EECS 591 Sample Project List:

1. Distributed replication service
   - Primary-backup (passive) replication
   - State-machine (active) replication
   - Hybrid active/passive replication
   - Gossip-style replication
2. Group communication toolkit: FIFO, reliable, causal, totally ordered
3. Group membership protocol
4. Multi-group multicast protocols
5. Object replication service on CORBA or DCOM/ActiveX object models
6. Fault-tolerant dist. service on CORBA or DCOM/ActiveX object models
7. Scalable CORBA Event Notification Service (ENS)
8. Software-implemented distributed shared memory:
   - Page-based vs. object-based
   - Consistency models: sequential vs. release consistency
9. Scalable adaptive (reliable) publish/subscribe data distribution service over the Internet (Mbone exploitation)
10. Adaptive multicast services for multimedia applications (layered multicast)
11. SRM (Scalable Reliable Multicast) extended with (FIFO, causal or total) ordering guarantees
12. Internet-based multiplayer game on SRM (Scalable Reliable Multicast)
13. Communication services for multi-player games over the Internet
14. Microsoft’s DirectPlay
   - Comparison of overhead of raw TCP/IP with Microsoft’s DirectPlay
   - Providing fault-tolerance support in Microsoft’s DirectPlay library
15. Distributed chat service (Java or CORBA implementation)
16. Distributed shared whiteboard (Java or CORBA implementation)
17. Distributed applications on PalmPilots & wireless servers
18. Implementation of distributed adaptive web caching algorithm
19. SNMP-based group membership protocol
20. A tool for testing & fault injection of routers
21. A tool for constructing topology/routing snapshot from routing table
22. Analysis of Web traffic & selection of fast replicas
23. Performance profiler for distributed application
24. Wide-area network simulator
25. Cooperative multi-threading caching web proxy