

## *An engineer and his faith*

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In my teenage years I accepted God's love and its consequences for my personal life. I always made good grades in mathematics and natural sciences, but the so-called “conflict” between science and Christian faith, propagated by some of my teachers, did not make any sense to me. Decades later, already as an engineer, I came to know that at least eight scientists honored in the *International System of Units* were believing Christians: Newton, Kelvin, Ampère, Faraday, Henry, Volta, Joule and Pascal. All of them used to be mentioned in science classes. Their faith, however, was either hidden by my teachers or unknown to them, although it had been understood by every single one of the eight as bearing fundamental relevance on their life and work. Thus I ignored what I know today, namely, that for the Christian active in the exact and natural sciences Hebrews 12:1,2 literally holds double significance: “Therefore, since we are surrounded by such a great cloud of witnesses, let us throw off everything that hinders and the sin that so easily entangles, and let us run with perseverance the race marked out for us. Let us fix our eyes on Jesus, the author and perfecter of our faith.”

During my adolescence the “cloud” of these eight Christian scientists was there, but I didn't know it. Later I became acquainted with details of their biographies and of others, some of them even greater than the eight, such as James Maxwell, Max Planck and Wernher von Braun. Today my faith co-defines the perspective I have of my profession. Certainly a Christian's profession is an important resource for testimony and insertion into society, but, at least in the case of the engineering related professions, there is more to it. In the first chapter of Genesis, called *Magna Charta of Technology* by Swiss theologian Emil Brunner<sup>2</sup>, God instructs man saying: “Fill the earth with people and bring it under your control.” This cannot be done without technology in combination with adequate, Biblical principles. Furthermore technology helps people to dedicate more of their time to culture and entertainment.

However, in the Bible there are other passages with special relevance for the engineer. The Tower of Babel episode warns against self-sufficiency and the glorification of man in general, with clear emphasis on his technical undertakings. Another example, the account of Noah, reveals how God may use engineering artifacts (in this case the arch) to advance His plan for humanity. The books of Kings narrate episodes that warn against exaggerated trust in technology. In addition to specific messages such as these, the Bible provides leadership principles and a consistent foundation for engineering ethics. Thus the engineering profession has its very special dimension, to which the Christian and engineer Herbert Hoover, 31<sup>st</sup> president of the US, referred when he said “the engineer clothes the bones of science with life, comfort and hope”<sup>3</sup>.

It is the last item in Hoover's list – hope – that gives the Christian engineer the opportunity to become a really complete professional, since (s)he should “always be prepared to give an answer to everyone who asks her (him) to give the reason for the hope that (s)he has.” (1 Peter 3:15). An excellent example was given by the mathematician and physicist Augustin Louis Cauchy, who stated: “I am a Christian; this means: I believe in the divinity of Jesus Christ, together with Tycho Brahe, Copernicus, Descartes, Newton, Fermat, Leibniz, Pascal, Grimaldi, Euler, Guldin, Boscovitsch, Gerdil, with all great astronomers, all great researchers in the natural sciences, all great mathematicians of former centuries. And if I am asked for the reason, I'll gladly explain it. It will be seen that my convictions are the result of careful study and not of prejudice”<sup>4</sup>. Cauchy was willing and prepared to share his faith in practical and understandable points, a faith rooted in facts: the birth of Jesus, his ministry in Palestine, his death and resurrection, testified, registered, documented facts. Such faith gives perspective, confidence and hope, because “by faith, we see the world called into existence by God's word... faith is what distinguished our ancestors, set them above the crowd... Through acts of faith, they toppled kingdoms, made justice work, took the promises for themselves. Put out raging fires and escaped from the swords of their enemies. Although they were weak, they were given strength and power...” (from Hebrews 11).

Today, after 35 years of personal faith in Jesus Christ and 25 years of engineering, I thank God for my profession and for the challenge to “fight with everything you have in you for this faith entrusted to us as a gift to guard and cherish.” (Jude 3)

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2 On the occasion of the jubilee of ETH Zürich (Swiss Federal Institute of Technology Zürich).

3 From Herbert Hoover - *The memoirs of Herbert Hoover: years of adventure*, Macmillan, 1951.

4 Cited in J. Gutzwiller - *Das Herz, etwas zu wagen*, Friedrich Bahn Verlag, 2000.