



MODULE HANDBOOK

Wavelet and Applications

MASTER DEGREE PROGRAM
DEPARTMENT OF MATHEMATICS
FACULTY OF SCIENCE AND DATA ANALYTICS
INSTITUT TEKNOLOGI SEPULUH NOPEMBER

MODULE HANDBOOK

Wavelet and Applications

Module name	Wavelet and Applications
Module level	Postgraduate
Code	KM185379
Course (if applicable)	Wavelet and Applications
Semester	Fall
Person responsible for the module	Dr. Mahmud Yunus, M.Si Dr. Dwi Ratna Sulistyaningrum, MT
Lecturer	Dr. Mahmud Yunus, M.Si Dr. Dwi Ratna Sulistyaningrum, MT
Language	Bahasa Indonesia and English
Relation to curriculum	Master degree program, Elective , 3 rd semester.
Type of teaching, contact hours	Lectures, <60 students
Workload	1. Lectures: $3 \times 50 = 150$ minutes per week. 2. Exercises and Assignments: $3 \times 60 = 180$ minutes (3 hours) per week. 3. Private learning: $3 \times 60 = 180$ minutes (3 hours) per week.
Credit points	3 credit points (sks)
Requirements according to the examination regulations	A student must have attended at least 80% of the lectures to sit in the exams.
Mandatory prerequisites	-

Learning outcomes and their corresponding PLOs	<p>Course Learning Outcome (CLO) after completing this module,</p> <ol style="list-style-type: none"> 1. Students are able to explain the formal verification methods and models system where formal verification methods can be applied. 2. Students are able to explain some of the methods of verification systems and the development of a system of verification methods. 3. Students can apply the model checking system model transitions, both theoretically and using software 4. Students are able to explain and apply various algorithms on system verification.
Content	<p>Subject:</p> <ol style="list-style-type: none"> 1. multiresolution analysis 2. Orthogonal wavelet 3. filter Bank
Study and examination requirements and forms of examination	<ul style="list-style-type: none"> ● In-class exercises ● Assignment 1, 2, 3 ● Mid-term examination ● Final examination
Media employed	LCD, whiteboard, websites (myITS Classroom), zoom.
Reading list	Text book and related paper