

University of Barishal
FACULTY OF Arts and Humanities

University of Barishal

বরিশাল বিশ্ববিদ্যালয়



English

English Literature Report

Signal Transmission & Distortion

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1 Introduction

In the body of written works produced in the English language by inhabitants of the British Isles (including Ireland) from the 7th century to the present day. The major literatures written in English outside the British Isles are treated separately under American literature, Australian literature, Canadian literature, and New Zealand literature. English literature has sometimes been stigmatized as insular. It can be argued that no single English novel attains the universality of the Russian writer Leo Tolstoy's *War and Peace* or the French writer Gustave Flaubert's *Madame Bovary*. Yet in the Middle Ages the Old English literature of the subjugated Saxons was leavened by the Latin and Anglo-Norman writings, eminently foreign in origin, in which the churchmen and the Norman conquerors expressed themselves. From this combination emerged a flexible and subtle linguistic instrument exploited by Geoffrey Chaucer and brought to supreme application by William Shakespeare. During the Renaissance the renewed interest in Classical learning and values had an important effect on English literature, as on all the arts; and ideas of Augustan literary propriety in the 18th century and reverence in the 19th century for a less specific, though still selectively viewed, Classical antiquity continued to shape the literature. All three of these impulses derived from a foreign source, namely the Mediterranean basin. The Decadents of the late 19th century and the Modernists of the early 20th looked to continental European individuals and movements for inspiration. Nor was attraction toward European intellectualism dead in the late 20th century, for by the mid-1980s the approach known as structuralism, a phenomenon predominantly French and German in origin, infused the very study of English literature itself in a host of published critical studies and university departments. Additional influence was exercised by deconstructionist analysis, based largely on the work of French philosopher Jacques Derrida. Further, Britain's past imperial activities around the globe continued to inspire literature—in some cases wistful, in other cases hostile. Finally, English literature has enjoyed a certain diffusion abroad, not only in predominantly English-speaking countries but also in all those others where English is the first choice of study as a second language.

The circuit in Figure ?? is a first order low pass filter circuit. First order is defined as 1 pair of resistor and capacitor connected in series in a circuit. A low pass filter attenuates high frequency signal input and only allows low frequency which below the cut-off frequency to pass through. Cut-off frequency is the frequency filter start to attenuate the passage of the input signals: $f_c = 2\pi RC$. At low frequency, the reactance of capacitor is high and the resistance is low. This result the voltage potential across the capacitor is higher than voltage drop across the resistor. Therefore, high frequency signals are attenuated in the experiment.

The circuit in Figure ?? is acting as second order high pass filter which is oppose to the meaning of low pass filter. High pass filter passes signals above the cut-off frequency and attenuates low frequency signals. By reversing the roles of resistors and capacitors, the reactance of capacitors are low at high frequency signals. Therefore, the capacitors in the circuit act as open circuit and attenuate low frequency input signals until cut-off frequency reached.

In last part of this experiment, we are studying the multipath propagation as show in Figure ???. Multipath occurs when a signal takes more than one path from the transmitting antenna to the receiving antenna. Regarding to lecture notes, the signals are received in a terrestrial environment, i.e. where reflections are present and signals arrive at the receiver from the transmitter via a variety of paths. The overall signal at the radio receiver is a summation of the variety of signals being received. As they all have different path lengths, the signals will add and subtract from the total dependent upon their relative phases. Sometimes these will be in phase with the main signal and will add to it, increasing its strength. At other times they will interfere with each other. This will result in the overall signal strength being reduced.

2 Objectives and Learning Outcomes

1. Distortion of signal during transmission occurs if the frequency response of the transmission channel is not of constant amplitude and linear phase. In this laboratory work, the student will:

- (a) Design and conduct an experiment to analyse the A. The later Middle English Period English literature is therefore not so much insular as detached from the continental European tradition across the Channel. It is strong in all the conventional categories of the bookseller's list: in Shakespeare it has a dramatist of world renown; in poetry, a genre notoriously resistant to adequate translation and therefore difficult to compare with the poetry of other literatures, it is so peculiarly rich as to merit inclusion in the front rank; English literature's humor has been found as hard to convey to foreigners as poetry, if not more so—a fact at any rate permitting bestowal of the label “idiosyncratic”; English literature's remarkable body of travel writings constitutes another counterthrust to the charge of insularity; in autobiography, biography, and historical writing, English literature compares with the best of any culture; and children's literature, fantasy, essays, and journals, which tend to be considered minor genres, are all fields of exceptional achievement as regards English literature. Even in philosophical writings, popularly thought of as hard to combine with literary value, thinkers such as Thomas Hobbes, John Locke, David Hume, John Stuart Mill, and Bertrand Russell stand comparison for lucidity and grace with the best of the French philosophers and the masters of Classical antiquity. Some of English literature's most distinguished practitioners in the 20th century—from Joseph Conrad at its beginning to V.S. Naipaul and Tom Stoppard at its end—were born outside the British Isles. What is more, none of the aforementioned had as much in common with his adoptive country as did, for instance, Doris Lessing and Peter Porter (two other distinguished writer-immigrants to Britain), both having been born into a British family and having been brought up on British Commonwealth soil.

Britannica Quiz The Life and Works of English Authors

On the other hand, during the same period in the 20th century, many notable practitioners of English literature left the British Isles to live abroad: James Joyce, D.H. Lawrence, Aldous Huxley, Christopher Isherwood, Robert Graves, Graham Greene, Muriel Spark, and Anthony Burgess. In one case, that of Samuel Beckett, this process was carried to the extent of writing works first in French and then translating them into English. Even English literature considered purely as a product of the British Isles is extraordinarily heterogeneous, however. Literature actually written in those Celtic tongues once prevalent in Cornwall, Ireland, Scotland, and Wales—called the “Celtic Fringe”—is treated separately (see Celtic literature). Yet Irish, Scots, and Welsh writers have contributed enormously to English literature even when they have written in dialect, as the 18th-century poet Robert Burns and the 20th-century Scots writer Alasdair Gray have done. In the latter half of the 20th century, interest began also to focus on writings in

English or English dialect by recent settlers in Britain, such as Afro-Caribbeans and people from Africa proper, the Indian subcontinent, and East Asia.

Get Unlimited Access Try Britannica Premium for free and discover more. Subscribe Even within England, culturally and historically the dominant partner in the union of territories comprising Britain, literature has been as enriched by strongly provincial writers as by metropolitan ones. Another contrast more fruitful than not for English letters has been that between social milieus, however much observers of Britain in their own writings may have deplored the survival of class distinctions. As far back as medieval times, a courtly tradition in literature cross-fertilized with an earthier demotic one. Shakespeare's frequent juxtaposition of royalty in one scene with plebeians in the next reflects a very British way of looking at society. This awareness of differences between high life and low, a state of affairs fertile in creative tensions, is observable throughout the history of English literature.

