Module Description

Module name	Pervasive Computing
Module level, if applicable	Bachelor of Informatics
Code, if applicable	21D12141603
Subtitle, if applicable	-
Course, if applicable	-
Semester(s) in which the module is taught	7th
Person responsible for the module	Dr. Ir. Zahir Zainuddin, M.Sc.
Lecturer	1. Dr. Ir. Zahir Zainuddin, M.Sc. 2. Dr.Eng. Ady Wahyudi Paundu
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is an elective course and offered in the 7th semester.
Type of teaching, contact hours	Teaching methods: [group discussion], [case study], [collaborative learning]. Teaching forms: [lecture] CH : 08.00 - 16.00
Workload	For this course, students are required to meet a minimum of 136.00 hours in one semester, which consist of: - 40.00 hours for lecture, - 48.00 hours for structured assignments, - 48.00 hours for private study
Credit points	3 credit points (equivalent with 5.1 ECTS)
Requirements	Students have participated in at least 80% of the learning activities

according to the examination regulations	(Academic Regulations, Chapter VII)
Recommended prerequisites	-
Module objectives/intended learning outcomes	After completing the course, Students are able: **Intended Learning Outcomes (ILO):** **ILO 3 :** Apply the knowledge of computing and other related disciplines to analyse and identify solutions for any computing-based problem. **ILO 7 :** Perform a logical systematic procedure to solve problems, then communicate their ideas in a convincing and effective manner, either in written or orally, to propose solutions. **Course Learning Objective (CLO):** After completing this course, students are expected to understand not only about the key concepts but also to various techniques and typical applications of Pervasive Computing **Sub-CLO**: ILO 3=> CLO 1: Students understand the concepts and perspectives of pervasive computing, the implementation challenges and some key technologies and also the structure and elements of pervasive computing systems ILO 3 => CLO 2: Students understands some technological aspects of pervasive computing such as the context, resource management, human-computer interaction, transactions and the case of user-preferences and recommendations ILO 7 => CLO 3: Students are able to work on the assignment of Pervasive Computing and presenting their results
Content	Students will learn about : 1. Pervasive Computing Concepts 2. The Structure and Elements of Pervasive Computing Systems 3. Context Collection, User Tracking, and Context Reasoning 4. Resource Management in Pervasive Computing 5. Human–Computer Interface in Pervasive Environments 6. Pervasive Mobile Transactions

	7. User Preferences and Recommendations
Forms of Assessment	Assessment techniques: [observation], [participation], [written test]. Assessment forms: [midterm exam], [final term exam], [assignment], [presentation] <table><tr><td>CLO 1</td><td>CLO 2</td><td>CLO 3</td></tr><tr><td>Exam 1</td><td>Exam 2</td><td>Assignment 1</td></tr><tr><td>30%</td><td>40%</td><td>30%</td></tr></table>
Study and examination requirements and forms of examination	**Study and examination requirements:** - Students must attend 15 minutes before the class starts. - Students must switch off all electronic devices. - Students must inform the lecturer if they will not attend the class due to sickness, etc. - Students must submit all class assignments before the deadline. - Students must attend the exam to get the final grade. **Form of examination:** Written exam: Essay
Media employed	Video conference, slide presentation, Learning Management System (LMS).
Reading list	**Main :** 1. Minyi Guo, Jingyu Zhou, Feilong Tang, Yao Shen, "Pervasive Computing: Concepts, Technologies and Applications", CRC Press, 2017. **Support :** 1. Natalia Silvis-Cividjian, "Pervasive Computing: Engineering Smart Systems", Springer, 2017