Development of a Procedure to Identify Aggregates for Bituminous Surfaces in Indiana", Final Report, Joint Highway Research Report, FHWA/IN/JHRP-95-111, 177 pp.
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- West, T.R., 2013, "Geologic History of Kankakee Region, Northwest, IN; Geology of Wabash River; Glacial Geology of Northern Indiana", Four Lecture Short Course presented for Walla, Wabash Adult Lifetime Learning Association, Lafayette, IN, October.

12. Service

a. Administrative Duties

Primary responsibility for the engr. geology area in Earth & Atmospheric Sciences. Includes course development, graduate student advising and development, space needs, overall planning. Have had primary charge of area since 1966 in which time department at Purdue has established its national reputation in this specialty.

b. Committee Assignments

Previous:

- | | |
|--------------|---|
| Departmental | <ol style="list-style-type: none"> 1) Chairman of Graduate Committee 1969-71 2) Chairman of Committee on Environment for Undergraduate and Graduate Students in Geosciences 3) Originator of Geosciences Newsletter and Editor 1972-74. 4) Space Allocation Committee 5) Search Committee for Head of Geosciences (Levandowski selected) 6) Graduate Committee 7) Chairman, Search Committee for faculty member in engr. geology 8) Search Committee for stratigraphy/sedimentation and ground water geology staff members 9) Field Camp Committee 10) EAS 40th Year Committee, 2007 |
| Science | <ol style="list-style-type: none"> 1) Grievance Committee 2) 30th Year Anniversary Committee 3) Senior Co-Chairman, United Way Campaign, 1994 |
| University | <ol style="list-style-type: none"> 1) Scholastic Delinquencies and Readmissions Committee, 1994-97 2) Parking and Traffic Committee 3) 1975-78, 1987-89 member, Water Resources Research Center Committee 4) Grade Appeals Committee 5) 1987-89 Student Financial Aids Committee |

Current:

- | | |
|--------------------|--|
| EAS Dept. | <ol style="list-style-type: none"> 1) Alumni Committee, Chair 1997-2005 2) Industrial Relations Committee 3) Undergraduate Committee 4) Honors Committee 5) Faculty Promotion Committee 6) Faculty Sponsor - Student Chapter, Association of Engineering Geologists, since 1979 when student chapter established at Purdue 7) Campus Representative - Geological Society of America 8) Newby Scholarship Committee 9) T.R. West Scholarship in Applied Geology, Chair of Awards Committee |
| College of Science | <ol style="list-style-type: none"> 1) EAS Dept. representative, College of Science Council, 1995-2001 2) Junior Co-Chair, United Way, 2007 3) Senior Co-Chair, United Way, 2008 |
| University | <ol style="list-style-type: none"> 1) Co-Op Program, Dept. Representative |

c. Community Service

Director, Lafayette Regional Science and Engr. Fair, 1971 & 1972

President, Cumberland Elementary School Parent-Teachers Organization 1971-72

Elder, Central Presbyterian Church, Member of Session (governing body), 1972-74, 1984-86;

Member, Board of Trustees, 1997-2000, President, 1999-2000.

Committee Member, Purdue School of Science Alumni Association, Board of Directors, 1980-1990.

Member, Board of Directors, Lafayette Rotary Club 1992-95, 2009-2012.

Lafayette Rotary Club, Chair, Ambassadorial Scholars Program, 1998-2012.

President, Lafayette Rotary Club-2012-2103.

Rotary International, District 6560 (Central Indiana), Ambassadorial Scholars Committee, 2000-present.