Dr. Neil N. Eldin, PhD, PE, CPC, PSP

Professor, Construction Management
(Former Chair and Interim Dean of the College of Technology, UH)
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SUMMARY

Dr. Eldin has over 40 years of professional experience in both industry and academia. He is a Professional Engineer (PE), Certified Professional Constructor (CPC), and Planning and Scheduling Professional (PSP). He provided consulting services to private organizations and government agencies. In 2004, he received the US Presidential Award for his consulting services to the US Government on international assignments in Eastern Europe, the Far East, and the Middle East. Dr. Eldin has an extensive background in computer-aided techniques in project management and engineering design applications (Primavera and Timberline). He developed computer-aided project controls systems for major engineering-construction corporations and oil companies.

Dr. Eldin is an effective leader, a passionate teacher, and an accomplished researcher. He created and managed the Department of Construction Management at University of Houston, and provided transforming leadership to the College of Technology at UH. He taught scheduling, estimating, contact administration, equipment management, field supervision, and design of concrete and wood structures at undergraduate and graduate levels at prestigious universities. He received eight teaching excellence awards as a result of his teaching dedication and commitment to students. Dr. Eldin has successfully obtained $2.5 million of funded research and documented his findings in 85 technical publications.

In addition, Neil has extensive industrial experience involving design, procurement, and construction of major facilities including power plants, petrochemical plants, offshore platforms, and buildings. He worked for top engineering-construction firms including Brown&Root (KBR), Bechtel, Aramco, and Enron. In 2000, as a project manager for NEPCO/ENRON, he was responsible for the design, procurement, and construction of two LNG power plants with budget over $375 million. His duties included design review, site operations, safety planning, QA/QC enforcement, preparation of cost estimates, development of EPC schedules, implementation of productivity improvement processes, client relations, preparation of bidding documents, bid evaluations, and value engineering exercises.

EDUCATION

- PhD Civil Engineering, Oklahoma State University	1987
- MS Geotechnical Engineering, McGill University	1978
- MS Building Science, Concordia University	1977
- BS Civil Engineering, Cairo University	1972

EMPLOYMENT HISTORY

- University of Houston, Houston, TX – Full Professor, College of Technology	2017- Present
- University of Houston, Houston, TX – Interim Dean, College of Technology	2015 - 2017
- University of Houston, Houston, TX – Chair, Construction Management Dept.	2007 - 2015
- Purdue School of Eng&Tech, Indianapolis, IN – Head, Construction Management Dept.	2005 - 2007
- Texas A&M University, College Station, TX – Grad Coordinator (Assist Dept. Head)	2002 - 2005
- Oregon State University, Corvallis, OR – Associate Professor	1992 - 2002
- University of Wisconsin, Madison, WI – Assistant Professor	1987 - 1992
- NEPCO/ENRON, Redmond, WA – Project Manager	1999 - 2000
- Oklahoma State University, Stillwater, OK – Instructor	1985 - 1987
- ARAMCO, Houston/Dhahran – Field Engineer, Project Controls Manager	1980 - 1985
- Bechtel, Inc., Houston, TX – Project Engineer	1979 - 1980
- Brown & Root, Inc., Houston, TX – Project Engineer	1977 - 1979
- Cegeco Design & Construction, Montreal, QUE – Field Engineer	1975 - 1977
- McGill University, Montreal – Research Assistant	1974 - 1975
- United Engineers – Structural Engineer	1972 – 1974

HIGHLIGHTS OF PROFESSIONAL EXPERIENCE

A. ACADEMIC EXPERIENCE

UNIVERSITY OF HOUSTON – Interim Dean, College of Technology (2 years)

Overall responsibility for operation and leadership of the College of Technology, with four departments, more than 6,000 students, 70 fulltime faculty, 200 adjunct faculty, and 40 office staff. This includes academic leadership, strategic planning, industry relations, fundraising, and supervision of business and financial operations. Key initiatives include college reorganization to promote research and teaching collaboration, student success improvements, development of the college's first doctoral program, and college expansion to UH Sugar Land campus.

UNIVERSITY OF HOUSTON – Full Professor and Chair, Construction Management (8 years)

Overall responsibility for the administration of the Construction Management Department, development of the construction management undergraduate curriculum with two tracks, development of the graduate online program, oversight of fulltime faculty, adjunct-time faculty, undergraduate and graduate students, degree accreditation, f a c u l t y a n d s t u d e n t recruitment, fundraising, formation of two strong Industry Advisory Boards, and industry relations. In addition, duties included teaching graduate and undergraduate courses, and outreach activities to increase the program visibility nationally and internationally.

PURDUE SCHOOL OF ENG. & TECH - Full Prof. and Head, Construction Tech Dept. (2 years)

Overall responsibility for the administration of the Department of Construction Management and Technology. This involved management of 12 fulltime faculty, 15 part-adjunct faculty, 3 office staff and technicians, teaching-research labs, degree accreditation, recruitment, fundraising, and industry relations. In addition, performed teaching and research in the area of construction engineering and management. Courses included: Cost Estimating, Planning and Scheduling Techniques, Construction Supervision, and Advanced Project Controls. Primary research emphases included project control systems and schedule reduction techniques, use of solid waste as construction materials and environmental impact of construction materials, advanced computer applications (neural networks, expert systems and GIS) and robotic applications in construction. Also conducted research in cost-schedule integration, automation of schedule generation, and environmental impact of construction activities. Supervised a number of graduate students and served as an officer on a number of professional organizations. Launched a $3.7 million fundraising campaign for an Industry Chair Endowment and developed a 3+2 BS-MS Program with a Canadian university.

TEXAS A&M UNIVERSITY - Graduate Program Coordinator, Construction Science Dept. (3 years)

Responsibilities included Management of the graduate program (about 80-100 students), in addition to teaching and research in the area of construction engineering and management. Courses included: Cost Estimating, Planning and Scheduling Techniques, Construction Supervision, Business Development, Project Controls, Design-Build, Special Topics in Construction, and Graduate Seminars. Primary research emphases included project control systems and schedule reduction techniques, use of solid waste as construction materials and environmental impact of construction materials, advanced computer applications (neural networks, expert systems and GIS) and robotic applications in construction. Active research in field operations and construction automation. Supervised a large number of graduate students. Also, served on many departmental/college/university committees, faculty senator, graduate program coordinator, and graduate committee chair.

