


# **Towards Some Final Year Project Title To Take Up To Lines In This Case**



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A Final Year Report Submitted Towards Consideration  
for a Bachelor of Engineering

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# Glossary

<b>APD</b>	Avalanche PhotoDiode	<b>GVD</b>	Group Velocity Dispersion
<b>API</b>	Application Programming Interface	<b>IFFT</b>	Inverse Fast Fourier Transform
<b>ASK</b>	Amplitude Shift Keying	<b>IIR</b>	Infinite Impulse Response
<b>AWG</b>	Agile Waveform Generator	<b>IMDD</b>	Intensity Modulation Direct Detection
<b>B2B</b>	Back-2-Back	<b>ISI</b>	InterSymbol Interference
<b>BBP</b>	Baseband Processor	<b>IVI</b>	Interchangeable Virtual Instruments
<b>BER</b>	Bit Error Ratio	<b>LAN</b>	Local Area Network
<b>BL</b>	Bandwidth-Length	<b>LD</b>	Dispersion Length
<b>BLAST</b>	Bell Labs <u>L</u> Ayered <u>S</u> pace <u>T</u> ime	<b>LD</b>	Laser Diode
<b>BT</b>	Time Bandwidth Product	<b>LUT</b>	Look-Up Table
<b>CD</b>	Chromatic Dispersion	<b>MC</b>	Multiple-Carrier
<b>CDMA</b>	Code Division Multiple Access	<b>MIMO</b>	Multiple Input Multiple Output
<b>CPM</b>	Continuous Phase Modulation	<b>MLSE</b>	Maximum Likelihood Sequence Estimation
<b>CSI</b>	Channel State Information	<b>MMF</b>	Multi Mode Fiber
<b>D</b>	Dispersion Coefficient	<b>MSK</b>	Minimum Shift Keying
<b>DD</b>	Direct Detection	<b>MSO</b>	Mixed Signal Oscilloscope
<b>DECT</b>	Digital Enhanced Cordless Telecommunication	<b>MZI</b>	Mach-Zehnder Interferometer
<b>DPO</b>	Digital Phosphorous Oscilloscope	<b>MZM</b>	Mach-Zehnder Modulator
<b>DPM</b>	Digital Phase Modulation	<b>NGPON</b>	Next Generation Passive Optical Network
<b>DSP</b>	Digital Signal Processing	<b>NLSE</b>	Non-Linear Schrödinger Equation
<b>EDFA</b>	Eridium Doped Fiber Amplifier	<b>NRZ</b>	Non-Return to Zero
<b>FBMC</b>	Filter Bank Multi-Carrier	<b>ODN</b>	Optical Distribution Network
<b>FDM</b>	Frequency Division Multiplex	<b>OFDM</b>	Orthogonal Frequency Division Multiplexing
<b>FDMA</b>	Frequency Division Multiple Access	<b>OOK</b>	On Off Keying
<b>FEA</b>	Finite Element Analysis	<b>OSA</b>	Optical Spectrum Analyzer
<b>FEC</b>	Forward Error Correction	<b>OSNR</b>	Optical Signal to Noise Ratio
<b>FFT</b>	Fast Fourier Transform	<b>PAPR</b>	Peak to Average Power Ratio
<b>FIR</b>	Finite Impulse Response	<b>PD</b>	Photo Diode
<b>FRS</b>	Full Response Signalling	<b>P-i-N</b>	P-doped Intrinsic N-doped Photodiode
<b>FTTx</b>	Fiber To The x	<b>PON</b>	Passive Optical Network
<b>GASK</b>	Gaussian Amplitude Shift Keying	<b>PRS</b>	Partial Response Signalling
<b>GFDM</b>	Generalised Frequency Division Multiplexing	<b>QMDD</b>	Quadrature Modulation Direct Dectection
<b>GLPF</b>	Gaussian Low-Pass Filter	<b>RF</b>	Radio Frequency
<b>GMSK</b>	Gaussian Minimum Shift Keying	<b>RIN</b>	Relative Intensity Noise
<b>GSM</b>	Global System for Mobile Communications		

<b>SCPI</b>	Standard Commands for Programmable Instruments	<b>TDM</b>	Time Division Multiplex
<b>SISO</b>	Single Input Single Output	<b>TDMA</b>	Time Division Multiple Access
<b>SMF</b>	Single Mode Fiber	<b>TFM</b>	Tamed Frequency Modulation
<b>SNR</b>	Signal to Noise Ratio	<b>TIA</b>	TransImpedance Amplifier
<b>SOA</b>	Semiconductor Optical Amplifier	<b>UFMC</b>	Universal Filtered Multiple Carrier
<b>SPM</b>	Self Phase Modulation	<b>USB</b>	Universal Serial Bus
<b>SS</b>	Spread Spectrum	<b>VISA</b>	Virtual Instrument Software Architecture
<b>SSFm</b>	Split-Step Fourier Method	<b>WDM</b>	Wave Division Multiplex
<b>SSSFm</b>	Symmetricised Split Step Fourier Method		
<b>TCM</b>	Trellis Coded Modulation		

# Chapter 1

## Introduction

### 1.1 Introduction

Should an introduction chapter have an introduction section immediately inside it? If so, leave the above ... To show referencing, perhaps reference ahead to Section ??

It could be useful to cite something here as opposed to reference[?]

### 1.2 Motivation

Something about the motivation for pursuing this topic / project.

### 1.3 History

Something about history yada yada[?] Perhaps if your project had to do with Software Defined Radio, you might give a history to do with Software Defined Radio, etc. This previous sentence was also an excuse to should how one might index something.

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# Chapter 2

# Literature Review

## 2.1 Introduction

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## 2.2 State Of The Art

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here as opposed to It could be useful to cite something here as opposed to It could be  
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## 2.3 Summary

Summarise the chapter as a graceful ending to the chapter as opposed to an abrupt stop.

## Chapter 3

# Conclusions & Future Work

### 3.1 Conclusions

Something here to do with conclusions.

### 3.2 Future Work

Something here to do with conclusions.

## Appendix A

# Python Scripts

## Appendix B

# VHDL Scripts