MODULE HANDBOOK

Module Name	:	Computation and Smart Instrumentation System
Module Level	:	Bachelor
Abbreviation, if applicable	:	FI4171
Sub-heading, if applicable	:	
Semester/ term	:	fourth year
Module Coordinator(s)	:	
Lecturer(s)	:	
Language	:	Indonesian
Classification within the curriculum	:	optional
Teaching format/ class hours per week during the semester	:	Lectures and small project in class, 16 weeks
Workload	:	2 CU
Credits Points	:	
Requirements	:	Instrumentation System
Learning goals	:	Knowledge: (1) understand the "state of the art" of a cutting edge topic in the magnetic and photonic fields (2) understand the underlying physical phenomena and models Skill: (3) understand to implement the phenomena and able to perform either material functionalization, structural engineering and devices, or functional systems Competencies: (4) able to build and develop an idea to improve the model, improve functionality, improve calculations or modify existing devices / systems
Content	:	This course is given for providing participants with knowledge of a current topic in tthe field of computation and instrumentation, which can be related to granular and particle system modeling which includes random walks models: Monte carlo system, modeling with system random walks, degree of freedom n motion systems, control system on frequency space and image processing and intelligent instrumentation on robotics systems..