“OPTIMUM COMPENSATION SCHEME FOR ULTRA HIGH VOLTAGE LONG TRANSMISSION LINE”

A DISSERTATION

Submitted in Partial Fulfilment of the Requirements for the Award of the Degree of

MASTER OF TECHNOLOGY
IN
POWER SYSTEM

By

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(01/P.Sy/09)

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CERTIFICATE

This is to certify that this major project entitled, **"*Optimum Compensation Scheme for Ultra High Voltage Long Transmission Line*"**, submitted by **Abhishek Kumar Singh (01/P.Sy/09),** in partial fulfillment of the requirements for the award of degree of Master of Technology in Electrical Engineering at Delhi Technological University, Bawana Road, Delhi-42, is a true record undertaken by him as a part of curriculum under my guidance and supervision.

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Abhishek Kumar Singh
(01/P.Sy/09)

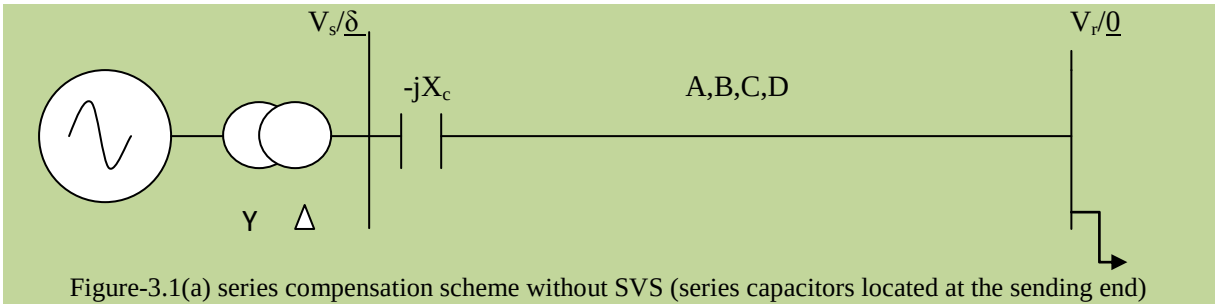


Figure-3.1(a) series compensation scheme without SVS (series capacitors located at the sending end)

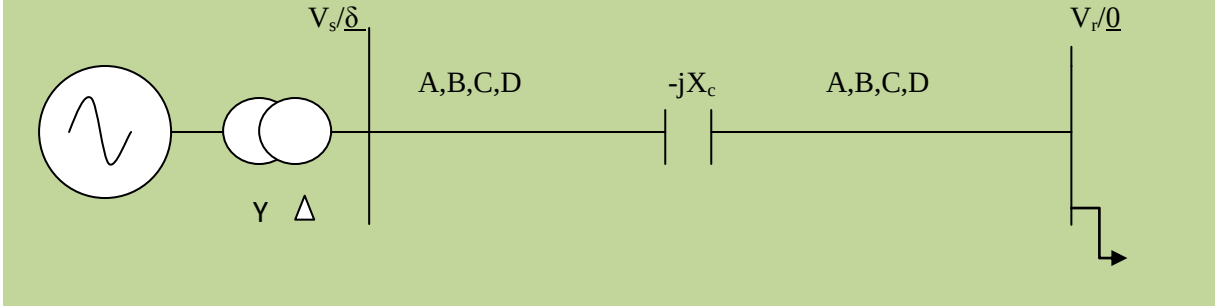


Figure-3.1(b) series compensation scheme without SVS (series capacitors located at the the middle of the transmission line)

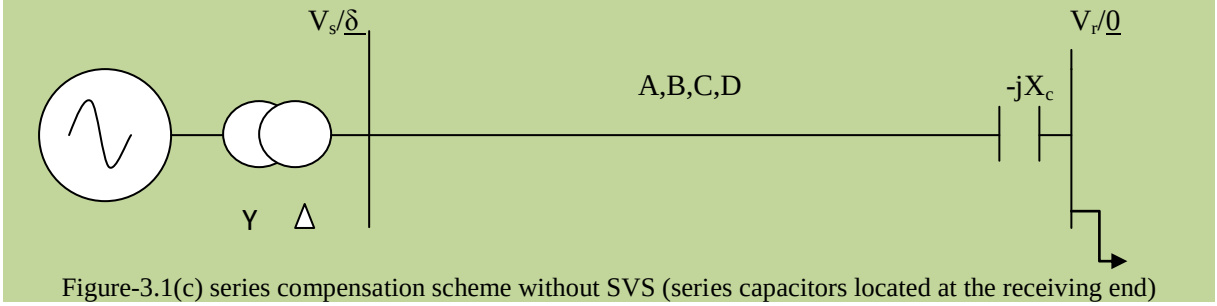


Figure-3.1(c) series compensation scheme without SVS (series capacitors located at the receiving end)