OREGON STATE UNIVERSITY - Assoc. Prof., Construction Engineering Management (10 years)

Responsibilities included teaching and research in the area of construction engineering and management. Taught several courses: Planning and Scheduling Techniques, Cost Estimating, Construction Management, Legal Aspects in Engineering, Engineering Economy, Construction Equip. Management, Construction Methods and Techniques, Computer Applications in CM, Concrete and Wood Design and False-work/Form Design. Research emphases included project control systems, schedule reduction techniques, and use of solid waste as construction materials. Funded research included innovative methods of reducing project

delivery time without increasing project total cost, and environmental effect of construction and repair materials on surface and ground waters. Research also included advanced computer applications such as use of neural networks and expert systems on predicting optimum project cost and duration and engineering properties of recycled solid waste as construction material. Supervised a number of graduate students.

UNIVERSITY OF WISCONSIN - Assistant Professor, Construction Management (5 years)
Responsibilities included teaching and research in the area of construction management. Undertook the development of the curriculum for the Construction Program and obtaining program accreditation. Research emphasis primarily focused on project control systems and construction materials. Funded research projects included innovative use of solid waste as construction material and soil stabilization for road construction. Research also included development of quantitative methods to measure work progress, development of performance measurement techniques, and management systems for engineering/design phase, constructability, and computerized cost control systems. Principal investigator and co-investigator on research projects funded by DOT, DNR, and USAID programs.

OKLAHOMA STATE UNIVERSITY - Instructor/ Ph.D. Candidate (3 Years)
Taught Strength of Materials, Cost Estimating, and Planning and Scheduling courses. Conducted research that resulted in the development of a project controls system to assess project performance, identify problem areas, determine cause of detected cost problems, and quantify cost impact of each cause.

MCGILL UNIVERSITY - Instructor/Research Assistant (2 Years)
As laboratory engineer, worked on several commercial projects in the university's lab conducting routine and advanced laboratory tests and preparation of soil reports and recommendations. Developed and conducted research leading to technical specifications for use of salts as frost modifiers and the effect of relative compaction on the effectiveness of the treatment.

B. INDUSTRIAL EXPERIENCE

NEPCO/ENRON - Project Manager (2 years)
As a Project Manager, was responsible for the design, procurement, and construction of two power plant projects involving GE-7EA gas turbines and GE generators. The projects were executed under two fast-track EPC contracts with budgets amounting to ~ $375 million. Activities included development of contract terms and conditions, contract negotiations, securing permits, supervising the development of engineering documents, review and approval of material/equipment purchases, development and monitoring of project schedules, cost control, cost forecasts, preparing project progress reports and financial statements, site installations and supervision, inspection of vendors' shops, and management of subcontractors. In addition, was in charge of continuous interface with clients on all aspects of contracts administration, including development of strong client relationships and seeking preferred contract status. Responsibilities also included direct supervision and development of about 100 staff members (project management teams) to reach their highest professional potential and oversight of about 1,000 field staff (crafts).

ARAMCO-ARABIAN AMERICAN OIL CO - Project Engineer/Controls Manager (5 years)
Responsibilities included offshore tie-in platforms, subsea pipelines, GOSPs, 3-mile causeway, and water injection facilities. Work included design reviews, engineering studies, soil investigations and reports, development of piling procedures, pile testing, resolution of technical and construction problems, contract administration, evaluation of technical and commercial bids, supervision of field operations, evaluation and supervision of fabrication yards, coordination among proponents/contractors/third parties, cost analysis, material procurement, engineering/procurement/ construction schedules, change orders and invoice processing, progress meetings, cash flow forecasts, management presentations and close-out reports. Developed and implemented several controls systems on various offshore and oil production related projects through the engineering, procurement, and construction phases. Directed the development of project procedures including control budget, commitments, and communications routines. Conducted technical seminars and training courses at the company and at other affiliated sites.

BECHTEL INCORPORATED - Project Controls Engineer (2 year)
Duties included development, implementation, and coordination of the engineering, procurement, and construction control systems on Coal Gasification Projects. Also, tested several new computerized estimating systems for the Refinery and Chemicals (R&C) Division. Responsibilities included writing external specifications and user's manuals. Prepared operations manuals for company's control systems (CEBUS, RAC-8, PATH 3, others). These manuals provided the user with a step-by-step guide to operating the system without having in-depth computer/data processing experience. Provided support to the system's users on operational issues.

BROWN & ROOT INCORPORATED - Cost and Scheduling Engineer/Supervisor (2 Years)
As the Supervisor of Cost Control Systems reporting directly to the Manager of the R&D Department, managed the design and development of an automated cost control system for the Power Division. The system generated cost analysis and variance-forecast reports using the earned value concept and designed summary reports and special reports to aid project engineers in controlling their disciplines. Supervised a group of schedulers and cost engineers to implement the system on several fossil power plant projects. As the Lead Engineering Scheduler on the South Texas Nuclear Power Plant Project, reporting to Senior Controls Manager, developed a model CPM network for the engineering phase, exception reports to identify engineering and construction critical interfaces, and progress analysis reports. Earlier duties included planning and scheduling of fossil power plants, updating CPM networks, cost profiles, trend charts, man-month schedules, and analyzing total float and resource leveling histograms. Developed a construction detailed schedule for a standard fossil power plant that was used to train new engineers and speed up initial implementation. Was involved in developing a work breakdown structure (WBS) to integrate cost and scheduling activities. Prepared key items schedules and detailed engineering and construction CPM for several proposals.

CEGECO DESIGN AND CONSTRUCTION LTD - Field Engineer (2 Years)
Assumed full responsibility of the construction phase of two projects. Projects included a wet-lab for the University of Montreal, and a high school gymnasium. Duties included site supervision, inspection, site QA/QC, progress reporting, billing, project staffing, and subcontractors' coordination.

UNITED ENGINEERS - Structural Engineer (2 Years)
Work included design of reinforced concrete box-section bridges using high tensile steel and tension cables for the large spans. Completed preliminary design for a 58- story commercial-residential tower involving a circular concrete double core with long overhanging steel trusses placed every 17 floors where mechanical rooms were housed. The project involved complex tension foundation problems. Participated in the tower's feasibility study including financial, traffic, and utility requirements.