- Breadboard, two 100 Ohm resistors, two 51 Ohm resistors, and three 10 k Ohm resistors, four 1μF capacitors and three μ741 Op-Amp.
- DC power supply, Function generator, Oscilloscope and Digital multi-meter.

I. The Old English period A. Poetry The Angles, Saxons, and Jutes who invaded Britain in the 5th and 6th centuries brought with them the common Germanic meter; but of their earliest oral poetry, probably used for panegyric, magic, and short narrative, little or none survives. For nearly a century after the conversion of King Aethelberht I of Kent to Christianity about 600, there is no evidence that the English wrote poetry in their own language. But St. Bede the Venerable, in his *Historia ecclesiastica gentis Anglorum* ("Ecclesiastical History of the English People"), wrote that in the late 7th century Caedmon, an illiterate Northumbrian cowherd, was inspired in a dream to compose a short hymn in praise of the creation. Caedmon later composed verses based on Scripture, which was expounded for him by monks at Streaneshalch (now called Whitby), but only the "Hymn of Creation" survives. Caedmon legitimized the native verse form by adapting it to Christian themes. Others, following his example, gave England a body of vernacular poetry unparalleled in Europe before the end of the 1st millennium. B. Alliterative verse Virtually all Old English poetry is written in a single meter, a four-stress line with a syntactical break, or caesura, between the second and third stresses, and with alliteration linking the two halves of the line; this pattern is occasionally varied by six-stress lines. The poetry is formulaic, drawing on a common set of stock phrases and phrase patterns, applying standard epithets to various classes of characters, and depicting scenery with such recurring images as the eagle and the wolf, which wait during battles to feast on carrion, and ice and snow, which appear in the landscape to signal sorrow. In the best poems such formulas, far from being tedious, give a strong impression of the richness of the cultural fund from which po-

ets could draw. Other standard devices of this poetry are the kenning, a figurative name for a thing, usually expressed in a compound noun (e.g., swan-road used to name the sea); and variation, the repeating of a single idea in different words, with each repetition adding a new level of meaning. That these verse techniques changed little during 400 years of literary production suggests the extreme conservatism of Anglo-Saxon culture. The major manuscripts

Beowulf Beginning of the Beowulf manuscript. Most Old English poetry is preserved in four manuscripts of the late 10th and early 11th centuries. The Beowulf manuscript (British Library) contains Beowulf, Judith, and three prose tracts; the Exeter Book (Exeter Cathedral) is a miscellaneous gathering of lyrics, riddles, didactic poems, and religious narratives; the Junius Manuscript (Bodleian Library, Oxford)—also called the Caedmon Manuscript, even though its contents are no longer attributed to Caedmon—contains biblical paraphrases; and the Vercelli Book (found in the cathedral library in Vercelli, Italy) contains saints' lives, several short religious poems, and prose homilies. In addition to the poems in these books are historical poems in the Anglo-Saxon Chronicle; poetic renderings of Psalms 51–150; the 31 “Metres” included in King Alfred the Great’s translation of Boethius’s *De consolazione philosophiae* (Consolation of Philosophy); magical, didactic, elegiac, and heroic poems; and others, miscellaneous interspersed with prose, jotted in margins, and even worked in stone or metal. C. Problems of dating Few poems can be dated as closely as Caedmon’s “Hymn.” King Alfred’s compositions fall into the late 9th century, and Bede composed his “Death Song” within 50 days of his death on May 25, 735. Historical poems such as “The Battle of Brunanburh” (after 937) and “The Battle of Maldon” (after 991) are fixed by the dates of the events they commemorate. A translation of one of Aldhelm’s riddles is found not only in the Exeter Book but also in an early 9th-century manuscript at Leiden, Neth. And at least a part of “The Dream of the Rood” can be dated by an excerpt carved on the 8th-century Ruthwell Cross (in Dumfriesshire, Scot.). But in the absence of such indications, Old English poems are hard to date, and the scholarly consensus that most were composed in the Midlands and the North in the 8th and 9th centuries gave way to uncertainty during the last two decades of the 20th century. Many now hold that “The Wanderer,” Beowulf, and other poems once assumed to have been written in the 8th century are of the 9th century or later. For most poems, there is no scholarly consensus beyond the belief that they were written between the 8th and the 11th centuries. D. Religious verse If few poems can be dated accurately, still fewer can be attributed to particular poets. The most important author from whom a considerable body of work survives is Cynewulf, who wove his runic signature into the epilogues of four poems. Aside from his name, little is known of him; he probably lived in the 9th century in Mercia or Northumbria. His works include *The Fates of the Apostles*, a short martyrology; *The Ascension* (also called *Christ II*), a homily and biblical narrative; *Juliana*, a saint’s passion set in the reign of the Roman emperor Maximian (late 3rd century ce); and *Elene*, perhaps the best

of his poems, which describes the mission of St. Helena, mother of the emperor Constantine, to recover Christ's cross. Cynewulf's work is lucid and technically elegant; his theme is the continuing evangelical mission from the time of Christ to the triumph of Christianity under Constantine. Several poems not by Cynewulf are associated with him because of their subject matter. These include two lives of St. Guthlac and Andreas; the latter, the apocryphal story of how St. Andrew fell into the hands of the cannibalistic (and presumably mythical) Mermedonians, has stylistic affinities with Beowulf. Also in the "Cynewulf group" are several poems with Christ as their subject, of which the most important is "The Dream of the Rood," in which the cross speaks of itself as Christ's loyal thane and yet the instrument of his death. This tragic paradox echoes a recurring theme of secular poetry and at the same time movingly expresses the religious paradoxes of Christ's triumph in death and humankind's redemption from sin. Several poems of the Junius Manuscript are based on the Old Testament narratives Genesis, Exodus, and Daniel. Of these, Exodus is remarkable for its intricate diction and bold imagery. The fragmentary Judith of the Beowulf Manuscript stirringly embellishes the story from the Apocrypha of the heroine who led the Jews to victory over the Assyrians. E. Elegiac and heroic verse The term elegy is used of Old English poems that lament the loss of worldly goods, glory, or human companionship. "The Wanderer" is narrated by a man, deprived of lord and kinsmen, whose journeys lead him to the realization that there is stability only in heaven. "The Seafarer" is similar, but its journey motif more explicitly symbolizes the speaker's spiritual yearnings. Several others have similar themes, and three elegies—"The Husband's Message," "The Wife's Lament," and "Wulf and Eadwacer"—describe what appears to be a conventional situation: the separation of husband and wife by the husband's exile. "Deor" bridges the gap between the elegy and the heroic poem, for in it a poet laments the loss of his position at court by alluding to sorrowful stories from Germanic legend. Beowulf itself narrates the battles of Beowulf, a prince of the Geats (a tribe in what is now southern Sweden), against the monstrous Grendel, Grendel's mother, and a fire-breathing dragon. The account contains some of the best elegiac verse in the language, and, by setting marvelous tales against a historical background in which victory is always temporary and strife is always renewed, the poet gives the whole an elegiac cast. Beowulf also is one of the best religious poems, not only because of its explicitly Christian passages but also because Beowulf's monstrous foes are depicted as God's enemies and Beowulf himself as God's champion. Other heroic narratives are fragmentary. Of "The Battle of Finnsburh" and "Waldere" only enough remains to indicate that, when whole, they must have been fast-paced and stirring. Of several poems dealing with English history and preserved in the Anglo-Saxon Chronicle, the most notable is "The Battle of Brunanburh," a panegyric on the occasion of King Athelstan's victory over a coalition of Norsemen and Scots in 937. But the best historical poem is not from the Anglo-Saxon Chronicle. "The Battle of Maldon," which describes the defeat of Aldorman Byrhtnoth and much of his army at the hands