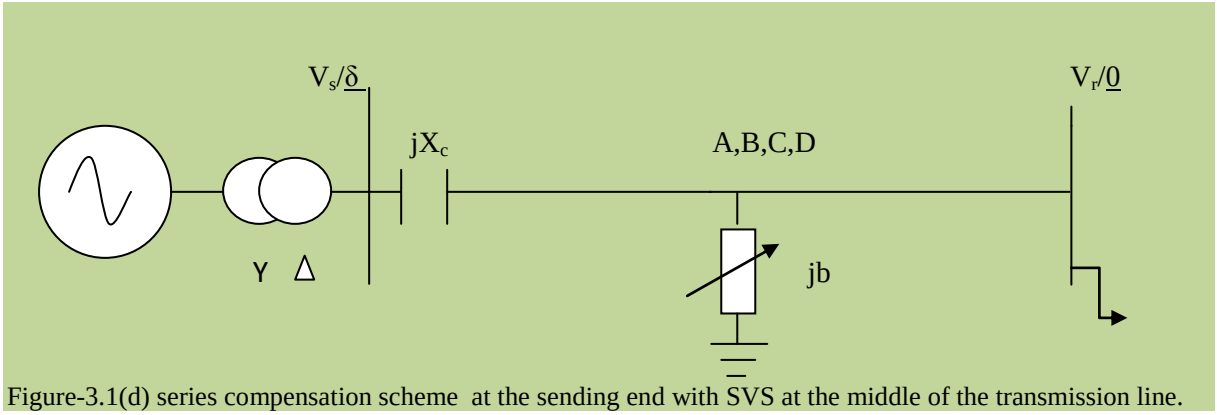


Figure-3.1(d) series compensation scheme at the sending end with SVS at the middle of the transmission line.

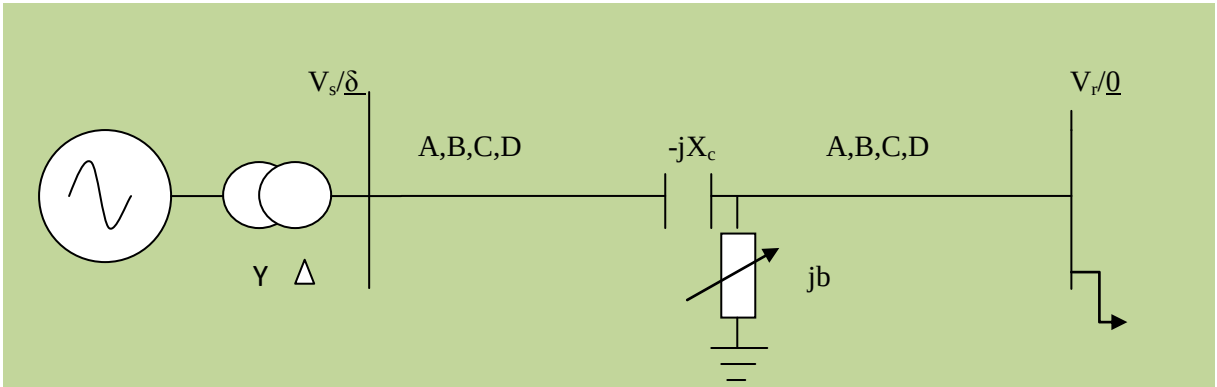


Figure-3.1(e) series compensation scheme with SVS and series capacitors located at the the middle of the transmission line.

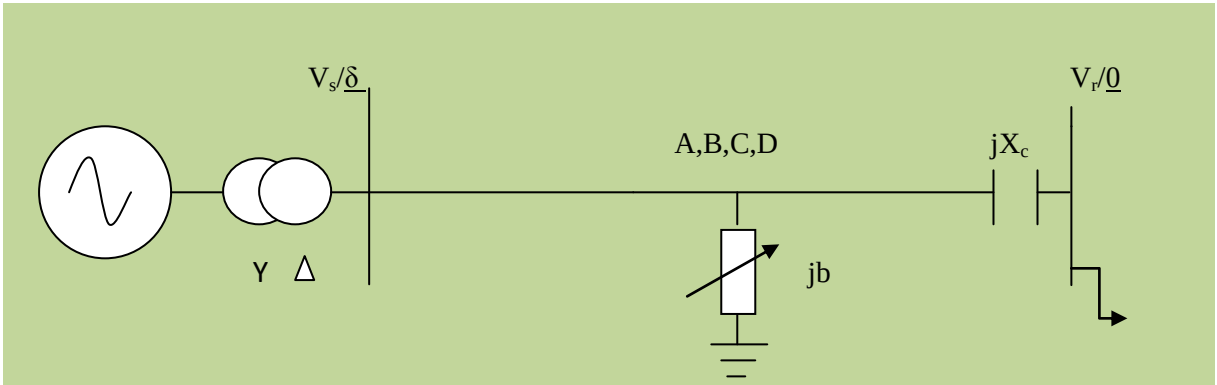


Figure-3.1(f) series compensation scheme at the receiving end with SVS at the middle of the transmission line.

