RICCI SOLITONS ON ALMOST KENMOTSU MANIFOLDS

KRISHANU MANDAL\textsuperscript{1} AND U.C. DE\textsuperscript{2}

Abstract. In this paper, we first study \(\eta\)-Einstein almost Kenmotsu manifolds with the characteristic vector field \(\xi\) belonging to the \((k,\mu)\)'-nullity distribution (defined by Dileo and Pastore) and \(h' \neq 0\). Next, we study Ricci solitons on almost Kenmotsu manifolds with \(\xi\) belonging to the \((k,\mu)\)' and to the \((k,\mu)\)-nullity distribution (introduced by Blair, Koufogiorgos and Papantoniou), respectively. Also we obtain several corollaries.

References

[19] Sharma, R., Certain results on \(K\)-contact and \((k,\mu)\)-contact manifolds, J. Geom. 89(2008), 138–147.

\textsuperscript{1}2010 Mathematics Subject Classification. 53C25, 53D15.
\textsuperscript{2}Key words and phrases. Almost Kenmotsu manifold, Ricci soliton, Einstein manifold, nullity distribution.


Received 16 October 2015

1, 2 Department of Pure Mathematics, University of Calcutta, 35, Ballygunge Circular Road, Kol- 700019, West Bengal, India

E-mail address: 1 krishanu.mandal013@gmail.com, 2 uc_de@yahoo.com