

## ANTI-HOMOMORPHISMS IN VAGUE GROUPS

N. RAMAKRISHNA<sup>1</sup> , B. NAGESWARA RAO<sup>2</sup> , T. EWARLAL<sup>3</sup>  
AND CH. SATYANARAYANA<sup>4</sup>

<sup>1</sup> Department of Mathematics,  
Mrs. A.V.N. College,  
Visakhapatnam-530 001, India

<sup>2</sup> Department of Mathematics,  
Costal Institute of Technology and Management,  
Vizianagaram, India

<sup>3</sup>Department of Basic sciences,  
Al-Aman College of Engineering,  
Visakhapatnam, India

<sup>4</sup>Department of Mathematics,  
Dr.B.R.Ambedkar Open university,  
Hyderabad, India

### Abstract

Vague characterization group is introduced. We studied some properties of Vague homomorphism of group and anti-homomorphisms in vague groups. Let  $G$  and  $G'$  be any two groups and  $\phi : G \rightarrow G'$  be anti-homomorphism. Then the anti-homomorphic pre-image of a True  $\alpha$ -cut subgroup, false  $\alpha$ -cut subgroup of a vague group are crisp subgroups of vague group of a group.

---

Key Words : *Vague set, Vague group, Vague normal group, Vague homomorphism, Anti-homomorphism.*

2000 AMS Subject Classification : 03G25, 04A72, 08A72.

© <http://www.ascent-journals.com>