

# Electronic Engineering student earns prestigious engineering scholarship

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An electronic engineering student from City University of Hong Kong (CityU) has been awarded a prestigious scholarship by the IEEE Microwave Theory and Techniques Society (MTT-S) in the United States. He is among just 10 students worldwide, and the only one from Hong Kong, to receive the honour this year.

Joe Wu Weijiu, a Year 3 student, won the Undergraduate/Pre-Graduate scholarship for his project entitled "2.45GHz Power Amplifier using Doherty Architecture for High Efficiency and Linearity".

Joe said his research would have implications for Bluetooth front end technology and the broader wireless communications sector. By improving the signalling efficiency of hand-held devices such as mobile phones, Joe's award-winning design could markedly improve the duration a rechargeable battery remains operational.

Joe paid homage to his mentors at CityU, including Professor Chan Chi-hou, Chair Professor of Electronic Engineering (EE) and Dean of CityU's Faculty of Science and Engineering.

"Professor Chan's technical and theoretical prowess amazes me. He is such a well rounded supervisor, who is always available whenever necessary. Without his guidance, this project would not have been possible," said Joe. "I would also like to thank the University for three years rigorous training that has taken me from technical naivety to this level of proficiency. I feel indebted to the University for giving me this opportunity," said Joe.



The former Shanghai undergraduate student was granted a scholarship to study in Hong Kong for three years. "I selected CityU because its EE department is particularly famous in the Asia Pacific Region," explained Joe.

Irrespective of the support he has benefited from the University, Joe's efforts in achieving this recognition are based on hard work and a refusal to bow to obstacles in his path.

"Nobody in the research group had prior research experience in Doherty Architecture, so I had to fumble my way through with perseverance and hard work," said Joe.

The Doherty amplifier architecture has, in less than five years, become the amplifier of choice for new wireless transmitters, after essentially laying dormant since first being described by W. H. Doherty in 1936.

"Joe is a diligent student who can conduct independent research and this is a well-deserved award for him. This is the third time our students have received a scholarship award from the IEEE MTT Society, and we are very proud of their achievements," said Professor Chan.

The IEEE MTT-S is a transnational society that promotes the advancement of microwave theory and its application.



## 電子工程學生獲頒著名工程獎學金

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香港城市大學（城大）電子工程學系學生獲電機暨電子工程師學會（IEEE）轄下微波理論與技術學會頒發獎學金，全球僅10名學生獲此殊榮，而他是全港唯一獲獎者。

吳為久是三年級學生，憑藉研究項目「2.45GHz使用道赫迪（Doherty）地台放大器達致高效率及線性」贏得本科生獎學金。他指出該研究對藍芽前端科技及廣泛無線通訊界均有啟迪作用。吳為久的研究能減低手提電話等手提設備在傳輸及接收訊號時所消耗的電能，因此能大幅延長充電電池的運作時間。

吳為久非常感激項目導師的栽培，包括城大電子工程學系講座教授兼科學及工程學院院長陳志豪教授。

「陳教授非凡的技術水平及理論知識使我深感佩服。他面面皆通，每當我需要指導時，他總能提供寶貴意見。沒有他的悉心指導，這個項目不會成功，」吳為久說。

「我亦要多謝城大過去三年的嚴格培訓，使我在技術上由最初像一張白紙，到現在學有所成。我實在很感激大學給我這個難能可貴的機會。」

吳為久原於上海就讀，因取得獎學金來港攻讀學士課程。他解釋說：「我選擇報讀城大，是因為城大的電子工程學系在亞太區享負盛名。」

吳為久在城大得到的支持固然使他獲益良多，然而他堅持及不怕困難的性格，亦是他成功的關鍵。

他說：「研究小組裏並沒有人進行過道赫迪地台方面的研究，因此我必須努力不懈，慢慢摸索。」

道赫迪放大器地台於1936年首次出現在W. H. Doherty的論文，此後一直沒有學者再鑽研。唯在最近不足五年內，卻成為新一代無線傳輸器選定的放大器。

陳教授表示：「吳為久為人勤奮，能獨自進行研究，這次獲獎實至名歸。這是第三次有城大學生獲此殊榮，實在令我們引以自豪。」

電機暨電子工程師學會微波理論與技術學會是一跨國專業學會，致力推廣微波理論及應用。

### Media coverage 媒體報導：

#### Newspapers 報章

- 14-2-2008 *Sing Tao Daily* 《星島日報》
- 16-2-2008 *South China Morning Post* 《南華早報》
- 2-4-2008 *Ta Kung Pao* 《大公報》

#### Website 網頁

- 13-2-2008 *CityU NewsCentre* 《城大新聞網》