**Report: Project 1**

**Group Members:**

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**Table1. Results obtained for given HMM**

|  |  |  |
| --- | --- | --- |
| Test. No. | Compare the sequence of n states | Accuracy |
| 1. | 100 | 77% |
| 2. | 200 | 73% |
| 3. | 300 | 71.33333% |
| 4. | 400 | 81.25% |
| 5. | 500 | 64.200005% |
| 6. | 600 | 67.666664% |
| 7. | 700 | 82.428566% |
| 8. | 800 | 68.25% |
| 9. | 900 | 67.111115% |
| 10. | 1000 | 64.0% |

**Table 2: Results obtained after changing Transition probability distribution for Btf: 0.60**

|  |  |  |
| --- | --- | --- |
| Test. No. | Compare the sequence of n states | Accuracy |
| 1. | 100 | 83% |
| 2. | 500 | 75% |
| 3. | 1000 | 56.300003% |

It can be observed from the results that, the Performance improved for 100 state sequence & deteriorated for 1000 state sequence as Transition probability distribution for B parameter was changed.

**Table 3: Results obtained after changing probability distribution for Ftf = 0.85**

|  |  |  |
| --- | --- | --- |
| Test. No. | Compare the sequence of n states | Accuracy |
| 1. | 100 | 68% |
| 2. | 500 | 51% |
| 3. | 1000 | 42.699997% |

It can be observed from the results that, the Performance deteriorated for given state sequence’s as probability distribution for F parameter was changed.

**Table 4: Results obtained probability distribution for Ltf = 0.85**

|  |  |  |
| --- | --- | --- |
| Test. No. | Compare the sequence of n states | Accuracy |
| 1. | 100 | 63% |
| 2. | 500 | 64.600006 % |
| 3. | 1000 | 77.4 % |

It can be observed from the results that, the Performance deteriorated for 100 state sequence & improved for 1000 state sequence as probability distribution for L parameter was changed.

**Table 5: Results obtained probability distribution for ld6 = 0.75**

|  |  |  |
| --- | --- | --- |
| Test. No. | Compare the sequence of n states | Accuracy |
| 1. | 100 | 63% |
| 2. | 500 | 64.8% |
| 3. | 1000 | 61.699997 % |

It can be observed from the results that, the Performance deteriorated for given state sequence’s as probability distribution for loaded dice e(L, 6) parameter was changed.