



UNIVERSITAS MATARAM
(University of Mataram)
FAKULTAS TEKNIK
(Faculty of Engineering)
PROGRAM STUDI TEKNIK INFORMATIKA
(Department of Informatics Engineering)

MODULE HANDBOOK DESCRIPTION

Smart City System (P22C14)

Module designation	Smart City System
Semester(s) in which the module is taught	<i>7 / fourth year</i>
Person responsible for the module	<i>I Wayan Agus Arimbawa, ST., M.Eng.</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Electives</i>
Teaching methods	<i>Lectures, Discussions, Project</i>
Workload (incl. contact hours, self-study hours)	Contact Hours every week, each week of the 16 weeks/semester including Evaluation ● 2 x 50 minutes lecturer/week ● 120 minutes class exercise/week ● Self Study hours = 120 minutes/week ● Midterm Exam = 60 minutes ● Final Exam = 60 minutes Total workload 81,33 hours/semester
Credit points	<i>2 (~ 3,25 ECTS)</i>

Required and recommended prerequisites for joining the module	-
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Module objectives/intended learning outcomes	In this course students can learn the principles of smart cities from various parts of the world. Students will be able to draw knowledge and formulate a solution to certain problems in a certain city based on sustainable concepts
Content	1. Smart City Fundamentals 2. Smart City Solutions and Technologies 3. Smart City Cases and Practices 4. Smart City Planning 5. Smart City Financing 6. Smart City Implementation 7. Green: Smart Solutions for Greening Cities 8. Smart: What Makes a City and its Citizens 'Smart'? 9. Development: Global Smart City Projects for Development 10. Vision: Future of Smart Cities
Examination forms	<i>Quiz, Project (Oral Presentation)</i>
Study and examination requirements	<i>Quiz 30%, Project 70%</i>
SDG Issues	8. <i>Decent Work and Economic Growth</i> 9. <i>Industry, Innovation and Infrastructure</i> 11. <i>Sustainable Cities and Communities</i> This course provides knowledge to design and develop a smart city plan and implement it as well as evaluating the impact to the community progression and economic growth.
Reading list	1. World Economic Forum. 2018. Agile Cities Preparing for the Fourth Industrial Revolution. Global Future Council on Cities and Urbanization. 2. ITU. 2013. Smart Cities Seoul: a case study. ITU-T Technology Watch Report.

	3. Gov Lab. 2015. Smart Cities How rapid advances in technology are reshaping our economy and society. Deloitte The Netherlands. 4. Mckinsey Global Institute. 2018. Smart Cities: Digital Solutions for A More Livable Future. McKinsey & Company. 5. Julia Egenolf. 2016. Cologne's smart mobility approach in the Horizon 2020 Growsmarter Lighthouse project. Grow Smarter, City of Rotterdam, the Netherland. 6. Branislav Iglár, et. al. 2015. Deliverable 3.2 New business opportunities. CitiKeys. 7. Dr. Hermann Hauser. The Current and Future Role of Technology and Innovation Centres in the UK. Secretary of State Department for Business Innovation & Skills.
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