



The DIGITAL Download

WELCOME TO 2016!



On behalf of the team at AI and myself, I wish everyone a Happy and Exciting New Year! It is with great pride and humility that I announce that this year marks our biggest milestone yet as AI is celebrating its 25th year of business in making a difference in the world of infrastructure!

This calls for a period of reflection of our history, roots, and humble beginnings and taking a look into our consistent growth through innovation, opportunity, and lots and lots of hard work leading to AI being ranked as one of the Top 500 Design Firms in the country by ENR.

During this celebratory year, AI will be going through a redesign of our website and will continue to share all of our experiences and knowledge of industry news through our print and electronic resources including our recently launched bi-monthly Digital Download e-series. We hope that you will join us in this yearlong celebration and continue to be a supporter and a part of AI's success to climb further up the ladder as we continue to aspire to be a leader in the infrastructure industry from our regional and local roots.

Finally, none of this would be possible without your support. I give my sincerest thanks to all of our clients, employees, and business associates that play an integral role in our firm's success and growth. Teamwork and thriving relationships with our clients are crucial and constantly cultivated hourly, daily, weekly, monthly, and yearly. I have no doubt that the continued dedication of our employees, the trust of our clients, and the passion we demonstrate will make this anniversary year an



The AI Awards Recipients List 2015



Employee of the Year Award:

Presented to Christopher Kolasa for his exemplary performance, commitment to quality, and willingness to take on any challenge.

Project Recognition Award:

Joseph Cancelliere, Besmir Xhurxhi, Ajit Gokhale, Michael Parciasepe, Rohit Pradhan, and Kurt Asplund for their participation in one of AI's recent successful project - *Pre-scoping services for Porpoise Bridge in Queens, NY.*

Promoting Company Business Goals Award:

Piya Hawkes, Aswin Karki, Sohaib Siddiqui, and Mohammed Saeed for their roles in promoting the firms' business goals through establishing and maintaining important client relationships.

Special Recognition Award:

Kyle Watterworth and Hannan Karan for going

unending accomplished success.

Abul Islam
President/CEO

above and beyond in
their respective roles.

**10 Years of Service
Award:**
Qamrul Khair and
Muhammed Asif Iqbal

Manager of the Year:
Jocelyn Feder

**Engineering
Manager of the Year:**
Robert Gallo

Leadership Award:
Jason Krempf

AI HOLIDAY PARTY

AI recently hosted its annual holiday party at the Crowne Plaza Hotel in Middletown, Connecticut. The occasion marked a break from the stresses of work; and for our team and hard-working employees from around the East Coast to enjoy themselves with laughter, stories, food, drink, music, and good company; all the elements needed for great holiday cheer!

The event is also a platform for AI to recognize its most outstanding, talented, and hardworking employees who distinguish themselves among their supervisors and co-workers while taking care of clients' needs and priorities.



AI PROJECT HIGHLIGHTS

**GOLD STAR MEMORIAL BRIDGE, NEW LONDON,
CT**



Since 1993, AI has been performing NBIS inspection and evaluation of highway and railroad bridges for the Connecticut Department of Transportation. With over 5,000 bridges in the state inspected since 2002! Our staff has had the privilege of inspecting I-95 over the Gold Star Memorial Bridge multiple times.

Locally referred to as the "Goldstar", this bridge is the largest and longest structure in CT. It was designated as the "Gold Star Memorial Bridge" in 1951 in honor of members of the US Military from New London County that were killed in action during both World Wars and the Korean War.

The 30 span bridge consists of 13 multi-girder approach spans, 6 girder/floor beam/stringer spans and 11 single and continuous deck truss spans which carry I-95 and US Route 1 over the Thames River between New London and Groton, CT.

Given the complex nature of the bridge, AI used several methods of access to inspect the bridge including 60-125 ft. man-lifts and 60-75 ft. reach snoopers as well as rope access (climbing), rigging, and walking techniques. Additionally, there were pin connections at the suspended truss span sections which have monitoring points at the pins. Ultrasonic testing was used to detect any cracks or deficiencies in the pin connections.



The Importance of Strain Gauge Testing

Strain gauge testing is used to measure the amount of tension placed on an object. With respect to bridges, this means monitoring bridge members for significant changes that have occurred due to the load of the weight it takes on daily, natural decays that occur over a period of time, and changes in temperature and climate. Today, monitoring is done using wireless sensors that are attached to the bridge in strategic locations. Real-time data is then wirelessly transmitted and our engineers can access live data through the use of AASHTOWare Bridge Rating Software (BrR) and other instrumentation.

Currently, AI is performing strain gauge testing on two (2) fracture critical bridges, the Gold Star Memorial Bridge (Goldstar) in New London-Groton, CT and the Robert O. Norris Bridge (Norris) in Middlesex County, VA. This testing includes the installation, monitoring, replacement, and removal of wireless sensors.

Strain gauge sensor installation was completed in December 2015 at 18 locations on the Goldstar (I-95 NB) as part of our NBIS inspection contract with the Connecticut Department of Transportation. They will be monitored for a period of six (6) months. Similarly, on the Norris Bridge, AI assisted in selecting 25 low rated members on which strain gauge sensors were installed, as part of our contract with the Virginia Department of Transportation to perform inspections of highway structures and bridges as well as support structures for traffic devices in the Fredericksburg District.

As AI continues to provide our expertise on bridge related projects, we look forward to exploring new and innovative technologies that will improve the way we inspect our local bridges including the anticipated use of unmanned aerial vehicles (UAVs).

**ROBERT O. NORRIS BRIDGE, MIDDLESEX COUNTY,
VA**



AI Engineers, Inc.

www.aiengineers.com