陽明交大與警政署首創全台開設科技犯罪偵查在職專班　建立警政資安生態體系

文／秘書處公共關係組

　　近年新興科技發展迅速，便利全民生活，也導致科技犯罪猖獗，網路攻擊、金融詐騙、虛擬貨幣洗錢等案件層出不窮，衍生警政人員在資通、金流及情資面的偵查困境。國立陽明交通大學與警政署今年 9 月首創全台開設以科技犯罪偵查實務為主的「科技犯罪偵查資通訊碩士在職專班」，提升警政人員的資安素養，掌握資通訊安全尖端技術。

　　林奇宏校長表示，「科技犯罪偵查資通訊碩士在職專班」將以教育部每年外加 30 名員額提供優秀警務人才在職進修，結合陽明交大在資通訊安全的專業知識與警政署刑事警察局犯罪偵查實務專長，建構系統性的資通訊教育體系，提升警政人員資通訊安全背景知識與技術，防堵未來伴隨高資訊化時代來臨的資安威脅。

　　陳永昇教務長指出，愈便利的科技、愈安全的隱私，愈增加偵查人員在案件偵辦上的難度。例如加密通訊軟體有不同點對點加密機制，無法透過網路通訊監察解密取得通訊內容；網路匿蹤技術門檻及成本大幅降低，警方只能查到跳板 IP 位址，難以溯源追查；近年犯罪集團利用虛擬貨幣及第三方支付洗錢，也增加金流溯源困難。資安警員需要持續對新興科技有所了解，長期透過實際辦案、熟知各種網路犯罪模式來累積經驗，並利用現有科技尋求調查辦案突破點，解決偵查困境。

　　陽明交大在資安領域深耕多年，為國內學界翹楚；8 位資安領域專業教師搭配資訊學院 60 餘位專任師資，研究與產學合作成果傑出，近年更獲科技部支持設立資安特色中心。為掌握資通訊安全的發展趨勢，建立以實務應用為導向的學術研究模式，專班以資訊學院為核心，科技法律學院、醫學院、生物醫學暨工程學院為衛星，建構資通訊安全師資、課程及應用學科知識，規劃程式設計、電腦網路、資料庫系統、機器學習、人工智慧等基礎學科，科技偵查人工智慧、區塊鏈、雲端運算、大數據、教育訓練、金融科技作為核心學科。

　　人才培育方面，專班將針對犯罪偵查人員進行培訓，結合刑事局專家進行實務課程共授，由警政署專家提供科技犯罪刑偵實務專業課程，共同進行研究指導，以培養學員具有應對政府、社會及企業等資安事件所需技能，建構完整的科技犯罪偵查資通訊安全資源平台。

　　「科技犯罪偵查資通訊碩士在職專班」強調科技建警不應侷限於犯罪偵查，要跳脫傳統思維窠臼，接受傳統犯罪衍伸至網路世界的現實，推動「科技」成為警察的通識，並依勤、業務區分類別與等級，將科技偵查向下扎根。陽明交大作為台灣資通訊安全領域的先驅，研究成果與知識持續與產官研界共享，建立我國良好的資安環境，期透過專班與實務偵查上所遭遇之困境與時俱進，進行研究並尋找解決方案，滿足國內對資通訊安全專才的高度需求。

A New Degree Program Established by NYCU and National Police Agency to Cultivate Future Police Officer Talents in Technology

The rapid development of technologies in recent years has brought more convenience to modern life. However, it also led to technology crimes, such as cyberattacks, financial fraud, cryptocurrency crimes. Thus, it causes troubles for police officers in detecting information communication, financial flows, and information security. National Yang Ming Chiao Tung University and National Police Agency worked together to establish the Degree Program of Information and Communication for Technology Crime Investigation in September this year. The purpose is to enhance the information security literacy of police officers and to master the advanced technology of information and communication security.

President Chi-Hung Lin indicated that the Degree Program of Information and Communication for Technology Crime Investigation, founded by the Ministry of Education, will provide 30 additional outstanding police officers for on-the-job training. These courses integrate the information and communication security expertise offered by Yang Ming Chiao Tung University with the crime investigation practice expertise shared by police officers from Criminal Investigation Police Office to build a systematic education system. Police officers can enhance the knowledge of information and communication security to prevent future information security threats that come along with the convenience of new technology.

Dr. Yong-Sheng Chen, the dean of academic affairs, pointed out that the more convenient technology and the more secure privacy there are, the more challenging to detect cases for investigators. For example, encrypted communication software has a different point-to-point encryption mechanism, which cannot be monitored to obtain the contents of the communication. Besides, nowadays the technology threshold for network anonymity and the cost are lower. Therefore, during the investigation quite often, only springboard IP addresses could be found, which means it could make tracing sources difficult online. Furthermore, criminal groups in recent years have been using third-party payment for money laundering. Thus, it also increases the difficulty to trace cash flow. Police officers specialized in Information security need to understand the ongoing emerging technologies through accumulating experiences through different cases with various cybercrime patterns, and using existing technologies to find breakthrough points on investigation.

National Yang Ming Chiao Tung University has been working in the field of information security for many years. With 8 faculty members specializing in information security and other more than 60 full-time faculty members in the College of Computer Science, the university has achieved outstanding results in research and industry-academia cooperation. In addition, a Information Security Center was established in recent years with the support of the National Science and Technology Council. In order to grasp the development trend of information and communication security and to establish an application-orientated academic research model, this master program takes place at the college of Computer Science as the core department, and other qualified professors also offer courses for this program, including NYCU School of Law, Medical School, College of Biomedical Science and Engineering. Students can take courses such as programming, computer networks, database systems, machine learning, artificial intelligence, artificial intelligence detection, blockchain, cloud computing, big data, education and training, and financial technology at this master's program.

In terms of cultivating talents, the program focuses on training crime investigators in which the teachers are the criminal affairs Bureau experts for practical purposes. The purpose is to train students with skills required to deal with security incidents for government, industries, and our society. Eventually, we hope to build a complete technology crime security resources platform with these talents. The Degree Program of Information and Communication for Technology Crime Investigation emphasizes that technology should not be limited to crime investigation, but to accept the fact that crime has been extended to the cyber world in reality. Therefore, promoting general knowledge of technology has become the trend for police officers with different duties. National Yang Ming Chiao Tung University, taking the lead in information security, continues to share research and knowledge with the industry, government, and communities to build a good information security environment in Taiwan. Through attending this program and investigating issues in real investigation, we aim to find more solutions through more research to meet with the high demand for information and communication security professionals in Taiwan.