APPENDIX - A

The network reconfiguration problem is formulated as a multi-objective and non-differential optimization problem for electric power distribution system. This appendix describes the user manual for this simulation program. This study presents a model “EVOLUTION OF AN ALGORITHM FOR MULTIOBJECTIVE ELECTRIC POWER DISTRIBUTION SYSTEM RECONFIGURATION” for multi-objective using TS approach using mathematical tool i.e. Programming through MATLAB.

Figure A. Original configuration case model

The main window is used for original configuration case. The original configuration refers to the network, in which all the tie lines 33, 34, 35, 36, and 37 are open and the structure is perfectly radial. When the run button is pressed, the result of the multi-objective are executed and
displayed at the respective objective window. And, three graphs of results for current, voltage and power losses are plotted as shown in Figure A above.

**Image button** is used to show the image of original configuration case, when the tie lines are opened.

**Clear button** is used as an option to clear the data of executed program from the concern objective window.

There are three push button on the main screen, which are push-button1, push-button2, push-button3.

**PUSH-BUTTON1:** This is subprogram, which exhibits comparison of results between original configuration case and TS configuration case.

**PUSH-BUTTON2:** This is subprogram, which exhibits execution of TS configuration case with multi-objective results.

**PUSH-BUTTON3:** This is subprogram, which exhibits the comparison of TS results with other references.

**Exit button** is used for quit from the main program.