PUBLICATIONS

A. Peer Reviewed Journals

1. Senouci, A., Leon, R., Eldin, N. (2019). " Schedule Performance Index Effectiveness in Assessing Project Schedule Performance," International Journal of Construction Engineering and Management, Vol 8, No. 2, pp: 46-55.
2. Senouci, A., Abdel Warith, K., Eldin, N. (2019). " Resource-Constrained Construction Scheduling Using Agent Based Modeling Technique", Journal of Civil Engineering and Construction, Vol. 8, No. 1, pp. 25-33.
3. Senouci, A., Al-Abbasi, M., and Eldin, N. (2018). "Impact of weather conditions on construction labor productivity in Qatar", Middle East J. Management, Vol. 5, No. 1, pp. 34-49.
4. Al-Ansari, M., Abu Taqa, A., Senouci, A., Eldin, N., Helal, M., Asiado, C. (2017). "Proposed Formulas for Estimating Splitting Tensile, Shear and Flexural Strengths, and Long Term

Deflection Assessment of Self-Compacting Concrete Elements", Science of Advanced Materials, Vol. 9, No. 10, pp. 1751–1761.
5. Nikpour, B., Senouci, A., Eldin, N. (2017). "Detection Tool for Unbalanced Bids", Open Journal of Civil Engineering, 2017, Vol. 7, pp. 409-422.
6. Senouci, A., Ismail, A., Eldin, N. (2016). "Time Delay and Cost Overrun in Qatari Public Construction Projects", Procedia Engineering, Vol. 164, pp. 368-375.
7. Senouci, A., Alsarraj, A., Gunduz, M., Eldin, N. (2016). "Analysis of Change Orders in Qatari Construction Projects", International Journal of Construction Management, http://dx.doi.org/10.1080/15623599.2016.1211973.
8. Senouci, A., Al-Abbadi, I., Eldin, N. (2015). "Safety Improvement on Building Construction Sites in Qatar", Procedia Engineering, Vol. 123, pp. 504-509.
9. Song, L., Mohammed, T., Stayshich, D. and Eldin, N. "A Cost Effective Material Tracking and Locating Solution for Material Laydown Yard". Procedia Engineering, Elsevier, 2015.
10. Gao, L., and Eldin, N. "Employers' Expectations: A Probabilistic Text Mining Model". Procedia Engineering, 85, 2014. 175-182.
11. Song, L. and Eldin, N. "Adaptive Real-Time Tracking and Simulation of Heavy Construction Operations." Automation in Construction. Vol. 27. 2012. 32-39.
12. Eldrandaly K, Eldin N, and Sui D, Showman M and Nawar G ―Integrating GIS and MCDM Using COM Technology‖, IAJIT- International Journal of Information Technology, Oct 2006.
13. Eldin N., ―Effect of Early Freezing of Scope on Project Schedule", The International Journal of Cost Engineering (AACE); Feb 2005, Vol. 47 Issue 2, p12-18, 7p
14. Eldin N. and Mayfield J., ―Determination of Most Economical Scrapers Fleet‖, ASCE Journal of Construction Engineering and Management Vol. 131, No. 10, Oct 2005: pp. 1109-1114.
15. Horlen J. and Eldin N., "Reverse Auction: A Controversial Bidding Practice‖, ASCE Journal of Professional Issues in Engineering Education and Practice, Vol. 131, No.1, January 2005, pp. 76-81
16. Senouci A. and Eldin N., "Use of Genetic Algorithms in Resource Scheduling of Construction projects, ASCE-Journal of Construction Engineering and Management, Vol. 130, No. 6, Dec 2004: pp. 869-877.
17. Eldrandaly K, Eldin N and Sui D ―A COM-Based Spatial Support System for Industrial Site Selection‖, GIDA - Journal of Geographic Information and Decision Analysis, Vol. 7, No. 2, July 2003.
18. Eldin N. and Hinkle V., ―A Pilot Study of Quality Function Deployment for Construction Projects‖, ASCEJournal of Construction Engineering and Management, Vol. 129, No. 3, June 2003: pp. 314- 329.
19. Eldin N., ―Road Construction: Materials and Methods‖, ASCE-Journal of Environmental Engineering, 128, No. 5, May 2002:pp. 423-430.
20. Eldin N., ―A promising Planning Tool: QFD‖, The International Journal of Cost Estimating and Project Management Vol. 44 No. 3, Mar. 2002:pp. 28-37
21. Huber, W.C., Nelson, P.O., Eldin, N.N., Williamson, K.J., and Lundy, J.R., ―Environmental Impact of Runoff from Highway Construction and Repair Materials: Project Overview,‖ Transportation Research Record No. 1743, pp.1-10, Transportation Research Board, National Research Council, Washington, D.C. (2001)
22. Nelson, P.O., Williamson, K.J., Azizian, M.F., Thayumanavan, P., Huber, W.C., and Eldin, N.N., ―Environmental Impact of Construction and Repair Materials on Surface and Ground Waters: Screening and Evaluation Methodology, Transportation Research Record No. 1743, pp. 16-24, Transportation Research Board, National Research Council, Washington, D.C. (2001).

