Subject Code	MM5453
Subject Title	Transformation to Sustainable Smart Cities
Credit Value	3
Level	5
Pre-requisite/ Co-requisite/ Exclusion	Nil
Objectives	The world's population will reach over 10 billion by 2050, out of which approximately 80% will be residing in cities by then. So definitely, the successful and sustainable Smart City is to make people happier, healthier, smarter and more prosperous. The Government and other organizations have to integrate Environmental, Social, and Governance (ESG) by using Big Data Analytics into their business culture, practice, and model as imperative and successful factors that will yield better organization performance. This subject covers topics from different perspectives, including (1) strategy, goals, plan and trend in Smart Cities, (2) innovation and emerging technologies, (3) digital to smart transformation, (4) smart city products, solutions and services, (5) Environmental, Social, and Governance (ESG), (6) relationships and success Factors in sustainable Smart Cities. This subject contributes to the achievement of the MSc BA Programme Outcome 2 (Demonstrate the ability to think critically and creatively within the domain of business analytics and be proficient in analytics tools, such as data mining techniques as provided in SAS and IBM SPSS modeler).
Intended Learning Outcomes	Upon completion of the subject, students will be able to: a) develop holistic knowledge and skill of the sustainable smart cities applied for organization performance measures b) appreciate emerging technologies and business innovation for corporate innovation and transformation c) identify the critical issues on ESG and develop a practical project proposal for helping and towards improving smartness and sustainability d) apply research findings and use cases to achieve and articulate the relationships and success factors in sustainable Smart Cities e) develop effective communication and improve presentation skill on group project
Subject Synopsis/ Indicative Syllabus	1. Sustainable Smart Cities 2. Emerging Technologies 3. Innovation and Transformation 4. Smart city projects - products, solutions and services 5. Environmental, Social, and Governance 6. Research and development
Teaching/Learning Methodology	This course provides both theoretical and practical learning outcomes and requires a certain level of commitment regarding attention, time, and effort. The lecture will introduce the updates, trends, techniques, conceptual models, and a list of relevant readings covering important and relevant issues. Use case sharing will be by guest speakers in their area of expertise.

	Studies and readings form the basis of class discussions in which the applicability of various techniques, models and methodologies will be discussed. In addition, some sessions will be devoted to more in-depth studies of specific problems by small groups, which will aim for collaborative learning and sharing through the class discussion, individual sharing and group presentation.

Assessment Methods in Alignment with Intended Learning Outcomes

Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)				
		a	b	c	d	e
Continuous Assessment*	**100%**					
1. Class participation	20%	✓	✓	✓	✓	
2. Individual essay[#]	30%	✓	✓	✓	✓	
3. Group project	35%	✓	✓	✓	✓	✓
4. Group presentation	15%					✓
Total	100 %					

**Weighting of assessment methods/tasks in continuous assessment may be different, subject to each subject lecturer.*

[#] *Different essays may address different outcomes.*

To pass this subject, students are required to obtain Grade D or above in the overall subject grade.

Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:

Class work and the group project will require students to apply innovation and emerging technologies in management to handle transformation issue which arise in actual organization performance, which involves ESG of the outcomes. The individual essay will also assess ESG outcomes. The presentation will assess their ability to communicate effectively. Feedback is given to students immediately following the presentations and all students are invited to join this discussion.

Student Study Effort Expected		
	Class contact:	
	▪ Lectures	39 Hrs.
	Other student study effort:	
	▪ Preparation for Lectures	26 Hrs.
	▪ Preparation for assignment / group project and presentation / examination	55 Hrs.
	Total student study effort	120 Hrs.

Reading List and References	**Textbook** Ibrahim, M. (2020). *Smart Sustainable Cities: Transformation towards Future Cities*. Mobi. **Reference Journals and Consulting Papers** Armentano, R. (2018). The Internet of Things: Foundation for smart cities, eHealth and ubiquitous computing. Boca Raton, FL: CRC Press, Taylor & Francis Group. CAIA Association. (2021). "Systemic Impact and ESG Investing in Smart Cities". Retrieved from https://caia.org/blog/2021/02/02/systemic-impact-and-esg-investing-in-smart-cities Henisz, W., Koller, T. & Nuttall, R. (2019). "Five Ways that ESG Creates Value." The McKinsey Quarterly. Hong Kong Exchanges and Cleaning Limited. (2019). "Corporate Social Responsibility". Retrieved from https://www.hkexgroup.com/Corporate-Social-Responsibility?sclang=en. Karim Suhag, A., Solangi, S. R., Larik, R. S. A., Lakh, M. K. & Tagar, A. H. (2017). "The Relationship of Innovation with Organizational Performance." International Journal of Research-Granthaalayah 5(2): 292-306. KPMG China, "Integrating ESG into your business", January 2020. https://home.kpmg/cn/en/home/insights/2020/01/integrating-esg-into-your-business.html KPMG China, "Future Hong Kong 2030 - Public and private sector insights for smart city development", 2020. https://home.kpmg/cn/en/home/insights/2020/04/future-hong-kong-2030.html Pettit, C., Bakelmun, A., Lieske, S. N., Glackin, S., Thomson, G., Shearer, H., & Newman, P. (2018). Planning support systems for smart cities. City, culture and society, 12, 13-24. South China Morning Post (2017). Corporate Social Responsibility Highly Valued by Hong Kong Listed Companies. Hong Kong. Tavanti, M. (2015). Global Sustainability Reporting Initiatives: Integrated Pathways for Economic, Environmental, Social, and Governance Organizational Performance. Corporate Social Performance: Paradoxes, Pitfalls Pathways to the Better World. A. Stachowicz-Stanusch. USA, Information Age Publishing 301-323.

	Tsujimoto, M., Kajikawa, Y., Tomita, J. & Matsumoto, Y. (2018). "A Review of the Ecosystem Concept - Towards Coherent Ecosystem Design." Technological Forecasting & Social Change 136: 49-58. **Other Reference Journals** Sustainable Cities and Society Frontiers in Sustainable Cities Sustainable development of smart cities: A systematic review of the literature