S-SUBSTRUCTURES IN LOOPS

W.B. Vasantha Kandasamy and J. Jon Arockiaraj

The study of S-loops and that of S-subloops were introduced in 2002. In this paper we define the notion of Smarandache subgroup loop, Smarandache normal subloop, S-weakly Lagrange loop, S-Lagrange loop, S-p-Sylow subloop, S-strong p-Sylow subgroup and obtain several interesting results in this direction.

We prove if \( L_n(m) \in L_n \) where \( n \) is a prime number then every loop in \( L_n \) where \( n \) is a prime number is a S-strong 2-Sylow loop.

All Rights Reserved. This work is Copyright©W.B.Vasantha Kandasamy and Jon Arockiaraj, 2003. Mathematicians can use the above material for research purposes, but the work of the author(s) *must* be acknowledged. Violators of copyright, and those indulging in plagiarism and intellectual theft are liable for strict prosecution.

e-mail: vasantha@iitm.ac.in
web: www.vasanthakandasamy.org