Birla Institute of Technology & Science, Pilani

Work-Integrated Learning Programmes Division

First Semester 2018-2019

BITS ZG628T : Dissertation Outline

**ID No. : 2016HT13407**

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**DISSERTATION TITLE : Organizational Behavior Analysis using**

**Game Theory**

**Organizational Behavior Analysis using Game Theory**

### BITS ZG628T: Dissertation

by

Sivakumar Mahalingam

2016HT13407

# Dissertation work carried out at

## Cognizant Technology Solutions, Chennai

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**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**

1. To provide analysis of what makes employer/employee to enhance and sustain.
2. 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**   * Identifyingthe 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