HANDBOOK

BACHELOR OF INFORMATICS PROGRAM
DEPARTMENT OF INFORMATICS
FACULTY OF INTELLIGENT ELECTRICAL AND INFORMATICS TECHNOLOGY
INSTITUT TEKNOLOGI SEPULUH NOPEMBER

Module name	**Distributed Databases**
Module level	Undergraduate
Code	IF184965
Courses (if applicable)	**Distributed Databases**
Semester	7
Contact person	
Lecturer	
Language	Bahasa Indonesia and English
Relation to curriculum	1. Undergraduate degree program; optional; 7th semester. 2. International undergraduate program; optional; 7th semester.
Type of teaching, contact hours	1. Undergraduate degree program: lectures, < 60 students, 2. International undergraduate program: lectures, < 40 students
Workload	1. Lectures: 3 x 50 = 150 minutes (2 hours 30 minutes) per week. 2. Exercises and Assignments: 3 x 60 = 180 minutes (3 hours) per week. 3. Private study: 3 x 60 = 180 minutes (3 hours) per week.
Credit points	3 credit points (sks).
Requirements according to the examination	A student must have attended at least 80% of the lectures to sit in the exams.

regulations		
Mandatory prerequisites	Database Management	
Learning outcomes and their corresponding PLOs	After completing this module, a student is expected to:	
	CO1 Students understand distributed database architectural design	

	CO2 Students understand important issues that exist in distributed databases (data and access control, concurrency, deadlocks, data replication, and transaction management) and their solutions.	
	CO3 Students understand and are able to apply optimization in distributed databases (query optimization, parallel queries, decomposition and data localization)	
	CO4 Students are able to design and implement distributed database solutions for real cases.	
Content	Knowledge: Mastering concepts and principles of collecting, processing and storing the information in various formats. Specific Skill: Capable of collecting, digitalizing, representing and transforming data into new useful information by using data modelling and storage in effective and efficient manners	
Study and examination requirements and forms of examination	Mid-terms examination and Final examination.	
Media employed	LCD, whiteboard, websites, books (as references), etc.	
Assessments and Evaluation		

Reading List	M. T. Özsu and P. Valduriez, Principles of Distributed Database Systems, London: Springer, 2011. S. K. Rahimi and F. S. Haug, Distributed Database Management Systems: A Practical Approach, Hoboken, New Jersey: John Wiley & Sons, Inc., 2010