

4. DISCUSSIONS

The results obtained in Fig 6 showed that a difference in initial conditions and slight parameter variation that would otherwise cause the two chaotic systems to produce divergent time series, had no effect when the two were synchronized using self synchronization approach.

Figs. 7, 8, 9 and 10 confirmed the effectiveness of the four modulation schemes as the message signals were recovered at the receiver. The transmitted signal waveforms confirmed the security of the chaos modulation schemes. It could be observed that DCSK provided the highest security followed by chaotic masking. COOK provided the lowest level of security. The data transmission rate of DCSK was however twice those of others.

5. CONCLUSION

We have discussed in this paper the use of Simulink to demonstrate various chaotic secure communication schemes. We have assumed an ideal noiseless communication channel in this study. Further work is on going to demonstrate same for a practical noisy channel.

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