are de-interleaved and passed back to become prior probabilities to decoder-I. The process of communicating information probability back and forth continues until maximum number of iterations is accomplished or till the decoder specifies that decoding process is converged.

3. Analysis

The Figure below shows the performance comparison of PCCC and SCCC on faded channel and SCCC performs better in terms of BER as compared to PCCC, the BER of SCCC at SNR=10dB is 10-6 and PCCC is 10-4.

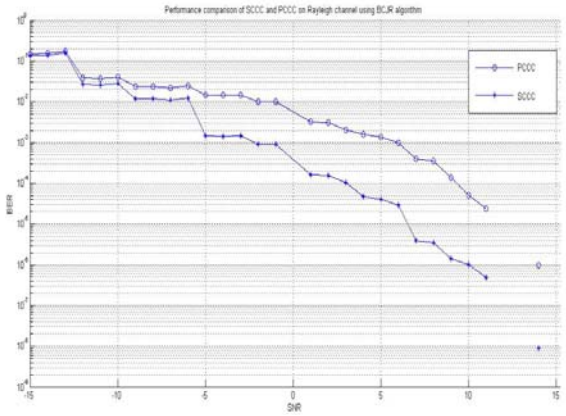

Figure 8. Performance Comparison of SCCC and PCCC on Rayleigh Faded Channel using BCJR Algorithm

The Figure 9 shows the performance of PCCC and SCCC on Rayleigh Faded channel using TDA and simulation results shows SCCC performs better as compared to PCCC.

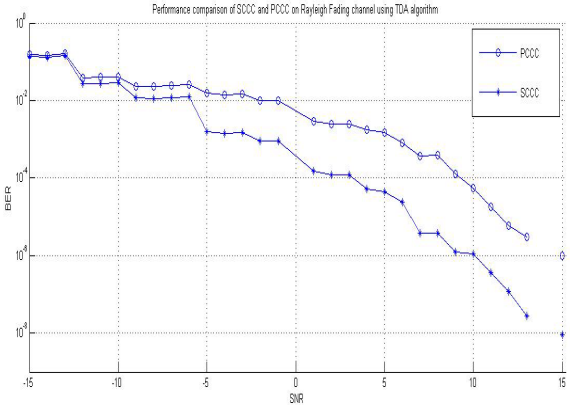

Figure 9. Performance Comparison of SCCC and PCCC on Rayleigh Faded Channel using TDA

The main title (on the first page) should begin 1-3/8 inches (3.49 cm) from the top edge of the page, centered, and in Times 14-point, boldface type. Capitalize the first letter of nouns, pronouns, verbs, adjectives, and adverbs; do not capitalize articles, coordinate conjunctions, or prepositions (unless the title begins with such a word). Leave two 12-point blank lines after the title.

4. Conclusion

"Performance comparison of SCCC & PCCC on faded Channels", conferred iterative decoder with SCCC. Smart SCCC & PCCC coding and decoding algorithm has executed close to Shannon capacity. Thus, the bits in error rate of these SCCC codes is much improved than their PCCC counter codes. A variable forward error control system can be implemented with puncturing and rate-compatibility.

The computer based simulation results show that SCCC is an influential forward error correction coding technique that works with channels having certain SNR circumstances. There are featuring factors needed to be careful in Smart SCCC coding & decoding. As the decoding process is iterative, so yielding lower BER is conditioned to number of iterations. In order to drop the BER, if increases the iterations, it will affect the decoding latency. Further, the bit in error or BER surrenders provided the frame size larger. The proceeding in this manner also effects the decoding time. Moreover, another key factor to be considered in decoding procedure is code rate. The bandwidth needs increases for higher coding rate. The chief hitch of SCCC is their complex design, and decoding time. The simulation results also show that SCCC performs better under Fading channels as compared to PCCC.

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