

Portrait of Isam SHAHROUR

A life guided by knowledge and curiosity

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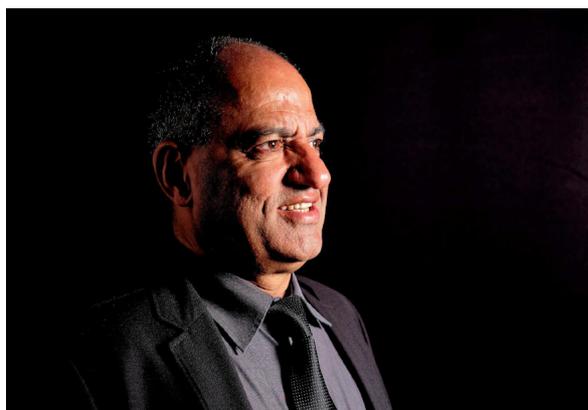


Photo by Laurent Mayeux

Isam Shahrou arrives with a smile at the studio for his interview, and offers me a gift. This friendly gesture led me to believe that this interview would be a warm one. Isam is a cosmopolitan man, open to the world like very few people are, with a personal history of war and destruction. He could have chosen the path of wrath or surrendered to despair, yet he decided to learn always and forever. Relying on his boldness, Isam quit his native Palestine to go to Lille where he became one of the specialists of digital innovation. He spent his time in search of knowledge and has imagined the Connected City to improve the lives of citizens and to find an answer to the great human challenge of global warming.

From Tulkarm in Palestine to the “Ponts et Chaussées” Engineering School in Paris: One Objective: Reconstruction

Isam Shahrou was born in Palestine, in Tulkarm, an Arab city at the foot of the mountains of Samaria. His father is a carpenter. Isam spends his early childhood between his school and his father’s workshop. At school, he’s an excellent student. He’s curious; he reads a lot and dreams of space conquest with the first astronauts. He lives in a time of conflict, suffering and destruction. This is why he decided to work in the construction sector, to rebuild the world.

At the age of fifteen, Isam had to move to Jordan. His father, a social activist, is expelled out of Palestine with all of his family members, but Isam does not abandon his studies; on the contrary, he continues with an insatiable hunger to learn. “Amman is a big city. I met people there from everywhere. There was a huge library with extraordinary books. But I never forgot to continue working with my father. The Head and the Hands: it’s important”. Isam succeeds brilliantly in his High School Exams and obtains a scholarship to study in France.

The adventure continues and drives the young man into an unknown country where he does not speak the language. He lands in Tours in France where he spends a year learning French. “ It was a real civilisation shock and also an academic one. The education level was so different from where I came. I had to work really hard to catch up with the level of the language and the scientific education.” Isam enters the University of Lille 1 where he successfully obtains his Bachelor degree in Mathematics and Mechanics. Finally ready, he passes the competition for the prestigious engineering schools: Centrale Paris, Les Ponts et Chaussées, and Les Mines. Admitted in all of them, he finally chooses to join the Ponts et Chaussée School, the one which will allow him to construct. “ My dream and the dream of my family became a reality. My brothers were not able to

go to university. When I followed my studies in Paris, I opened up to Arts. I loved to go to the Pompidou Centre. Even though I was far from my family, I never felt isolated. A student's life is a true school of life. I was committed socially in a number of associations for foreign students. But above all, I never lost my curiosity nor my desire to learn".

Researcher in the field

After having graduated from the Ponts et Chaussée Engineering school, he had the choice between working or continuing his studies. This man with the insatiable hunger to learn and who wants to go as far as possible in the field of knowledge will of course choose to do his PHD. The subject of his thesis concerns the use of computers and scientific calculations of offshore foundations. This is the beginning of the specialisation of Isam Shahrour in the use of new technologies to resolve concrete problems.

