UNIVERSITAS MATARAM

(University of Mataram)

FAKULTAS TEKNIK

(Faculty of Engineering)

PROGRAM STUDI TEKNIK INFORMATIKA

(Department of Informatics Engineering)

MODULE HANDBOOK DESCRIPTION

Features Extraction (P22A03)

Module designation	Features Extraction
Semester(s) in which the module is taught	*6 / third year*
Person responsible for the module	*Fitri Bimantoro, S.T., M.Kom.*
Language	*Indonesian*
Relation to curriculum	*Preference*
Teaching methods	*Lectures, Discussions, Case Study*
Workload (incl. contact hours, self-study hours)	Contact Hours every week, eachweek of the 16 weeks/semester including Evaluation ● 2 x 50 minutes lecturer/week ● 120 minutes class exercise/week ● Self Study hours = 150 minutes/week ● Midterm Exam = 60 minutes ● Final Exam = 60 minutes Total workload 88,58 hours/semester
Credit points	*2 (~ 3,54 ECTS)*
Required and recommended prerequisites for joining the module	Digital Image Processing, probabilistic and statistic

Module objectives/ intended learning outcomes	In this course, students are expected to be able to: 1. Able to understand the basic concepts of feature extraction on several data. 2. Able to apply several features extraction methods for solving simple cases manually and with computer assistance (independently) 3. Able to create features extraction programs to solve real cases using own/online datasets (as a group)
Content	this course discusses introduction of feature extraction and digital data, text dataset and how to extract the feature using TF-IDF anf TR-RF, image dataset how to extract the feature using color, tekstur anf shape feature, and implementation on machine learning.
Examination forms	*Assignments, Contribution/Activeness in Class, Scheduled Exam*
Study and examination requirements	*Assignements 25%,* *Quiz 25 %,* *Final Project 50%*
Reading list	1. Feature Extraction, Foundations and Applications. Isabelle Guyon, Steve Gunn. Springer Berlin Heidelberg (Nov 2008) 2. Feature Extraction, Construction and Selection, A Data Mining Perspective. Huan Liu, Hiroshi Motoda. Springer US (Dec 2012) 3. Building Feature Extraction with Machine Learning, Geospatial Applications. CRC Press (Dec 2022)