23. Eldin N. and A. Senouci, "A Dynamic Programming Approach To Scheduling of Non-serial Linear Projects with Single Loop Structure,‖ Journal of Advances in Engineering Software Vol. 31, No. 10, 2000: pp. 803-814.
24. Eldin N., "Key Issues in Implementing Cycle Time Analysis as A Schedule Reduction Tool‖, American Association of Cost Engineers, The International Journal of Cost Estimating and Project Management, Vol. 41 No. 5, April 1999:pp. 25-33.
25. Eldin N., "Constructability Impact on Project Schedule", Journal of Construction Management and Economics, Vol. 17, No. 6, Sep. 1999: pp. 711-720.
26. Eldin N., "Concurrent Engineering: A Schedule Reduction Tool", American Society of Civil Engineers, ASCE-Journal of Constr. Engineering and Management, Vol. 123, No. 3, Sep. 1997: pp. 354- 362.
27. Senouci A. and Eldin N., "A Dynamic Programming Approach To Scheduling of Non-serial Linear Projects", American Society of Civil Engineers, ASCE-Journal of Computing in Civil Engineering, Vol. 10, No. 2,1996: pp. 106-114.
28. Eldin N. and Senouci A., "A Time-Cost Tradeoff Algorithm for Non-serial Linear Projects", Canadian Journal of Civil Engineering, Vol. 23, No. 1, 1996: pp. 134-149.
29. Eldin N. and Senouci A., "Use of Neural Networks For Condition Rating of Jointed Concrete Pavements", Journal of Advances in Engineering Software Vol. 23, No. 3, 1995: pp. 133-141.
30. Eldin N. and Senouci A., "A Pavement Condition Rating Model Using Back propagation Neural Networks", Microcomputers in Civil Engineering, Journal of Computer-Aided Civil and Infrastructure Engineering, Vol. 10, No. 6,1995: pp. 433- 441.
31. Eldin N. and Senouci A. "Condition Rating of Rigid Pavements by Neural Networks", Canadian Journal of Civil Engineering, Vol. 22, No. 5, 1995: pp. 861-870.
32. Eldin N. and Senouci A., "Measurement and Prediction of the Strength of Rubberized Concrete", Cement & Concrete Composites Journal, Vol. 16, No. 4, 1994: pp. 287- 297.
33. Eldin N. and Senouci A., "Schedule and Control of Linear Projects", Canadian Journal of Civil Engineering, Vol. 21, No. 3, April 1994: pp. 219-230.
34. Eldin N. and Senouci A., "Observation of Rubberized Concrete Behavior" ASTM Journal of Cement, Concrete, and Aggregate (CCAGDP), Vol. 15, No.1, summer 1993: pp. 74-84.
35. Eldin N. and Piekarsky J. "Scrap Tires: Management and Economics", American Society of Civil Engineers, ASCE-Journal of Environmental Engineering, Vol. 119, No. 6, Nov/Dec. 1993: pp. 1-16.
36. Eldin N. and Senouci A., "Engineering Properties of Rubberized Concrete" Canadian Journal of Civil Engineering, Vol. 19, March 1992: pp. 912-923.
37. Eldin N. and Senouci A., "Use of Scrap Tires in Road Construction", American Society of Civil Engineers, ASCE-Journal of Construction Engineering and Management, Vol. 118, No. 3, March 1992: 561-576.
38. Bosscher P., Edil T., and Eldin N., "Construction of a Shredded Waste-Tire Test Embankment", Transportation Research Board (TRB), National Research Council, Transportation Research Record (TRR), No. 1345, Jan. 1992:pp. 44-52.
39. Eldin N. and Hughes R. "An Algorithm for Tracking Labor Costs", American Association of Cost Engineers, the International Journal of Cost Estimating and Project Management, Vol. 34 No. 4, April 1992:pp. 17-23.
40. Eldin N. "Effect of Artificial Salting on a Silt Soil", American Society of Civil Engineers, ASCE-Journal of Cold Regions Engineering, Vol. 5, No. 4, Dec. 1991: pp. 143-157.
41. Eldin N. "Management of Engineering/Design Phase", American Society of Civil Engineers, ASCE- Journal of Construction Engineering and Management, Vol. 117, No. 1, March 1991: pp. 163-175.

42. Eldin N. and Egger S. "A Productivity Improvement Tool: Camcorders", American Society of Civil Engineers, ASCE-Journal of Construction Engineering and Management, Vol. 116, No. 1, March 1990: 100-111.
43. Eldin N. "Measurement of Work Progress: A Quantitative Technique", American Society of Civil Engineers, ASCE-Journal of Construction Engineering and Management, Vol. 115, No. 3, September 1989:pp. 462-474.
44. Eldin N. "Constructability Improvement of Project Design", American Society of Civil Engineers, ASCE- Journal of Constr. Engineering and Management, Vol. 114, No. 4, Dec. 1988: pp. 631- 640.
45. Eldin N. "Measurement of Work Progress: A Quantitative Technique", American Society of Civil Engineers, ASCE-Journal of Construction Engineering and Management, Vol. 115, No. 3, September 1989:pp. 462-474.
46. Eldin N. "Constructability Improvement of Project Design", American Society of Civil Engineers, ASCE- Journal of Construction Engineering and Management, Vol. 114, No. 4, Dec. 1988: pp. 631- 640.

B. Peer Reviewed Conference Proceedings

47. Senouci, A., Al-Abbasi, M., and Eldin, N. (2017). "Impact of weather conditions on construction labor productivity in Qatar", 9th International Conference on Construction in the 21st Century (CITC-9), Dubai, United Arab Emirates, March 5th-7th, 2017.
48. Senouci, A., Ismail, A., Eldin, N. (2016). "Time and Cost Overrun in Public Construction Projects in Qatar", 2016 Creative Construction Conference, Sopron, Hungary, June 24-28, 2016.
49. Leon, R.M., Senouci, A., Eldin, N. (2016). "EVM Schedule Performance Index Schedule Index (SPI) Effectiveness in Assessing Project Schedule Performance", 2016 Canadian Society of Civil Engineers (CSCE) Annual Conference, London, Ontario, Canada, June 1-6, 2016.
50. Senouci, A., Ismail, A., Eldin, N. (2016). "Time and Cost Overrun in Public Construction Projects in Qatar", 2016 Creative Construction Conference, Sopron, Hungary, June 24-28, 2016.
51. Fallahi, A., Song, L., and Eldin, N. Improving Construction Training through Virtual Simulation and Natural Gesture: A pilot study, 2016 Annual General Conference, Canadian Soc. Civil Engineer. London, ON. 2016.
52. Al-Abbadi, I., Senouci, A., and Eldin, N. "Safety Improvement on Building Construction Sites in Qatar", Creative Construction Conference, Krakow, Poland, June, 21-24, 2015.
53. Senouci, A.B., Abdel Warith, K.A., and Eldin, N.N. (2015). "Agent Based Model for Resource Constrained Scheduling of Construction Projects", 2015 International Workshop on Computing in Civil Engineering, Austin, Texas, June 21–23, 2015.
54. Senouci, A.B., Abu Taqa, A.G., Eldin, N.N., Al-Ansari, M.S. "Structural Behavior of Self-Compacting Concrete Elements", 51st ASC Annual International Conference Proceedings, Associated Schools of Construction, College Station, Texas, April 22-25, 2015.
55. Song, L. Mohammed, T., Stayshich, D. and Eldin, N. Cost effective material tracking and locating solution for material laydown yard. Creative Construction Conference 2015, Krakow, Poland. 2015
56. Poshtiban, M., Song, L., and Eldin, N. Automatic Satellite-Based Ship Detection Method for Offshore Pipelines Monitoring and Protection. Proceedings of 2015 ASCE International Workshop on Computing in Civil Engineering, Austin, TX, 2015.

