



**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	7 / <i>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 <ul style="list-style-type: none"> <li>● 2 x 50 minutes lecturer/week</li> <li>● 2 x 60 minutes class exercise/week</li> <li>● Self Study hours = 120 minutes/week</li> </ul> Total workload 340 minutes/week
Credit points	2 (~ 3,2 <i>ECTS</i> )
Required and recommended prerequisites for joining the module	-

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	<ol style="list-style-type: none"> <li>1. Smart City Fundamentals</li> <li>2. Smart City Solutions and Technologies</li> <li>3. Smart City Cases and Practices</li> <li>4. Smart City Planning</li> <li>5. Smart City Financing</li> <li>6. Smart City Implementation</li> <li>7. Green: Smart Solutions for Greening Cities</li> <li>8. Smart: What Makes a City and its Citizens 'Smart'?</li> <li>9. Development: Global Smart City Projects for Development</li> <li>10. Vision: Future of Smart Cities</li> </ol>
Examination forms	<i>Quiz, Project (Oral Presentation)</i>
Study and examination requirements	<i>Quiz 30%, Project 70%</i>

Reading list	<ol style="list-style-type: none"><li>1. World Economic Forum. 2018. Agile Cities Preparing for the Fourth Industrial Revolution. Global Future Council on Cities and Urbanization.</li><li>2. ITU. 2013. Smart Cities Seoul: a case study. ITU-T Technology Watch Report.</li><li>3. Gov Lab. 2015. Smart Cities How rapid advances in technology are reshaping our economy and society. Deloitte The Netherlands.</li><li>4. Mckinsey Global Institute. 2018. Smart Cities: Digital Solutions for A More Livable Future. McKinsey &amp; Company.</li><li>5. Julia Egenolf. 2016. Cologne's smart mobility approach in the Horizon 2020 Growsmarter Lighthouse project. Grow Smarter, City of Rotterdam, the Netherland.</li><li>6. Branislav Iglár, et. al. 2015. Deliverable 3.2 New business opportunities. CitiKeys.</li><li>7. Dr. Hermann Hauser. The Current and Future Role of Technology and Innovation Centres in the UK. Secretary of State Department for Business Innovation &amp; Skills.</li></ol>
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