

INTERVIEW WITH ALEJANDRO ALONSO (VICE PRESIDENT OF HISPAROB)

1. What is your main role in HISPAROB?

HISPAROB is the leading non profit Professional Robotics and Automation Association in Spain, with more than 60 members between companies, research centres and universities.

My main role as Vice President, living in Singapore is to represent the interests of these companies, research centres and universities in Asia, either as exporters or importers of technology, as well as facilitating them for potential collaborations and joint ventures with Asian companies.

2. What potentials do you see in Asia robotics industry?

Asia is where things are really happening nowadays in terms of robotics and automation. Huge manufacturing industries, enormous population, extensive need for automation. The big investors have their eyes on Asia. Loads of very creative companies are building innovative solutions, in an ecosystem where governments are investing great amounts of money to improve and automate operations. Japan announced recently the "Japan's Robot Strategy", to help the country adopt robotics solutions for elderly, disabled people, and production between others. South Korea has also announced recently a plan to invest 426\$ million in the drones industry. Asia as a whole is really taking the lead in the automation and robotics sector.



3. What difficulties did Spanish Robotics companies encounter when they expand their business in Asia?

One of the main difficulties is the cultural difference and language. Although Singapore is a very open country to western relationships, China or Japan may be more difficult for western countries including Spain. The bureaucracy, the lack of people speaking English, and the sort of business relationships, more based on traditions and personal relationships are sometimes difficult to understand for Western countries in general.

Also with China there have been cases of infringement of foreign patents.

In terms of human resources, while western employees tend to delegate responsibility and have flexible lines of authority, Chinese workers are used to a more hierarchical structure with clearly defined roles. These differences may lead to tensions between western managers who prefer employees who take their own initiative, and Chinese staff who have been trained from a young age to always follow instructions from the managers.

4. How would you overcome these difficulties?

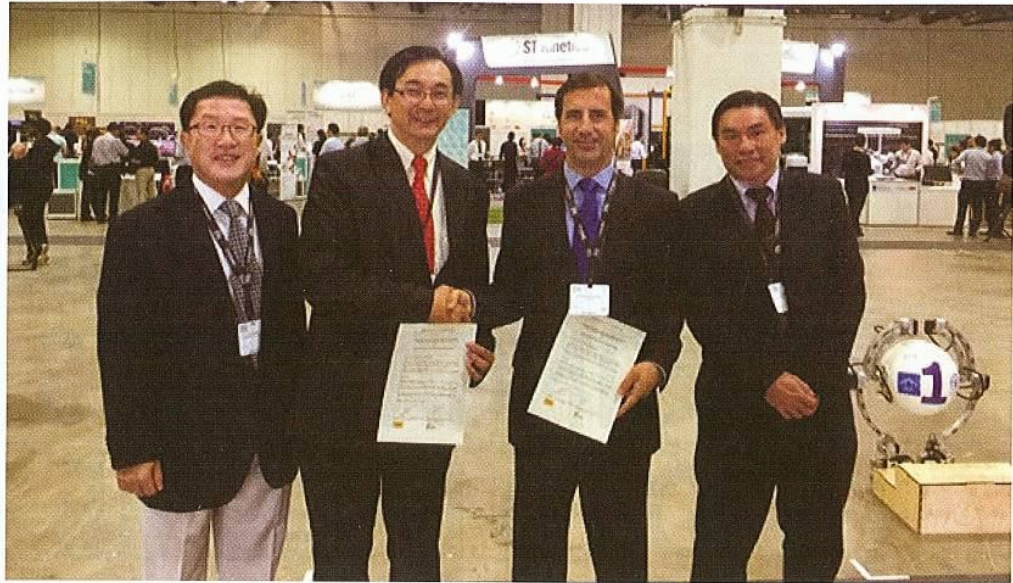
My goal is to help both sides, Spain and Asia, to connect. In order to do this efficiently I need to keep a deep respect and understanding to the local cultures and traditions of each country. Try to find the possible synergies between the companies, research centres and universities and help them as a facilitator, as well as in any additional consulting needs they may require from the technical point of view.

Singapore is a great country to live for this purpose, due to its location, its multicultural and multilingual environment, the extremely low level of corruption (one of the lowest in the entire world), the security and the facility to travel throughout all Asia.

5. What are the benefits entitled to companies who join HISPAROB?

Although HISPAROB only accept Spanish companies and institutions as members, there is no impediment for Asian Companies to have professional relationships with Spanish companies through HISPAROB. On the contrary, this is what we are looking for.

For Spanish companies and institutions, joining HISPAROB helps them to access the services to a synergistic professional network, with facilities to participate in national and international events.



From Left to Right: S.C. Cheong (Treasurer SIAA), Oliver Tian (President SIAA), Alejandro Alonso (VP HISPAROB), Terence Teo (VP SIAA)

6. What are the current plans that you have to expand/build up HISPAROB?

At this moment we are opening relationships not only with Singapore as a gate to Asia, but also with UK through the British Embassy.

Past November I had the pleasure to represent HISPAROB, in the signing ceremony of a Memorandum Of Understanding (MOU) between HISPAROB and SIAA (Singapore Industrial Automation Association). The event took place in the Singapore International Robot Expo (SIRE).

Singapore Industrial Automation Association, SIAA is the leading hub for Automation, IOT and Robotics technologies, solutions & applications in Singapore. It also serves as a business catalyst in the APAC region.

The MOU signing is the starting point for a mutual collaboration focused on finding synergistic relationships between both countries.

7. How do you think robots will impact the economy?

Early 2016 Foxconn, the largest contract electronics manufacturer in the world, said it automated away 60,000 jobs in one

of its factories, as part of an ongoing process to replace humans operations with robots. The massive usage of industrial and collaborative robots and automated systems will increase productivity and quality, replacing human force to some extent. A report, conducted by Deloitte and Oxford University, predict as many as 35% of jobs will be automated over the next two decades. It is not clear at this moment if this mean an increase of unemployment or an increase of employment. IFR (International Federation of Robotics) and CE (European Commission) have analysed the correlation between robotics adoption and unemployment based on the automobile industry sector in USA and found that although 80.000 new robots were installed between 2010 and 2015, 230.000 new jobs were created. The case of Germany is similar, with 13.000 new robots in the same period and 93.000 new employments.

Governments are investing a lot of money in the adoption of robotics and automation in the industry, but an important consideration should be to invest in the training and relocation of the replaced workers as well as on the acceptance, adoption and learning of the people, from the early education stages.

8. How would you predict robotics industry in next five years?

Five years is nothing, at the same time it is a lot of time in terms of technology advances. Five years ago almost we didn't see drones around and now there are really big players like DJI, competing very hard for the market. Companies like 3DRobotics or GoPro are suffering seriously this tough "Drones war". Although drones per se are not robots, I predict they will become smarter and fully automated for several applications, being real decision taking flying robots. In the same way autonomous vehicles as cars, buses or trucks will start being used widely as is happening with Tesla and other. In the industrial field, collaborative robots will be the usual partners of workers in factories.

Also, I foresee a continuous growth of other technologies that will benefit robotics, like cloud computing, big data, smart analytics, IOT, communications as well as smarter and more efficient human-machine interfaces and haptic systems.