

AlteX Academy takes drones to a whole new level

By: Robert Belardi

If you are driving down Lloydtown-Aurora road and happen to see a sign named 'AlteX Academy,' it might be worth passing by and having a look at some of the high-tech, proverbial drones that are available. Yes, those things. Operations Director at AlteX Academy, Yifei Zhao, claims drones have had mixed emotions over the past decade. There is a new motive to change the glooming perspective of these high-end pieces of technology. And here is why. Back in 2010, Zhao and her business partner Alex Shvartsev ran a business known as NTFG Aerial. They were both known for many things. They were the first to use a co-axial drone in Canada, and assembled quad-copter and completed specialty projects for many companies such as Tesla. It wasn't an expandable type of business. They needed more. Three years later, there was a knock on the door, that would open a new avenue that could turn this business right around. 'In 2013 is when Humber College came to us,' said Zhao. 'They said, 'Look you guys were the go-to, team in town. You were one of the first of three teams to start the drone department in film union here (IATSE Local 667), so we should take your skills and experience and build a couple of courses.' In 2014 it came into fruition and the school, Zhao and Shvartsev, had developed a partnership to offer college students training through continuing education. Initially, between the College and Zhao, the initial reaction was for the program, to be intended for filming. Back then, Zhao and Shvartsev were the first in Ontario to offer Transport Canada compliant Ground School with a certificate course from community college. Police, engineers and real estate agents came in for training. At that point Zhao and Shvartsev knew this was a business. In 2016, AlteX Academy was born. Zhao says, the drone is used for more than just filming. The drone is the vehicle for the camera to film and to market. So, it comes down to, what else can you really use the camera for? 'Actually, there is another function because drones have a GPS system for navigation,' said Zhao. 'When you capture images, you don't just capture the picture, you actually capture a picture with GPS data and your geomatics data as well. 'For surveying land, for engineers, these employees want to know the topography of the land for cost of construction. To do this on the ground is time consuming. The drone, will provide that information effortlessly, taking photos at set intervals and processing the data through a software program. The program is all completed through the cloud with the ability to adjust the data accuracy and send it back to the employer. Two major departments in the police force also use drones for traffic accident reconstruction and search and rescue projects. The police department is able to visually present an accident scene with information such as the speed, position and impact of vehicles and present the data in court for prosecution. In search and rescue missions, a thermal camera was used in discovering a man in Saskatchewan who had been involved in a roll-over accident back in 2013 (<https://www.cbc.ca/news/canada/saskatchewan/aerial-drone-locates-sask-man-injured-in-rollover-crash-1.1398942>). The drone was able to find the man with thermal signatures in the woods. In using high-end pieces of technology for the justice system, Zhao says drones have been recently tested between the Toronto Police force and the University of Toronto for finding missing people. The information and data of the person is inserted in the system and the drone will calculate the probability of where this person could have gone missing. But, the biggest challenge is integrating rural police communities into this system. Forces, such as Toronto's, benefit from funding. Zhao says this is the biggest challenge currently that many rural communities face. Since Transport Canada, at the federal level, has alleviated most of the restrictions on their legislation in the new document from 2019, it has become a lot easier to get into the industry. More than 90 schools are listed on Transport Canada's compliant training list (<https://www.tc.gc.ca/en/services/aviation/drone-safety/get-drone-pilot-certificate/find-drone-flight-school.html>). In Ontario, AlteX offers training with community college partners including Fleming College and Seneca College. Last year, more than 3,000 pilots earned their advanced certificate to fly drones. More than 200 pilots, graduated from AlteX Academy. Last year's focus was more on certification. This year is different. 'Now we're focused on delivering results. Because, really, we focus on business applications for drones. Licensing is just the first step,' explained Zhao. AlteX Academy does not sell drones or any other pieces of equipment. Zhao says it is a conflict of interest as the focus is on the client. 'In this industry, you have to pick a side. You either pick the operators, the pilots or you pick the manufacturers,' she laughed. Zhao went on to add that it is all about education in this industry. Give it another couple more years and you will see a lot more drone applications used in our everyday life.