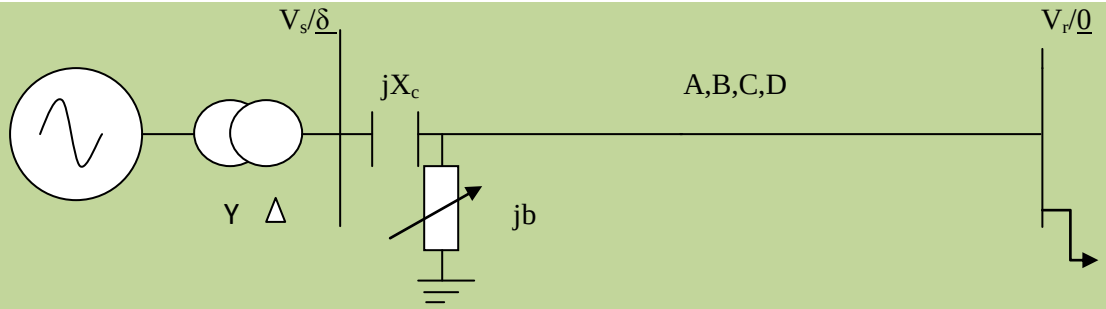
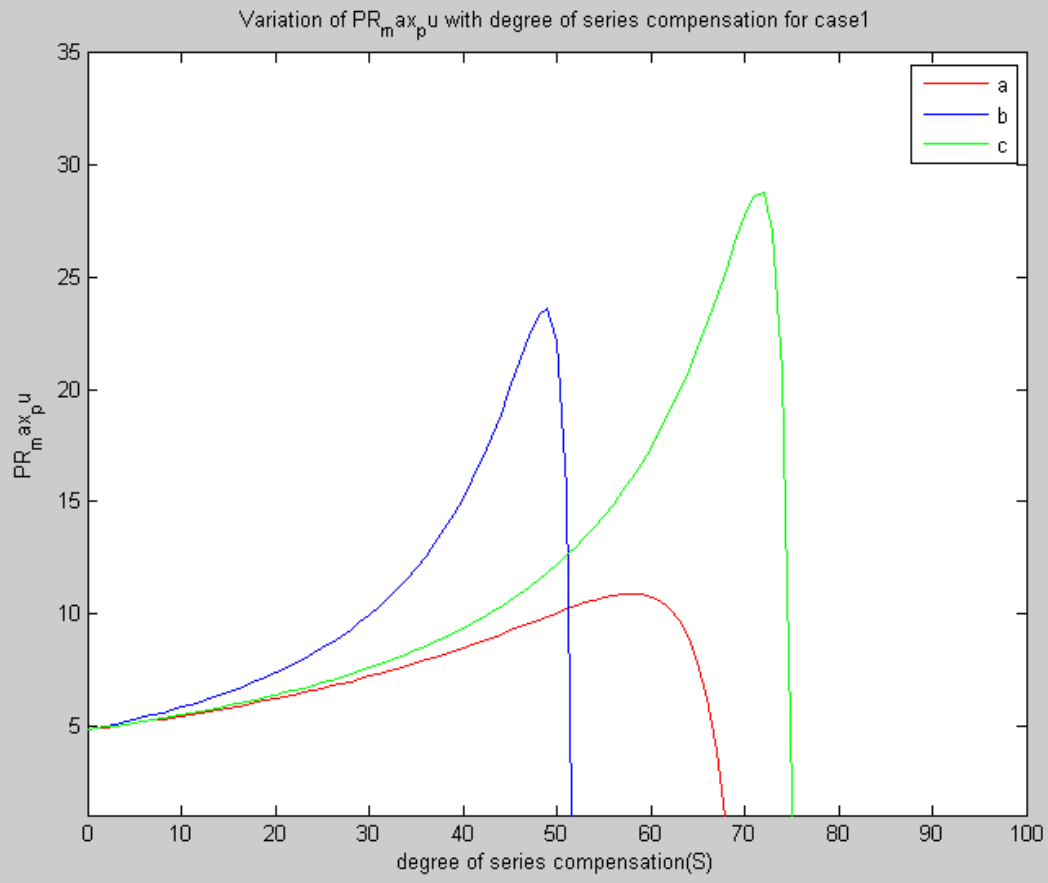