of Viking invaders in 991, discovers in defeat an occasion to celebrate the heroic ideal, contrasting the determination of many of Byrhtnoth's thanes to avenge his death or die in the attempt with the cowardice of others who left the field. Minor poetic genres include catalogs (two sets of "Maxims" and "Widsith," a list of rulers, tribes, and notables in the heroic age), dialogues, metrical prefaces and epilogues to prose works of the Alfredian period, and liturgical poems associated with the Benedictine Office.

F. Prose The earliest English prose work, the law code of King Aethelberht I of Kent, was written within a few years of the arrival in England (597) of St. Augustine of Canterbury. Other 7th- and 8th-century prose, similarly practical in character, includes more laws, wills, and charters. According to Cuthbert, who was a monk at Jarrow, Bede at the time of his death had just finished a translation of the Gospel of St. John, though this does not survive. Two medical tracts, *Herbarium* and *Medicina de quadrupedibus*, very likely date from the 8th century.

G. Early translations into English The earliest literary prose dates from the late 9th century, when King Alfred, eager to improve the state of English learning, led a vigorous program to translate into English "certain books that are necessary for all men to know." Alfred himself translated the Pastoral Care of St. Gregory I the Great, the Consolation of Philosophy of Boethius, the Soliloquies of St. Augustine of Hippo, and the first 50 Psalms. His Pastoral Care is a fairly literal translation, but his Boethius is extensively restructured and revised to make explicit the Christian message that medieval commentators saw in that work. He revised the Soliloquies even more radically, departing from his source to draw from Gregory and St. Jerome, as well as from other works by Augustine. Alfred's prefaces to these works are of great historical interest. At Alfred's urging, Bishop Werferth of Worcester translated the Dialogues of Gregory; probably Alfred also inspired anonymous scholars to translate Bede's *Historia ecclesiastica* and Paulus Orosius's *Historiarum adversum paganos libri vii* (Seven Books of History Against the Pagans). Both of these works are much abridged; the Bede translation follows its source slavishly, but the translator of Orosius added many details of northern European geography and also accounts of the voyages of Ohthere the Norwegian and Wulfstan the Dane. These accounts, in addition to their geographical interest, show that friendly commerce between England and Scandinavia was possible even during the Danish wars. The Anglo-Saxon Chronicle probably originated in Alfred's reign. Its earliest annals (beginning in the reign of Julius Caesar) are laconic, except the entry for 755, which records in detail a feud between the West Saxon king Cynewulf and the would-be usurper Cyneheard. The entries covering the Danish wars of the late 9th century are much fuller, and those running from the reign of Ethelred II to the Norman Conquest in 1066 (when the Anglo-Saxon Chronicle exists in several versions) contain many passages of excellent writing. The early 10th century is not notable for literary production, but some of the homilies in the Vercelli Book and the Blickling Manuscript (Scheide Library, Princeton University) may belong to that period.

H. Late 10th- and 11th-century prose The prose literature of the mid- to late 10th century

is associated with the Benedictine Reform, a movement that sought to impose order and discipline on a monastic establishment that was thought to have grown lax. Aethelwold, bishop of Winchester and one of the leaders of the reform, translated the Rule of St. Benedict. But the greatest and most prolific writer of this period was his pupil Aelfric, a monk at Cerne and later abbot of Eynsham, whose works include three cycles of 40 homilies each (Catholic Homilies, 2 vol., and the Lives of the Saints), as well as homilies not in these cycles; a Latin grammar; a treatise on time and natural history; pastoral letters; and several translations. His Latin Colloquy, supplied with an Old English version by an anonymous glossarist, gives a fascinating glimpse into the Anglo-Saxon monastic classroom. Aelfric wrote with lucidity and astonishing beauty, using the rhetorical devices of Latin literature frequently but without ostentation; his later alliterative prose, which loosely imitates the rhythms of Old English poetry, influenced writers long after the Norman Conquest. Wulfstan, archbishop of York, wrote legal codes, both civil and ecclesiastical, and a number of homilies, including *Sermo Lupi ad Anglos* (“Wulf’s Address to the English”), a ferocious denunciation of the morals of his time. To judge from the number of extant manuscripts, these two writers were enormously popular. Byrhtferth of Ramsey wrote several Latin works and the *Enchiridion*, a textbook on the calendar, notable for its ornate style. Numerous anonymous works, some of very high quality, were produced in this period, including homilies, saints’ lives, dialogues, and translations of such works as the Gospels, several Old Testament books, liturgical texts, monastic rules, penitential handbooks, and the romance *Apollonius of Tyre* (translated from Latin but probably derived from a Greek original). The works of the Benedictine Reform were written during a few remarkable decades around the turn of the millennium. Little original work can be securely dated to the period after Wulfstan’s death (1023), but the continued vigor of the Anglo-Saxon Chronicle shows that good Old English prose was written right up to the Norman Conquest. By the end of this period, English had been established as a literary language with a polish and versatility unequaled among European vernaculars.

II. The early Middle English period

A. Poetry The Norman Conquest worked no immediate transformation on either the language or the literature of the English. Older poetry continued to be copied during the last half of the 11th century; two poems of the early 12th century—“Durham,” which praises that city’s cathedral and its relics, and “Instructions for Christians,” a didactic piece—show that correct alliterative verse could be composed well after 1066. But even before the conquest, rhyme had begun to supplant rather than supplement alliteration in some poems, which continued to use the older four-stress line, although their rhythms varied from the set types used in classical Old English verse. A postconquest example is “The Grave,” which contains several rhyming lines; a poem from the Anglo-Saxon Chronicle on the death of William the Conqueror, lamenting his cruelty and greed, has more rhyme than alliteration.

