

E-mail : josecol27998@gmail.com Website: www.sjctnc.edu.in





தமிழர் வாழ்வும் வரலாறும் பேசும் என்ஹென்றும் காதல்

ஜோ ரீட்டா மேரி

உதவிப் பேராசிரியர், தமிழ்த்துறை, ஜெயின்ட் ஜோசப் கலை அறிவியல் கல்லூரி (தன்னாட்சி) மஞ்சகுப்பம், கடலூர் – 607 001.

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"அன்பின் வழியது உயிர்நிலை –அஃதிலார்க்கு என்புதோல் போர்த்த உடம்பு"

அன்பை அடித்தளமாகக் கொண்டு வாழும் அனைவருக்கும் உள்ளங்கள் உங்கள் தமிழ் மிகுந்த வாழ்த்துகள். காதல்' ஈரப்பு ஸ்வாரசியமான சொல்! எந்தவொன்றையும் அவசியம். அம் வெளிப்படுத்த மொழி மொழிகளின் புரிதலும் அவசியம். அது குறித்து இங்கு தெரிந்து கொள்வோம். 'அன்பு'-காதல் மொழியின் கருவறை இது. அன்பு எனும் அலசிப் ஆழத்தை ஒற்றைச் சொல்லின் பார்ப்பதை விட அகழ்ந்து பார்ப்பதே சிறப்பு.

தொண்ணூறு. தந்தைக்கு வயது GTOOT இவர்களுக்குத் தாய்க்கு எண்பத்திரெண்டு. திருமணமாகி இது அறுபதாவது ஆண்டு. என்ன.. லியப்பா.. மலைப்பா இருக்கா..? இதில் வியப்பதற்கும் மலைப்பதற்கும் ஒன்றுமில்லை என்று சொல்வதை விட, இங்கு காதலின் புரிதலும் புனிதமும் வேரோடிப் போயிருக்கிறது என்றே சொல்லலாம். என் தாயும் தந்தையும் அதிக நேரம் சேர்ந்து பேசி கூட நான் பார்த்ததில்லை. ஆனால், இருவரும் ஒருவர் ஒரு வருக்காக வே வாழ்ந்துக் கொண்டிருப்பவர்கள். ஒருவர் மற்றவர் நலனைக் கருத்தாய் ஊன்றிக் கவனிப்பார்கள்: உண்டாலும் உறங்கினாலும் விழித்தாலும் என இன்பத்திலும் துன்பத்திலும் உடல் நலத்திலும் நோயிலும் பிரமாணிக்கமாய் வாழ்ந்து வாழ்விக்கிறார்கள். இவர்களின் வாழ்வியலைப் பார்க்கும் போது

""காதல் வலியது.. அன்பே உடலுயிர் ஆக்கும் போலும்



அன்பே காதல் ஆகும் போலும் கழறும் அக்காதல் வலியது போலும்"¹

என்ற வரிகளே என் நினைவுக்கு வரும். பாரதி பாடினான் "காதல் காதல் காதல், காதல் போயின், சாதல் சாதல் சாதல்" என்று! அப்படி என்னக் காதல்? ஏதன் மீது காதல்? ஏன்? எதற்கு? எப்படி? எவ்வளவு? எங்கு? எது காதல்? என்றெல்லாம் சிந்திக்கின்றப் போது அது சிந்தைக்குப் புலப்படாத ஒன்றாகவேத் தோன்றுகிறது, என்றாலும் காதல் என்பது "வாழ்வு" என்பதை உணர்த்துகிறது.

அச்சம் தவிர்ந்தது வாழ்வு – நல் அன்பின் விளைவது வாழ்வு மச்சினில் வாழ்பவ ரேனும் – அவர் மனத்தினில் வாழ்வது வாழ்வு! நீ எனல் நானெனல் ஒன்றே – என்ற நெஞ்சில் விளைவது வாழ்வு!."³

ஆம்! காதல் என்பது வாழ்வைக் குறிக்கிறது. வாழ்வு என்பது வாழ்ந்து பார் புரியும் என்கிறது. ஆக, காதல் என்பது அனுபவம் என்று அறிய வருகிறோம்.

கண்டதும் காதல்.., தொட்டுப்பார்க்கும் காதல்.., தொடாமலே காதல்.., அலைபேசி காதல்.., வலைதளக் காதல்.., வளைய வளையப் பேசும் காதல்.., ஆசைக் காதல்.., ஆணவக் காதல்.. என்று இன்றைய நிலையில் அலுப்புக்கும் சலிப்புக்கும் உள்ளாக்கப்படும் அறியாமை நிலைகளை அகற்றி, காதல் அன்பின் புனிதம் காப்போம்.

> Dr. M. ARUMAI SELVAM, H.Sc., M.Phil. Pho., PRINCIPAL St. Jeseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 607 001.

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சக்க மருக்காவர் - அசுத்தியர் உதவிப்பேராசிரியை, தமிழ்த்து ஒனியல் கல்லூரி (தன் திருமதி. ச. லீட்டி தூய வளனார் கலை மற்றும் அறிவியல் கல்லாரி (தஞ்சத்து மஞ்சகுப்பும், த மஞ்சகுப்பம், கடலா

ஆய்லுக்கருக்கம் ஆய்லுக்கருக்கம் என்றும் கித்த மருத்துவமானது பரமசிவனிடமிருந்து நந்தி வழியாயும், அவரிடமிருத கிது மருத்துவாளன சித்த மருத்துவமானது வழியாகவும், கிடைக்கப் பெற்றதாகும், அவரிடமிருத கிது மருத்துவாளன சித்த மருத்துக்கள் வழியாகவும், கிடைக்கப் பெற்றதாகும், அவரிடமிருத கிது மருத்துவாளன முதலிய சித்தர்கள் வழியாகவும், கிடைக்கப் பெற்றதாகும், அவரிட கிது மருத்தியர் முதலிய சித்தர்கள் வழியாகவும், கிடைக்கப் பெற்றதாகும், அவரிட நந்து மட்ட திடைக்கப் பெற்றதாகும், அண்டத்து அவையில் வாழ்ந்த ஆ கைத்தியர், புலத்தியர் முதலிய சித்தர்கள் வழியாகவும், கல் மலத்தியர் முதலிய சுத்தரவை கைத்தியர், மலத்தியர் முதலிய சுத்தரவை அதைதியர், மலந்தில் உள்ளதே அண்டம் என்னும் நிலையில் வாழ்ந்த உண்கத் மீண்டம். மீண்டத்தில் உள்ளதே அண்டம் முறைப்படுத்தி அகன் வாத்தியர். புலத்தியா வாத்தில் உள்ளதே வாத்துடனும் முறைப்படுத்தி அதன்வழி _{உற்றத்துக்கு} உண்ஸதே பிண்டம். பிண்டத்தில் உள்ளதே வாத்துடனும் முறைப்படுத்தி அதன்வழி உயி_{ன்றதுக்கு} உண்ணதே உள்ளத்தையும் நலத்துடனும், காயசித்தினையயும், உயிர்ச் சித்தியையும் உடலையும், உள்ளத்தையும் நலத்தான் காயசித்தினையயும், உயிர்ச் சித்தியையும் உடலையும், கண்டவர்களாவர். இவர்கள் காயசித்தர்கள் புல், பூண்டு, கொம உடவல்குமாறு கண்டவர்களாவர். இவர்கள் காயசித்தினையயும், இயங்குமாறு கண்டவர்களாவர். கொடி, செடி, மரங்களை ஞானத்தை அடைந்தவாகளாவா. பாலித்து மருந்துகள், சிகிச்சைகளை மேற்கொண்டு அவற்றின் மூலம் மக்கள் பாலித்து மருந்துகள், சிகிச்சைகளை மாகக்குவராம் அகக்கியர் நினைய நோயின்றி வரு தானத்தை ஆடையும், சிகிச்சைகளை மேறம்பையல் அகத்தியர் நிறைய மருத்துவ நூல்_{கள்} மாலித்து மருந்துகள், சிகிச்சைகளை மருத்துவராம் அகத்தியர் நிறைய மருத்துவ நூல்_{கள்} வழிவகுத்தனர். அந்த வகையில் சித்த மருத்துவராம் அகத்தியர் காகுத்துக்கொண்டு அவர் கூறியு ம பாலத்து மருத்து வகையில் சித்த மருத்தும்ப வழிவகுத்தனர். அந்த வகையில் சித்த மருத்தும்ப வழிவகுத்தனர். அந்த வகையில் சித்த மருத்தியரின் சில நால்களைக் எடுத்துக்கொண்டு அவர் கூறிய மருத்து உள்ளார். இக் கட்டுரைக்கு அகத்தியரின் சில நால்களைக் எடுத்துக்கொண்டு அவர் கூறிய மருத்து உள்ளார். இக் கட்டுரைக்கு அகத்தியரின் சில நால்களைக் புமடிந்தது. சித்த மருத்துவர் வழவதும் கட்டுரைக்கு அகத்தாயான பிக இ உள்ளார். இக் கட்டுரைக்கு அகத்தாயான பிக இ கற்ப்புகள் சில வற்றை மட்டுமே இக் கட்டுரையில் கொடுக்க முடிந்தது. சித்த மருத்துவும் என்பது கற்ப்புகள் சில வற்றை மட்டுமே இக் கட்டுரையில் கொடுக்க முடிந்தது. சித்தர்களின் சிறப்பு, விக்கியது குறிப்புகள் சில வற்றை மட்டுமே குக மட்டு குறிப்புகள் சில வற்றை மட்டுமே குக மரத்துவ முறை, சித்தர்களின் சிறப்பு, அக_{த்தியி} என்ன சித்த மருத்துவத்தின் மகத்துவம், சித்த மருத்துவ முறை, சித்தர்களின் சிறப்பு, அக_{த்தியி} என்ன சித்த மருத்துவத்தின் மகத்துவம், அகத்தியன்,அகத்தியர் கூறும் மருத்துவன் இல_{க்க்றியர்} என்ன சித்த மருத்துவத்தின் மகத்துவனாம் அகத்தியன்,அகத்தியர் கூறும் மருத்துவன் இல_{க்கணம்} பற்றிய சில குறிப்புகள், சித்த மருத்துவனாம் அகத்தியன், பலவித நஞ்சை (முறிக்கும் பற்றிய சில குறிப்புகள், சிதத மருத்து. அவாரையின் சிறப்பு, பயன், கொடிவேலியின் சிறப்பு பயன், பலவித நஞ்சை முறிக்கும் மரு_{ந்துப்} ஆவாரையின் சிறப்பு, பயன், கொடிவேலியின் சிறப்பு பயன், பலவித நஞ்சை முறிக்கும் மரு_{ந்துப்} பற்றி மட்டுமே இக்கட்டுரையில் குறிப்பிடப்பட்டுள்ளது.

