Birla Institute of Technology & Science, Pilani

Work-Integrated Learning Programmes Division

First Semester 2018-2019

BITS ZG628T : Dissertation Outline

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DISSERTATION TITLE	**: Organizational Behavior Analysis using Game Theory**

Organizational Behavior Analysis using Game Theory

BITS ZG628T: Dissertation

by

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2016HT13407

Dissertation work carried out at

Cognizant Technology Solutions, Chennai

BIRLA INSTITUTE OF TECHNOLOGY & SCIENCE
PILANI (RAJASTHAN)

November 2018

Broad Academic Area of Work: Data Mining

Background

The relationship between an employer and its employees is not completely researched and understood. By studying the working nature and the behavioral pattern of each side will help to improve the rewards and ease the functioning. The insights which are available currently are not enough to find the attributes that make the employee more engaged, reduce the employee attrition and improve the work place dynamics.

Objectives

i. To provide analysis of what makes employer/employee to enhance and sustain.

ii. To provide more enriched insights into attributes for measuring connection between employer and employee.

Scope of Work

The data will be collected using a survey which will be filled by employees and merged with the employee data already residing with the employer. Data collected will be cleansed and processed using big data tools (Hadoop/Spark). The processed data will be used for data mining using data mining algorithm and analyzed using game theory. The visualization of game will be carried using suitable data visualization tool which will give dataset of employees using which reports can be created in future based on need. This data mining application widely covers the areas of data mining, game theory and data visualization.

Plan of Work

S.No.	Description of Work	Start Date	End Date
1	**System Study** • Identifying the areas involved • Splitting the functionalities into modules	30-07-2018	05-08-2018
2	**Analysis and Design** • Identify and design the steps in data collection and validation • Prepare the steps involved in each module	06-08-2018	19-08-2018
3	**Development** • Survey creation • Cleansing and Processing the data collected • Create a Mining algorithm • Creating a report using visualization tool	20-08-2018	23-09-2018
4	**System Integration** • Integrate the modules as per the design • Integrate the mined information with report to create a visualization	24-09-2018	28-09-2018
5	**Testing the application** • Test the developed project • Fix it if there any error exists or require any improvement	29-09-2018	07-10-2018

6	**Documentation** • Document the application • Modify the document after reviewing with Supervisor and Mentor	08-10-2018	15-10-2018

Literature References

BOOK

Jiawei Han, Micheline Kamber and Jian Pei. Data Mining: Concepts and Techniques. Waltham: Morgan Kaufmann Publishers, 2012

Martin J. Osborne. An Introduction to Game Theory. Oxford: Oxford University Press, 2003

SCHOLARLY JOURNAL ARTICLES

Rita Yadav, Sarla Pareek, Santosh Singh. "Game Theory in Organizational Psychology." International Journal of Advances in Science Engineering and Technology Special Issue-1 (2015): 116-120

DISSERTATION AND THESES

Edward William Rogers. The Relationship Between Employee Perceptions of the Employment Game and Their Perceptions of Cooperative Knowledge Behavior in High Tech Firms[Thesis]. USA: Cornell University ILR School; 2000

Barnaby D Pitt. Applications of Data Mining Techniques to Electric Load Profiling [Thesis]. UK: University of Manchester Institute of Science and Technology; 2000