

Fatima Institute of Management

MBA, MCA, M.Sc. (IT & M)

13th September, 2017

INTERNATIONAL CONFERENCE ON

GLOBAL TALENT MANAGEMENT IN THE DIGITAL ERA



Fatima College (Autonomous)

College with Potential for Excellence
Re-Accredited with 'A' grade by NAAC
(National level 27th rank - NIRF 2017)

Mary Land, Madurai

GLOBAL TALENT MANAGEMENT IN THE DIGITAL ERA

© Faculty Members of MBA, MCA, M.Sc. IT
Fatima College

ISBN: 978-93-86537-95-9

First Edition : 2017

All rights reserved. No part of this book may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, mechanical, photo copying, recording or otherwise, without prior written permission of the author or publisher.

Publisher

SHANLAX PUBLICATIONS

61, 66 T.P.K. Main Road,
Vasanthanagar,
MADURAI – 625003
Tamil Nadu, INDIA

Ph: 0452-4208765,

Mobile: 7639303383

email: publisher@shanlaxpublications.com

web: www.shanlaxpublications.com

17	Essentials of Global Talent Management for the Profitable Growth of Organisation Dr. P.Shyamala	66
18	Innovative Marketing Strategies Dr. T. Agnes Natchathiram	69
19	Making Talent Management Work in Education Dr. B.Jayanthi	71
20	Factors Influencing Job Satisfaction of Women Employees in Public Sectors Dr.Chandralekha	73
21	Asset Management Leadership Factory – Global Game Changing Scenario Dr.L.Meena	75
22	Brand Transition Since Marketing to Millenium Marketing Dr.M.Balaji	78
23	Role of HR in Talent Management Dr.M.Nagarenitha	82
24	A New Paradigm in Talent Management as an Investment Dr.Sr. G. Celine Sahaya Mary	85
25	Digital Technology in Banking – Past, Present, Future Dr. T. Jeyanthi Vijayarani & Susan Anita Andrew	88
26	Smart Metro Train with Fire Sensitizer and Mitigation System S.Sujitha	94
27	Consumer Acceptance Towards Online Banking: An Empirical Approach S.Vijay mallikraj & Dr. V. Murugan	98
28	Talent Management- Leadership Competencies Dr.R.Amudha	102
29	Establishing Talent Management Culture Dr.L.Cresenta Shakila Motha	105
30	The Role of Ethics in Talent Management Dr.R.Nalini	107
31	A Comparative Study on Customer Benefits with Special Reference to Public and Private Sector Banks in Kanyakumari District G.Karthik	111
32	Chromatic Weakly Convex Domination of Some Families of Graphs – II E. Helena & M. Rajeswari	115
33	An Overview of Knowledge Management and Its Models – Literature Review J. Amarnath	118

CHROMATIC WEAKLY CONVEX DOMINATION OF SOME FAMILIES OF GRAPHS - II

E. Helena & M. Rajeswari

Department of Mathematics, Fatima College, Madurai

Abstract

Graph coloring deals with the fundamental problem of partitioning a set of objects into classes, according to certain rules. Time tabling, sequencing and scheduling problems are basically of this nature. The fundamental parameter in graph coloring is the chromatic number $\chi(G)$ that is defined to be the minimum number of colors required to color the vertices of G in such a way that no two adjacent vertices of G receive the same color. For a comprehensive treatment of domination and its variations, refer to [3] and [4], and for more detailed survey on graph colorings and its variations one may refer to [2] and [6]. The concept of chromatic weakly convex domination was introduced in [5]. This paper further extends the study by obtaining the Chromatic weakly convex domination number of some families of graphs.

1. Introduction

By a graph $G = (V, E)$ we mean a connected, finite, non-trivial, undirected graph with neither loops nor multiple edges. For graph theoretic terminology, we refer to Chartrand and Lesniak [1]. For $n \geq 4$, the wheel on n vertices, denoted by W_n , is defined to be the graph $K_1 + C_{n-1}$. That is, a wheel W_n is obtained from a cycle C_{n-1} by adding a vertex, say v , and joining it to all the vertices of the cycle C_{n-1} . Here the vertex v is called the central vertex of W_n . Note that K_4 is isomorphic to W_4 . By attaching an edge uv at a vertex u of a graph G , we mean that a new vertex v is added and is joined with u by an edge. The fan graph F_n can be constructed by joining n copies of the cycle graph C_3 with a common vertex. F_n is a planar undirected graph with $2n + 1$ vertices and $3n$ edges. The Helms H_n is the graph obtained from a Wheel graph W_n by attaching a pendant edge at each vertex of the $n - 1$ - cycle. A snake triangle graph S_n with $2n + 1$ vertices is obtained from the path P_n by replacing each edge of the path by a cycle C_3 . A hyper octahedral graph with $2n$ vertices is a graph with vertices $u_1, u_2, \dots, u_n, v_1, v_2, \dots, v_n$ where u_i and v_j are adjacent for $1 \leq i, j \leq n, i \neq j$, $P_1 = u_1 u_2 \dots u_n$ and $P_2 = v_1 v_2 \dots v_n$ are two paths. A crown graph with $2n$ vertices is a graph with vertices $u_1, u_2, \dots, u_n, v_1, v_2, \dots, v_n$ where u_i and v_j are adjacent for $1 \leq i, j \leq n, i \neq j$.

A set $D \subset V$ is said to be a dominating set of G if every vertex in V either belongs to D or is adjacent to a vertex in D . The domination number $\gamma(G)$ of G is the minimum cardinality of a dominating set of G . A dominating set D of a graph G is said to be a weakly convex dominating set of G if for every $u, v \in D$ there exists a $u - v$ shortest path of G entirely contained in $\langle D \rangle$. A weakly convex domination number $\gamma_{wc}(G)$ of G is the minimum cardinality of a weakly convex dominating set of G . A coloring of a graph G is an assignment of colors to the vertices of G in such a way that no two adjacent vertices receive the same color. The minimum number of colors needed for coloring a graph G is called the chromatic number and is denoted by $\chi(G)$.

2. Chromatic weakly convex domination

Definition 2.1: A weakly convex dominating set D of a graph G is said to be a chromatic weakly convex dominating set of G if $\chi(G) = \chi(\langle D \rangle)$. A chromatic weakly convex domination number $\gamma_{wc\chi}(G)$ of G is the minimum cardinality of a chromatic weakly convex dominating set of G .