முன்னுரை

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சத்தன் என்ற சொல்லானது சிலப்பதிகாரத்திலேயே முதன் முதலில் கையாளப்படுகின்றது. சமணர்கள் "பஞ்ச புமேட்டிகள்" என்ற ஐவரை வணங்கி சமயத்தில் இந்து சமணர்கள், வந்தனர். சேந்தபோது சித்தர்கள் வழிபாடும் வணக்கமும் நுழைந்திருத்தல் கூடும். சித்தர் மரபானது திருமூலர் காலந்தொட்டே துவங்குகின்றது. கியி. 5ஆம் நூற்றாண்டில் இயற்றப்பட்ட தீரமந்திரத்தில் அகத்திபா வரலாறு 'அகத்திபம்' என்ற தலைப்பில் உள்ளது. அப்பேற்பட்ட சித்தர அகத்தியின் சிரப்பையும், அகத்தியின் சித்த மருத்துவம் பற்றியும் இக்கட்டுரையில் காணலாம்.

சித்த மருத்துவம்

மருத்துவத்திலிருந்து நாட்டுப்புற வளர்ந்த இயற்கை மருத்துவ முறையாக விளங்கு_{வது} சித்த மருத்துவம் ஆகும். சித்த மருத்து_{வத்தைத்} தமிழ் மருத்துவம் என்று கலைக்களஞ்சியும் சுட்டுகிறது. தமிழரின் மருத்துவ மு_{றையான} சித்த மருத்துவ முறை அனைத்துத் துப்ப பின்பற்றத் மக்களாலும் தக்கதாக, 105 எளிய மருத்துவ விளங்கி முறையாக வருகிறது. ഗ്രസിങ്കെ 3H மருத்துவமாக உள்ளதால் தீங்கற்றதாகவும், சிக்கனமானதாகூடி பக்க அற்றதாகவும், விளைவுகள் ଗର୍ଗାରୋ பாதுகாப்பானதாகவும் உள்ளது. நாட்டுப்புற மக்களால் பெரிதும் விரும்ப^{ப்படும்} மருத்துவம் மருத்துவ சிக்க முறையாகச்

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Special Issue 1

The analytical setting

அகத்தியரீன் ஞானமும் ஆன்மீகமும்

முனைவர் இ.ஆக்னஸ் மேரி தமிழ்த்துறை, உதவிப் பேராசிரியர் தூயவளனார் கலை மற்றும் அறிவியல் கல்லூரி (தன்னாட்சி), கடலூர்

"அகத்தியரின் ஞானமும் ஆன்மீகமும்" என்ற இக்கட்டுரையில் காண்போம்.

அகத்தியரின் ஞானம்

வாக்கு" அகத்தியர் "நம்பினால் நடக்கும் குறித்த , பொன்மொழி, என்பது அகத்தியரை தலைமைச் சித்தராய் சித்தர்களுக்கெல்லாம் ஞானம் குறித்து அகத்தியரின் விளங்கும் வாழ்க்கை காண்போம். இந்தப் பதிவில் என்பது உன்னதமானது என்பதை கூறவரும் அகத்தியர்.

"எல்லாவற்றுக்கும் காரணம் உண்டு அதைபிந்து கொள்ளும் சக்தி உன்னகேதடா பாவத்தை செய்பவன் செய்பவன்

சந்தோமாய் இருக்கிறான் என்று எண்ணாதே அவனுக்கு பகவான் எந்த சமயத்தில் எப்படி தண்டனை தருவார் என்பது யாருக்குத் தெரியும்"

முனிவாகளும் தான் இதனை சித்தாகளும் முன் கூட்டியே அறிந்துவிடுவார்கள். நல்லவனை ஒருதீயவன் ஏமாற்றுகிறான் என்றால் நல்லவனின் பாபத்தை எடுத்துக் கொண்டு, தீயது செய்கின்றவன் தன்னிடம் இருக்கின்ற நல்லவனிடம் புண்ணியத்தை அந்த சிற்தளவு ஒப்படைக்கின்றான் என்று பொருள். இந்தக் கொண்டு வைத்துக் மனதில் கருத்தை பார்க்கப் பழகி அனைத்தையம் உலகில் மிகமிக எளியதாக அனைத்தும் விட்டால் தோன்றும் என்று அகத்திபர் அறிவறுத்துகிறார்.

Dr.M. ABUMAL SELVAN

முன்னுரை தமிழ் இலக்கிய வரலாற்றில் முதன்மையான சித்தா்களுக்கெல்லாம் தலைமை வரும், சித்தராய் விளங்குபவர் அகத்தியர் ஆவார். தமிழில் இயற்றிய முதல் நால் இவர் அகத்தியம் ஆகும். இவர் பொதிகை மலையில் தவம் செய்ததால் "பொதிகைமுனி" என்றும் கும்பத்தில் ക്രഥവ്രതി" பாய்ந்ததால் என்றும் கண்டதால் அகத்தினுள்ளே ஈசனைக் "அகத்தியர்"

என்றும் அழைக்கப்படுகிறார். சித்தர்களுக்கெல்லாம் முதன்மைச்

சித்தராக விளங்கும் அகத்தியரின் பெயரில் அமைந்ததுமான அகத்தியா் ஞானம் முப்பது இலக்கியத்தில், குருவைக் என்ற வெளிக் கருத்துக்களை குறித்ததத்துவமக் தொடர்புடைய அத்துடன் கொணாவது, அறிஞர்களின் சித்தர்களின் ஞானம், மற்றும் ஞானம் போன்ற கருத்துக்களோடு இறைபக்தி ஆய்வது கருத்துக்களை தொடர்புடைய நோக்கமாகும். யோக இக்கட்டுரையின் பெறவிளையும் நின்றுஞானம் நெறியில் பணிகளையும், மாணவன் செய்ய வேண்டிய நிலை மற்றும் பாதையையும் அதன் சிக்கல் முன்னேறுவதற்கு அந்த சிக்கல்களைக் கடந்து வேண்டிய யோகநுணக்கங்களையம் குறித்து

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அகத்தியரோடு சத்தர்கள் பரிபாஷை

முனைவர். அ. ஜான்போஸ்கோ M.A.,M.Phil.,M.A.,SET.,Ph.D. தமிழ்த்துறை உதவிப்பேராசிரியர்

