

DISTRIBUTED FAULT-TOLERANT CLASSIFICATION IN WIRELESS SENSOR NETWORKS

P.Gomathi

Professor, Electrical and Electronics Engineering, N.S.N.College of Engineering & Technology, Karur, Tamilnadu, India

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ABSTRACT

Fault-tolerance and data fusion have been considered as two central capacities in remote sensor systems. In this paper, we propose a novel approach for distributed multiclass classification utilizing a blame tolerant combination manage for remote sensor systems. Twofold choices from nearby sensors, conceivably within the sight of issues, are sent to the combination focus that decides the last order result. Order combination in our approach is executed by means of blunder remedying codes to join adaptation to fault-tolerance ability. This new approach gives an enhanced adaptation to fault-tolerance capacity as well as lessens calculation time and memory prerequisites at the combination focus. Code lattice configuration is fundamental for the outline of such frameworks. Two productive code grid outline calculations are proposed in this paper. The relative benefits of the two calculations are additionally considered. We likewise create adequate conditions for asymptotic location of the right speculation by the proposed approach. Execution assessment of the proposed approach within the sight of flaws is given. These outcomes indicate huge change in adaptation to internal failure capacity as contrasted and customary parallel combination systems.

KEYWORDS: *Data Fusion, Decision Fusion, Distributed Classification, Error Correcting Codes, Fault-Tolerance, Multisensor Systems, Wireless Sensor Networks (WSNS)*