ABSTRACT

Along with current technological developments, the time to do something is demanded to be faster in almost various ways. This is also related to one of the processes in testing the Final Project Proposal, namely the management process for examining the TA proposal. Currently, the management of TA proposal testing for students has been done digitally but is still done manually based on the requirements that must be met. Management of the TA proposal examiner is carried out on the TA Selection application. The TA Selection application is an application used by the Faculty of Industrial Engineering at Telkom University to manage supervisors and examiners of TA proposals. Due to the management of the TA proposal examiner which is still done manually, of course it is not in line with the current work culture which is demanded faster so that automation is needed to manage the TA proposal examiner based on the requirements that exist in the Faculty of Industrial Engineering, Telkom University. To support the automation process, it can be done using the constraint programming algorithm method. Algorithm models used in this study, namely CP-SAT. Algorithm models use a task distribution approach based on the smallest cost, this model can be adapted to the problem in this study by adjusting the processing costs based on the existing conditions when performing test management. when the examiner gets a task that is not in accordance with the requirements, the processing cost is made greater so as to minimize the possibility of the examiner being given an unsuitable task. The cost of work also increases if the examiner is given a task that exceeds the average task that must be given, so as to create a workload balance between the examiners.

*Keywords— **TA Selection, automation, task distribution, constraint programming***