HASANUDDIN UNIVERSITY

Agricultural Engineering
Bachelor Program

2023
MODULE DESCRIPTION

BACHELOR PROGRAM
AGRICULTURAL ENGINEERING
FACULTY OF AGRICULTURE
HASANUDDIN UNIVERSITY
2023

Automatic Contol System Practicum

Semester 6

Module designation	*Automatic Control System Practicum*
Semester(s) in which the module is taught	*VI*
Person responsible for the module	*Dr. Abdul Azis, STP., M.Si* *Muhammad Tahir Sapsal, STP., M.Si*
Language	*Indonesia*
Relation to curriculum	*Compulsory*
Teaching methods	*Writing and Lab Works*
Workload (incl. contact hours, self-study hours)	*(Estimated) Total workload:* *1 SKS x 1.7 = 1.7 ECTS = 45.9 hours* • *Lecture = 11.6 hours* • *Excercise = 14 hours* • *Sel study = 14 hours* • *Exam = 2 hours (MID term and final)* • *Exam preparation = 4.3 hours*
Credit points	*1 SKS = 1.7 ECTS*
Required and recommended prerequisites for joining the module	Modelling and Simulation Computer Programming Farm Electrification Instrumentation
Module objectives/intended learning outcomes	*ILO 3: apply knowledge of mathematics, sciences, and engineering principles in agricultural fields;* *ILO 4: use quantitative analysis, information technology and critical thinking in agricultural engineering profession;* *ILO 5: use techniques, skills, and modern tools necessary for agricultural engineering practices;*
Content	*This course provides an opportunity for students to recognize and understand the agricultural workshop management system and introduction to workmanship techniques in the workshop. Coverage of the material consists of an introduction to equipment and work materials (wood and metal) as well as skills in (wood and metal) and skills in using basic equipment and welding both electric and both electric and carburetor welding and an introduction to piping, pneumatic and hydraulic systems. piping, pneumatic and hydraulic systems.*
Examination forms	*Writing and Lab Works*

Study and examination requirements	*Completation of all laboratory reports*
Reading list	*Bennett, Stuart, 1988. Real-Time Computer Control, Prentice Hall, International,Inc.* *De Silva, C.W. 1989. Control Sensors and Actuators, Prentice Hall, Englewood Cliffs, New Jersey.* *Jamshidi M, Nader Vafdiee and Timothy Ross, 1993. Fuzzy Logic and Control. Prentice Hall, International,Inc* *Ogata, K. 1997. Modern control Engineering, third editian, Prentice Hall International,Inc.* *Yan J, Michael Ryan and James Power, 1994. Using Fuzzy Logic. Prentice Hall, International,Inc.*