

President's Message

Into the Unknown



The future is, by definition, unknown...what is still to come but not yet. These days it seems as though the mystery of that later time is stretching back to overshadow the present. Traditional approaches to classic problems have always been

challenged by subsequent generations, fostered by human ingenuity to be faster, easier, more efficient. But now, better begins to mean more informed, more conscientious, more resilient. We most likely started with a focus on sustainability, but seem to have lost some of that attention along the way.

We, as engineers, work to establish solutions to critical system concerns. According to Merriam-Webster, we carry through an enterprise by skillful or artful contrivance. And our calling is most often born out of necessity. Many of a community's basic needs are fulfilled by civil engineering works, including access to clean water, proper sanitation, safe transportation and reliable communication. All of the systems we design and contribute to require expertise to support, operate and maintain. They require continuous investments in time, energy and resources. And they require competent leaders to champion those efforts.

But the empirical "constants" that our predecessors have employed to solve for their desired variables are changing. The tools have evolved through exponential advances in technology. How we work has been altered by the threat of pandemic disease. The factors that affect change are taking

new shapes. So, too, must we adapt and improve. We have a duty to utilize the vast foundation of knowledge that those who came before us have painstakingly built, and advance our own understanding of the impacts we effect on the natural environment and ourselves.

As we embark on this second edition of the third incarnation of the Civil Engineering Practice Journal, there are many hopeful signs on the horizon.

With President Biden's \$1.2 trillion dollar bipartisan Infrastructure Investment & Jobs Act (H.R. 3684) recently passing the Senate of the U.S. Congress, we are on the eve of one of the largest federal investments in our nation's roads, bridges, airports and waterways.

Building on the long history of surveying wastewater for viruses, civil engineers are currently collaborating with biological engineers to track SARS-CoV-2 and generate actionable information.

As evidenced by the thoughtful articles that follow, our local community is striving to share the valuable lessons they have learned on improving design accuracy, managing cost, and providing observed data to support future innovations. We also pay tribute to one of our brightest whose legacy lives on.

And lastly, many thanks to our Editor-in-Chief, Dr. Gautham Das and the volunteer editorial board for all their tireless efforts to produce this next issue of the journal. Your dedication and generosity set an example for the rest of us to follow.

Shallan Fitzgerald, PE
President of Boston Society of Civil Engineers, ASCE Section
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