B. Influence of French poetry By the end of the 12th century, English poetry had been so heavily influenced by French models that such a

work as the long epic *Brut* (c. 1200) by Lawamon, a Worcestershire priest, seems archaic for mixing alliterative lines with rhyming couplets while generally eschewing French vocabulary. The *Brut* draws mainly upon Wace's Anglo-Norman *Roman de Brut* (1155; based in turn upon Geoffrey of Monmouth's *Historia regum Britanniae* [History of the Kings of Britain]), but in Lawamon's hands the Arthurian story takes on a Germanic and heroic flavor largely missing in Wace. The *Brut* exists in two manuscripts, one written shortly after 1200 and the other some 50 years later. That the later version has been extensively modernized and somewhat abridged suggests the speed with which English language and literary tastes were changing in this period. The *Proverbs of Alfred* was written somewhat earlier, in the late 12th century; these proverbs deliver conventional wisdom in a mixture of rhymed couplets and alliterative lines, and it is hardly likely that any of the material they contain actually originated with the king whose wisdom they celebrate. The early 13th-century *Bestiary* mixes alliterative lines, three- and four-stress couplets, and septenary (heptameter) lines, but the logic behind this mix is more obvious than in the *Brut* and the *Proverbs*, for the poet was imitating the varied meters of his Latin source. More regular in form than these poems is the anonymous *Poema morale* in septenary couplets, in which an old man delivers a dose of moral advice to his presumably younger audience. By far the most brilliant poem of this period is *The Owl and the Nightingale* (written after 1189), an example of the popular debate genre. The two birds argue topics ranging from their hygienic habits, looks, and songs to marriage, prognostication, and the proper modes of worship. The nightingale stands for the joyous aspects of life, the owl for the somber; there is no clear winner, but the debate ends as the birds go off to state their cases to one Nicholas of Guildford, a wise man. The poem is learned in the clerical tradition but wears its learning lightly as the disputants speak in colloquial and sometimes earthy language. Like the *Poema morale*, *The Owl and the Nightingale* is metrically regular (octosyllabic couplets), but it uses the French meter with an assurance unusual in so early a poem. C. Didactic poetry The 13th century saw a rise in the popularity of long didactic poems presenting biblical narrative, saints' lives, or moral instruction for those untutored in Latin or French. The most idiosyncratic of these is the *Ormulum* by Orm, an Augustinian canon in the north of England. Written in some 20,000 lines arranged in unrhymed but metrically rigid couplets, the work is interesting mainly in that the manuscript that preserves it is Orm's autograph and shows his somewhat fussy efforts to reform and regularize English spelling. Other biblical paraphrases are *Genesis* and *Exodus*, *Jacob and Joseph*, and the vast *Cursor mundi*, whose subject, as its title suggests, is the history of the world. An especially popular work was the *South English Legendary*, which began as a miscellaneous collection of saints' lives but was expanded by later redactors and rearranged in the order of the church calendar. The didactic tradition continued into the 14th century with Robert Mannyng's *Handling Sin*, a confessional manual whose expected dryness is relieved by the insertion of lively narratives, and the *Prick of*

Conscience, a popular summary of theology sometimes attributed to the mystic Richard Rolle. D. Verse romance The earliest examples of verse romance, a genre that would remain popular through the Middle Ages, appeared in the 13th century. King Horn and Floris and Blanchefleur both are preserved in a manuscript of about 1250. King Horn, oddly written in short two- and three-stress lines, is a vigorous tale of a kingdom lost and regained, with a subplot concerning Horn's love for Princess Rymenhild. Floris and Blanchefleur is more exotic, being the tale of a pair of royal lovers who become separated and, after various adventures in eastern lands, reunited. Not much later than these is The Lay of Havelok the Dane, a tale of princely love and adventure similar to King Horn but more competently executed. Many more such romances were produced in the 14th century. Popular subgenres were "the matter of Britain" (Arthurian romances such as Of Arthour and of Merlin and Ywain and Gawain), "the matter of Troy" (tales of antiquity such as The Siege of Troy and King Alisaunder), and the English Breton lays (stories of otherworldly magic, such as Lai le Freine and Sir Orfeo, modeled after those of professional Breton storytellers). These relatively unsophisticated works were written for a bourgeois audience, and the manuscripts that preserve them are early examples of commercial book production.

- (b) A 100 Hz square wave was applied to the input and the effect on the output waveform V_2 was observed.
- (c) Repeated with 1kHz follow by 10 kHz square wave.
- (d) The observations were analysed and interpreted.

B. Alliterative verse Virtually all Old English poetry is written in a single meter, a four-stress line with a syntactical break, or caesura, between the second and third stresses, and with alliteration linking the two halves of the line; this pattern is occasionally varied by six-stress lines. The poetry is formulaic, drawing on a common set of stock phrases and phrase patterns, applying standard epithets to various classes of characters, and depicting scenery with such recurring images as the eagle and the wolf, which wait during battles to feast on carrion, and ice and snow, which appear in the landscape to signal sorrow. In the best poems such formulas, far from being tedious, give a strong impression of the richness of the cultural fund from which poets could draw. Other standard devices of this poetry are the kenning, a figurative name for a thing, usually expressed in a compound noun (e.g., swan-road used to name the sea); and variation, the repeating of a single idea in different words, with each repetition adding a new level of meaning. That these verse techniques changed little during 400 years of literary production suggests the extreme conservatism of Anglo-Saxon culture. The major manuscripts

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D. Religious verse If few poems can be dated accurately, still fewer can be attributed to particular poets. The most important author from whom a considerable body of work survives is Cynewulf, who wove his runic signature into the epilogues of four poems. Aside from his name, little is known of him; he probably lived in the 9th century in Mercia or Northumbria. His works include *The Fates of the Apostles*, a short martyrology; *The Ascension* (also called *Christ II*), a homily and biblical narrative; *Juliana*, a saint's passion set in the reign of the Roman emperor Maximian (late 3rd century ce); and *Elene*, perhaps the best of his poems, which describes the mission of St. Helena, mother of the emperor Constantine, to recover Christ's cross. Cynewulf's work is lucid and technically elegant; his theme is the continuing evangelical mission from the time of Christ to the triumph of Christianity under Constantine. Several poems not by Cynewulf are associated with him because of their subject matter. These include two lives of St. Guthlac and Andreas; the latter, the apocryphal story of how St. Andrew fell into the hands of the cannibalistic (and presumably mythical) Mermedonians, has stylistic affinities with Beowulf. Also in the “Cynewulf group” are several poems with Christ as their subject, of which the most important is “The Dream of the Rood,” in which the cross speaks of itself as Christ's loyal thane and yet the instrument of his death. This tragic paradox echoes a recurring theme of secular poetry and at the same time movingly expresses the religious paradoxes of Christ's triumph in death and humankind's redemption from

