# A study on shortest distance measurement RSSI localization in mathematical software of cooperative game theory with Floyd's algorithm

Cite as: AIP Conference Proceedings **2112**, 020073 (2019); https://doi.org/10.1063/1.5112258 Published Online: 24 June 2019

Dr.V, Vinoba, Dr.S. M. Chithra, S. Sridevi, and S. Satheesh





View Online

time Expert Citatio

PRINCIPAL
T.J.S. ENGINEERING COLLEGE
PERUVOYAL, GUMMIDIPOONDIT.K.
(NEAR KAVARAIPETTAI)
THIRUVALLUR DIST - 801 206.





AIP Conference Proceedings 2112, 020073 (2019); https://doi.org/10.1063/1.5112258 © 2019 Author(s).

2112,020073

# A Study on Shortest Distance Measurement RSSI Localization in Mathematical Software of Cooperative Game Theory with Floyd's Algorithm

Dr.V.Vinoba<sup>1,a)</sup>, S.M.Chithra<sup>2,b)</sup>, S.Sridevi<sup>3,c)</sup>, S.Satheesh<sup>4,d)</sup>

<sup>1)</sup>Assistant professor of Mathematics, Kundavai Naacchiyaar Government Arts College for Women,Thanjavur,India <sup>2)</sup>Associate professor of Mathematics, RMK College of Engineering and Technology, Chennai, India <sup>3)</sup>Assistant Professor of Mathematics, St. Josephs College Engineering and Technology, Thanjavur (Run by DMI sisters and MMI fathers), India

<sup>4)</sup>Assistant Professor of Mathematics, T.J.S. Engineering College, Chennai, India

a)Corresponding authors: vinobamaths2012@gmail.com

b)srilakshmivj@gmail.com, c)srihasini.anbu@gmail.com, d)reachsatheessh@gmail.com.

Abstract: In this paper, we introduced some new concepts of the distance measurement based on RSSI localization of cooperative game theory technique in Mathematical software. Investigating some of their properties, we show that the detachment sandwiched between node i and node j is G, which is defined as the smallest path in RSSI localization of cooperative game theory technique in Mathematical software  $d_i$  in the shortest path between all the pair of nodes in Mathematical software is termed as all pair shortest path using Floyd's algorithm.

# INTRODUCTION

We introduced the concept of the shortest path is an imprecise problem in this field of engineering, social science, economics, medical science, and the environment. This is applied for several directions such as smoothness of function, game theory, operation research, probability, and measurement theory. In recent times, a number of research studies contributed into fuzzification of the fuzzy graph. In 1975, Rosenfeld introduced the concept of fuzzy graph theory. The distance measurement based on RSSI localization of cooperative game theory technique in Mathematical software.

## FORMULATION OF COOPERATIVE GAME THEORY ON RSSI

Definition 1: Existence of Nash Equilibrium for Cooperative Game Theory

In this section, we refer to the Nash Existence Theorem and apply this proposition we show the Nash Equilibrium (NE) for our modeled by cooperative game theory power game.

Definition 2: Nash Existence theorem for Cooperative Game Theory

A premeditated game G = {N, A, R} has at least one NE if 6iCN the following complaint embraces.

The set Aiof movements is a non-empty, condensed and turned in subset of a Euclidean interplanetary. The relationships from set theory rummage-sale in this theorem are in a word well-defined by prearranged lower than.

### ALGORITHMTO FIND THE SHORTEST PATH OF DIRECTED GRAPH

Floyd's algorithm is used to solve the problem. The Floyd's algorithm represents an n-node network as a square matrix with "n" rows and "n" columns. The idea of Floyd's algorithm is straightforward. Given "3" nodes i, j and k, with connecting distance as shown below

Figure 1.

020073-1

ENGINEERING COLLEGE PERUVOYAL, GUMMIDIPOONDIT.K. THIRUVALLUR DIST - 601 206