MERLOT – SKILLSCOMMONS Peer Reviewer Report Form (V 52218)

Name of Learning Material:	Hybrid PLC Mechatronics - Chapter 21 Artificial Intelligence
SKILLSCOMMONS URL:	https://www.skillscommons.org/handle/taaccct/18783
Learning Material URL:	https://hybridplc.org/wp-content/uploads/labs27_S.pdf, https://hybridplc.org/wp-content/uploads/labs28_S.pdf, https://hybridplc.org/wp-content/uploads/lab30_; https://hybridplc.org/wp-content/uploads/chap21, https://www.youtube.com/watch?v=-gxw-Q-dy5w
Reviewer's Name:	
Date Review Completed:	
Review Time Required:	
Rejected? Y/N	
Description	
1. Overview: Describe overview, features and descriptions, uses, and applications. Include cost, if any for apps	After a look at statistical forecasting methods, an introduction to relational AI is given. Relational AI is at the core of artificial intelligence programming. Introduced are early tests for machine thought processing as well as discussion of various types of machine intelligence. Questions of ethics and scope of use of AI are discussed as well. A problem using a search agent introduces the decision tree search algorithm. The problem introduced to searching a maze is useful throughout the chapter and becomes one of the few programs easily adapted to the PLC for implementation. More sophisticated search methods are also discussed although their implementation is not included. Probability is introduced as a means to choose a best path through a tree. The section on probability includes the development of Bayes' Theorem and gives examples of its use. More sophisticated examples of problems solved by AI programs are given but not solved since they are not readily implemented in the programming of the standard PLC instruction set. Knowledge-based expert systems must also consider fuzzy logic and neural network systems. Fuzzy logic deals with fuzzy linguistic terms while neural networks can learn using supervised and unsupervised learning. Once considered part of the core of modern AI, fuzzy logic and neural networks are not as popular as at one time and are not considered as a first solution in most AI problems. Accompanying Video: PLC Series Chapter 21 - Artificial Intelligence (44:08) Hybrid Lab Text: Ch. 27 – The Maze Additional Chapters in Hybrid Lab Text Hybrid Lab Text: Ch. 28 – Festo Ch. 30 – Conveyors (see Additional Public Access to Materials below)
2. Type of material: Animation, assessment tool, assignment, case study, collection, development tool, drill and practice, e-portfolio, learning object repository, online course, open journal article, open textbook, presentation, reference material, simulation/game, social networking tool, quiz/test, tutorial, workshop and training material.	Online Course Module
3. Technical requirements: Browser, software or plug-in, Java, HTML, Flash, etc. You can test how it appears on Internet Explorer at http://ipinfo.info/netrenderer/ Note type of device if it is an app (iPad, Android, phone, etc.)	
4. Identify major learning goals/ curriculum objectives: Purpose of site, goal for learner/user.	
5. Recommended uses: In-class, homework, individual, team, lecture, etc.	
6. Target population: Level, course or subject matter, other user groups	
7. Prerequisite knowledge or skills needed: Course or subject matter, computer skills, other miscellaneous skills	
8. Application to industry recognized certification: Name of credential or certification.	

Evaluation and Observations: **After reviewing the learning material, please indicate your agreement with the following statements by utilizing the scoring scale: 4=Strongly Agree; 3=Agree; 2=Disagree; 1=Strongly Disagree; and 0=N/A.**

#1 Quality of Content – The Learning Material…	Strongly Agree: 4	Agree: 3	Disagree: 2	Strongly Disagree: 1	N/A: 0	TOTAL
…is clear and concise						4
…provides a complete demonstration of the concept						4
…demonstrates a core concept grounded in the discipline						3
…is current and relevant						4
…is supported by appropriate research						4

…is self-contained (can be used without requiring an assignment or context)						3
…provides accurate information						4
…is flexible (can be used in several situations)						3
…includes an adequate amount of material						4
…has strong workplace relevance						3
…integrates the concept well						4
Overall, the quality of the content is very high						3
Total: #1 Quality of Content						43

#2 Potential Effectiveness as a Teaching Tool/This Learning Material…	**Strongly Agree: 4**	**Agree: 3**	**Disagree:2**	**Strongly Disagree: 1**	**N/A: 0**	**TOTAL**
…identifies learning objectives						4
…identifies prerequisite knowledge						4
…reinforces concepts progressively						4
…builds on prior concepts						3
…demonstrates relationships between concepts						4
…is easy to integrate into curriculum assignments						3
…is very efficient (could learn a lot in a short time)						4
…can be used to measure student learning outcomes						3
Overall, learning material is a very effective teaching tool						4
Total: #2 Effectiveness as Teaching Tool						33

#3 Ease of Use – This Learning Material…	**Strongly Agree: 4**	**Agree: 3**	**Disagree: 2**	**Strongly Disagree: 1**	**N/A: 0**	**TOTAL**
…is easy to use						4
…has very clear instructions						3
…is engaging						4
…is visually appealing						3
…is interactive						4
…is of high design quality						4
…meets accessibility requirements if able to assess						4
…if an app, can be used on multiple types of mobile devices and						3
platforms						
Total: #3 Ease of Use						29

Combined TOTAL scores (add together the totals as indicated above for #1, #2, #3	105
Optional Information:	
Other comments to be included in the review: (If an app, respects privacy of user, meets PG rating standards, how frequently app is updated)	
Comments to author only: (Any needed improvements or recommendations should be addressed here.)	

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