

What is your opinion about the public's perception of structural engineers? Provide suggestions for how structural engineers might increase recognition and general public awareness of the profession.

“...What is essential is invisible to the eye.”- Antoine de Saint-Exupéry. Usually, when someone asks me what I do for a living and hear me say “I am a structural engineer”, they usually follow up with the question “what is that?”, or I can tell they had no clue of what that is just by the look in their face. It is not uncommon for people to ignore or give for granted what they cannot see, and most if not all the structural elements of a building are hidden away by a beautiful façade provided by an architect. People will also not value what they don't know, and for many years the architectural beauties around the world are the only things being praised and known, but nobody talks about the structural engineer whose design made those structures last. If nobody will talk about us, the structural engineers, we will need to take pride in the work we do and invite the people into a conversation and let them know how every city and its infrastructure is a testimony of our profession.

People tend to think that architects deserve the full credit for not just the looks, but for the entire building itself. We drive through construction sites and often see huge signs from the construction company and from the architectural design company. We know what construction is, for the word says it itself, therefore we can associate with it; we are taught about European architectural designs and history in school, so we recognize the word “Architect” or “Architectural” from it, but when it comes to engineering, most people think of computers, technology, or internet, and of the design of a building.

Structural engineers are the reason why people don't know us, what we do, and the importance of our work. In the past, we have let the architects define what a "building" is, and we let them take full recognition for projects that exist thanks to a structural engineer. I say "let", because as of today, structural engineers haven't done much to take recognition for any of the projects done. When a new building is built and broadcast in the news, usually the architect and the owner will be interviewed, and the structural engineer is not even mentioned for its accomplishment. I am sure we the structural engineers don't get interviewed on purpose, but it's my opinion that few people know that a big part of that design is thanks to our engineering.

Structural engineers are usually stereotyped as introverted and nerdy, but fortunately, it's just a stereotype, and there are plenty of structural engineers that are extroverted or outgoing. Companies should pay close attention to their team member's personalities and inspire them to impact others in high-school career events, and college internship events. So that the young generation will be exposed and get familiar with what a structural engineer does and how important is our work. Design companies should care for the future generation if they want to remain in business when their own structural engineers retire. There is a demand for structural engineers, and the demand can be met if we invite and introduce them to the structural design world.

Exposing the young generation is just the first step to be recognized, since we increase in number, more people will notice us. However, if our goal is to be recognized, and not just known, we structural engineers need to start believing that we are indispensable and that our work is essential. It is our belief and conviction, that will help us to speak up and the people that surround us will be convinced that we deserve to be recognized. People, in general, won't

demand something they don't believe in or deem as important. Structural engineering seems to be a humble profession, where the engineers end up taking for granted their own work and being satisfied with having a salary to live an ok life. I think companies need to start inspiring their own engineers and constantly remind them of the importance of their work so that the monotonous daily design, would boost our confidence and feel valued. As we believe in ourselves, and the impact of what we do, we will inspire others to become one of us and make the design world aware that we deserve as much credit as the architect currently does. For people to know us, first, structural engineers need to feel valued and know that what we do is important and indispensable.

Public speaking and conferences can be helpful to increase recognition and public awareness, but luckily, we now have platforms where public speaking is not so necessary and provide a more casual approach that will reach a large audience. Structural engineers are starting to pioneer with YouTube blogs and TikTok. These two platforms can be the beginning of public awareness. I think we can also have conversations with the architects or the design team, to make sure we are recognized.

People may not understand all the "math" that's involved for the building to stand, but our job can be explained as simple as comparing it to the human body. I like to tell people, that our work is as important as the bones are to a body, structural engineers design the skeletal bones, architects design how that skeleton is going to be covered, and the interior designer dresses that body. Anyone can understand that you need bones to have a body, but people's perception won't change until we share with the world that what we do is so important it's almost miraculous.

We need to be reminded of our value and start to show and share with people what they have missed in the past because they were not able to see. We need to start using the available platforms start giving recognition to the unnamed structural engineers of all the famous structures that the public is already familiar with and let everybody know that if it wasn't for a structural engineer's effort, we wouldn't have safe shelters like hospitals, workplaces, houses, or even the beautiful New York City as we know it today.