

## SOLVING FULLY FUZZY LINEAR SYSTEMS WITH TRAPEZOIDAL FUZZY NUMBER MATRICES BY QR DECOMPOSITION METHOD

N. JAYANTH KARTHIK<sup>1</sup> AND E. CHANDRASEKARAN<sup>2</sup>

<sup>1</sup> Department of Mathematics,  
D. G. Vaishnav College, Chennai 600106, India  
E-mail: n.jayanthkarthik@yahoo.com

<sup>2</sup> Department of Mathematics,  
Presidency College, Chennai 600005, India  
E-mail: e.chandrasekaran@yahoo.com

### Abstract

In this paper, a  $n \times n$  fully fuzzy linear system  $\tilde{A} \otimes \tilde{x} = \tilde{b}$  where  $\tilde{A}$  is a fuzzy matrix  $\tilde{x}$  and  $\tilde{b}$  are fuzzy vectors with trapezoidal fuzzy numbers is solved by QR decomposition method. The method is illustrated with numerical examples.

---

Key Words : *Fully fuzzy linear system, Trapezoidal fuzzy number matrices, QR decomposition.*

© <http://www.ascent-journals.com>