தூய வளனார் கலை மற்றும் அறிவியல் கல்லூரி (தன்னாட்சி), கடலூர்

முன்னுரை

தமிழ் இலக்கிய வரலாற்றில் முதன்முதலாக தமிழில் தோன்றிய நூல் அகத்தியம், இதன் அசியா அகத்தியா ஆவாா. இவா தமிழுக்குச் சங்கம் வைத்து அந்த சங்கத்தின் தலைச் சங்கப் புலவராக விளங்கியவர் ஆவார். இவர் தொல்காப்பியருக்கு முந்தியவர் என்றும். ரிக் மித்தர வருணரின் வேதத்தில் மகனும், வசிட்டரின் சகோதரரும் ரிக்வேதத்தில் 26 சூத்திரங்களை இயற்றியவரும் இவர் என்று சொல்லப்படுகிறது.இவர் தமிழ் இலக்கணம் அருளியதால் தமிழ்முனிவர் என்றும், அதிக மாதவமுனிவர் என்றும், கவம் செய்ததால் முனிவர்களுக்கெல்லாம் குருவானவர் என்பதால் உயர்வுக்குரியவர் என்றும், என்பதால் கருமனி திருமுனி என்றும் சிறப்பாக அழைக்கப்படும் இவர் தமிழ் சித்தர்களில் முதன்மையானவராகவும் ரிஷிகளில் ஒருவராகவும் அறிபப்படுகிறார். சப்த மேலும் தமிழைச் சிவபெருமானிடமிருந்து நேரடியாகக் கற்றுக் கொண்டு அவற்றை உணர்ந்து மற்றவர்களுக்கும் போதிந்த ஆசானும் ஆவார். இவரால் இயற்றப்பட்ட எண்ணற்ற நூல்களில் "அகத்தியா ഥിഥ്നള്ളെ" என்றும் நாலில் அகத்தியரால் சொல்லப்பட்டிருக்கும் செய்திகளையும், அவர் கருத்தோடு தொடர்புடைய மற்ற அறிஞர்கள் கருத்துக்களையும் தொடர்புப் படுத்தி "அகத்தியரோடு சித்தர்கள் பரிபாஷை" என்னும் தலைப்பில் இக்கட்டுரை அய்வு செய்யப்பட உள்ளது.

அகத்தியரின் பரிபாஷை மந்திரம் "பதியவிடம் சுழுமுனை என்று அதற்கு பேராம்,

பகருவார் சொர்க்கமும் கைலாசம் என்றும், கைலாசம் வைகுண்டம் தெய்வலோகம் காசி கன்னியாகுமரி என்றும்

சேது என்றும் மயிலாடுமேகம் என்றும் நாகமென்றும் மாய்கை என்றும்

மின்னலென்றும் மவுனம் என்றும் துயிலான வாடை என்றும்

சூட்சம் என்றும் சொல்லற்ற இடமென்றும் ஒடுக்கம் என்றும்

தயிலான பாதம் என்றும் அடிமுடி என்றும் தாயான வத்து என்றும் பதியின் பேரே"

(அகத்தியர் ஞானம்)

பரிபாஷை என்பது ஒரு பொருளின் பெயரை அல்லது ஒரு கருத்தை நேரடியாகச் சொல்லாமல் அதனோடு தொடர்டிடைய மற்றொரு பொருளின் பெயரை வைத்து அந்த கருத்திற்கு இணையான குறிப்படைய மற்றொரு கருத்தால் வைத்துச் சொல்லுதல் "பரிபாஷை" ஆகும். பழம்பெரும் சித்தர்களின் பாடல்கள் முழுவதுமே பரிபாஷையோடு தான் பாடப்பட்டிருக்கும் அப்படிப்பட்ட பாடல்களை தமிழில் ஆழ்ந்த புலமை இருந்தால் மட்டுமே சாரியான பொருளை புரிந்து கொள்ள முடியும்.

எனவே அப்படி படைக்கப்பட்ட பாடல்கள் **"அகத்தியன் பரிபாஷை"** என்ற நூலில்

Dr. M. ABUMM SERVICE man manual

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APPLICATION OF DIFFERENTIAL EQUATION- A REVIEW OF RELATED LITERATURE

T. Henson, Assistant Professor, Department of Mathematics, St. Joseph's College of Arts & Science, Cuddalore.

Abstract

A Mathematical Model by Differential Equation, describes the applications in the field of Engineering and Technology. In this paper, the temperature system of the material Aluminium heat sink used on the top of the computer processor with the hot and cool radiation is analyzed. The basic concepts of Differential Equations and their one application of the Newton's Law of Cooling is presented. It plays a vital role in Thermal Engineering. This helps us to solve many problems in electrical circuits, different kinds of liquids and material science to qualify its properties.

Keywords: Differential equation, material, thermal diffusion, Electric circuit, Newton's law of cooling, heat sink.

1. INTRODUCTION

Materials are manufactured in order to improve its functionality in a suitable specified climatic condition of a country. In India when a material is used manufactured by China, the sustainability of material must be maintained with respect to constraints of the weather, hot and cool environments. For example, a heat sink to safeguard the computer processor and a constant cooling system is required depending upon the thermal conductivity of the surrounding.

If a computer is placed in a hot surrounding, there may a chance of accidental damage of the processor due to heavy thermal diffusion, whereas when it is placed in a cooling room, then we could find successful running of the computer over a long period of time. Since the processor generates the heat that could be adjusted with existence of constant cooling system in order to make healthier its operational performance. This could be analyzed using Newton's Law of Cooling expressed in the form of a differential equation.

One thermal diffusion of a physical structure system in which numerous crucial phenomena happen is that where a first irregular temperature arrangement campaign hotness flows. As warmth flows, the somatic sensation distribution occurrence, which alter the hotness motion. The thermal diffusion takes place from burning places to cold ones, and as this pass off, the temperature of the cold places ascension and the temperature of hot places decreases.

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Investigation on the growth, characterization and computational analysis of 2-Amino-2-thiazoline single crystals



H. Jude Leonard Hilary^{a,*}, P.C. Jobe Prabakar^b, G. Vijayakumar^c, S.G. Rejith^d, J. Divya^b, V. Sathana^a

^a PG & Research Department of Physics, St.Joseph's College of Arts & Science, Cuddalore, Tamilnadu 607 001, India

^b PG & Research Department of Physics, T.B.M.L College, Poraiyor, Tamilnadu 609 307, India

^c PG& Research Department of Physics, PSG College of Arts and Science, Coimbatore, Tamilnadu 641041, India

^d Department of Physics, St.Xavier's College, Pallyamkottai, Tamilnadu 627 002, India

ABSTRACT

By adapting the slow evaporation techniquethe titled compound 2-Amino-2-thiazoline (AMTZ) has been synthesized. The structural parameters of the crystal was studied by using single crystal X-ray diffraction method. Without the deposition of secondary phases, crystallite nature of the sample has been confirmed by analyzing powder X-ray diffraction method. From UV-visible spectrum study, the cut off wavelength was perceived at 285 nm & its optical constants has been calculated.Up to 128 °C, the thermal constancy of the sample was maintained & it reveals the durability of the crystal. The scanning electron microscope investigation has been carried out to decisive the surface morphology of the synthesized crystal. The mechanical roughness of the crystal has been characterized by Vickers's micro hardness test. It has been reported, that the variations in dielectric constant and loss for frequencies and temperature were observed for AMTZ crystals. By adapting Kurtz Perry Powder technique the second harmonic generation (SHG) efficiency was confirmed. By utilizing09W program package, B3LYP/6–311++G(d, p) method was adopted &the optimization of the structure was carried outto calculate the donor accepter interaction energy. The Time-Dependent Density Functional Theory (TD-DFT) was used to compute the electronic level of transition.

1. . Introduction

The nonlinear optical materials hold a key role in the future progression in nonlinear optics and its impact on industrial and technological applications. In the recent years extensive efforts are being made to fabricate & construct novel nonlinear optical (NLO) materials with augmented efficiencies of second harmonic generation [1–5]. They are engaged for diverse of applications such as generation of Terahertz (THz) waves, processing of optical signals, mixing of frequencies, and Opto-electronic modulation devices [6–10]. It is also important to study their physico-chemical properties for their relevance in the above referred fields [10,11]. They are auspicious systems for optical applications like storage of digital data, holographic technique and optical devices [12-15]. In the context of DFT calculations, computational methods offer excellent tools for enhancing experimental results and comprehending the reactivity of distinct chemical configurations [16].

The title compound's total molecular dipole moment, mean linear hyperpolarizability, and mean first hyperpolarizability were calculated theoretically. The calculations converged to an optimal geometry that corresponds to a true minimum, as evidenced by the absence of fictitious wavenumbers, with all parameters being permitted to relax [17]. The previous investigations has been reported for the crystal structures of 2-amino-2-thiazoline, $C_3H_6N_2S$, and 2-amino-2-thiazolinium 2-naphthoxyacetate, C₃H₇N₂S C₁₂H₉O₃, respectively. А complex hydrogen-bonded ribbon involving R2 2(8) graph-set association via both N-H.....N and N-H....S interactions were constructed by the structure of 2-amino-2-thiazoline entails of two inimitable molecules. Two molecules are associated in the organic salt structure by an R2 2(8) graph-set dimer through N-H. O interfaces, with extra N-H molecules spreading the hydrogen-bonding linkage. Exchanges of the O three-center from the second 2-amine H atom [18].

The NLO activity in these constituents are influenced by the existence of hydrogen bond interactions [19]. The current research associates the novel materials efficient in manipulation of nonlinear photonic signals along with the perseverance of the affiliationsamong molecular modeling & nonlinear reactions.

