|  |  |  |
| --- | --- | --- |
| **No.** | **System Description** | **Error** |
| **1** | **Random Guessing** | **49.8%** |
| **2** | **kNN (k = 20)** | **41.8%** |
| **3** | **RF (Nt = 50)** | **31.7%** |
| **4** | **PCA-HMM (#GM = 3 #HMM States = 3)** | **25.6%** |
| **5** | **GMM-HMM (#GM = 3 #HMM States = 3)** | **17.0%** |

Table 6. A comparison of performance for abnormal classification of an EEG for several standard classification approaches including k-Nearest Neighbor (kNN), Random Forests (RF) and two variants of a hidden Markov model (HMM) system.