Figure-3.1(g) series compensation scheme at the sending end with SVS at the sending end of the transmission line

4.9.2 PLOT



4.10.2 PLOT

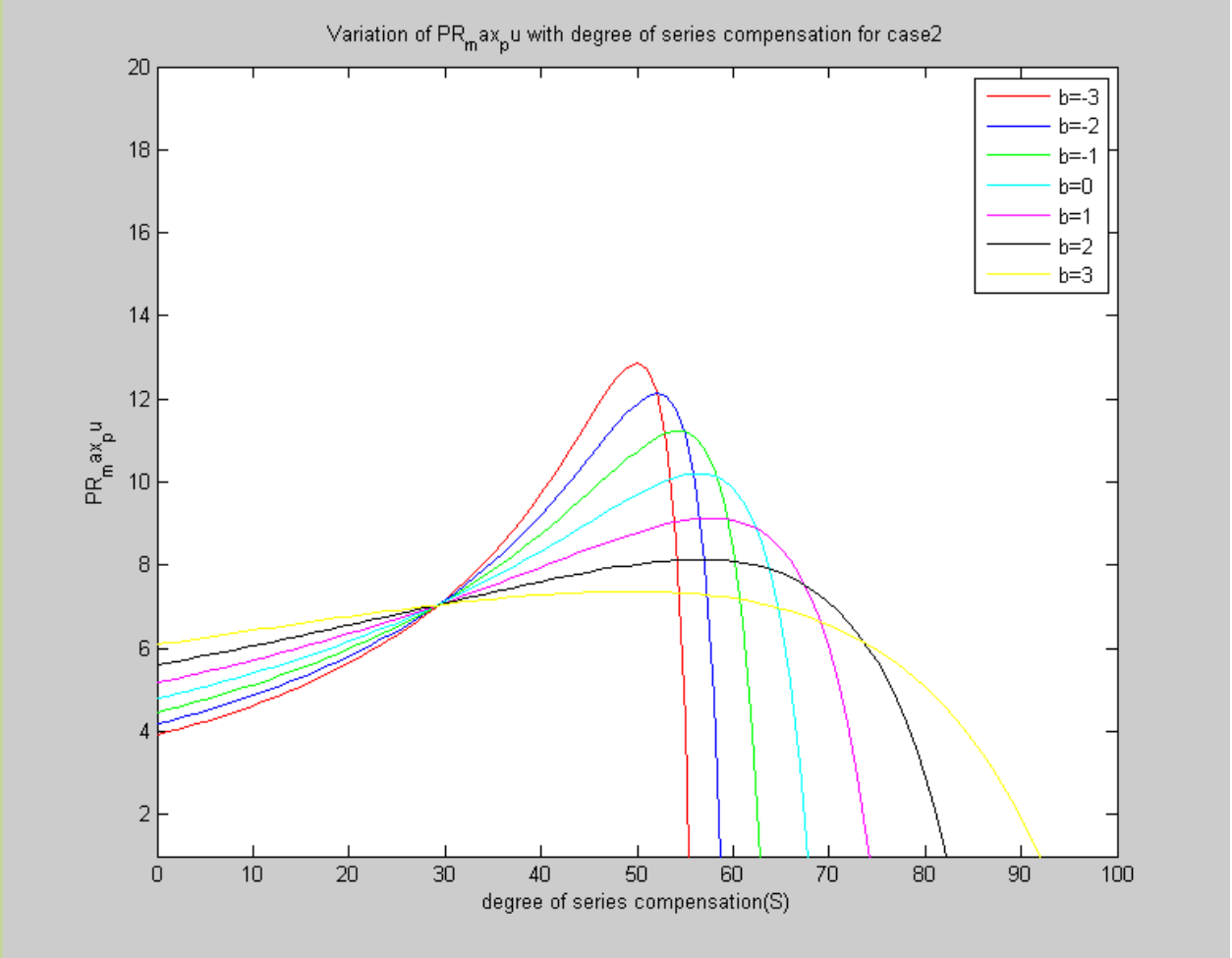


Figure 4.2 *Variation of maximum receiving end power with degree of series compensation for case 2*