57. Amador, J., Song, L., and Eldin, N. Utilizing Discrete Event Simulation to Minimize Scope Creep in Construction Projects: A case study, 51st annual international conference, Associated School of Construction, College Station, TX. 2015
58. Eaton, J., Song, L., and Eldin, N. Safety perception and its effects on safety climate in industrial construction industry. Proc. 30th Inter. Sym. on Automation and Robotics in Construction. Montreal, QC, Canada. 2013
59. Gore, S., Song. L. and Eldin, N. Photo-modeling for Construction Site Space Planning, Proc. 2012 Construction Research Congress. West Lafayette, IN. 2012
60. Eldin N and Schilling L, ―Automation of Project Controls‖, The Eleventh International Conference on Computational Structures Theory and The Fifth International Conference on Engineering Computing. St. Julians, Malta, September 18-21, 2007.
61. Sener E, Eldin N, and Cyr D, ―Engineering the U.S. Construction Industry Workforce: Meaningful Ties for Working Solutions‖, ASEE Global Colloquium. Rio de Janeiro, Brazil, Oct 9-12, 2006.
62. Eldin N and Schilling L, ―Integration of Cost and Scheduling Data: A Framework for an Automated Project Controls Procedure‖, The Eighth International Conference on Computational Structures Theory and The Fifth International Conference on Engineering Computational Technology. Ls Palmas de Gran canaria, Spain, September 12-15, 2006.
63. Neil Eldin, Sener E, Hubach C., ―Automation of Construction Project Schedules‖, The Eighth International Conference on Computational Structures Theory and The Fifth International Conference on Engineering Computational Technology. Ls Palmas de Gran canaria, Spain, September 12-15, 2006
64. Sener E and Eldin N, ―Green Design and Construction in the U.S.A: An Overview of Assessment Methods and Technologies Employed‖, PICMET conference, Istanbul, Turkey.
65. Eldin N and Osborn L, ―An Innovated Project Control System‖, The Tenth International Conference on Civil, Structural and Environmental Engineering Computing to be held in Rome, Italy from 30 August to 2 September 2005.
66. Eldin, N and Eldrandaly, K ―A Computer-Aided Decision-Making System for Sitting Capital Investment projects‖, KFUPM International Conference, Dhahran-SA, Dec 7-9, 2004.
67. Eldin N and Bruun E, ―A Labor Assisted Robot for the Installation of Sheetrock‖, the Fourth International Conference on Robotics, Izmir-Turkey, 14-16 September 2004.
68. Eldin N, Mayfield J, Hubech C, and Lawrence A, ―Advisory System for Optimum Selection of Construction Equipment‖, The Fourth International Conference on Engineering Computational Technology, Lisbon-Portugal, 7-9 September 2004.
69. Eldin N, Horlen J, Bruun E, Bryson E and Balasubramanian S, ―CONSTRUCTION AUTOMATION: A DRYWALL ROBOT‖, The Second International Conference on Construction in the 21st Century (CITCII), Hong Kong, December 10-12, 2003.
70. Eldin, N., Eldrandaly K., Shouman M. and Nawara G., ―An Industrial Site Selection system: Use of COM in Integrating an Intelligent GIS-AHP Application‖, Proceedings of The Seventh International Conference on the Application of Artificial Intelligence to Civil and Structural Engineering, Egmond- aan-Zee, The Netherlands, Sept 2-4, 2003.
71. Bosscher, Peter J., Tuncer B. Edil, and Neil N. Eldin. "Construction and Performance of a Shredded Waste Tire Test Embankment," The 71st Annual Meeting of the Transportation Research Board, Washington, DC, January 1992.
72. Eldin, N. N. and L. R. Massie, "Effect of Freezing on Mass and Heat Transfer in Porous Media", Proceedings, International Symposium, Frozen Soil Impact on Agricultural, Range, and Forest Lands, Spokane, Washington, March 1990: pp. 177-184.

73. Eldin, N. and Kiefer, J. "Construction Practices for Offshore Platforms", American Society of Mechanical Engineers, ASME-Proceedings, Vol. III, The 8th International Conference on Offshore Mechanics and Arctic Engineering, The Hauge, Netherlands, March 1989: pp. 505-510.
74. Eldin, N. N. and R. K. Hughes, "AN Examination of Measuring and Reporting Construction Projects", Proceedings, The ASC 25th Annual conference, Lincoln, April 1989:pp. 39-43.
75. Eldin, N. N., "A Cost Control System for PMT Use", AACE Annual Conf. Proc., June 1989.
76. Yong, R. and Eldin, N., "Salt Treatment Effects on Frost Heave Performance", The 2nd International Symposium on Ground Freezing, Trondheim, Norway, 1980:pp. 211-220.

