IABSE Foundation

How an Anton Tedesko Medal Traineeship Can Make a Difference!

SN. The IABSE Foundation created the Anton Tedesko Medal in 1998, in memory of the prestigious structural engineer and teacher, Anton (more info: www.iabsefoundation.org). The award consists of a medal awarded to the Laureate in recognition of his contribution to the advancement of structural engineering and a sum of 25'000 Swiss Francs to be used by the Laureate to organise and finance a study leave for a young promising engineer. In 2007, Professor John Claude Badoux, Laureate of the Anton Tedesko Medal invited Mr. Anand Singh from Nepal to be his Fellow. Mr. Singh came to Switzerland and had the opportunity to work as an engineer at Daniel Willi SA, Montreux, between October 2007 and April 2008.

In an interview after his traineeship, Anand Singh shared with us that he hoped to implement environment friendly design and construction of structures, and in particular the design of anti-seismic structures in Nepal, as his country is very vulnerable to earthquakes. He was taking back home a broad range of knowledge, such as the selection of appropriate foundation methods according to location; designing anti-seismic buildings by using RCC walls and additional steel columns; the use of pre-fabricated structures and its benefit in allowing better precision concerning dimensions, by being prepared at the factory under favourable conditions.

After the April 25, 2015, catastrophe, Prof. Badoux contacted his Fellow and hearing that he was doing well he enquired if he could use his engineering knowhow after the earthquake, and if his Swiss stay and traineeship had brought him useful experience. We are happy to hear his report of June 1, 2015, about his work and how his traineeship has brought fruits:

"I've been working as a Civil Engineer since my return from Switzerland and I recently accomplished a housing project meant for the rehabilitation of the victims of fire hazard.

The houses (low cost houses) were handed over to the victims a day before the earthquake and as an engineer I passed the toughest exam. Not a single crack was found because we took the concept of raft foundation of four inches thickness since the designer had excluded the load bearing structure above ground level. Neither was it up to any engineering standard nor was there any room for change. Thus, I remembered the concept of raft foundation from my Swiss days and decided to apply which as a result worked out. In Switzerland, I had also seen the brick locked among each other with the help of extra brick on every row at every wall junction which I applied here to keep the structure intact and it did well. These are few of the benefits from my Swiss experience.

The Swiss experience was very useful. In terms of designing we emphasise on structural parts, there are lot of clients who get unhappy and even disagree with the structural designs anticipating that the cost gets higher with the RCC structure or steel one. But, it has never been compromised and as a result not even a hair crack was found after the quake, owners have now realised the true value of proper designs.

The reconstruction work of physical structures are about to start and this is chance to implement my Swiss knowledge to other parts of Nepal. However, I have been suggesting to those people who come to me for advice to use pre-fabricated structures or pre-cast structures at times like this. They are not familiar with such items and doubt on its safety quality. But, on the basis of my knowledge and experience I gained in Switzerland I advice them it is the cheapest and safest mode of shelter.

I have been in constant practise since my Swiss experience upon my arrival in Nepal, especially with beam and column designs. Neither do I take any chance with structural parts nor do I compromise with its designs."

Mr. P.A. Singh obtained his Bachelor Degree in Civil Engineering in 2004 from Pokahara University, Kaski, Nepal. Before going to Switzerland in 2007, he worked as site engineer and as project engineer for construction and consulting companies in Nepal.