Feng Chia University instals smart classroom

Feng Chia University has installed a smart classroom, complete with a wireless radio frequency identification (RFID) system. Each student has a special ID card that registers them automatically on the teacher's computer **podium** as they enter the classroom. This means that the teacher no longer has to call their names one by one at the beginning of the class, saving time. The university also has other applications in mind for the system, such as automatically turning off the electricity when the classroom is empty, conserving electricity.

Feng Chia University has come up with a smart classroom as part of the Ministry of Economic Affairs' Industrial Technology Development Program. The classroom has been fitted with a wireless radio frequency identification (RFID) system. Each student has a special ID card, and when they enter the classroom a sensor will read the card and send information to the teacher's computer podium. The podium will display the students' names and pictures on the screen. This digital method of taking the register will replace the traditional way of calling out individual students' names, and will save the teacher's time.

As the university has a lot of large classrooms, and student numbers in some classes can be very high, it is sometimes difficult for the teacher to keep tabs on attendance. Calling out individual names is therefore very time-consuming. It was decided to pick one of the large classrooms for the initial trial, and the system has been fitted in one of these at a cost of around NT$100,000. They will decide whether or not to expand the **scope** of the system depending on how the trial turns out.

The smart classroom has already been put in use. The classroom itself holds over 100 students, but it took less than five minutes for all the students to enter the classroom and register their attendance. The students were able to register as soon as they went in, and thought it was actually pretty cool.

Above: Feng Chia University students hold up their special ID cards, used in the smart classroom attendance registering system, last week.
Below: A student places his special ID card on the sensor of the new smart classroom system on trial in Feng Chia University, Taichung City last week. The computer uses the information to record class attendance, and means the teacher no longer needs to waste class time calling out the register.

PHOTOS: SU MENG-JUAN, LIBERTY TIMES

上圖：上週在逢甲大學智慧教室內，學生人手一張感應標籤名牌。
下圖：台中市逢甲大學試辦智慧教室，上週一名學生把感應標籤名牌放在新系統的讀取器上。電腦會自動登錄出席，教師不需要再浪費課堂時間點名。

照片：自由時報記者蘇孟娟攝

Feng Chia University has also coupled the system with energy conservation. If a class is scheduled, the teacher can turn on the electricity in the classroom just by placing the card on the sensor. The system's automatic detectors will also monitor the room temperature, and will turn on the air conditioning as needed. If there is no scheduled class, the system will automatically turn off the electricity in the room.

The university pointed out that the reason for this was that in the past some students got together in the room even when there was no class on, sometimes just for a chat, and they would have all the lights blazing. The problem was that they would often forget to switch the lights off when they left, wasting electricity. It is hoped that the system will aid energy conservation and the reduction of carbon **emissions**. The university reckons it will be able to reduce its monthly electricity bill by more than NT$4600 per classroom.

They also said that the system did have manual override built in, so it could be adjusted depending on the situation.

(LIBERTY TIMES, TRANSLATED BY PAUL COOPER)

逢甲智慧教室　自動感應點名

逢甲大學設立智慧型教室，教室內建置無線射頻智慧辨識系統，學生每人有一張感應標籤，進入教室時就可以感應登錄在教師電子講桌上的點名系統，自動點名，老師不必再逐一唱名，省下點名時間；校方另引進教室管理系統，未來空堂時段，教室就能自動斷電，節約用電。

逢甲大學配合經濟部「推動產業科技推展計畫」建置智慧教室，在教室內建置無線射頻智慧辨識系統，學生每個人均有一個感應標籤名牌，持名牌進入教室，經過讀取器就能感應，資料就會傳送到教師上課用的電子講桌，學生的名字及影像均會即時顯示，這套電子點名系統能快速取代傳統點名，節省教師上課時間。

校方指出，由於學校有不少大型教室，學生上課人數較多，有時老師不易掌控學生出勤狀況，若要點名也十分耗時，因此選大教室先試辦，目前在一間大型教室建置相關設備，約十萬元，未來將視試辦情況，再決定擴大範圍。

智慧教室日前啟用，大型教室可容納一百多人，學生上課進教室到完成點名花不到五分鐘，幾乎是一進教室就能登錄相關動態，讓學生直呼好酷。

此外，逢甲大學再把系統與節能功效結合，課表有課時，教師利用標籤感應就能啟動教室電力，系統中的自動偵測器會偵測室內溫度，達到開冷氣的條件時就能啟動冷氣，另課表中沒課時段，教室內的電力就會斷電。

校方指出，這是由於以往教室常在空堂時段有學生會聚集在教室內活動，有時甚至只是聊天，卻燈火通明，但學生離開時未必記得隨手關燈，形成電力的浪費，這項設計希望能達到節能減碳效果，預計未來一間教室每個月可節省四千六百餘元的電費。

校方指出，系統還是有手動功能，可以隨時應變實際現場所需。

（自由時報記者蘇孟娟）