Isam starts his career as a faculty member at Polytech'Lille, and then he goes to work at the French Institute of Petroleum in Paris as a Research Engineer. He is assigned as a full professor in 1989 at Centrale Lille Engineering School. However, he goes back to his "favourite" University, Polytech'Lille, in 1997 where he works during ten years on the internationalisation of the university. In 2007, he is appointed Vice President of Research. In 2008 and during four years, he is the President of Lille Metropolis Technopole, a Regional Agency of Innovation, which works for the economic development through innovation. It is through his involvement with concrete construction programs of innovative poles such as "Euratechnologies" and the "Haute Borne" that Isam becomes more and more interested in the city as well as in the stakes of an increasing urbanisation.

SunRise, a large scale living Laboratory to build together the City of Tomorrow

Isam makes the following remark: "More than half of the global population lives in the city, in increasingly crowded cities. The huge development of cities no longer allows the creation of a decent life framework for the whole population. The city is a place where the diseases of humanity are condensed: sanitary, social, economic, and environmental. It is the expression of the global warming. What consumes the most in the city? The buildings, the transportation and the urban networks (water, electricity, gaz...). We have to transform the city in order to live there well. Its buildings are getting old; its networks are badly maintained, and the citizens are more and more demanding." According to Isam, the new technologies constitute an opportunity. They connect us to the world, and so we should connect them to the city in order to know it better, to tame it, and live in harmony. Lets make the city smart.

A researcher has to find a laboratory to develop his experiments. Isam does not want to limit himself to theories or to an application limited to a small space. He wants to show in real scale that the smart city is not a utopia. He decides that his study field would be the Cité Scientifique Campus at Villeneuve d'Ascq, a real small city. The buildings and the networks are equipped with digital sensors in order to collect all the information on their behaviour, the consumptions, the breakdowns ... Earlier, all this information was fragmented. Today, it is possible to have a global view of the functioning of the city, which allows us to understand better and to act in a better way.

After analysis, recommendations are made in order to optimise the consumption of electricity or water in this or that building for example. Students and enterprises work together within mixed

teams. Students from all over the world are members of Isam's team. They come from Canada, China, Syria, India, Lebanon, and Maghreb. Driven by their different cultures, visions, and dreams, they participate in the project within their university program and go back to their different countries to spread the smart city concept. The enterprises, which participate in this project, can also offer their experience to their clients. Today, the SunRise laboratory works for example with the city of Hellemmes on the development of eco-neighbourhoods.

"What distinguishes this project, it's that we have succeeded in conducting the experiment on the scale of a city and not just a factory building. And we have integrated all the stakeholders in the city: the local authorities, the social housing landlords, the energy providers, the inhabitants in a true collective procedure. We need everyone to transform the city. The citizen becomes a smart sensor. He can access the information on the networks in real time, inform and get informed about any malfunction. The citizen becomes an actor of his city. How can we ask the citizen for his opinion on things that he does not know about or that he does not control? We have to place him back in the heart of the city."

What advice do you give to a young man today?

"I would tell him first of all that everything is possible. We are in a world that is changing quickly. The drivers of change are not necessarily related to "power". With the digital revolution, even those who are "weak" can have a global effect. You have to live this age of the digital revolution without any fear. It has already changed us a lot. Knowledge is shared and so no one can pretend that he knows more than anyone else.

Then I would recommend him to be curious, to liberate himself from the patterns of the past, to go into areas where he is not supposed to go, to take risks, to be open to the world and to other cultures; it's essential for this is how we learn.

I would advise him to believe in the spark: ideas do not necessarily take a lot of time to arise.

Finally and most importantly, he must never forget to be a good listener, to observe, to stay humble, and never to ignore or despise anything or anyone.

With which letter of the word CRAZY does Isam identify himself?

The letter A in Audacity! Whenever I have the chance to make an interview when I go back to my home country, I tell the young people about my story to show them that they shouldn't be afraid of obstacles and that everything is possible.

I wasn't mistaken. This interview was fascinating. We both could have continued to talk for a long time. I'm writing this article while drinking the tea, which Isam offered me, Green Tea from China. How can someone reach that level of audacity? I believe that Isam draws his strength from his double culture, which makes him open to the world, from his huge appetite for knowledge, which makes him curious, and from an unwavering and compassionate support of his family, which makes him indestructible.