Thiazoles' hydrophilicity enhances their lipid solubility. Thiazoles are undoubtedly metabolised by repeated metabolic processes, and they have no known carcinogenic effects [20]. Pyrazoles are also referred as antimicrobial in nature [21-23]. The biheterocycles & substituted

* Corresponding author.

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E-mail address: judeleonard141@gmail.com (H.J.L. Hilary).

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Improved optical and magnetic properties of polycrystalline Z-type hexaferrites by co-precipitation method

R. Sagayaraj¹ · S. Sebastian¹

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Abstract

Z-type hexaferrites (HF) with polycrystalline characteristics were elegantly synthesized by co-precipitation. XRD results confirmed the Z-type ferrite nanoparticles as belonging to the polycrystalline phase and with a particle size of 6 nm. The FTIR spectrum exhibits low- and high-frequency resonances, which correspond to tetrahedral and octahedral voids and a stabilized ferrite structure. Optical properties were determined by visible light absorption between 200 and 500 nm in the UV–Vis broad reflectance spectrum. FE-SEM micrograph showed spongy morphology and strongly aggregated ions. VSM exhibits ferrimagnetic magnetic properties and got higher coercivity. These special ferrite materials will undoubtedly be useful in microwave absorption, high-frequency, and magnetic recording media.

Keywords Co-precipitation · Z-type hexaferrites · Ferrite · Ferrimagnetic · Magnetization · Antiferromagnetic

1 Introduction

In recent years, experts have recognized that hexagonal ferrites are important in technical applications such as permanent magnets, microwave absorbers, color imaging, electromagnetic interference, ferrofluids, low- and highfrequency devices, high-frequency multilayer chip inductors, high-density vertical recording [1-7]. Different hexagonal ferrites are obtained when barium divalent cations are combined with iron in different proportions. They can be classified as, M-type ferrites (BaFe₁₂O₁₉), Z-type ferrites (Ba₃Co₂Fe₂₄O₄₁), Y-type ferrites (Ba₂Co₂Fe₁₂O₂₂), W-type ferrites (BaCo₂Fe₁₆O₂₇), X-type ferrites (Ba₂Co₂Fe₂₈O₄₆) and U-type ferrites (Ba₄Co₂Fe₃₆O₆₀). In polycrystalline $Ba_3Co_{2x}Zn_xFe_{24}O_{41}$, there was a large change in the physical and chemical properties of the material as the zinc ion concentration increased because of the different ionic radii. viz the divalent and divalent ions shifted from tetrahedral to octahedral planes [8]. Z-type hexaferrite has a variety of complex spin states. The spin constant depends on the external magnetic field, temperature, and crystal structure.

R. Sagayaraj sagayarajnancy@gmail.com

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Non-magnetic Zn ions in Z-type hexaferrite lead to an increase in saturation magnetization (Ms) and change of spin structure because of occupation of tetrahedral site [9]. Co2Z-type ferrite is a good soft magnetic material with permeability and high resonance frequency of 1.5 GHz, so it is used as an electromagnetic material with low reflection and wide bandwidth at microwave frequency [10]. UV-visible absorption spectra of Z -type nanoparticles showed a broad absorption band in the visible wavelength range from 300 to 600 nm. This is because of the d-orbital changes of Fe^{3+} . Specifically, the absorption peak exhibited near 490 nm. This value corresponds to changes in the d-d orbital of Fe^{3+} in the tetrahedral site coordination environment [11]. Hexaferrites with a strong magnetic anisotropy are employed as GHz-range electromagnetic wave absorbers. Because of its features, including low density, high electrical resistivity, low cost, high stability and high microwave magnetic loss. So, barium-based ferrite powders make good fillers for the creation of microwave electromagnetic reduction materials [12]. Zn-containing W-type hexaferrites require high sintering temperatures (\geq 1300 °C) for stabilization. Although the effectiveness of Zn²⁺ substitution in removing the secondary W-type phase is an advantage in the process of Z-type hexagonal ferrite synthesis, the stability of the Zn2Y phase is a drawback. However, Zn2Y and Mg2Y have been reported as potential materials for multiferroic applications [13]. Various scientists believe the pH value is the most important

> Dr. M. ARUMAI SELVAM, M.S., M.P.H., P.S., PRINCIPAL® Springer St. Jeseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 507 001.

¹ PG & Research Department of Physics, St. Joseph's College of Arts and Science (Autonomous), Affiliation to Annamalai University, Cuddalore 607001, Tamil Nadu, India



Role of Annealing Temperature in Tuning Magnetic Properties of Fe-Co-Al₂O₄ Spinel Aluminates

R. POONGODI¹, S. SENGUTTUVAN^{1,*} and R. SAGAYARAJ^{2,*,}

¹PG & Research Department of Chemistry, Thiru.Vi.Ka. Government Arts College (Affiliated to Bharathidasan University), Thiruvarur-610003, India

²PG & Research Department of Physics, St. Joseph's College of Arts and Science (Autonomous) (Affiliated to Annamalai University), Cuddalore-607001, India

*Corresponding authors: E-mail: senguttuvanathan@gmail.com; sagayarajnancy@gmail.com

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The annealing temperature (600, 700, 800, 900, 1000 °C) can have a significant effect on the microstructure, surface functionalization, surface morphology and magnetic properties of the Fe-Co-Al₂O₄ spinel aluminates synthesized by the coprecipitation method. Increasing the annealing temperature leads to a change in the crystalline structure of the spinel aluminates, resulting in different physical and magnetic properties. By controlling the annealing temperature, it is possible to obtain improved structural stability, higher crystallinity and better magnetic properties of the Fe-Co-Al₂O₄ spinel aluminates. The annealing temperature also affects the microstructure and morphology of the spinel aluminates, resulting in different XRD patterns, FTIR spectra and FE-SEM images. As a result, affects the crystallite size (D: 9.49 to 14.25 nm), lattice constant (a: 8.1506 to 8.2889 Å) and surface area of the spinel aluminates, resulting in different anisotropy constant (K: 33.06 to 66.48 J/m³) values. The VSM study showed that higher annealing temperatures have a positive effect on the magnetic properties of Fe-Co-Al₂O₄ samples. The increased magnetization capacity of these samples can be attributed to the multi-domain nature of their crystallites, which allows for better magnetic moment ordering and improved magnetization performance (M_s: 45.421×10^{-3} to 0.13635 emu/g). At higher temperatures, more atoms were able to move and reorient themselves, resulting in higher coercivity (H_c: 391.75 to 873.02 Oe), magnetic moment (µB: 0.0029 to 0.007 µB Tesla) and Remnant ratio (R: 0.4113 to 0.4570 no unit) values.

Keywords: Annealing temperature, Coercivity, Magnetization, Coprecipitation, Spinel aluminates, Magnetic properties.

INTRODUCTION

A spinel is a type of crystal structure characterized by the general chemical formula AB_2O_4 in which A indicates a divalent cation, B a trivalent cation and O a divalent anion. This formula consists of two types of cations: divalent A^{2+} cation such as nickel, magnesium, zinc, cadmium, manganese and a trivalent B^{3+} cation such as aluminum, indium, vanadium, iron, titanium, *etc.* The spinel unit cell is an arrangement of 8 face-centered cubic (FCC) cells, with a total of four oxide ions positioned at the FCC lattice points. The divalent A^{2+} cations occupy one eighth (1/8th) of the tetrahedral voids, while the trivalent B^{3+} cations occupy half (1/2) of the octahedral voids. This creates a compound with the formula (A^{2+})_{tet}(B^{3+})_{2oct}O₄. Normal spinels, such as MgAl₂O₄, FeAl₂O₄ and ZnAl₂O₄, are composed of AB₂O₄ that have applications in various areas like magnetic materials, ceramics and catalysis [1-6]. Inverse spinels, on the other hand,

contain the general structure B(AB)O₄, where, the A^{2+} cations occupy the octahedral voids, while half of the B^{3+} cations occupy the tetrahedral and the other half occupy the octahedral sites. This arrangement can be expressed as $(B^{3+})_{tet}(A^{2+}B^{3+})_{oct}O_4$ and the examples of inverse spinels include Fe₃O₄, MgFe₂O₄ and MnFe₂O₄ [7-9].