4.11.2 PLOT

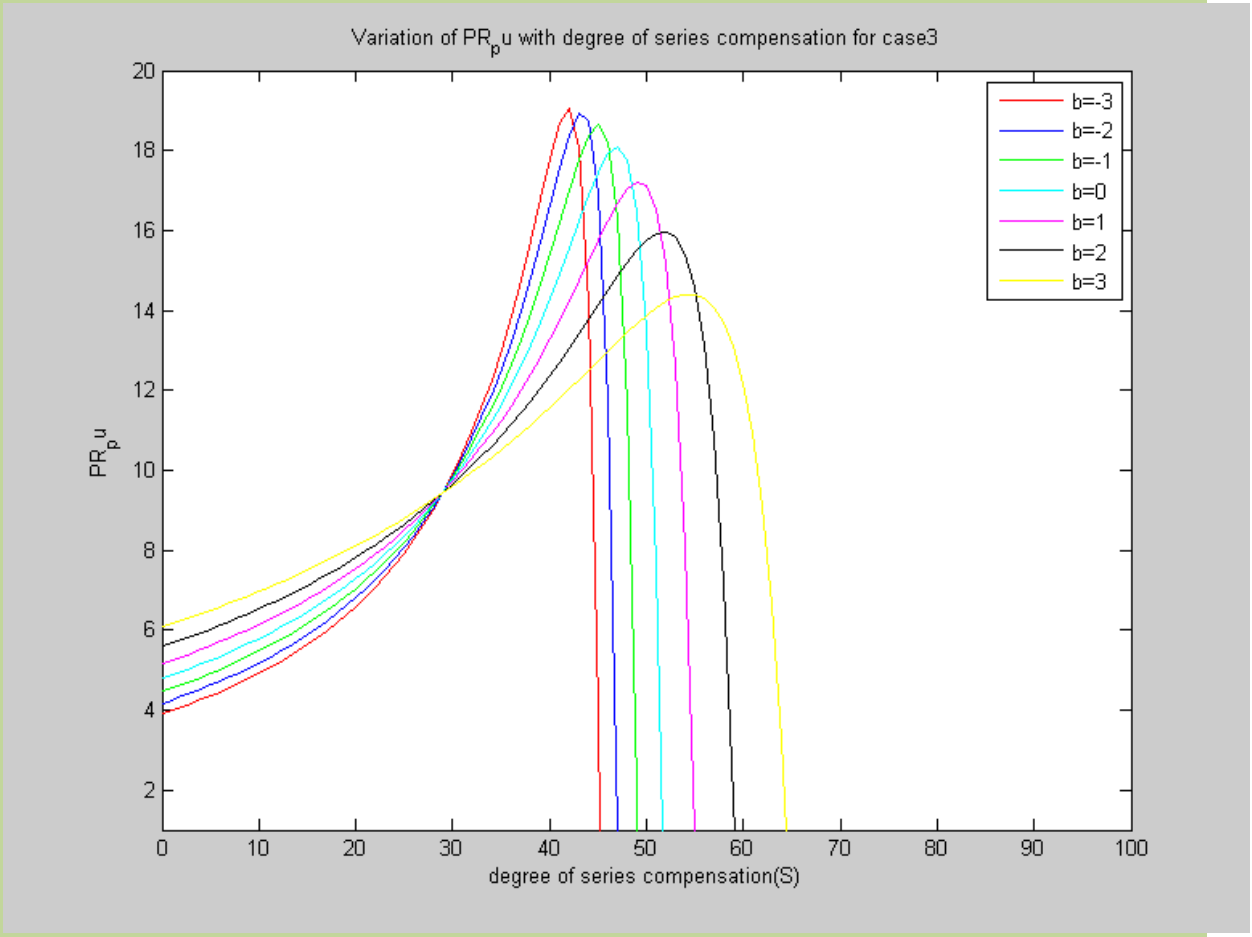


Figure 4.3 Variation of maximum receiving end power with degree of series compensation for case 3