C. Published Major Research Reports

77. Nelson, P.O., Huber, W.C., Eldin, N.N., Williamson, K.J., Azizian, M.F., Thayumanavan, P., Quigley, M.M., Hesse, E.T., Lundy, J.R, Frey, K.M. and R.B. Leahy, NCHRP Report 448: Environmental Impact of Construction and Repair Materials on Surface and Ground Waters, Summary of Methodology, Laboratory Results, Model Development, National Research Council, National Academy Press, Washington, DC, 2001, 137 pp. ($500,000 project budget).
78. Nelson, P.O., Huber, W.C., Eldin, N.N., Williamson, K.J., Azizian, M.F., Thayumanavan, P., Hesse, E.T., Lundy, J.R. and R.B. Leahy, Environmental Impact of Construction and Repair Materials onSurface and Ground Waters, Final Report, Volume III: Phase III Methodology, Laboratory Results, and Model Development, National Cooperative Highway Research Program Project 25-09, Dept. of Civil, Construction, and Environmental Engineering, Oregon State University, Corvallis, OR, October 2000, 300 pp. ($500,000 project budget).
79. Peter O. Nelson, Wayne Huber, and Neil Eldin, NCHRP Report 443 (Primer): Environmental Impact of Constr. and Repair Materials on Surface and Ground Waters, Prepared by Kathryn Harrington-Hughes of Harrington-Hughes and Associates, Dec. 2000, 25 pp. ($500,000 project budget).
80. Eldin N. N., Huber, W.C., Nelson, P.O., Lundy, J.R., Williamson, K.J., Quigley, M.M., Azizian, M.F., Thayumanavan, P. and K.M. Frey, Environmental Impact of Construction and Repair Materials on Surface and Ground Waters, Final Report, Phases I and II, Volume II: Methodology, Laboratory Results, and Model Development, National Cooperative Highway Research Program Project 25-9, Dept. of Civil, Construction, and Environmental Engineering, Oregon State University, Corvallis, OR, October 2000, 565 pp. ($580,000 project budget).
81. Eldin N. N., Huber, W.C., Nelson, P.O., Lundy, J.R., Williamson, K.J, ―Effect of Construction and Repair Materials on Surface and Ground Waters‖. Interim Report (3-Volumes), Project 9-25 (Phase-III) to National Research Council, NCHRP, October 2001, 432 pp. ($580,000 project budget).
82. Eldin N. N., Huber, W.C., Nelson, P.O., Lundy, J.R., Williamson, K.J, ―Effect of Construction and Repair Materials on Surface and Ground Waters‖. Final Report (3- Volumes), Project 9-25 (Phase-II) to National Research Council, NCHRP, June 1998, 212 pp. ($580,000 project budget).
83. Eldin N. N., ―An Investigation of Schedule Reduction Techniques for the Engineering and Construction Industry‖. Final Report, Construction Industry Institute, Task Force No. 41, Aug. 1995, 184 pp. ($150,000 project budget).
84. Eldin N. N., Huber, W.C., Nelson, P.O., Lundy, J.R., Williamson, K.J, ―Effect of Construction and Repair Materials on Surface and Ground Waters‖. Final Report, Project 9-25 (Phase-I), National Research Council, NCHRP, Sep. 1995, 165 pp. ($260,000 project budget).

85. Eldin N. N., Huber, W.C., Nelson, P.O., Lundy, J.R., Williamson, K.J, ―Effect of Construction and Repair Materials on Surface and Ground Waters‖. Interim Report, Project 9-25 (Phase-I) to National Research Council, NCHRP, May 1994, 146 pp. ($260,000 project budget).
86. Bosscher P., Edil T., and Eldin N., ―Development of Engineering Criteria for Shredded or Whole Tires in Highway Applications‖, Interim Report to Wisconsin Department of Transportation (Wis-DOT), June 1990, 147 pp. ($150,000 project budget).

PATENTS

Research work resulted in the filing of a US Patent through TAMU Licensing Office (# 60/528.814: Method and Apparatus for Optimizing Field Supervision of Reparative Construction Projects).

Funded Research ($2.5 million)

The following is a list of research projects that were successfully funded and completed:

2016-2019	Principal Investigator ($1,000,000) funded by Fluor Workforce Development for the Engineering-Construction Industry
2016-2017	Co-Principal Investigator ($120,000) funded by Bechtel Module Transportation Simulation & Risk-based Planning
2004-2005	Principal Investigator ($25,000) funded by Lorentz Bruun Inc. Computer-Assisted Procedure for Developing Construction Schedules
2004-2005	Principal Investigator ($13,000) funded by The Industry Advisory Committee, Texas A&M Construction Robotics
2004-2005	Principal Investigator ($7,500) funded by The Research Council, Texas A&M University Visualization of Construction Robots
2002	Startup funds ($80,000) granted by TAMU Research, Texas A&M University Construction Automation and Recycle/Remediation Systems
2002-2003	Principal Investigator ($8,000) funded by USAID-Egyptian Government Industrial Site Selection by Integrating GIS and Expert System Tools
1998-2001	Principal Investigator ($500,000) funded by NRC-NCHRP Evaluation of Construction and Repair Materials on Surface and Ground Waters (Phase-III)
1996-1998	Principal Investigator ($300,000) funded by FHWA Evaluation of recycled materials (fly ash and bottom ash) in road construction
1996-1998	Principal Investigator ($280,000) funded by NRC-NCHRP Effect of Construction and Repair Materials on Surface and Ground Waters (Phase-II)
1994-1996	Principal Investigator ($260,000) funded by NRC—NCHRP Effect of Construction and Repair Materials on Surface and Ground Waters (Phase-I)
1992-1993	Principal Investigator ($150,000) funded by CII-Construction Industry Institute Development of Schedule Reduction Techniques

1989-1992 Principal Investigator ($30,000) funded by The USAID Use of Solid Waste as Construction Materials

1989-1991 Principal Investigator ($40,000) funded by UW-Madison competitive grants
Stabilization of soils in cold climates to alleviate frost-heaving problems, which is a major cause for seasonal damage to our highway system

1989-1990 Investigator ($150,000) funded by Wis-DOT and DNR Use of shredded tires in road construction

Research Proposals (under preparation)

- Principal Investigator, $440,000, Robotic Applications in Construction
  The proposal will be submitted to a number of funding agencies for review. The proposal will invite collaboration with mechanical, electrical, computer engineering and technology faculty.

- Principal Investigator, $470,000, a Soil Remediation System
  The proposal will be submitted to funding agencies for review. The proposal will invite collaboration with material science, biotechnology, and mechanical engineering and technology faculty.

TEACHING AWARDS

2005 Outstanding Teaching Award – Tau Sigma Delta Alpha Honorary Society, Texas A&M

2004 Outstanding Teaching Award – College of Architecture Texas A&M University

2004 Student Advocate Award – Department of Construction Science Texas A&M University

2004 Namesake Award (Freshmen-Camp): *"Camp Eldin"* Texas A&M University

2002 Teacher of the Year Award – Department of Civil Engineering Oregon State University

1999 Teacher of the Year Award – Department of Civil Engineering, Oregon State University

1998 Teacher of the Year Award – Department of Civil Engineering, Oregon State University

1997 Teacher of the Year Award – Department of Civil Engineering Oregon State University

NATIONAL AWARDS AND RECOGNITION

- ASCE Best Paper Award for 2005
- US Presidential Service Award for 2004
- Letter of appreciation, The White House, 2004
- Letter of appreciation from Senator Dole, President's Council on Civic Services, 2004
- IESC Service Excellence Award 2004 (agency of The State Department)
- USAID Country Director (Macedonia), Letter of Appreciation, 2003
- IESC Service Excellence Award for 1996, 1997, 1998 (agency of The State Department)

PROFESSIONAL AFFILIATIONS

- Professional Engineer: 65578 Oregon State (PE)
- Certified Professional Constructor - (CPC) Member and Examiner

