UNIVERSITI TEKNOLOGI MARA

CSC794: ADAPTIVE SEMANTIC WEB

Course Name (English)	ADAPTIVE SEMANTIC WEB APPROVED
Course Code	CSC794
MQF Credit	3
Course Description	This course aims to introduce a wide range of methods and techniques that are currently used and researched in the semantic Web. Investigation on the next generation of adaptive Web for more effective, intelligent and supporting applications will also be revealed and explored. Upon completing this course, students should be able to understand ontology for semantic groundwork, fundamentals issues in semantic, automatic classification, modelling technologies and also adaptation technologies with emphasis on semantic Web.
Transferable Skills	Problem solving skills developed through tests, assignments and projects.
Teaching Methodologies	Lectures, Discussion
CLO	CLO1 Critically evaluate developments on adaptive semantic web CLO2 Isolate and organise conceptual elements of simple domains of discourse CLO3 Relate methodologies and techniques to a range of practical adaptive semantic web applications
Pre-Requisite Courses	No course recommendations

Topics
1. History of Studies in Semantics 1.1) • Introduction 1.2) • Theories in Semantics 1.3) • Semantic Web solutions
2. Ontology for Semantic Groundwork 2.1) • Semantic Web standards 2.2) • Web Ontology Languages
3. Fundamentals Issues in Semantic 3.1) • Challenges for semantic web 3.2) • Current trends
4. Automatic Classification 4.1) • Methods in Classification 4.2) • Related Issues 4.3) • Implementation and Analysis
5. Modeling Technologies 5.1) • Web Services 5.2) • Formal Methods
6. Adaptation Technologies 6.1) • Adaptive Behavior 6.2) • Challenges and issues

Assessment Breakdown	%
Continuous Assessment	100.00%

Details of Continuous Assessment

Assessment Type	Assessment Description	% of Total Mark	CLO
Assignment	Assignment 1	10%	CLO2
Assignment	Assignment 2	10%	CLO2
Assignment	Assigment 3	10%	CLO2
Group Project	Group project	40%	CLO3
Test	Test 1	15%	CLO1
Test	Test 2	15%	CLO1

Reading List

Reference Book Resources

- **Richard Gartner 2016, *Metadata: Shaping Knowledge from Antiquity to the Semantic Web*, 1 Ed., Springer Publishing International Switzerland [ISBN: 978331940891]**
- **Michael Uschold 2018, *Demystifying OWL for the Enterprise*, Morgan & Claypool Publishers New York, USA [ISBN: 9781681733401]**
- **Diana Maynard,Kalina Bontcheva 2016, *Natural Language Processing for the Semantic Web*, Morgan & Claypool Publishers New York, USA [ISBN: 9781627056328]**
- **Jose Emilio Labra Gayo,Eric Prud'hommeaux,Iovka Boneva,Dimitris Kontokostas 2017, *Validating RDF Data*, Morgan & Claypool Publishers New York, USA [ISBN: 9781681731650]**
- **Caroline Barrière 2016, *Natural Language Understanding in a Semantic Web Context*, Springer Publishing International Switzerland [ISBN: 978331941335]**
- **Heiko Angermann , Naeem Ramzan 2018, *Taxonomy Matching Using Background Knowledge: Linked Data, Semantic Web and Heterogeneous Repositories*, Springer Publishing International Switzerland [ISBN: 978331972208]**

Article/Paper List This Course does not have any article/paper resources

Other References This Course does not have any other resources