4.12.2 PLOT

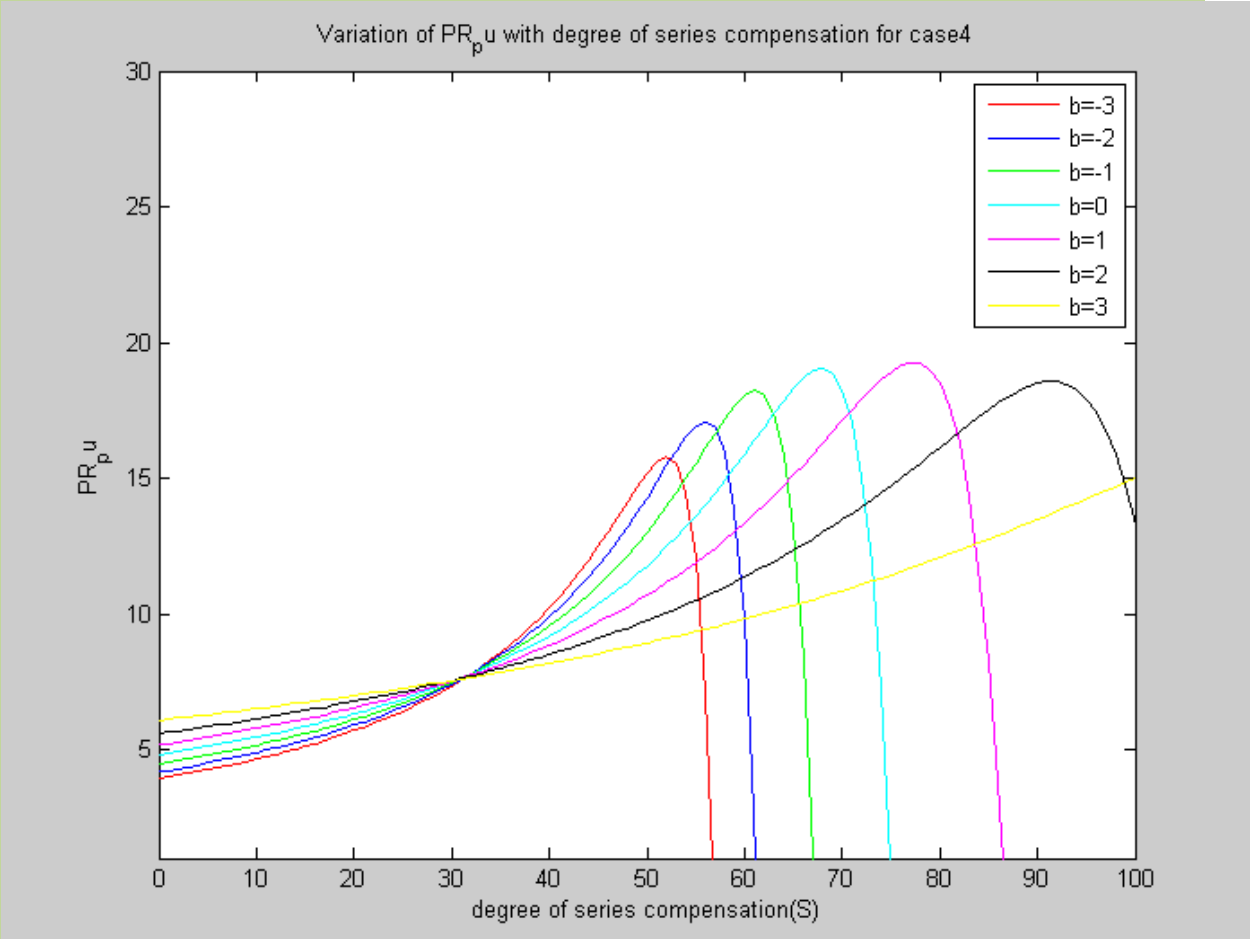


Figure 4.4 *Variation of maximum receiving end power with degree of series compensation for case 4*