G. Early translations into English The earliest literary prose dates from the late 9th century, when King Alfred, eager to improve the state of English learning,

led a vigorous program to translate into English “certain books that are necessary for all men to know.” Alfred himself translated the Pastoral Care of St. Gregory I the Great, the Consolation of Philosophy of Boethius, the Soliloquies of St. Augustine of Hippo, and the first 50 Psalms. His Pastoral Care is a fairly literal translation, but his Boethius is extensively restructured and revised to make explicit the Christian message that medieval commentators saw in that work. He revised the Soliloquies even more radically, departing from his source to draw from Gregory and St. Jerome, as well as from other works by Augustine. Alfred’s prefaces to these works are of great historical interest. At Alfred’s urging, Bishop Werferth of Worcester translated the Dialogues of Gregory; probably Alfred also inspired anonymous scholars to translate Bede’s *Historia ecclesiastica* and Paulus Orosius’s *Historiarum adversum paganos libri vii* (Seven Books of History Against the Pagans). Both of these works are much abridged; the Bede translation follows its source slavishly, but the translator of Orosius added many details of northern European geography and also accounts of the voyages of Ohthere the Norwegian and Wulfstan the Dane. These accounts, in addition to their geographical interest, show that friendly commerce between England and Scandinavia was possible even during the Danish wars. The Anglo-Saxon Chronicle probably originated in Alfred’s reign. Its earliest annals (beginning in the reign of Julius Caesar) are laconic, except the entry for 755, which records in detail a feud between the West Saxon king Cynewulf and the would-be usurper Cyneheard. The entries covering the Danish wars of the late 9th century are much fuller, and those running from the reign of Ethelred II to the Norman Conquest in 1066 (when the Anglo-Saxon Chronicle exists in several versions) contain many passages of excellent writing. The early 10th century is not notable for literary production, but some of the homilies in the Vercelli Book and the Blickling Manuscript (Scheide Library, Princeton University) may belong to that period.

3 Result

3.1 Frequency Response Measurement for RC circuit(Low pass filter)

3.1.1 Experimental Result

Table 1: Experimental result for Second order low pass filter

$V_{in}(mV)$	f	$V_2(mV)$	(I.L)dB	Phase (ϕ)
5760	100 Hz	1190	-13.70	-5°
5730	200 Hz	1160	-13.87	-11°
5630	500 Hz	1070	-14.42	-21°
5320	1 kHz	849	-15.94	-38°
4930	2 kHz	560	-18.89	-65°
4830	5 kHz	265.1	-25.21	-74°
4780	10 kHz	123.86	-31.73	-77°
4700	20 kHz	32.55	-43.19	-79°
4700	50 kHz	7.7	-55.7	-83°
4700	100 kHz	2.29	-63.26	-85°

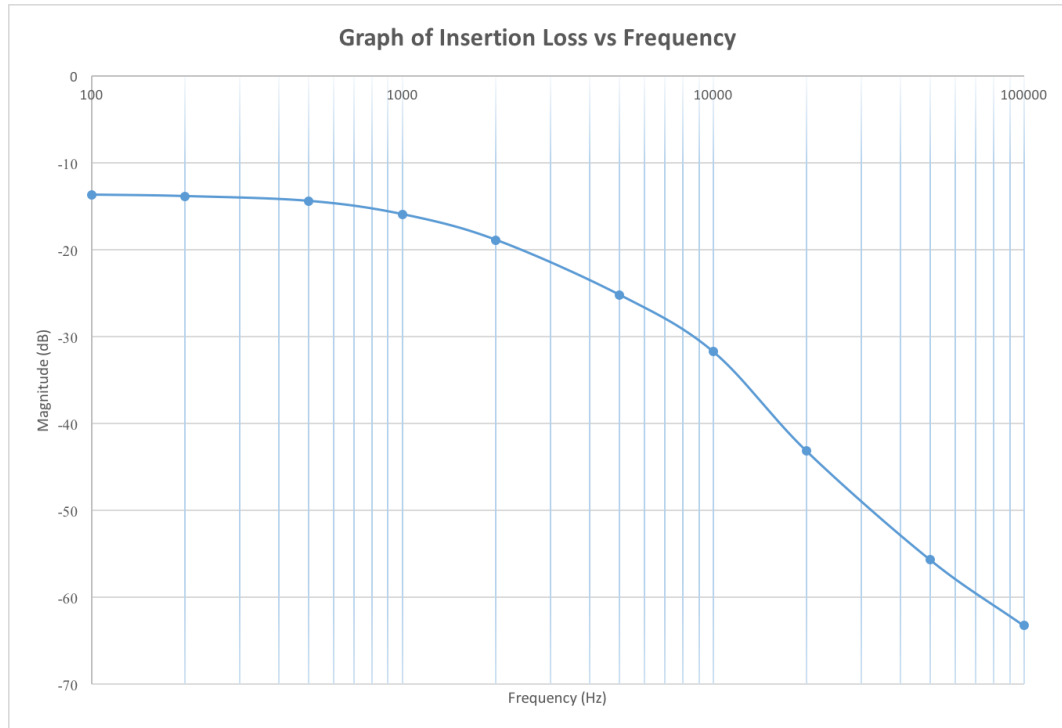


Figure 1: Graph of insertion loss versus frequencies (Low pass filter)

