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# Concept document of Automated Analysis of Nash Equilibria in Iterated Boolean Games

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April 18, 2017

## Contents

<b>1</b>	<b>Introduction</b>	<b>2</b>
<b>2</b>	<b>Keywords</b>	<b>2</b>
<b>3</b>	<b>Background to the problem</b>	<b>3</b>
<b>4</b>	<b>problem statement</b>	<b>3</b>
<b>5</b>	<b>Aim and objectives</b>	<b>3</b>
5.1	Aim or General Objective . . . . .	3
5.2	specific objectives . . . . .	3
<b>6</b>	<b>Research scope</b>	<b>3</b>
<b>7</b>	<b>Research Significance</b>	<b>3</b>
<b>8</b>	<b>References</b>	<b>3</b>

## 1 Introduction

## 2 Keywords

LTL - Linear Temporal Logic, MCMAS - Model Checker for Multi-Agent Systems, ISPL- Interpreted Systems Programming Language.

### **3 Background to the problem**

### **4 problem statement**

### **5 Aim and objectives**

#### **5.1 Aim or General Objective**

To Automate the analysis of Nash equilibria in Boolean iterated games

To check whether Multiplayer games can be solved in practice

To generate an Algorithm that will check the performance of Boolean iterated games.

#### **5.2 specific objectives**

To introduce a novel notion of expressiveness for temporal logics that is based on game theoretic properties of multi-agent systems.

To apply the standard game-theoretic concept of Nash equilibria.

### **6 Research scope**

### **7 Research Significance**

### **8 References**