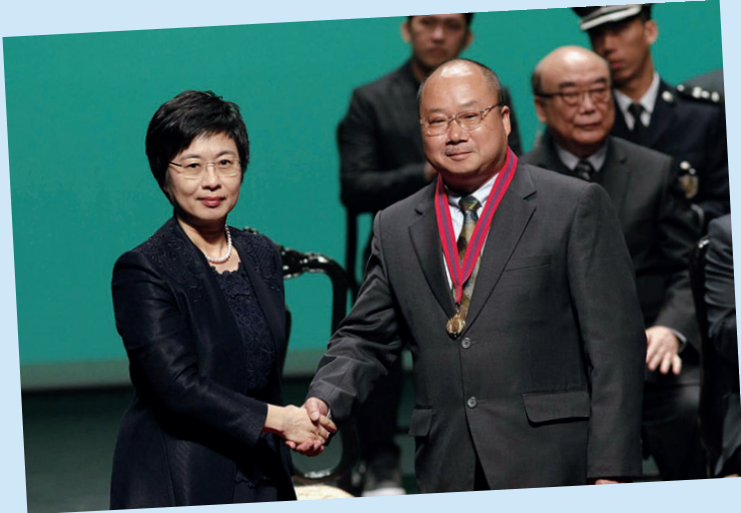


回首我的教育工作

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1995年，慈幼會恢復對國內的教育工作，我校很多修士也被派駐國內，包括當年主持機械工房的譚澤琦修士，當年胡德銜校長將管理機械工房的任務交付了我的手上，這就展開了我這二十多年管理機械工房的生涯。起初面對機械工房眾多機器設備，真是有點手忙腳亂，不同器材就有它操作的技術，每一樣都是一個專業，如何把所有機器都能應付自如？這中間包括了線鋸機、鑽床、車床、銑床、磨床、焊接等等，而且，原有的機器都殘破不堪，又怎樣去解決當時的問題呢？第一個站出來幫助工房解決問題是當年何廣凌校監，不知道何校監求那位恩人，解決了部分機器的更新，使得學生們上課人人都有機器可用。

經過幾年的經營，機器一年一年的引進，到了2002年，機械工房發展也有一定的規模，自己也在工房內摸索到結合各種機器教學的方法，正好當時電腦科老師建議將電腦結合機械發展一些由電腦程式設計控制機械設備的作品，以便在一些展覽中展示我們的特有學科教學成效，其中早期的澳門電腦節和現在的科技活動周都是我們學生展示個人作品的舞臺。

A Retrospect of my Education Work

In the year 1995 Salesians of Don Bosco resumed their education work in mainland China. Many friars in our school were stationed in China, including Friar Tam Chec Kei, who was in charge of the mechanical workshop. Fr. Estanislau Vu Tak-lau, principal of the year, entrusted me with the task of managing the mechanical workshop, thus starting my career of managing the workshop for more than twenty years. Initially, I was at a loss as to how to deal with the numerous mechanical facilities, each demanding a different operation skill, and each being a professional expertise. How could all these machines be handled with ease? These included jigsaws, drilling machines, lathes, milling machines, grinding wheels, welding machines, etc. Besides, the original machines were all broken. How could the problems be solved at that time? The first person who offered help to solve the problems in the workshop was Mr. Ho Kong Leng, school supervisor at the time. It is not known which benefactor he had sought help from. The problem of renovating the machines was partially solved, making them available for every student in class.

After several years of operation, with the yearly introduction of new machines, the mechanical workshop had developed to a certain size by the year 2002. I had also mastered the integrated teaching methods of mechanical engineering. It so happened that the computer teachers suggested combining computer sciences with mechanical engineering for the development of computer-controlled mechanical devices to be used for the display of the teaching effectiveness of our special subjects at some exhibitions. The Macau Computer Festival in the early days and the current Technological Activities Week have all provided platforms for our students to showcase their products.