Spinel aluminates are an inorganic compound consisting of aluminum, oxygen and one or more other metal ions. It is found in nature as spinels and synthetic forms and is used in a variety of industrial applications. It has a wide range of applications including catalysts, pigments, ceramic glazes and polishing compounds. The chemical composition of spinel aluminates includes two components. The first component, Al₂O₃ is responsible for the material's powdery texture and high melting point. The second component, generally a metallic ion like Fe, Co, Ti or Ni, contributes to its colour and structural properties. Spinel aluminates have several characteristics that make it an attractive

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ORIGINAL ARTICLE



Green synthesis, Structural and Magnetic Properties of Mg_{0.5}Zn_{0.5}Fe₂O₄ Ferrite Nanoparticles by the Coprecipitation Method: *Averrhoa bilimbi fruit*

D. Jayarajan¹ · R. Sagayaraj² · S. Silvan³ · S. Sebastian² · R. Nithya⁴ · S. Sujeetha⁵

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Abstract

🖂 R. Sagayaraj

The addition of Averrhoa bilimbi (AB) extract to the $Mg_{0.5}Zn_{0.5}Fe_2O_4$ nanoparticles has been demonstrated to enhance the magnetic properties of the material, which was synthesized by the Coprecipitation method. XRD reveals that $Mg_{0.5}Zn_{0.5}Fe_2O_4$ has an average crystallite size of 8 nm and a lattice constant of 8.0554 Å; whereas the addition of Averrhoa bilimbi juice to $Mg_{0.5}Zn_{0.5}Fe_{2}O_{4}$ has an average crystallite size of 12 nm and a lattice constant of 8.042 Å. This small difference of 4 nm significantly impacted the spinel nanostructure. The FTIR spectrum of the AB-Mg_{0.5}Zn_{0.5}Fe₂O₄ nanoparticles has revealed two significant absorption bands; the first absorption band is attributed to the stretching vibration of the tetrahedral Mg-O and Zn–O bonds. The second absorption band is attributed to the stretching vibration of the octahedral Fe–O bonds and confirming the spinel ferrite structure. VSM shows that the coercivity of Mg_{0.5}Zn_{0.5}Fe₂O₄ soft ferrimagnetic material decreases at 600 °C when Averrhoa Bilimbi is added, while its saturation magnetization increases. Consequently, Averrhoa Bilimbi fruit acts as an excellent capping agent to enhance magnetization. These ferrite nanoparticles have been demonstrated to exhibit antibacterial activity, inhibiting the growth of harmful bacteria such as Staphylococcus aureus, Proteus vulgaris, and Escherichia coli. This is achieved by creating a magnetic field that disrupts the bacterial cell membrane, resulting in cell death. So, this material has very interesting potential applications in the biological field, such as Magnetic Resonance Imaging (MRI), Magnetic Hyperthermia Therapy, Magnetic Drug Targeting, Magnetic Separation of Cells, Magnetic Biosensors, Magnetic Filters, Magnetic Particle Imaging, Magnetic Separation of DNA, Magnetic Separation of Proteins, Magnetic Separation of Enzymes, and Magnetic Separation of Cells.

Keywords Coprecipitation method · *Averrhoa Bilimbi* · Antibacterial activity · Magnetic biosensors · Magnetic properties · Zinc magnesium ferrite · Magnetic hyperthermia therapy

 sagayarajnancy@gmail.com
Department of Microbiology, Divine Mother College, Korkadu, Pondicherry 605110, India
Department of Physics, St. Joseph's College of Arts and Science (Autonomous), Affiliation to Annamalai University, Cuddalore, Tamilnadu 607001, India

- ³ Department of Biochemistry, St. Joseph's College of Arts & Science (Autonomous), Affiliation to Annamalai University, Cuddalore, Tamilnadu 607001, India
- ⁴ Department of Physics, Immaculate College for Women, Affiliation to Annamalai University, Cuddalore 607006, India
- ⁵ Department of Physics, Vivekananda College of Arts and Science for Women, Sirkali, Tamilnadu 609111, India

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Abbreviations

NPs	Nanoparticles
AB	Averrhoa bilimbi
FTIR	Fourier Transform Infra-red Spectroscopy
XRD	X-ray diffraction
VSM	Vibrating sample magnetometer
TV	Tetrahedral voids
OV	Octahedral voids
CFSE	Crystal field stabilization energy
RT	Room temperature
ROS	Reactive oxygen species
ABA	Antibacterial activity
MZF	$Mg_{0.5}Zn_{0.5}Fe_{2}O_{4}$
MZFAB	Mg _{0.5} Zn _{0.5} Fe ₂ O ₄ /Averrhoa Bilimbi

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Introduction

Nanotechnology has emerged as a viable and rapidly developing field of study for creating and modifying nanomaterials for potential applications. Nanoparticles are the primary source of many nanostructured materials, making them a critical component of nanotechnology. Several metal oxide nanoparticles (NPs) have been synthesised, and their applications in a wide range of scientific and technological fields, including biomedical, environmental, energy, and agricultural operations, have been studied in recent decades. Nanomaterials have sparked a great deal of interest due to their distinct optical, electrical, magnetic, chemical, and mechanical properties that distinguish them from their bulk counterparts. Metal oxide nanoparticles, in particular, have several advantages that make them a promising tool for biomedical applications. These advantages include high stability, simple preparation processes, easy engineering to the desired size, shape, and porosity, no swelling variations, easy incorporation into hydrophobic and hydrophilic systems, and

Synthesis, characterization and *in vitro* anticancer analysis of PEG-capped Mn-doped TiO₂ nanoparticles against hepatocellular carcinoma cells

G. Vijayakumar,^a H. Jude Leonard Hilary,^b P. Nisha,^c Elangovan Thangavel*^c and Sangaraju Sambasivam¹/₁₀*^d

In this study, polyethylene glycol (PEG)-functionalized bare and Mn (2.0, 2.5, and 3.0 wt%)-doped TiO₂ nanoparticles were synthesised by a sol-gel method and their anticancer efficacy was tested against human liver carcinoma (Huh7) cells. The spherical-like morphology was revealed by SEM and TEM micrographs, and measurements alongside with XRD show that the crystallites range in size from 7 to 10 nm. Optical measurements revealed that the absorption edge shifts towards the longer wavelength region in the case of Mn-doped TiO₂ nanoparticles, and thus the band gap energy value decreases as the Mn content increases. The prepared samples were tested for antibacterial activity against selective Gram positive and Gram negative bacteria. Finally, the predominant Reactive Oxygen Species-mediated anticancer efficacies of the samples were tested against human liver hepatocellular carcinoma cell lines.

easy functionalization by various molecules due to the surface's negative charge. Nanoparticles (NPs) have a wide range of applications due to their unique properties in the industrial, electrical, agricultural, pharmaceutical, and medical fields. Nanoparticles can be easily modified and conjugated with multiple functionalities for anticancer applications, such as targeting molecules, imaging agents, and drugs.¹

Titanium dioxide (TiO₂) nanoparticles have excellent biocompatibility, high chemical stability, and unique photocatalytic properties, making them an outstanding candidate for a wide range of applications, including the efficient delivery of therapeutic and diagnostic agents, sonodynamic therapy, and so on. TiO₂ is considered a potential semiconductor for biocidal applications due to its photocatalytic properties, which explain its ability to destroy bacteria, viruses, and even cancer cells when compared to other metal oxides. In this context, TiO2 NPs have significant biomedical potential, and numerous studies have been conducted to develop new antibacterial and drug delivery systems based on this nanoparticle.^{2–7} TiO₂ nanoparticles, on the other hand, agglomerate in neutral aqueous solution, making them difficult to use in biological applications. To address this issue, a variety of surface modification techniques have been used on TiO_2 , the most effective of which is capping TiO_2 nanoparticles with chemical groups or polymers. Polyethylene glycol (PEG) and polyvinylpyrrolidone (PVP) are two widely used capping agents because they provide a variety of benefits and functions, including in vitro dispersion, stability, solub lity, biocompatibility, and, most importantly, reduced toxinty.⁸⁻¹² Jiang et al.

> DI. M. ARUMAI SELVAM, M.S. M. PHL. PSO., PRINCIPAL

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^a PG & Research Department of Physics, PSG College of Arts & Science,

Coimbatore-641 014, India

^b PG & Research Department of Physics, St. Joseph's College of Arts & Science, Cuddalore-607 001, India

^c Smart Energy Materials Research Lab (SEMRL), Department of Energy Science and Technology, Periyar University, Salem-636011, India.