4.13.2 PLOT

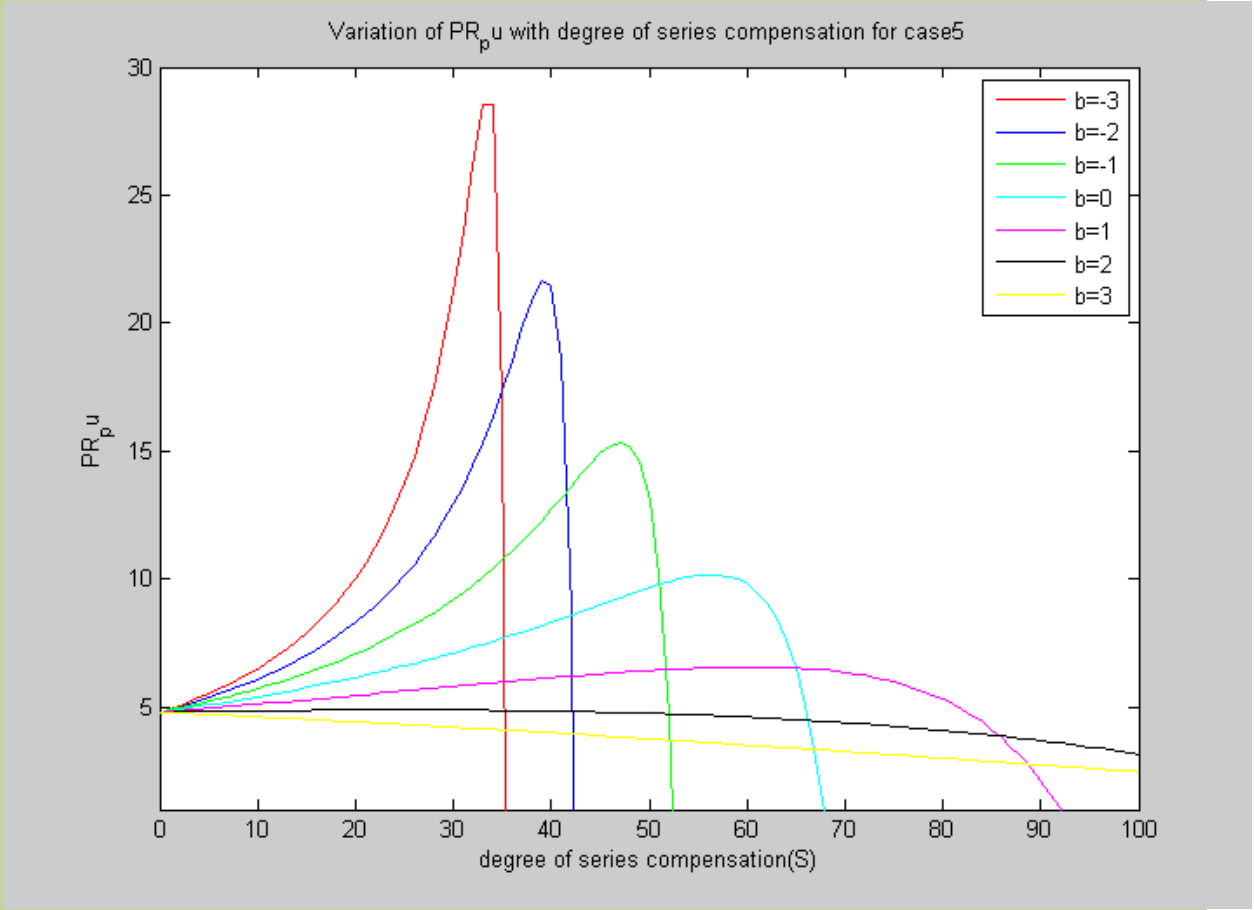


Figure 4.5 *Variation of maximum receiving end power with degree of series compensation for case 5*