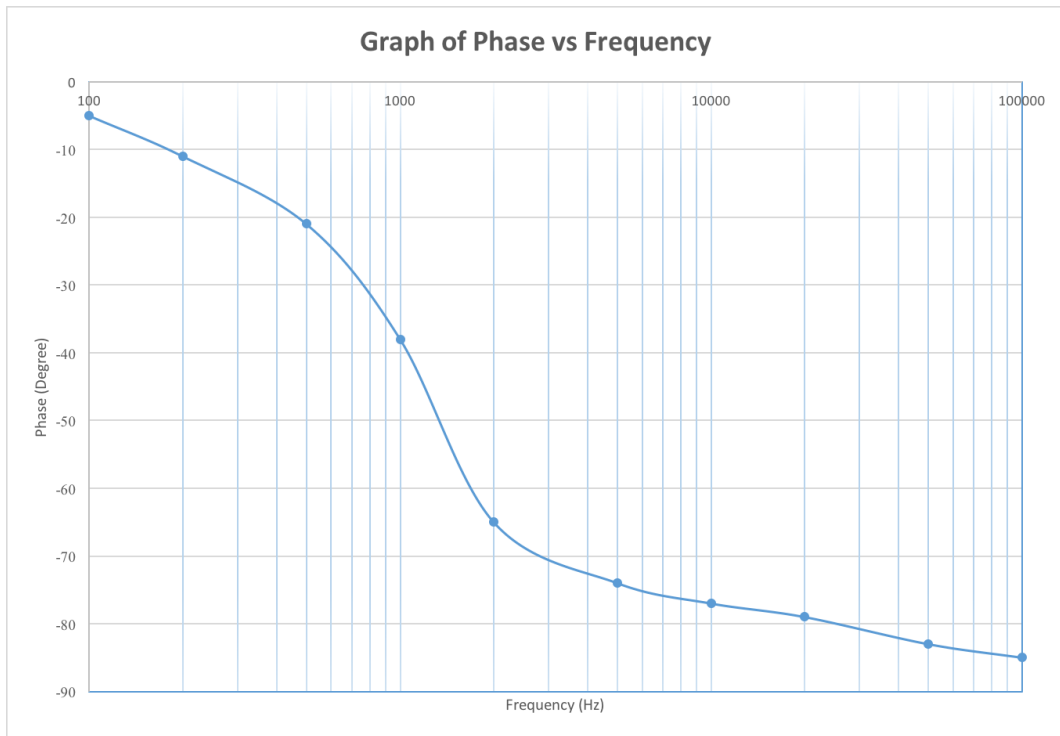
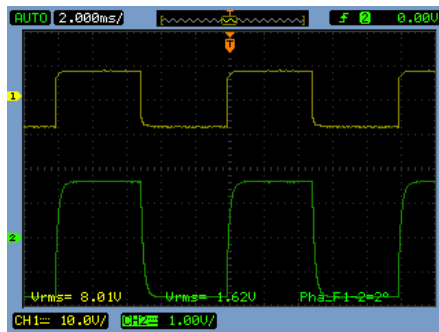
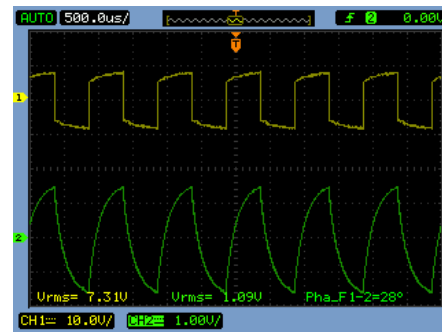


Figure 2: Graph of phase versus frequencies (Low pass filter)

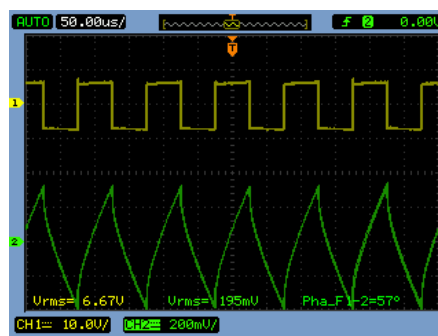
3.1.2 Transmission distortion over a RC channel



(a) frequency = 100Hz



(b) frequency = 1kHz



(c) frequency = 10kHz

Figure 3: Signal Transmission Distortion for LPF

3.2 Frequency Response Measurement for the CR circuit(High pass filter)

3.2.1 Experimental Result

Table 2: Experimental result for Second order low pass filter

$V_{in}(mV)$	f	$V_2(mV)$	(I.L)dB	Phase (ϕ)
7310	100 Hz	14.19	-54.24	173°
7040	200 Hz	40.0	-44.91	164°
6720	500 Hz	170.0	-31.94	151°
6430	1 kHz	492.85	-22.31	131°
5370	2 kHz	1050	-14.18	108°
3920	5 kHz	1840	-6.57	72°
3180	10 kHz	2040	-3.86	45°
2840	20 kHz	2170	-2.34	25°
2530	50 kHz	2200	-1.21	12°
2580	100 kHz	2230	-1.27	7°

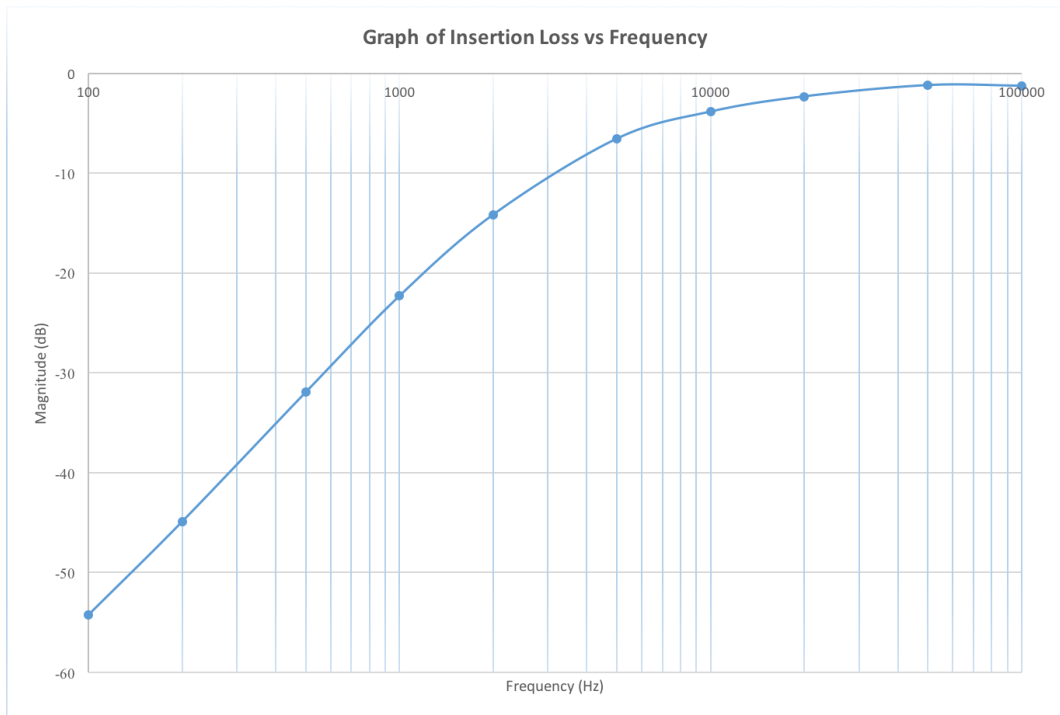


Figure 4: Graph of insertion loss versus frequencies (High pass filter)