E-mail: elangoes@periayaruniversity.ac.in

^d National Water and Energy Center, United Arab Emirates University,

Al Ain-15551, United Arab Emirates. E-mail: s_sambasivam@uaeu.ac.ae

SYNTHESIS OF (1E, 1'E)-N, N'-(ETHANE-1, 2-DIYL) BIS (1-(4-(SUBSTITUTED) PHENYL)METHANIMINE) DERIVATIVE THEIR APPLICATION BIOLOGICAL AND DFT STUDIES

Section A-Research paper

SYNTHESIS OF (1E, 1'E)-N, N'-(ETHANE-1, 2-DIYL) BIS (1-(4-(SUBSTITUTED) PHENYL)METHANIMINE) DERIVATIVE THEIR APPLICATION BIOLOGICAL AND DFT STUDIES



E. Enbaraj¹, H. Manikandan¹*, D. Bhakiaraj²*

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Abstract

In the present work, two novel diamine-based benzyl dine were synthesized via a simple reaction. The structures of the resulting (1E,1'E)-N,N'-(ethane-1,2-diyl)bis(1-(4-(methylthio)phenyl)methanimine) (I) and (1E,1'E)-N,N'-(ethane-1,2-diyl)bis(1-(4-ethoxyphenyl)methanimine) (II) were established with the help of spectral-analytical techniques like; FTIR, ¹H, and ¹³C NMR spectrometry. The compounds were further characterized by antibacterial with different pathogens. Compounds I and II were analyzed using Density Functional Theory (DFT) through the B3LYP method with 6-31G (d, p), as basis sets to determine HOMO-LUMO, Mulliken atomic charges, and molecular electrostatic potential (MEP) of compounds. The reactivity descriptors of B3LYP (EHOMO, ELUMO,) were calculated to predict the stability of newly synthesized compounds. The MEP analysis revealed that electronegative elements in the structure possess the maximum electronic cloud. The distributions of the various atoms were probed by Mulliken population analysis. The microbiological activity of the compounds was tested on several Gram-positive bacteria.

Keywords: Benzylidene, Spectral Analysis, Gram-Positive, HOMO-LUMO, MEP.

¹Department of Chemistry, Annamalai University, Annamalainagar, Tamil Nadu - 608002, India. ²Department of Chemistry, St. Joseph's College of Arts and Science (Autonomous), Cuddalore, Tamil Nadu - 607001, India.

Corresponding Author: H.Manikandan, D. Bhakiaraj Email: profmani.au@gmail.com, drdbr80@gmail.com

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Dr. M. ARUMAI SELVAM, M.S. M.P.S. P.S. PRINCIPAL St. Joseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 507 001.



FACE DETECTION AND TRACKING TECHNIQUES IN COLOR IMAGES USING WEIGHED QUANTUM WOLF OPTIMIZATION

A. Arun Benedict^{1*}, Ravi Subban²

¹Research Scholar, Bharathiar University, Coimbatore, India.

²Department of Computer Science and Engineering, Pondicherry University, Pondicherry,

India.

* Corresponding author's Email: arunbenedict.sjc@gmail.com

ABSTRACT

A person may be automatically identified from an image or video source using a face recognition system. The work of facial recognition is accomplished by extracting facial characteristics from an image of the subject's face. The primary goal of video-based face recognition is to recognize a video face-track of renowned persons using a vast lexicon of fixed face images, while rejecting unfamiliar individuals. Current approaches detect faces by using probability models on a frame-by-frame basis, which is computationally costly when the data set is huge. For face identification and tracking in color images, a weighted Quantum Wolf Optimization is presented in this study. The suggested technique is compared to current approaches, and the test results show that superior categorization efficiency and high confident value are attained owing to little error.

Keywords: Face Recognition, Video Face Tracking, WQWO, frame-by-frame, classification.

1 Introduction

Face detection is a demanding and complex problem; yet, it is vital for developed man-machine systems [1]. Among the monitoring systems that are available, there are driver monitoring systems that are used to check the attention and condition of drivers [2]. In consideration of these considerations, a wide variety of approaches, such as NN, SVM, color information, and many more, have been presented. The information provided by one's skin tone is both helpful and essential for this endeavour. In addition, color enables quick processing and is extremely resistant to the geometric alterations in the face pattern that might arise as a result of shifting locations. There are functional and non-functional models that may be used to represent skin color; however, for the purposes of this research, a quantitative skin color model will be investigated. Some scholars [3] [4] [5] have attempted to predict the color of skin using multidimensional probability functions. To be more specific, they employ functions of the normal distribution. In order to do this, we experimented with a variety of distributions, and we compared them among themselves using a variety of color spaces.

A great number of different strategies have been suggested as possible methods for face detection. - The early study on face detection [6] concentrated mostly on the creation of handcrafted features and made use of typical machine learning methods to develop effective algorithms for face identification and recognition. These kinds of techniques have a number of drawbacks, including the fact that developing an efficient feature design is difficult and that the detection accuracy is only average [8]. In recent years, face identification algorithms based on deep CNN [9] have been the subject of much research. These approaches are more reliable

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Dr. N. ARUMAI SELVAM, M.Sc., M.Phil. PSO., PRINCIPAL St. Joseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 607 001.

RESEARCH ARTICLE

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I

The effect of knowledge conversion on innovation and performance: A multi-layered moderated-mediation model

Miranda Lakshmi Travis¹ | Alex Aruldoss² | Kellyann Berube Kowalski³ Satyanarayana Parayitam³

¹PG and Research Department of Computer Science, St. Joseph's College of Arts and Science (Autonomous), Cuddalore, Tamil Nadu, India

²Department of Commerce (Bank Management), and Business Administration (Computer Applications), St. Joseph's College of Arts and Science (Autonomous), Cuddalore, Tamil Nadu, India

³Department of Management and Marketing, Charlton College of Business, University of Massachusetts Dartmouth, 285 Old Westport Road, North Dartmouth, Massachusetts, 02747, USA

Correspondence

Satyanarayana Parayitam, Department of Management and Marketing, Charlton College of Business, University of Massachusetts Dartmouth, 285 Old Westport Road, North Dartmouth, MA 02747, USA. Email: sparayitam@umassd.edu

Abstract

This research aims to investigate how knowledge sharing and innovation are linked to affect performance. A multi-layered moderated-mediation model is developed to explore the effect of interactions between four types of innovations (product, process, marketing, and organizational) on the relationship between knowledge conversion and performance. After checking the measurement properties of the survey instrument using the LISREL package of structural equation modeling (SEM), data collected from 312 employees from the southern part of India were analyzed using Hayes's PRO-CESS macros. The results indicate that (i) knowledge conversion is positively associated with (a) performance and (b) organizational innovation; (ii) organizational innovation is positively associated with performance; and (iii) organizational structure mediates the relationship between knowledge conversion and performance. The findings also indicate that process innovation (second moderator) positively moderates the relationship between knowledge conversion and product innovation (first moderator) in influencing organizational innovation. The study also found that marketing innovation moderates the relationship between organizational innovation and performance. Thus, the study underscores the importance of knowledge conversion and all four types of innovation in enhancing performance. The managerial implications are discussed.

1 | INTRODUCTION

The seminal paper on knowledge conversion by Nonaka (1994) has attracted the attention of researchers in the field of knowledge management (KM) for the last three decades (Castaneda & Cuellar, 2020; Cegarra-Navarro et al., 2020; Parayitam et al., 2020; Shea et al., 2021; Tseng, 2009). As a result, it is now widely acknowledged that knowledge is a "strategic asset" and "knowledge workers" (Cegarra et al., 2010) and managers are considered "chief knowledge officers" who play an indispensable role in creating and disseminating knowledge across all organizational participants (Cegarra-Navarro et al., 2020) and educational institutions (Bratianu, 2014; Bratianu et al., 2011). Furthermore, recent studies reported that KM had been used as a resilient strategy to respond to the challenges posed by the global pandemic in educational

institutions (Sivagnanam et al., 2022), information technology (IT) companies (Apte et al., 2022), and small and micro knowledgeintensive business service companies (Bolisani et al., 2022).

To recall the basics, according to Nonaka (1994), continuous dialog between tacit and explicit knowledge generates new knowledge (i.e., knowledge creation), and knowledge conversion processes encourage such knowledge creation, resulting in positive outcomes (Farnese et al., 2019; J. C. Huang & Wang, 2002). In other words, knowledge creation is a dynamic and epistemological process of converting one knowledge into another (e.g., tacit into explicit and vice versa), which is amplified throughout different ontological levels of the organization—individuals, groups, and organizations. Using the socialization, externalization, combination, and internalization (SECI) framework, several researchers have documented positive absociation and positive absociation and positive absociation.

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Original Research Paper

A Novel Face Tracking and Classification Techniques in Color Images Using Optimized Deep Learning Algorithm

A. Arun Benedict^{1*}, Ravi Subban²

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Abstract: To significant applications in robotics, autonomous driving, visual surveillance, object recognition is a crucial study area in pattern recognition. The literature introduces various computer vision methods. There are many difficulties, such as imbalanced dataset & similar shapes of various items. Moreover, they deal with irrelevant feature extraction, which decreases classification performance and enhances calculation. We proposed a totally automatic computer image pipeline in this article. In proposed strategy, original data augmentation is done to balance the categorized objects. A Convolutional Neural Network (CNN) was afterwards taken into consideration and tweaked in accordance with the chosen dataset (Caltech101). The improved model extracts characteristics and was trained via transfer learning. A few unnecessary pieces of information were deleted from the collected characteristics using an Improved Whale Optimization Algorithm (IWOA). The total precision can be enhanced by using auto encoder-based dimensionality reduction, vector-based pixel reconstruction, and loss identification. The categorization procedure for color photos of people is implemented using CNN approach. The accuracy & effectiveness to the proposed method have enhanced according to the performance evaluation results when compared to the existing techniques.

