# 4.14 Scientific Heritage of Prof. Da Ruan in the University of Ostrava – Life Lessons in Our Academic Career

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There are people who will live with us forever --- they influenced our life and stay next to us whenever a situation connected with them occurs. Our dear friend Da Ruan belongs to such people. We want to share with the reader memories of few meetings with him which we will never forget.

#### Irina's Memories

# The first virtual meeting

In 1993 thanks to the Soros Foundation there appeared an opportunity for Russian scientists to attend foreign conferences. Being supported by this foundation, my colleague Alexander Ryjov participated at the Fifth IFSA World Congress in Seoul. After returning home he answered our questioning about everything: scientific level of the Congress, leading scientists, actual problems, etc. I do not remember all of his answers, but remember well only one of his remarks: ``a crazy and enthusiastic young Chinese guy invited me to become a member of the program committee of FLINS Workshop in 1994". At that moment, the idea standing behind FLINS (Fuzzy Logic and Intelligent Technologies in Nuclear Science) seemed unrealistic to us. None of us believed that a new science would be able to break into so conservative scientific area as nuclear science. But the "crazy Chinese guy" --- Da Ruan --- believed this idea. Thanks to his self-will, the Workshop came to the reality and took place in a beautiful Belgian town Mol in September 1994.

#### The first actual meeting in 1994

I attended that Workshop and remember its noble atmosphere. Two groups of well recognized scientists in nuclear science and fuzzy logic discussed possibility to apply new ideas to classical problems of automatic control. The third group of young enthusiasts (to which I belonged) proposed their ideas which should (according to our knowledge and strong belief) improve state of the art. Besides Da, I got acquainted with other members of the third group, and two of them ---Bernard De Baets and Gert De Cooman, became my good friends.

After the 1st FLINS nobody of us doubted that this conference would have a successful future. Da proved himself to be an excellent organizer, manager and researcher --- all-in-one. He was so charismatic that despite his young age people considered him as a leader. Of course, he understood very well his responsibility for all those whom he attracted for a joint work or scientific collaboration on various levels. He never promised what he was not able to realize and kept his word if he promised something. We can only imagine how hardly he worked in order to have this reputation.

### The second meeting in 1996

Being motivated by the first successful FLINS I began to look for scientific contacts in Moscow academic spheres in the nuclear research area. We agreed with Da that our proposals will be included into a European project which he was going to submit. However, to create proposals in the area to which I did not belong was a big problem for me. Moreover, in the area of nuclear research people did not have any experience with fuzzy logic. Nevertheless, I agreed with a small group of researches that we would attend the 2nd FLINS workshop and formulate to Da our proposals.

Our trip to the 2<sup>nd</sup> FLINS workshop was more an adventure than a business trip. We did not find a support from Russian ministry and so, we had to finance everything from our pocket. Therefore, we took a tourist bus from Moscow to Brussels and travelled almost three days across Europe. We came to Mol (the conference site) at three o'clock in the morning, and despite this early time Da came to meet us.

I will never forget the warm acceptance which we had during and after the 2<sup>nd</sup> FLINS workshop. We were hosted in the guest house of the SCK CEN research center, visited its laboratories and were introduced to the running scientific programs. I remember our visit to the laboratory where Da worked together with his PhD students. They explained us details of their project and showed us various simulations. We appreciated very much the deep level of knowledge in both areas --- the fuzzy logic and the nuclear engineering, which Da and his students demonstrated to us.

We discussed our proposals which were not as well prepared as it was required by European committee. At that time we did not have enough experience to compete on the European level. Da was the youngest member of our scientific team which also included well recognized Russian specialists in the area of nuclear science. Despite of his age and high scientific level of my Russian colleagues, Da fairly explained that the proposal need to be prepared in more detail so that it is clear to everybody what and how would be achieved. I will never forget this lesson which helped me later in my scientific career.

We agreed that we start with a bilateral scientific cooperation and submit our joint proposals in the form of project to the Russian Ministry of Nuclear Energy. The project was approved on all levels, but finally was not financed due to the difficult economic situation at that time. We lost the great opportunity!

Another event during our stay in Mol happened at that time. Namely, Da and Greet announced their engagement! I still see their happy faces and how nicely they looked together. All of us wished them a happy family life. I have only one photo with them which remembers me that time.



B. Moiseev, Da and Greet in Mol 1996. P. Wang and Irina are at the back.

I attended several other FLINS conferences after those two in Mol. But this time, we participated in them together with my husband Vilém Novák.

#### Vilém's Memories

# Meeting in 2002

I met Da Ruan first in 2002 at, as one immediately can guess, FLINS conference which took place in Ghent. I can only confirm everything what Irina wrote about his enthusiasm and charisma supported by the deep knowledge. We immediately became friends. I also met his wife and his family. It was nice to see happy people together.

At this occasion, we also had an opportunity to experience big influence and esteem which Da had in China. In Ghent, he introduced us to Prof. Xu Yang, well known mathematician from Southwest Jiaotong University in Chengdu. We had several discussions together about the, so called, fuzzy logic with evaluated syntax, to which Prof. Xu contributed independently on us. Under the influence of Da, Prof. Xu invited both Irina and me to Chengdu for one month of research stay. He prepared for us wonderful time full of exciting combination of work (we gave 12 lectures during our stay) and sightseeing in Chengdu and its surroundings. Thanks to Da, we enjoyed this unforgettable experience.

# Meeting in 2007

In 2007, our institute organized 5<sup>th</sup> Conference of the European Society for Fuzzy Logic and Technology (EUSFLAT) in Ostrava. It was a big challenge for us though we had already experiences with organizing 7<sup>th</sup> IFSA World Congress in Prague in 1997. One of important problems to be solved was the choice of invited plenary speakers. Our idea was to combine theoreticians with applied scientists. The theoreticians were decided quickly. But applied scientist was a problem since we wanted somebody with sufficient charisma and experiences to attract the whole audience. But to be frank, we did not need to think long. We quickly realized that the best man who could fulfil our expectations was Da. An indeed, this was very good choice. Da arrived with full optimism and good mood and gave excellent talk followed by rich discussion. We enjoyed his presence and decided that we would invite him again at the earliest opportunity.

#### Meeting in 2009

Such an opportunity appeared two years later. In 2009, we organized a small International Workshop with the title `Soft Computing: Where Theory Meets Applications". The workshop took place in a beautiful place in the mountains Beskydy, about 40 km from Ostrava. We invited only a small group of people whom we knew to be good theoreticians having at the same time also experiences with applications.

An indeed, this workshop turned out to be one of the most pleasant meetings which combined high scientific level with friendly atmosphere. Da was one of the invited speakers and his interesting talk was a strong source of inspiration for all of us. We had several hot discussions and also agreed on a closer cooperation.



D. Ruan, L. Stefanini, I. Perfilieva and V. Novák in Beskydy 2009

Unfortunately, Da left us too early. We will never forget this highly respectable nice man, good scientist, good friend, and loving husband and father.