

課程：智慧城市 (Smart Cities)

教師：鄭泰昇 教授

助教：潘晨安博士 | 陳奕潔

時間：星期五 9:10am-12:00pm

地點：建築系耐震擴建大樓 1F- 5118 教室

Smart Cities 授課內容進度表

週次	日期	授課內容	作業練習	參考文獻
1	9/22	Smart Cities 基本概念介紹	What is "Smart City" ?	
2	9/29	講題：未來智慧社區設計實例 講員：台北國際聯合事務所 張國章建築師 作業發題 Assignment (I): Smart Community	Smart Community Design	
3	10/6	講題：從智慧經濟到智慧城市 講員：技聯組工程顧問公司 邵棟綱建築師	Smart Economy Smart Cities	
4	10/13	議題(IV)：物聯網 智慧城市 講員：BenQ 明基逐鹿 曾文興副總	Internet of Things (IoT)	
5	10/20	Building Smart Cities : Analytics, ICT, and Design Thinking		
6	10/27	講題：邁向商業 4.0 智慧校園與共享經濟社區 講員：台北商業大學資管系 葉明貴主任	Sharing Economy Smart Health Smart Shops	
7	11/3	講題：智慧節能與水資源管理系統 講員：雲林科技大學 萬騰州總務長	Smart Campus Green Technology	
8	11/10	Assignment (I) Presentation 期中簡報 作業發題 Assignment (II): Smart Cities 應用研究個人提案 Proposals		
9	11/17	講題：智慧大學城 講員：潘晨安博士		
10	11/25(六)	建築所(課程碼 N782700)「未來城市」微學分課程・授課教師：		地點： C-Hub
11	12/2(六)	建築系鄭泰昇教授，建築系林子平教授，都計系黃偉茹助理教授，科藝學程林軒丞助理教授		
12	12/9(六)	資工系陳培殷教授，資工系藍崑展副教授，電機系解異評助理教授 交管系魏健宏教授，土木系賴啟銘教授		
		Assignment (II) : Future Cities Workshop 成果簡報		
13	12/15	提案討論 I		
14	12/22	提案討論 II		
15	12/29	提案討論 III		
16	1/5	提案討論 IV		
17	1/12	提案討論 V : Final Project Presentation (期末作業草案簡報)		
18	1/17(六)	14:00-17:00pm Future Cities Workshop 教學成果發表		

參考文獻 Reference :

【Textbooks】

- EY Advisory & Consulting Co. Ltd (文系でもわかる 人工知能ビジネス), 2020 我們這樣生活、那樣工作・大是文化・2017.
- Townsend, A. M., *Smart Cities: Big Data, Civic Hackers, and the Quest for a New Utopia*, W. W. Norton & Company, 2014. (中文版：城市的未來・應該要是什麼樣子?)
- 中衛發展中心・智城慧市大未來：全球趨勢、智慧應用、案例解讀・完全啟動下世代產業新商機！・中衛出版社・2017.

【Reference】

- Stimmel, C. L., *Building Smart Cities: Analytics, ICT, and Design Thinking*, CRC Press, 2016.
- Ratti, C. and M. Claudel, *The City of Tomorrow: Sensors, Networks, Hackers, and The Future of Urban Life*, Yale University Press, 2016.
- Monchaux, N. D., *Local Code: 3659 Proposals about Data, Design & The Nature of Cities*, Princeton Architectural Press, 2016.
- Ratti, C. and M. Claudel, *Open Source Architecture*, Thames & Hudson, 2015.
- Offenhuber, D. and C. Ratti, *Decoding the City: Urbanism in the Age of Big Data*, Birkhauser Verlag AG, 2014.
- Goldstein, B., *Beyond Transparency: Open Data and the Future of Civic Innovation*, Code for America Press, 2013.
- Goldsmith, S. and S. Crawford, *The Responsive City: Engaging Communities Through Data-Smart Governance*, Jossey-Bass, 2014.
- Cheshire, D., *Building Revolutions: Applying The Circular Economy to the Built Environment*, RIBA Publishing, 2016.
- Klein, G. and D. Vega-Barachowitz, *Start-Up City: : Inspiring Private and Public Entrepreneurship, Getting Projects Done, and Having Fun*, Island Press, 2016.
- Agtmael, A. V. and F. Bakker, *The Smartest Places on Earth: Why Rustbelts Are the Emerging Hotspots of Global Innovation*, PublicAffairs, 2016 (中文版：世界上最聰明的地方：從鏽帶到智帶・看智力共享如何引領全球鏽帶城市聰明轉型)
- Kelly, K., *The Inevitable: Understanding the 12 Technological Forces that Will Shape Our Future*, Viking, 2016.
- Case, S., *The Third Wave: An Entrepreneur's Vision of the Future*, Simon & Schuster, 2016. (中文版：第三波數位革命)
- Rifkin, J., *The Zero Marginal Cost Society: The Internet of Things, the Collaborative Commons, and the Eclipse of Capitalism*, St. Martin's Griffin,

2015.

(中文版：物聯網革命物聯網革命)

- Mayer-Schonberger, V. and K. Cukier, ***Big Data: A Revolution That Will Transform How We Live, Work, and Think***, Eamon Dolan/Mariner Books, 2014.
(中文版：大數據)
- Picon, A., ***Smart Cities: A Spatialised Intelligence, Architectural Design***, Wiley, 2016.
- Khatoun, R. and S. Zeadally, “Smart Cities: Concepts, Architecture, Research Opportunities”, ***Communications of the ACM***, Vol. 59 No. 8, Pages 46-57
Mone, G., “The New Smart Cities”, ***Communications of the ACM***, 2015, Vol. 58 No. 7, Pages 20-21.