Round Robin is an example from preemptive scheduling algorithm. This algorithm is based on First Come First Served (FCFS), but has preemptive characteristic. At this algorithm, every process got CPU's time called quantum for delimitation of process's time. After the time end, process delayed and moved to ready queue. The common problem on using quantum is find the value, because if the value is too big can make the algorithm work like First In First Out (FIFO) scheduling, and if quantum is too small can cause lot of process change that can cause the reduce of process efficiency.. Besides CPU bound, I/O bound influential too because the amount are relative much. Modified Round Robin algorithm is hoped can finish the problem of defining quantum, because in this program where each process have each quantum that counted by intelligent time slicing calculation formula which depend on priority and service time so that suppose to minimalize the value of response time, context switch and average NTAT (Normalized Turnaround Time) for non-real time process.

On this final project did analyze Modified Round Robin algorithm performance with intelligent timeslicing formula for approving superiority of Modified Round Robin which will minimize response time, context switch and average NTAT (Normalized Turnaround Time) parameter and compared the amount of I/O bound and CPU bound. From this test know that Modified Round Robin is better for process wich have a big range and I/O bound with much process at response time, context switch dan average NTAT (Normalized Turnaround Time) parameter.

Keywords: scheduling algorithm, round robin algorithm, modified round robin algorithm, cpu scheduling.