- Planning and Scheduling Professional (PSP)
- Academic Leader, Engineering, Construction, and Contracting (ECC) (2014-present)
- Academic Leader, National Academy of Construction (NAC) (2012-present)
- Co-chair, CII Product-Classroom Committee, Construction Industry Institute (CII) (2012-2014)
- Director, Board of Directors, Sigma Lambda Chi International Honorary Society (2002-2008)
- Editorial Board for the 11th International Conference on Engineering Computation (2007)
- Assoc. Editor - American Soc. of Civil Eng. Journal of Construction Eng & Mgt (2003-2006)
- American Soc. of Civil Eng. (ASCE) National Construction Correspondent (1993-2001)
- American Soc. of Civil Eng. (ASCE) Chairman, ASCE Construction Committee (1989-92)
- CII Academic Leader on Task Force Construction Industry Institute (1992-96)
- National Board of Education, American Association of Cost Engineers (AACE) (1998-1999)
- Construction Specifications Institute, member and speaker (CSI) (1987-1992)

Editorial Reviews (selected)

- Associate Editor, *American Society of Civil Engineers (ASCE),* Journal of Construction Engineering and Management (2004-2006).

- Editorial Board, *Associated Schools of Construction (ASC),* Journal of Construction Education (JCE) (2000-2009).

- Corresponding Editor, ASCE-NEWS, monthly publication of the American Society of Civil Engineering (ASCE), circulated to over 118,000 civil engineers in the US and throughout the world. Responsible for writing all articles for the ASCE Construction Division- *American Society of Civil Engineers (ASCE) (*1993-1998).

- Reviewer for the many peer-reviewed journals:
    a. American Society of Civil Engineers (ASCE), Journal of Construction Eng. and Mngt.
    b. American Association of Cost Engineers (AACE), the International Journal of Cost Estimating and Project Management
    c. Microcomputers in Civil Engineering – Elsevier
    d. Journal of Computer-Aided Civil and Infrastructure Engineering
    e. Advances in Civil Engineering – Elsevier, Journal of Advances in Engineering Software
    f. Automation in Construction Journal – Elsevier

Book Reviews (selected)

- 2004 Construction Planning, Equipment, and Methods, McGraw-Hill

- 2003 Construction Scheduling: Principles and Practices, Prentice Hall

- 2003 Construction Contracts and Specifications, ASCE Press

- 2002 Construction Planning and Scheduling, McGraw-Hill

Consulting Activities (selected)

Year	Sponsor	Description	Role
2012	USAID-IESC	Sri Lanka Postwar Building Initiative after its 30-year civil war.	Consultant - Evaluation of the construction industry capabilities for both the North and South Divisions, training on project controls and construction techniques.
2010	SINOPAC- China	Preparation and delivery of intensive training specific to Oil & Gas project for middle management engineering staff.	Consultant - Construction management trainin specific to the petrochemical indust with focus on: Planning & Schedulin Cost Control, and Contra Administration.
2009	Marathon Oil & Rus Brothers	Settlement of major disputes regarding compensations related to schedule acceleration, work area congestions, delayed decisions, and disruption of work activities.	Consultant - Site examination, reconstruction facts, apportionment of liabilities preparation of financial claims, an mediation between parties
2008	Bechtel Inc., Houston, TX	Development of Level 1, 2, and 3 CPM schedules for mega power plants and IGCC projects.	Consultant - Identification of key contract milestone and deliverables, preparation of resource-loaded CPM schedules, resolving of logic conflicts, preparation of progress curves and analysis report
2008	Smith Amundsen Law Firm, Chicago, Illinois	Investigation involving fatalities caused by structural collapse of pre-cast concrete floor in a 7-story building during construction.	Consultant - Forensic investigation, reconstructing facts by examining physical evidence on site, assessing parties' involvement by examining project records, and establishing possible failure modes an mechanisms that caused the accident.
2007	Tabbert Hahn Earnest & Weddle, LLP, Indianapolis, IN	Expert witness on a $150 million case involving structural problems, construction problems, and CM problems	Consultant - Forensic investigation, reconstructing facts by examining physical evidence on site, assessing parties' involvement by examining project records, and establishing possible liabilities of parties.
2005-2007-	Air Defense, New York, NY	Developed regulations and incentive policies for the retrofit of constructio diesel equipment to meet cleaner ai standards.	Consultant - Assessed the financial impact on government agencies as a result of demanding cleaner air.

2005	Eastern Research Grou, Austin, TX	Developed a methodology for quantifying air pollution (NOx and PMs) due to the use of construction diesel heavy equipment, and a protocol for validating forecasts through sampling of site data.	Consultant - Assessed the environmental impact of construction activities on air quality.
2003	USAID-IESC	Macedonia Competitive Activity	Consultant - Evaluation of Macedonian construction companies' capabilities to compete on the international market. Prepared a lis of skills for training on project controls and proposals writing. Provided leadership to assist those companies i preparing proposals for winning contracts in the Reconstruction of Iraq. Contract und Bechtel-USAID Prime Contract.
2001	DPR Construction	Development of training modules for estimators and field engineers	Consultant - Reviewed company's training concept and materials. Participated in brainstorming session o best training for industry professionals Developed outline for training modules by addressing the skills and competencies required for estimators and field engineers.
1999	USAID-IESC	Project management consultant for the Cleopatra-Alamine. Development Inc. on a major resort project west of Alexandria, Egypt. Responsibilities included evaluation organizational structure and busines operations, negotiation of contracts, procurement of major equipment and resolution of field operations problems.	Consultant - Evaluated the company's organization structure and resources. Performed design and Value Engineering exercis on a major resort that saved money and improved project value. Taught engineers and field personnel construction cost estimating and scheduling.
1998	Northwest Natural Gas Co., Portland, OR	Evaluation of NNG information and reporting systems. Taught Construction Management Course for NNG Engineering and Construction Department	Consultant - Examination of company's computer systems and taught engineers and fiel supervisors the use of project management tools (Primavera—P3 an Timberline— PE).

