



國立中山大學資訊工程學系

(07)5252-000 轉 4301, 4302, 4303

804 高雄市鼓山區蓮海路 70 號

每週演講心得分享 07

Weekly Seminar Memoir 07



邱煜程 副處長

Chency Chiu
Deputy Director

108 年 04 月 19 日(星期五)14:10~15:40

Apr. 19, 2019 (Fri.) 14:10~15:40

電資大樓 EC1009 室

EC 1009, Building of EE & CS



發布日期：108 年 04 月 24 日

演講資訊

講題 TOPIC

成為數位轉型推動者

To be a Digital Transformation Enabler

主講人 SPEAKER

邱煜程 副處長/日月光半導體製造股份有限公司

Chency Chiu, Deputy Director / ASE GROUP

摘要 ABSTRACT

介紹日月光資訊中心發展策略及運用技術，如何利用 AI+ Big Data+ Cloud 建立智慧工廠及數位企業並開發智能新技術。以製造業角度，分析數位轉型的關鍵，藉此發展 AIoT 及工業 4.0，完善工廠智能化、管理數位化，藉此激勵資工系學生成為數位轉型促進者。

Introduce the development strategy and application technology of ASE Information Center, how to use AI + Big Data + Cloud to build Smart factories, digital enterprises and develop new intelligent technologies. From the perspective of manufacturing, analyze the key to digital transformation to develop AIOT and Industry 4.0, and to improve factory intelligence and management digitalization, To motivate the IM students become digital transformation promoters.



心得分享

陳 陞

碩士班二年級，創新智慧資訊系統實驗室



這次專題演講由日月光半導體邱煜程副處長介紹目前臺灣半導體產業發展，以及自動化過程相關技術。講者一開始先介紹本身學歷及經歷，從工業工程學系到建築系，再到現今於日月光半導體工作，講述過程中，能夠很清楚講者是一位實踐力很強，也是一個勇於挑戰的人，他透過不斷挑戰還有努力才能達到現在的成就。接下來講者介紹日月光半導體的企業理念，以及如何透過目前現有技術，包括人工智慧、量子電腦...等等達成數位轉型，數位轉型是目前每個企業都面臨到的困難，但也可以說是轉機，技術創新改進或者流程上的改變，對一個企業組織來說是影響很重大的一件事。講者認為文化相當重要，如果要擁有一個轉型文化，每位企業家都要必需要改變、創新，之後才能夠從每個流程中找出自動化的關鍵。

講者認為目前推動人工智慧轉型，遇到的第一個企業問題就是缺乏人工智慧相關人才，因為實務上還有

許多技術鴻溝需要彌補，因此，日月光半導體辦了很多教育訓練，希望改善這些問題。

經過今天的聽講，我對於半導體業有了更多認識，也知道了數位轉型各個面向所需要的技術以及文化，更讓我了解一個成功的企業是有許多壓力及背負著企業責任，成功絕不是一蹴可及，更不是偶然，而是以兢兢業業的精神去追求卓越。





梁鼎忠

碩士班一年級，創新智慧資訊系統實驗室

It is now an informational century. Everything from manufacturing, transportation, to service industry, all of these are changing from traditional way to informational and digital way. These new ways increase the productivity, quality, and quantity of the product, which supports the improvement of our society. We need to study from the past and create the future. Abraham Lincoln said, 'The best way to predict the future is to create it.' In Taiwan, although people want digital transformation to be successful, there are some challenges making it difficult to succeed. Cybersecurity is one of the main problems. Also, a lack of new ideas, planning and leading skills, the lack of support from the government, an unstable economic environment, as well as no suitable skilled partners are all part of

the problem.

Nowadays, due to the great improvement of the hardware, software is easier to setup. Artificial Intelligence, Big Data, and Cloud Computing are good examples of software solutions enjoying the great improvement of hardware.

First is Artificial Intelligence, namely AI, describes machines that have the abilities of 'learning' and 'problem solving'. A typical AI analyses its environment and takes actions that maximize its chance of success. Many AI algorithms are capable of learning from data, and can enhance themselves by learning new data. The overall research goal of artificial intelligence is to create a technology that allows computers and machines to function in an intelligent manner. The general problem of simulating (or creating) intelli-

gence has been broken down into sub-problems, such as reasoning, problem solving, knowledge representation, planning, learning, natural language processing, and perception, etc.

Second, Big Data is a field that studies the ways to analyze, systematically extract information from, or otherwise deal with data sets that are too large or complex to be dealt with by traditional data-processing application software. It usually includes data sets with sizes beyond the ability of commonly used software tools to capture, curate, manage, and process data within a reasonable time frame. Big data is where parallel computing tools are needed to handle data. This represents a distinct and clearly defined change from the traditional data-processing computer science used, however the new parallel programming theories losses some of the guarantees and capabilities of traditional methods.

Third, Cloud Computing is the on-demand availability of computer system resources, especially data storage and computing power, without direct active management



by the user. It relies on the sharing of resources to achieve coherence and economy of scale. The goal of cloud computing is to allow users to benefit from the technologies, without the need for deep knowledge or expertise of the underlying technologies. Cloud computing aims to cut costs, and helps the users focus on their core business instead of being impeded by IT obstacles. This helps a lot when developing a new technology as there is less difficult knowledge need.

Finally, importing these three technologies, Artificial Intelligence, Big Data and Cloud Computing may lead to the success of digital transformation.

單位：國立中山大學資訊工程學系
聯絡人：吳秀珍行政助理・分機 4301
黃莉萍行政助理・分機 4303
總機：(07)5252000