Keywords: Object Recognition; Feature Extraction; Convolutional Neural Network; Denoising; Image Classification; Optimization Algorithm

1. Introduction

Biometric systems for person recognition and verification are required as a result of the increasing human elements in next generation technology. There are biometric systems that use fixed physical attributes like the fingerprint, iris, and palm print as well as systems that use behavioral traits like the signature, stride, walking pattern, speech pattern, and face dynamics; the latter are also referred to as soft biometrics [1-2]. Due to differences in head attitude, illumination, age, and facial expression, the issue of face

1Research Scholar, Department of Computer Science, Bharathiar University, Coimbatore, India. 2Associate Professor, Department of Computer Science, School of Engineering and Technology, Pondicherry University, Pondicherry, India. * Corresponding author's Email: arunbenedict.sjc@gmail.com identification in unconstrained situations was difficult [3]. Moreover, accessories, facial hair, and makeup can alter how someone looks. Humans are able to perceive faces with success and almost effortlessly, but computers struggle with the task [4]. To detect faces in connection to contextual knowledge, the human visual system supports sophisticated brain pathways for processing both static and dynamic aspects of the faces [5].

Real applications contain a wider range of face distributions and ambient conditions [6]. Facial recognition algorithms that are tested exclusively within the confines of a single data set will unavoidably develop bias, which skews learning in favor of the data collection's unique traits [7]. Many of the publicly accessible data sets show an under- or overrepresentation of particular types of faces in this restricted setting [8]. There is typically

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IMPROVISED K-MEANS CLUSTERING ALGORITHM TO CATEGORIZE THE COVID19 DATASET

Dr. P. Bavithra Matharasi

Associate Professor, Dept. of MCA, Mount Carmel College Autonomous, Bengaluru-560052, India, p.bavithra.matharasi@mccblr.edu.in

Dr. A. Clementking

Human Resource Development, Mount Carmel College Autonomous, Bengaluru-560052, India, clementking1975@gmail.com

Dr. S. Rani

Department of Information Technology (BCA/IT), Vels Institute of Science, Technology & Advanced Studies (VISTAS), Chennai 600117, India, srani.scs@velsuniv.ac.in

Dr. R. Roseline

Assistant Professor, PG Department of Computer Applications, St.Joseph's College of Arts and Science (Autonomous), Cuddalore-1, roseline_r@sjctnc.edu.in

S. Anupriya

Department of MCA, Vels Institute of Science, Technology & Advanced Studies (VISTAS) Chennai-600117, India, anupriya2778@gmail.com

Abstract

The Coronavirus Disease 2019 (COVID19) has brought severe stress on all human lives, especially to healthcare systems worldwide. The Healthcare system includes personnel, equipment and infrastructure, medicines, and voluminous dataset. This is a contagious and dreadful disease that timely treatment must be given to cure. All the patients affected by coronavirus cannot be treated the same way and provide the same resource. Depending on the severity of the disease, treatment should be given and resources should be allocated. Doctors and healthcare personnel interrogating the patients and identifying them based on their severity is a time-consuming process. In such a scenario, the help of IT and computer are the need of the hour. A computer-based system is needed that automatically categorizes the patients according to their severity. The machine learning approach will be best suited to category coronavirus-affected patients based on their severity. Unsupervised learning is a technique that categorizes the dataset without the label. Clustering is one of the techniques of unsupervised learning. There are ample number of clustering algorithms available in the market for this purpose. K-means algorithm is one of the clustering algorithms that is simple and efficient to use. This research project aims at improving the performance of the K-means clustering algorithm that categorizes the data more accurately.

Keywords: k-means clustering, covid19 dataset, machine learning, clustering algorithm

I. INTRODUCTION



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ANTIBACTERIAL ACTIVITY OF Cardiospermum helicacabum

S. Megala^{1*}, S. R. Paranthaman², D. Sumitha³, T. Sheela⁴, K. Shagirtha⁵, T. Ganesh Kumar⁶ and S. Sumithra⁷

^{1,3,4-} Assistant Professor, Department of Microbiology, St. Joseph's College of Arts and Science (Autonomous), Cuddalore- 607 001.

² – Head of the Department, Department of Microbiology, PERI College of Arts and Science, Thambaram-600 048.

⁵ - Assistant Professor, Department of Biochemistry, St. Joseph's College of Arts and Science (Autonomous), Cuddalore- 607 001.

⁶ - Assistant Professor, Department of Zoology, St. Joseph's College of Arts and Science (Autonomous), Cuddalore- 607 001.

⁷⁻ Department of Microbiology, St. Joseph's College of Arts and Science (Autonomous), Cuddalore- 607 001.

ABSTRACT

The Present Study deals with the antibacterial activity of Acetone, Ethanol, Methanol extract of the leaves and seeds of Cardiospermum helicacabum using well diffusion method against Staphylococcus aureus, Psedomonas aeruginosa, and Escherichia coli. The plant extracts to be tested were prepared with various concentrations viz., 15µl, 30µl, 45µl and 60µl.Cardiospermum helicacabum leaves extracts showed maximum antibacterial activity against all the pathogenic microorganisms tested followed by seeds extracts. Staphylococcus aureus were found to be more susceptible against Cardiospermum helicacabum leaves and seed extracts tested followed by E. coli and P. aeruginosa.

Key Words: Antibacterial activity, Plant extract, *Cardiospermum helicacabum* and Pathogens.

Dr. M. ARUMAI SELVAM, M.Sc., M.Phil, Pho. PRINCIPAL St. Joseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 507 001.

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Morphological And SEM (EDX) Studies Of Finger Millet (*Eleusine Coracana* (L.) Gaertn.) Under Different Concentrations Of Sugar Mill Effluent

¹S. Pravina Mary*, ²M. Marshal Arunkumar ³T. Sheela

¹Department of Zoology, St. Joseph's College of Arts and Science (Autonomous) Cuddalore, Tamil Nadu, India.

²Department of Science and Humanities, St.Anne's college of engineering and technology, Panruti, Tamil Nadu, India.

³Department of Micro Biology, St. Joseph's College of Arts and Science (Autonomous) Cuddalore, Tamil Nadu, India.

Abstract

Objective: Water is vital components of life support system and the quality of the water pivotal role in the maintenance of aquatic health. Sugar mill refinery effluent containing some toxic substances put forth a huge impact on watershed management and crop plants. Toxic metals are hazardous which can stimulate morphological and histological changes in finger millet (*Eleusine coracana* (L.) Gaertn.). Hence, the present study aimed to analyze the yield and surface morphological changes in the finger millet crop. **Materials and Methods:** The healthy seed of finger millet variety (CO-13) was taken. Finger millet was cropping with different concentrations (10, 25, 50, 75 & 100 %) of sugar mill effluent. The seeds irrigated with tap water were treated as control. After, the SEM images of the finger millet after growing in 10 g of sugar mill treatment, respectively. Although the SEM images show nuclear precipitation of metals, the percentage of elements in the *Eleusine coracana* was analyzed by EDX. **Result:** The highest plant growth was analysed in 10 % of sugar mill effluent concentrations. A scanning electron microscope equipped with an energy dispersive X-ray spectrometer was used to observe and analyse the morphology of the isolates incubated in the presence of Mn, Zn, P, K, Mg, Fe, Zr, S and Cu in the root and leaf of *Eleusine coracana* (L.) Gaertn.

Key words: Sugar mill effluent, Eleusine coracana, SEM (EDX), Toxic substances.

1. INTRODUCTION

Water is an integral component of the life support system, and the quality of that water is crucial to maintaining the wellbeing of aquatic life. Unfortunately rapid industrialization, population explosion and non-judicious use of natural resources have resulted in many fold increase in water pollution besides sewage, industrial effluent, agricultural runoff and other household residues. Finger millet (*Eleusine coracana*) one of the most important millets, was traditionally used to prepare flour based products. The millet carbohydrates consist of free sugars, starch and non-starch polysaccharides. The millet starch consists of amylose and amylopectin fractions, normally present in the ratio of 25:75. Many of the starch granules of the millet are compound and rigid in nature and this contributes towards the nutritional advantages of the millet food in terms of slow digestion of its carbohydrates or lower glycemic index of the millet recal (2). Therefore Scanning electron microscopy with Energy-dispersed X-ray analysis (SEM/LDM) well continuedly used, for a morphological and elemental compositional analysis of precipitated chemical compounds of (3 and 4).

⁽AUTONOMOUS) CUDDALORE - 607 001.