4.14.2 PLOT

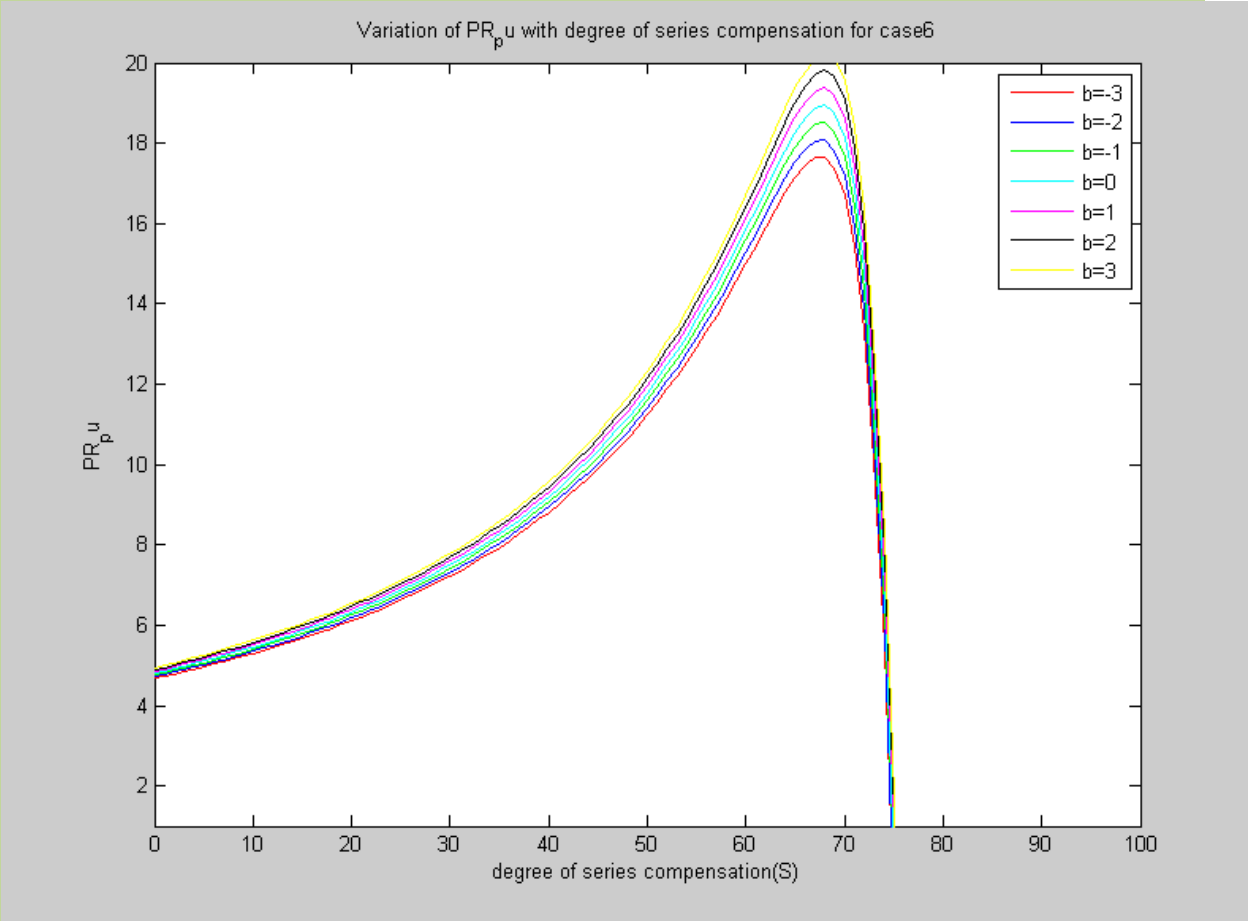


Figure 4.6 *Variation of maximum receiving end power with degree of series compensation for case 6*

4.15.2 PLOT

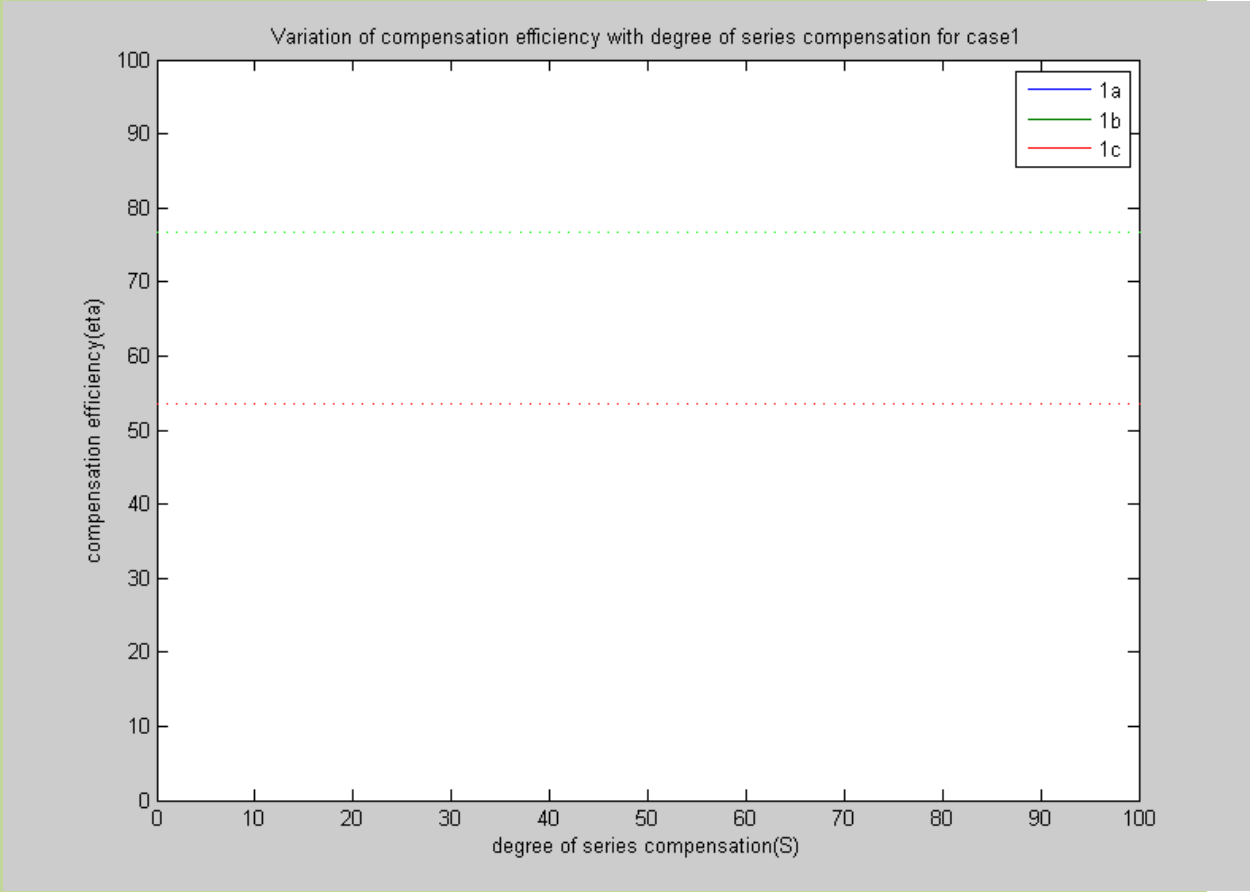


Figure 4.7 *Variation of compensation efficiency with degree of series compensation for case 1*