		(8- weeks June-July1998)	
1997	Northwest Natural Gas Co., Portland, OR	Training Course for NNG Engineering and construction Department	Consultant - Taught engineers and field supervisor the implementation of project controls systems on major gas installation projects.
1997	USAID-IESC	Engineering consultant for 17-acre lagoon to be constructed in Middle East as recreational water park resort	Consultant - Responsibilities included advertising, interviewing, qualifying, selecting, awarding service contract to US design firm, supervising design to completion.
1996	Northwest Natural Gas Co., Portland, OR	Evaluation of NNG's organizational structure and engineering and construction operation. Training Course for NNG senior management (10 sessions over the summer of 1996)	Consultant - Taught senior management basic project management skills, tools, and systems.
1995	CII - Construction Industry Institute, TX	Schedule Reduction Techniques (August 3-5)	Speaker - Workshop on Scheduling Improvement Tools
1993	University Of Wisconsin Madison, WI	Cost Estimating and Control in Building Remodeling and Renovatio (March 8-9)	Instructor - Taught short course: cost-scheduling integration for construction managers.

Other Professional Development (selected)

Participated in the following events as a presenter/speaker/session chair/other to stay current in my field:

- Annual General Conference, Canadian Society of Civil Engineer. London, Ontario, Canada, 2016.
- Creative Construction Conference, Poland, 2015.
- Associated Schools of Construction (ASC) Annual Conference, College Station, Texas, 2015. - Creative Construction Conference, Poland, 2014.
- 30th International Symposium on Automation and Robotics in Construction (ISARC 2013), Montreal, Canada, 2013.
- Construction Industry Institute (CII) Annual Conference, Orlando, Florida, 2013.
- Construction Industry Institute (CII) Annual Conference, Orlando, Florida, 2010.
- ACCE Annual Conference, Boise, Idaho, 2010.
- ECC Annual Conference, Orlando, Florida, 2010.
- CASE, Deans Conference, Washington DC, 2010
- ACCE Annual Conference, Albuquerque, New Mexico, 2010.
- Construction Industry Institute (CII) Annual Conference, Cincinnati, Ohio, 2009.
- ECC Annual Conference, Washington DC, 2009
- The 11th International Conference on Computational Structures Theory and The Fifth International Conference on Engineering Computing. St. Julian's, Malta, September 18-21, 2007.
- The 5th Associated Schools of Construction (ASC) Annual Conference (3-day), Flagstaff, AZ, 2007.
- International Conference on Engineering Computational Technology. Las Palmas de Gran Canaria, Spain, September 12-15, 2006.

- The 8th International Conference on Computational Structures Theory and The Fifth International Conference on Engineering Computational Technology. Las Palmas de Gran Canaria, Spain, September 12-15, 2006.
- ASEE Global Colloquium. Rio de Janeiro, Brazil, Oct 9-12, 2006.
- PICMET conference, Istanbul, Turkey, August 7-10, 2005.
- The 10th International Conference on Civil, Structural and Environmental Engineering Computing, Rome, Italy, August 30 to September 2, 2005.
- Associated Schools of Construction (ASC) Annual Conference (3-day), Provo, UT, 2004.
- KFUPM International Conference, Dhahran, Saudi Arabia, Dec 7-9, 2004.
- The 4th International Conference on Robotics, Izmir, Turkey, Sept 14-16, 2004.
- The 4th International Conference on Engineering Computational Technology, Lisbon, Portugal, September 7-9, 2004.
- The 2nd International Conference on Construction in the 21st Century (CITC-II), Hong Kong, December 10-12, 2003.
- Inspectors Workshop (2-day), Texas A&M University, College Station, Texas, 2003.
- The 7th International Conference on the Application of Artificial Intelligence to Civil and Structural Engineering, Egmond-aan-Zee, The Netherlands, Sept 2-4, 2003.
- Proposals and Grants Writing Workshop (5-day), Texas A&M Univ., College Station, Texas, 2002.
- Construction Industry Institute (CII) Annual Conference, Denver, Colorado, 2002.
- Educators Conference, Timberline Software Inc., Portland, OR: 1993 through 2002.
- Advanced Estimating Training and Certification School by Timberline Inc., Portland, 1995.
- Advanced Training on Primavera Project planner System (P-3) by Primavera Inc., PA, 1996.
- Cost Estimation Seminar, offered by Michigan State University, Milwaukee, WI, 1991.
- Construction Industry Institute (CII) Annual Conference, Monterey, California, 1991.
- HVAC Systems Improving Operation and Maintenance, 2-day Course offered by The Association of Energy Engineers, Chicago, IL, 1991.
- Coordination of ASCE conferences, seminars, and meeting as Chairman of the Construction Technical Committee, 1990 and 1991.
- Taught 2-day short course for the American Association of Cost Engineers, "Applying Cost Principles in Construction", Madison, 1990.
- Taught Seminar for the AGC, "Computerized Scheduling Techniques", Madison, 1990.
- Taught 2-day short course for the Urban Land Institute on "Planning and Scheduling Techniques for Construction Projects", Madison, 1989.
- How to Collect and Analyze Data Collected by Computers - Short Course, Department of Engineering Professional Development, University of Wisconsin, Madison, 1988.
- Introduction to Expert Systems Design and Development - Short Course, Department of Engineering Professional Development, University of Wisconsin, Madison, 1988.
- ASC Conference - The 24th Annual Conference of the Associated Schools of Construction, Hosted by California Polytechnic State University, San Luis Obispo, California, 1988.
- Corrosion Control of Offshore Structures - Seminar, Offered by Exxon/Chevron Oil Company for ARAMCO Offshore Division, Dhahran, Saudi Arabia, 1985.
- Advanced Programming in Mark-II System - Short Course, DATA Kinetics Inc., Ottawa, Ont., 1984.
- American Association of Cost Engineers - Guest Speaker, the Gulf Section, 1982.
- Cost Engineering Skills - Short Course, American Association of Cost Engineers, Houston, Texas, 1980.
- Refinery and Chemical Division Technical Seminars - Series covering: Contracting, Trending and Forecasting of Cost, Performance Evaluation, Risk Analysis, and Accounting for Cost Engineers, Bechtel Inc., Houston, Texas, 1980.
- Data Processing and advanced Programming Course - Short Course, on Univac Batch and Demand Processing, Bechtel Inc., Houston, Texas, 1980.
- MSCS Advanced Training Program - Short Course, on the MSCS computerized management system, McDonnell Douglas Automation Company, Houston, Texas, 1980.
- Power Plant Layout Training - Short Course, on Fossil Power Plant Layout and Equipment, Brown & Root Inc., Houston, Texas, 1978.