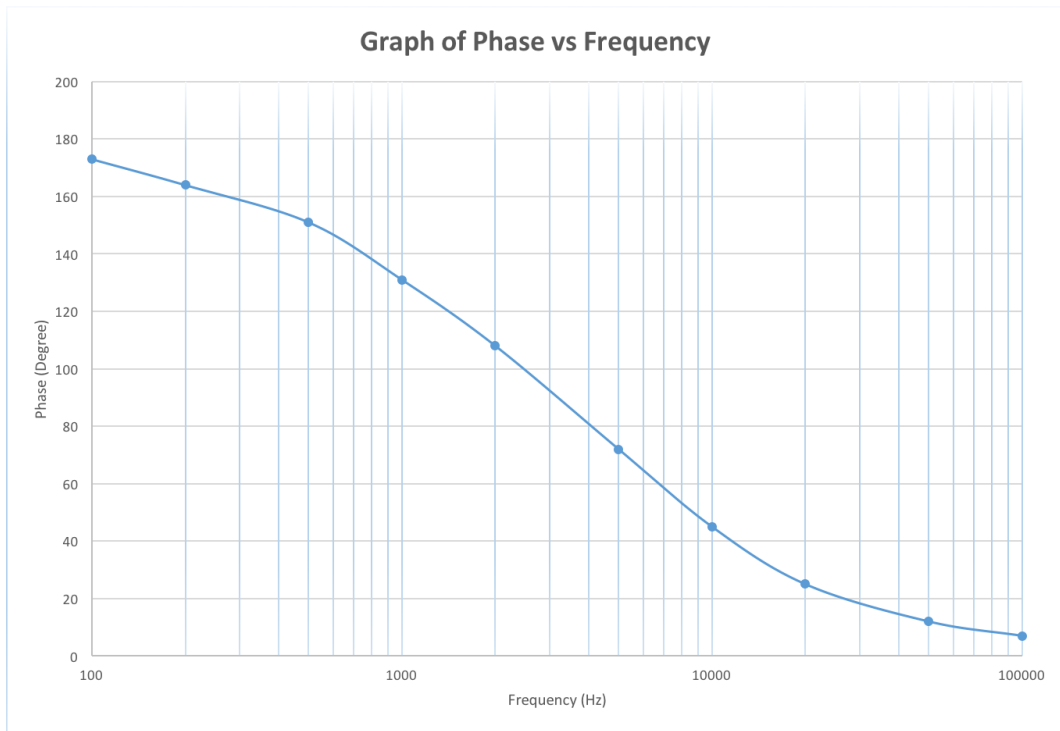
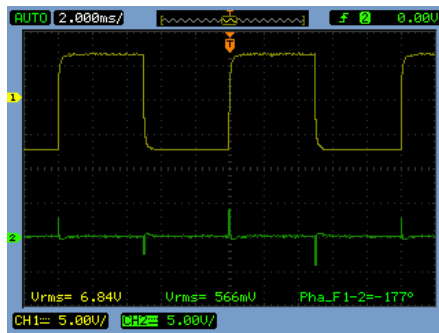
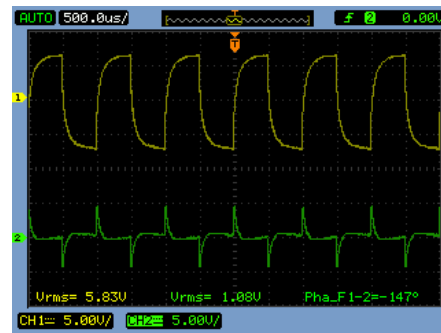


Figure 5: Graph of phase versus frequencies (High pass filter)

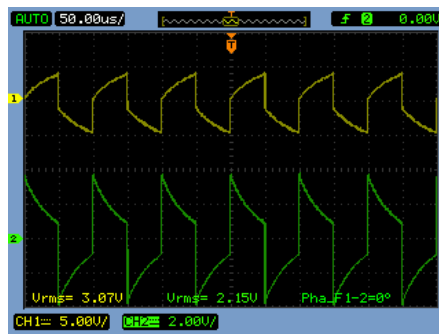
3.2.2 Transmission distortion over a CR channel



(a) frequency = 100Hz



(b) frequency = 1kHz



(c) frequency = 10kHz

Figure 6: Signal Transmission Distortion for HPF

3.3 Frequency Response Measurement for Fading due to Multipath Propagation (Band pass filter)

3.3.1 Experimental Result

Table 3: Experimental result for Multipath Propagation (Band pass filter)

f	$V_2(mV)$	(I.L)dB
500 Hz	1520	-13.27
1000 Hz	1320	-14.49
1200 Hz	1260	-14.89
1400 Hz	1120	-15.92
1600 Hz	1280	-14.76
1800 Hz	1310	-14.56
2000 Hz	1450	-13.67
2500 Hz	1490	-13.44
3000 Hz	1510	-13.32
5000 Hz	1650	-12.55

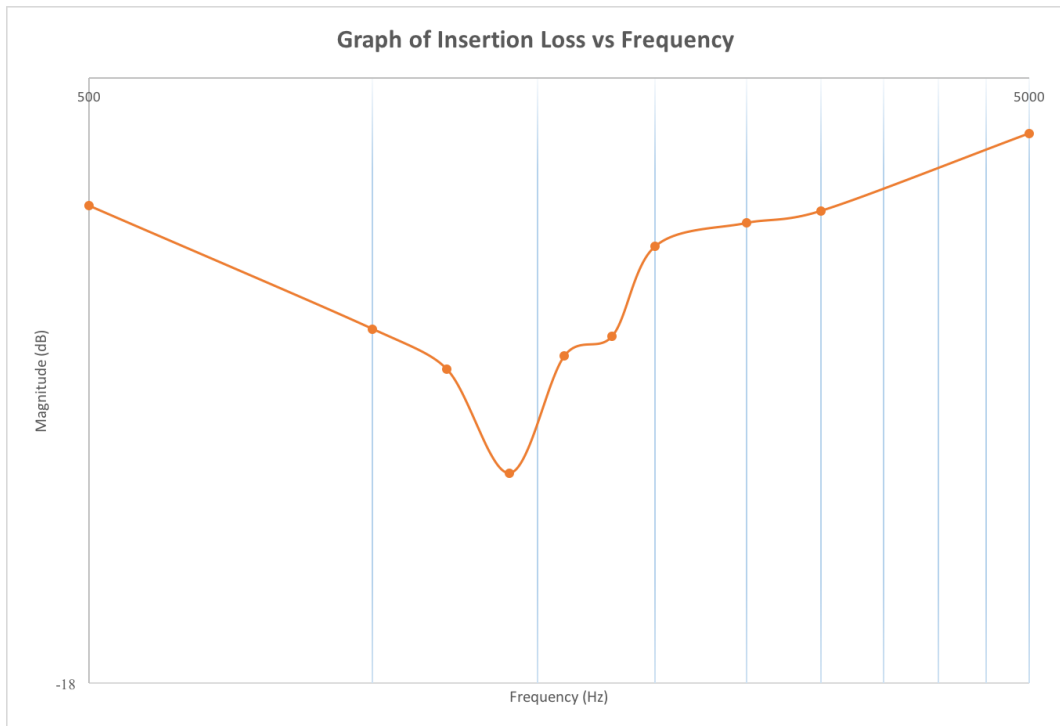


Figure 7: Graph of insertion loss versus frequencies (Band pass filter)