2004年，也是我工作的轉捩點，當年我毅然結束帶領20年的田徑工作，將機器人引入了我的生命之中，那時的心思是為了令我們學科更多元化，對學生產生更大的學習動力為出發點，我便嘗試在機械科引進了當時剛起步的機器人教學，機器人的開展源于學生的主動參與，當時整個澳門都在探索階段，很多技術我們都不懂，把機器人帶回了工房之中，當時我就想像到遇到的困難，但天下無難事，肯創新嘗試，很多問題就可以解決了。首先是認識了香港機器人之父簡志光老師，在他的啟發及協助下，很多問題例如教材、設備、耗材、組件上的採購，都得到很多解決的辦法，並慢慢開展各項交流活動及比賽。

2007年得到當時周伯輝校長的慷慨幫助，購置了本校甚至是本澳中學第一台鐳射雕刻切割機，學生創作空間得到很大的提升，在各種不同類型製作上不用依靠手作，學生將省下的時間花在思考上，各類型作品得到飛躍的進步，各校眼見本校取得突破性的進步，紛紛登門取經，澳門的中學在科技的發展，更一日千里。我們也在2007年由黃錦榮、黃敬文同學得到第一個埠際賽冠軍，2008年由梁皓泓、郭俊傑、潘國豪同學在全國青少年科技創新大賽奪得二等獎，2011在全國賽曹兆軒、鄭焯昇在機器人自由體操項目取得歷史上第一個全國冠軍，2012年鄭焯昇、梁樂賢、關盛林也在墨西哥城奪得了機器人舞蹈第一個世界冠軍，最後2013年由林志忠、陳天俊在加拿大溫哥華在機器人格鬥擂臺中首次奪魁，至此本校能參與的項目都順利完成奪冠目標，再回首，今生無憾！

The year 2004 was also the turning point of my work. I resolutely ended my twenty years' work as a track and field leader and introduced robots into my life. My intention at that time was to enhance our students' academic motivation through greater diversification of our academic subjects. I thus attempted to introduce robotic teaching, which was then still at its infancy. The development of robots originated from students' active participation. At that time the entire Macau was engaged in the exploration stage. A lot of techniques were unknown to us. The moment I brought the robots into the workshop, I could imagine the difficulties I would encounter. But nothing is impossible. As long as we are ready to make attempts at innovation, many problems can be solved. First of all, we got acquainted with Mr. Kan Chi Kwong, the Father of Hong Kong Robots. Through his help and inspiration, there were solutions to many problems such as teaching materials, facilities, consumables, purchases of components, etc and various exchange activities and competitions were also gradually launched.

With the help of Fr. Joseph Chow Pak Fai, principal at the time, a laser engraving cutting machine was installed. It was the very first of the kind in our school and even in Macau. Students' room for creativity was thus immensely enhanced. Without depending on manual work in various kinds of production, students could spend the time thus saved doing critical thinking. Productivity of various kinds thus improved by leaps and bounds. Seeing the dramatic progress our school had made, other schools came for advice. Macau secondary schools' technological development made progress with giant strides. In 2007 our students, Vong Kam Veng and Vong Keng Kan, won the first inter-town championship. In 2008 Leong Ho Wang, Kwok Chun Kit, Pun Kwok Ho won the Second-Class Award in the National Adolescents Science & Technology Innovation Contest. In 2011 Cho Sio Hin and Chiang Cheuk Seng won the Nation-Wide Championship in the Humanoid Free Gymnastics Competition, for the first time in history. In 2012 Chiang Cheuk Seng, Leong Lok In, Kwan Seng Lam also won the First World Championship in the Humanoid Performance Dance Competition in Mexico City. Finally, in 2013 Lam Chi Chong and Chan Tin Chun won the first prize in the Robot Boxing Competition for the first time in Vancouver, Canada. So far we have succeeded in



回顧教學多年，感覺教學生涯的充實，人生的所有能力都得以發揮出來，學生的才能也能盡情開展，當然這中間經歷嘗盡了甜酸苦辣，有在一起探訪不同機構來提升自己，有為了準備一個比賽而熬夜好幾個晚上，有在比賽場上一起和裁判的據理力爭，有為了失落而痛哭流淚，當然也有因為奪冠而喜上眉梢，這就是人生，是精彩的教學人生，我和我的學生共同經歷的過程。

winning the championship in all the events we have participated in. In retrospect, there are no regrets!

Looking back on my past years of teaching, I find my teaching career very fruitful. All of my abilities have been well exploited in life. My students' potentials have also been fully developed. Of course, there have also been joys and tears. Together we visited different institutes to upgrade ourselves. We also stayed awake for a few nights getting ready for a competition. We argued with the judges at the venue and also cried bitterly at losing a competition. Of course, we felt ecstatic over the winning of a championship. Such is life, a wonderful teaching life, in which I have shared experiences with my students.

