

**CHENNAI – PONDICHERRY**

**MACHINE LEARNING APPLIED TO ROTATING CHECK FRAUD DETECTION**

**ABSTRACT:**

Given small profit margins, independently owned and operated restaurants are highly sensitive to insider fraud and yet have scant resources to combat the problem. This paper is the first open research to apply machine learning (ML) techniques to detecting insider fraud in point-of-sales transaction data in the restaurant industry. We show that after applying under-sampling techniques and carefully engineering features, ML can deliver very high fraud-detection performance. Knowledge about engineered features, algorithm selection, performance, and tuning gained from this research can be applied in future research on fraud detection of restaurant data.