4 Discussion

A signal transmission system is the electrical channel between an information source and destination. Signal transmission distortion can be divided into amplitude distortion and frequency distortion. Linear distortion includes any amplitude or delay distortion associated with a linear transmission system. Amplitude distortion is easily described in the frequency domain; it means simply that the output frequency components are not in correct proportion. Since this is caused by $H(f)$ not being constant with frequency, amplitude distortion is sometimes called frequency distortion. The most common forms of amplitude distortion are excess attenuation or enhancement of extreme high or low frequencies in the signal spectrum. While the frequency-domain description is easy, the effects in the time domain are far less obvious, except for very simple signals. The loss of the high-frequency term reduces the “sharpness” of the waveform. The “flat” frequency response means that the frequency range over which $|H(f)|$ must be constant to within a certain tolerance so that the amplitude distortion is sufficiently small.

4.1 Part1

For the part 1 of the experiment, we are dealing with the frequency response for a RC circuit which is also a first order low pass filter. The low pass filter only allows low frequency signals from 0Hz to its cut-off frequency, f_c point to pass while blocking those any higher. The circuit shown in Figure ?? uses two passive first-order low pass filters connected or “cascaded” together to form a second-order or two-pole filter network. Hence, we can see that a first-order low pass filter can be converted into a second-order type by simply adding an additional RC network to it and the more RC stages we add the higher becomes the order of the filter. As the order of the filter is increased, the roll-off slope becomes steeper and the actual stop band response of the filter approaches its ideal stop band characteristics [1].

Based on the Table 1, we obtained that the range of insertion loss from -13.70dB to -63.26dB which is decreasing as the frequency increasing. The frequency response and phase response of the low pass circuit were show in Figure 1 and Figure 2 respectively. The result from the Frequency Response graph shows that the insertion loss decreases gradually as the frequency is increasing. Regarding to the Phase Response graph plotted, the degree of phase decreases as the frequency increases. The Frequency Response of the filter to be nearly flat for low frequencies until it reaches its Cut-off Frequency point (f_c). This is because the reactance of the capacitor is high at low frequencies and blocks any current flow through the capacitor. We obtained the cutoff frequency at -16.7dB (-13.7dB-3dB) which are 1100Hz experimental result. The phase shift for experimental result is -43° .

Following, we have observed the transmission distortion for the RC circuit for different values of frequencies. The integrator is basically a low pass filter circuit operating in the time domain that converts a square wave “step” response input signal into a triangular shaped waveform output as the capacitor charges and discharges. A triangular waveform consists of alternate but equal, positive and

negative ramps. From observation on the output waveform as show as Figure 3, the output become more triangle in shape as the frequency of the input signal increase. This is because of the exponential charging and discharging processes of the capacitor cause the triangular waveform at output. As our input waveform is square wave, it consists of summation of odd harmonic of sinusoid. Since LPF attenuates high frequency components, the summation of low frequency of odd harmonic sinusoid give rise to the triangle shape of output waveform.

4.2 Part2

In part 2 of the experiment, we are dealing with the frequency response for a CR circuit which is also a second order high pass filter. The high pass filter only allows high frequency signals from its cut-off frequency, f_c point and higher to infinity to pass through while blocking those any lower. The circuit shown in Figure ?? uses two first-order high pass filters connected or cascaded together to form a second-order or two-pole high pass network.

Based on the Table 2, we obtained that the range of insertion loss from -54.24dB to -1.27dB which is increasing as the frequency increasing. The frequency response and phase response of the high pass circuit were show in Figure 4 and Figure 5 respectively. The result Frequency Response graph shows a positive relationship between the insertion loss and the frequency. The insertion loss increases as the frequency increases. Whereas for the Phase Response graph, the degree of phase decreases as the frequency increases. Frequency Response for high pass filter is the exact opposite to that of a low pass filter. It has a response curve that extends down from infinity to the cut-off frequency. We obtained the cutoff frequency at -4.27dB (-1.27dB-3dB) which are 10000Hz experimental result. Also we can see that the phase angle (ϕ) of the output signal LEADS that of the input and is equal to $+46^\circ$ for experimental result at frequency f_c .

Thereafter, we have observed the transmission distortion for the CR circuit for different values of frequencies. If we change the input signal to that of a “square wave” shaped signal that has an almost vertical step input, the response of the circuit changes dramatically and produces a circuit known commonly as a Differentiator. However, if we feed the High Pass Filter with a Square Wave signal operating in the time domain giving an impulse or step response input, the output waveform will consist of short duration pulse or spikes as shown in Figure 6. Each cycle of the square wave input waveform produces two spikes at the output, one positive and one negative and whose amplitude is equal to that of the input. The rate of decay of the spikes depends upon the time constant, (RC) value of both components, ($t = R \times C$) and the value of the input frequency. The output pulses resemble more and more the shape of the input signal as the frequency increases.

4.3 Part3

In part 3 of the experiment, we have dealing with the fading due to the multipath propagation. The circuit is actually a combination of first order low pass filter and second order high pass filter to form a simple two-path model of multipath propagation. As the input signal transmitted through the low pass filter

and high pass filter, each of the signal will be attenuated and cause the phase shift by different amount. Hence, when the signals reach the load resistance, the summation of each signal will cause interference and phase shift of output signal which is known as multipath fading. ‘Fading’ means rapid fluctuations of the amplitudes, phases or multipath delays of a radio signal over a short period or short travel distance. This might be so severe that large scale radio propagation loss effects might be ignored. The frequency response is shown in Figure 7. From the Table 3, the fading frequency is 1.4kHz because it has the lowest amplitude among the 10 frequencies. The results proved that the frequency 1.4kHz has the narrowest bandwidth and allow minimum signal to pass through.

Last but not least, there are some precautions that we should realize throughout the experiment. The lesser number of wire are encouraged to avoid any confusion when having circuit checking if any error occurs. Moreover, the electrical devices and breadboard should be checked if its well-functioning before using it to avoid any delay. Lastly, the polarity of the capacitor must place correctly to avoid any accident happen.

5 Conclusion

There are many factors may cause distortion in signal transmission. After completion of the experiment, we understand some factors from experiment, which are channel with insufficient bandwidth, multipath propagation channel and fading channel. In the last part of this experiment, the frequency that caused fading due to multipath propagation is 1.4kHz.

6 References

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