Decision Support System

Course Title: Decision Support System					
Course Code: CSD60015	**Student Workload:** 8.50 Hours/ Weeks	**Credits:** 3 Credits (4.50 ECTS)	**Semester:** 7th Semester	**Frequency:** Odd Semester	**Duration:** 16 Weeks/ Semester (*Lecture*: 14 weeks; *Midterm assessment*: 1 week; *Final assessment*: 1 week)

1	Types of Courses: Content Knowledge Course	Contact Hours: *Lecturing*: 2.50 Hours/ Week; *Practical Work*: 0.00 Hours/ Week	Independent Study: *Self-study:* 3.00 Hours/ Week; *Structured Assignment*: 3.00 Hours/ Week	Class Size: 40 Students

2	**Prerequisites for Participation** (If Applicable)**:**
	1. Artificial Intelligence
	2. Data Mining

3	**Learning Outcomes:**
	1. M1: Able to explain basic concepts, examples, and application of decision support systems (ILO-4) (0,3)
	2. M2: Able to explain the components and basics of decision support system design (ILO-7) (0,2)
	3. M3: Able to develop small-scale modeling and applications through decision support system algorithms (ILO-8) (0,3)
	4. M4: Able to explain current and future decision support system development-related topics and challenges (ILO-10) (0,2)

4	**Subject aims/Content:**
	At the end of the course, students are expected:
	1. L1: Able to explain the basic concepts and techniques of decision-making systems (M1)
	2. L2: Able to explain the components of a decision support system (M2)
	3. L3: Able to build solutions that can be solved using Weighted Product, Fuzzy Inference System, and Analytic Hierarchy Process (M3) approaches
	4. L4: Able to build solutions that can be solved using the Simple Additive Weighting approach, K-Nearest Neighbor with Fuzzy Inference System, and Group Decision Support Vector Machine (M3)
	5. L5: Able to adopt current and future decision support system-related implementation challenges (M4)

5	**Teaching Methods:**
	Lecturing, Group Discussion, Case-Based Learning

6	**Assessment Methods:**
	Multiple Choice, Essay, Performance Test, Peer Assessment

7	**This Course is Used in The Following Study Programme/s as Well:**
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8	**Responsibility for Course:**
	Dr.Eng. Fitra Abdurrachman Bachtiar, S.T., M.Eng.
	Satrio Hadi Wijoyo, S.Si., S.Pd., M.Kom.

9	**Other Information:**
	Bibliography:
	1. Marakas, George M. 2003. Decision Support Systems in the 21st Century, 2nd Edition, Prentice-Hal.
	2. Turban, Efraim & Aronson, Jay E. 2007. Decision Support Systems and IntelligentSystems, 8th edition, Prentice-Hall, Upper Saddle River, NJ.