**CONCLUSION**

The feasibility to convert AC transmission line to a composite AC-DC line has been demonstrated. For the particular system studied, there is substantial increase (about 83.45%) in the load ability of the line. The line is loaded to its thermal limit with the superimposed DC current. The DC power flow does not impose any stability problem. The advantage of parallel AC-DC transmission is obtained.

DC current regulator may modulate AC power flow. There is no need for any modification in the size of conductors, insulator strings, and towers structure of the original line. The optimum values of AC and DC voltage components of the converted composite line are 1/2 and times the AC voltage before conversion, respectively.

All of the feedback that I have received has been extremely the AC positive. Measurements and predictions are reported to correlate very closely.

The P-Q characteristics are applied. the converter constraints are introduced and effect of each constraint on P-Q characteristic and power transferring are studied.