PERFECT SET OF EULER TOURS OF $K_{p,p,p}$

T. Govindan

Department of Mathematics
Government College of Engineering
Bargur-635104, Tamilnadu, India

E-mail: tggce@yahoo.com

AND

A. Muthusamy

Department of Mathematics
Periyar University
Salem-636011, Tamilnadu, India

E-mail: ambdu@yahoo.com

Abstract

Bermond conjectured that if $G$ is Hamilton cycle decomposable, then $L(G)$, the line graph of $G$, is Hamilton cycle decomposable. In this paper, we construct a perfect set of Euler tours for the complete tripartite graph $K_{p,p,p}$ for any prime $p$ and hence prove Bermond’s conjecture for $G = K_{p,p,p}$.

Keywords: compatible Euler tour, line graph, Hamilton cycle decomposition.

2010 Mathematics Subject Classification: 05C70.

References


doi:10.1006/jctb.1995.1024


doi:10.1002/jgt.3190200411


Received 22 January 2015
Revised 5 November 2015
Accepted 5 November 2015