CENTRAL UNIVERSITY OF KERALA
केरल केन्द्रीय विश्वविद्यालय

DEPARTMENT OF COMPUTER SCIENCE

SCHOOL OF MATHEMATICAL AND PHYSICAL SCIENCES

Minutes of BOS in Computer Science Held on 09 July 2016 at 11.00 AM

Agenda: To discuss about the Syllabus, feedback of students, previous question papers, evaluation strategies

The following members were present during the meeting.

1. Dr. P. S. Hiremath, Professor, KLE Technological University
2. Dr. Rajesh R.
3. Dr. T.M. Thasleema
4. Mr. Ragesh N.K., Specialist, DSP & Multimedia, Tata Elxsi Ltd., Thiruvananthapuram
5. Mr. Fasil O.K., Software Engineer, NuCore Software Solutions

1) The BOS members have gone through the previous syllabus and current syllabus. The BOS observes the improvement in the curriculum/syllabus. The BOS members also suggested to include some industry related electives. The BOS approved the syllabus.
2) The feedback of 2014-16 batch students and 2015 admitted students were obtained. The BOS members has gone through the measures taken by the Faculty Council and approved the same.
3) The BOS members has gone through the previous question papers. The BOS members also verified (i) whether the question paper covers the entire syllabus, (ii) whether the question papers are upto the mark, (iii) whether the evaluation strategies of the answer papers are good. The BOS members were satisfied with procedures for the same.

Dr. P. S. Hiremath

Dr. Rajesh R.

Dr. T.M. Thasleema

Mr. Ragesh N.K.

Mr. Fasil O.K.

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CENTRAL UNIVERSITY OF KERALA
DEPARTMENT OF COMPUTER SCIENCE
M.Sc. COMPUTER SCIENCE

ELECTIVE COURSE					
COURSE CODE	COURSE TITLE	CONTACT HRS/WEEK			CREDITS
		LEC	LAB	TUT	
CSC5006	Web Mining and Social Networking	2	2	1	4

Lec = Lecture, Tut = Tutorial, Lab = Practical

This is a participatory and problem solving **skill development course**.

Course Objective:
The objective of the course is to provide theoretical and practical aspects of techniques for data mining applied on Internet related data and social networking.

By completing this course, students will obtain the following course/learning outcomes:
1. Knowledge gained:
   (i) Modeling of web content mining, web structure mining and web usage mining.
   (ii) development of architecture and its related algorithms commonly used in web mining applications
2. Skill gained:
   (iii) Skills in sentiment analysis, targeted marketing, linguistic forensics, topic/trend-detection-tracking and multi-document summarization
   (iv) Skills to analyze the patterns involved in social media data
3. Competency gained:
   (v) Solve practical web mining problems using tools and techniques

Prerequisites: Basic knowledge of data mining

Grading:

Lab implementation	– 10%
Assignment/Quiz/presentation	– 10%
Class Test	– 10%
Lab test	- 10%
Final Exam	– 60%

CSC5006 – Web Mining and Social Networking

Module 1
Introduction: Data Mining and Web Mining, web Community and Social network Analysis. Theoretical Backgrounds: Web Data Model, Textual linkage and usage expressions, Similarity functions, Eigenvector, SVD, tensor expression and decomposition, Basic concepts of social networks.

Module 2
Web Mining: Web content mining: Vector space model, web search, feature enrichment of short texts, latent semantic indexing, automatic topic extraction from web documents, opinion search and opinion span. Web Linkage Mining: Web search and hyperlink, co-citation and bibliographic coupling, Page rank and HITS algorithm, web community discovery, web graph measurement and modelling, using link information for web page classification.

Module 3
Web usage mining: Modelling web usage interface using clustering, WUM using probabilistic latent semantic analysis, finding user access pattern, co-clustering analysis of webblogs using bipartite spectral projection approach, web usage mining applications.

Module 4
Extracting and analyzing web social networks: Extracting evaluation of web community from a series of web achieve, temporal analysis on semantic graph using three way tensor decomposition, analysis of communities and their evaluations in dynamic networking, Socio-Sence: A system for analyzing the societal behavior from web archive.

References:

1. Guandong Xu Yanchun Zhang Lin Li, *Web Mining and Social Networking*, Springer, 2011.
2. Aggarwal, Charu C, *Social network data analytics*, Springer, 2011.
3. Lee Giles, Mark Smith, *Advances in Social Network Mining and Analysis*, Springer 2008.
4. Bing Liu, *Web Data Mining*, Springer, 2011.