Reference of the tables:-

Table 1 :- The paper **"An Optimized Byzantine Fault Tolerance Algorithm for Medical Data Security"**—which introduces **ME‑PBFT** (an optimized PBFT protocol with OTP‑based consent and hash‑chain mechanisms)—was published in **2023**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Study** | **Consensus** | **Consent Model** | **Latency** | **Compliance** |
| Azaria et al. (2016) | PoW | Smart Contracts | 15s | Partial |
| Xia et al. (2017) | PBFT | Role-Based | 800ms | No |
| Zhang et al. (2018) | PBFT | Attribute-Based | 600ms | Partial |
| **Our Work** | **Optimized PBFT** | **OTP+Hash Chain** | **300ms** | **Full** |

Table 2 :-The paper **"An Optimized Byzantine Fault Tolerance Algorithm for Medical Data Security"**—which introduces **ME‑PBFT** (an optimized PBFT protocol with OTP‑based consent and hash‑chain mechanisms)—was published in **2023**

|  |  |  |  |
| --- | --- | --- | --- |
| **Metric** | **PBFT System** | **PoA Baseline** | **PoW Baseline** |
| Max TPS | 1,150 | 850 | 15 |
| Sustained TPS | 980 | 720 | 12 |
| Batch Efficiency | 92% | 88% | N/A |

**Table 3 :- The overall performance summary of the model of the same paper**

|  |  |
| --- | --- |
| **Feature** | **Implementation** |
| Role-based access | Dynamic UI toggling for patients and doctors. |
| Consent Management | OTP generation and hashing. |
| Batch Validation | Time-window enforced processing. |
| Data Transparency | On-chain consent proofs for auditabil- ity. |

**Table 4 :- Report from EU Blockchain Observatory and Forum**

|  |  |  |
| --- | --- | --- |
| **Protocol** | **Energy/Node (W)** | **Energy/Transaction (J)** |
| PBFT | 22.4 | 0.18 |
| PoA | 28.1 | 0.31 |
| PoW | 210.5 | 42.7 |

**Table 5 :- Results from model testing from the current paper (Python Code)**

|  |  |  |
| --- | --- | --- |
| **Operation** | **Avg Time (ms)** | **Success Rate** |
| OTP Generation | 120 | 100% |
| Consent Verification | 85 | 99.4% |
| Emergency Access Override | 420 | 97.1% |