unsupervised Analysis microcontroller document Learning standard vibration Decomposition Current distance Application solution extraction radius unsupervised learning Detection configuration previous possible ovelty just, novelty metric 1Ct1011 Outlier IMS dataset Machine called implementation parameter Another proposed decision float train Inormal Condition structure Software perform mean even fourier See threshold trained General event axis library task $\mathbf{p}_{\mathrm{me}}^{\mathrm{select}}$ Tric space , behaviour cost user Case edge sample phase $\overline{\mathrm{Or}}_{\mathrm{Based}}^{\mathrm{node}} \overset{\mathrm{prot}}{\mathrm{state}}$ first faulty Maintenance tunction frequency output Testing profile two novelty detection Clustering device Machine Learning considered centroid transform procedure common evaluation silhouette Large Purpose technique Applied degradation classification sampling evaluate Equation implemented Computing coefficient evolution developed