

Biographical Details



Stephen Ayers, PhD PE

*Professor and Head of Civil Engineering
LeTourneau University
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Dr. Stephen Ayers is a Professor of Civil Engineering at LeTourneau University. He is a committed Christian educator with a passion for training and equipping Christian engineers to actively participate at the highest levels of their profession in both industry and the academy. His desire is to see Christian engineers take their place as leaders in society, transforming communities as they unite the reality of Christ with their technical expertise.

Dr. Ayers was born and educated in Australia. He graduated from the University of Southern Queensland (USQ) with his Bachelor of Engineering (Mechanical) with First Class Honours in 1994. He then went on to complete his PhD in Civil Engineering at USQ in 2001. His engineering research specialization is in the application of polymers and polymer composites to civil infrastructure applications.

In 2004, Dr. Ayers and his wife Debbie followed God's call and moved their young family to the USA where he took up a faculty position at LeTourneau University, America's premier Christian technical university. His desire was to educate professional engineers in a Christian setting which focused on the development of the whole person without the separation of the profession and faith which typifies technical training around the world.

Since 2009 he has headed the development of a new civil engineering program at LeTourneau University. The program has now graduated three classes who have been highly sought after by both industry and graduate schools across the USA.

During his time at LeTourneau University, Dr. Ayers has also actively pursued opportunities to use his own engineering skills in Christian service. He has developed extensive international experience in engineering projects for low-resourced regions. From 2005 to 2011, he helped lead the LeTourneau Engineering Global Solutions (LEGS) program in designing low-cost sustainable prosthetics solutions for amputees across the developing world. With his colleague Dr. Roger Gonzalez, Dr. Ayers led undergraduate student engineering teams in the development of a polycentric prosthetic knee which cost less than \$100 and could be locally manufactured in developing countries. As part of LEGS, Dr. Ayers lead numerous teams to Bangladesh, India, Kenya, Sierra Leone and Senegal to conduct field evaluations of the new technology. The program was eventually sold by the university to become a separate NGO known as LIMBS International.

Since the departure of LEGS from LeTourneau University, Dr. Ayers has continued his international work, focusing now on the development of improved water resources for remote communities in Senegal. His Engineered Water Solutions (EWS) project has developed prototype well drilling and pumping systems using only locally available materials and manufacturing skills. This work is now extending into drinking water purification systems. In conjunction with its Christian on-ground partners, EWS is seeking to evolve its technology into a microbusiness model which empowers the Senegalese to address local water issues themselves.

Dr. Ayers' work in Senegal has also now branched into professional development and leadership training amongst Senegalese engineers, business leaders, and government officials. The training also includes teaching in local universities where the next generation of national leaders are being developed.

In May 2015, Dr. Ayers was awarded the Robert H. Selby Teaching Scholar Award for his contributions to LeTourneau University. This award is the highest faculty recognition at LeTourneau University and is awarded by a university-wide faculty vote.

Dr. Ayers is a licensed Professional Engineer in the state of Texas. He is a member of the American Society of Civil Engineers, the American Concrete Institute and the American Society for Engineering Education.