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CHARACTERIZATION AND PURIFICATION OF STREPTOLYSIN O TOXIN BY AMMONIUM SULPHATE FRACTIONATION METHOD

Research Article

Jayabalan Jayaprakash, Chandrasekaran Swaminathan, Rajendiran Krishnan and Devadoss John Milton*

Department of Microbiology, St. Joseph's College of Arts & Science (Autonomous), Cuddalore, Tamilnadu, India-607 001

ARTICLE INFO	ABSTRACT		
Article History: Received 14 th March, 2023 Received in revised form 15 th April, 2023 Accepted 15 th May, 2023 Published online 28 th May, 2023	It is a Gram-positive, non-motile, non-spore forming coccus that occurs in chains or in pairs of cells. Investigatin of streptococci species from throat sample by blood agar plate method. Morphological and biochemical characterization of the throat swab culture was identifying the streptococci. Streptolysion O isolated from the group A beta haemolytic <i>Streptococci</i> has the ability to lysis the RBC's which was confirmed by haemolytic assay. It was confirmed such as		

Key words:

Throat, Streptolysin, O toxin, Ammonium sulphate, Haemolysis, Protein, Bacitracin. employed by ammonium sulphate fractionation method. After that total protein estimation followed by Lowry's method.

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INTRODUCTION

Group A Streptococcus (institution A strep) is a bacterium that could reason many exceptional infections, consisting of strep throat, scarlet fever, impetigo, and others. The bacteria stay within the nose and throat. One of the ways you can get ill is if you breathe in those droplets or if you touch something that has the droplets on it and then touch your mouth, nostril, or eyes. [Shulman et al., 2012]. It is a Gram-positive, nonmotile, non-spore forming coccus that occurs in chains or in pairs of cells. Individual cells are round-to-ovoid cocci, 0.6-1.0 micrometer in diameter. When the bacteria are introduced or transmitted to vulnerable tissues, a variety of types of suppurative infections can occur [Graziella et al., 2001].

Virulence elements of organization A streptococci include: (1) M protein, fibronectin-binding protein (Protein F) and lipoteichoic acid for adherence; (2) hyaluronic acid tablet as an immunological cover and to inhibit phagocytosis; Mprotein to inhibit phagocytosis (three) invasins which includes streptokinase, streptodornase (DNase B), hyaluronidase, and streptolysins; (4) exotoxins, consisting of pyrogenic (erythrogenic) toxin which reasons the rash of scarlet fever and systemic toxic surprise syndrome [Gabriele Sierig et al., 2003].

Beta -hemolysis is related to entire lysis of purple cells surrounding the colony, whereas alpha-hemolysis is a partial or "green" hemolysis associated with reduction of purple mobile hemoglobin. Non hemolytic colonies had been termed gamma-hemolytic. The mobile wall is composed of repeating gadgets of N-acetyl glucosamine and N-acetyl muramic acid, the standard peptidoglycan. Traditionally, the definitive identification of streptococci has rested on the serologic reactivity of "mobile wall" polysaccharide antigens as initially defined through Rebecca Lancefield. More than 20 serologic groups have been identified and designated by letters (eg, A, B, C) [Azar et al., 2016]. Of the non-group A streptococci, group B is the most important human pathogen. Streptolysin O is toxic to a wide variety of cell types, including myocardium, and is highly immunogenic. The determination of the antibody responses to this protein (antistreptolysin O titer) is often useful in the serodiagnosis.

MATERIALS AND METHODS

Isolation of bacteria

The inoculums of streptococcus was taken from the throat infection in human, as these bacteria feed on the blood cells it was usually available on wounded throat. Streptococcus used in this study is listed in the table -1. GAS isolate from a patient with severe throat infection that are able to produce streptolysin O (SLO). Group A Streptococcus were grown in Brain Heart Infusion agar with 5% blood.

Characterization of bacteria

Primary screening of throat infection causing agents were done by gram staining test, which conforms the presence of gram positive bacteria. Streptococcus was confirmed by the biochemical tests, hemolysis reaction on blood agar, agglutination test, and bacitracin disc test and Gram staining, catalase, coagulase, Oxidase etc.,

Bacitracin susceptibility test

The Bacitracin disk is sensitivity test used to differentiate the beta-hemolytic streptococcus. An overnight culture grown on 5% blood agar incubated 35°C. Select a beta- hemolytic colony and heavily inoculate a quadrant of a 5% blood agar plate. Drop a bacitracin disk in the heaviest zone of

Dr. M. ARUMAI SELVAM, M.Sc., M.Phil, Pho., PRINCIPAL Department of Microbiology, St. Joseph's College of Arts & Science (Autonomous), Cuddalore, Tamilnad Stladis of POdollege of Arts & Science (AUTONOMOUS) CUDDALORE - 607 001.



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IN VITRO EFFECT OF HERBICIDE GLYPHOSATE ON THE ACTIVITIES OF **RHIZOBIUM ISOLATED FROM GROUNDNUT FIELD**

Research Article

D. John Milton^a, Jayabalan Jayaprakash^b., R. Krishnan^c and C. Swaminathan*

^{a,b,c,*}Department of Microbiology, St. Joseph's College of Arts and Science (Autonomous), Cuddalore

ARTICLE INFO	ABSTRACT
<i>Article History:</i> Received 15 th March, 2023 Received in revised form 17 th April, 2023 Accepted 16 th May, 2023 Published online 28 th May, 2023	The bacterium <i>Rhizobium</i> is s symbiotic nitrogen fixer and is commonly used as Nitrogenous biofertilizer over the legume fields. The agrochemical application has considerable negative effects over the performance of Biofertilizer microbes. In the present research, four <i>Rhizobium</i> species were isolated from groundnut field which is frequently exposed to the herbicide glyphosate using YEMA medium and their plant growth promoting activities <i>viz.</i> , production of Ammonia, IAA, HCN and the solubilization efficiency to solubilize Phoenhorus and Zinc were tested. All the four
<i>Key words:</i> Rhizobium, Herbicide resistance, Glyphosate,	isolates could produce significant amount of Ammonia, HCN and IAA and the herbicide caused moderate effects on the efficiency of production of these compounds. Whereas, no <i>Rhizobium</i> isolate were able to solubilize Zn and Phosphorus with and without the presence of herbicide Glyphosate.

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INTRODUCTION

The problems with the weeds and controlling them by the farmers are being one of the important practices in agriculture from the earlier days to increase the yield. Within a very short period, herbicides use shore up by manifolds. Increase in the consumption of herbicide is likely to be at least two to three times more in the years to come. The chemical properties of herbicides determine their retention and transport in soils (Kearney and Wauchope, 1998). A herbicide can reach groundwater if its water solubility is greater than 30mg/L; its adsorptivity, Koc (Koc= partition coefficient between soil organic matter and water), is less than 300-500 ml/g; its soil half-life is longer than about 2-3 weeks; its hydrolysis half-life is longer than approximately 6 months and its photolysis is longer than 3 days (Barcelo, 1991). The microbes which are present in the land which is continuously exposed to a particular chemical like herbicides develops resistance against that particular chemical compounds and became effective utilizers of that compounds for its energy and carbon source. Isolating of native strains adapted to the environment and their study may contribute to the formulation of inoculants to be used in region crops. On the other hand, characterization and identification of these bacteria are necessary for wide ecological studies of the plant rhizosphere.

MATERIALS AND METHODS

Sample collection

Root nodules were collected from groundnut filed which was frequently exposed to the herbicide glyphosate. The collected nodules were taken into laboratory for the isolation of Rhizobium species

Isolation of Rhizobium from collected root nodules

The nodules collected were thoroughly washed in tap water to remove the adhered soil particles. After, the nodules were immersed in 0.1 % mercury chloride for surface sterilization followed by repeated washing with distilled water to remove the traces of mercury chloride. The sterilized nodules were cut using sterile blade and crushed with the use of sterile forceps to get the fine paste of nodules. Then the nodule solution was serially diluted by following standard procedure upto concentration of 10⁻⁶. Then, 1 mL of serially diluted samples from 10⁻⁴ concentration was transferred to sterile Petri plates and evenly distributed throughout the plates and sterile unsolidified YEMA medium was poured and it was allowed to solidify for the selective isolation of Rhizobium. Then the plates were incubated at room temperature for 48 - 72 hrs. After incubation period, the plates were observed for the growth of Rhizobium.

Characterization and identification of the isolated Rhizobium species

For cell shape, arrangement and motility, Gram staining and hanging drop technique were performed and the results were noted. For identification, the biochemical tests Indole, Voges-Prauskauer, Urease, Citrate, TSI, Oxidase test, Catalase test were performed and the results were noted

Screening of *Rhizobium* isolates against different concentration of herbicide glyphosate

To test glyphosate resistant level for all the four isolates against the herbicide glyphosate, different concentration in ppm from 10, 000 ppm to 19,000 ppm were prepared and amended with nutrient agar and the cultures were streaked over the plates. The plates were incubated and the growth of the isolate in the plates containing perbodic glyphosate

PRINCIPAL Department of Microbiology, St. Joseph's College of Arts & Science (Autonomous), Cuddalore, Tamilnadu, India-607 St. Joseph's College of Arts & Science (AUTONOMOUS)

CUDDALORE - 607 001.

Dr. M. ARUMAI SELVAM, M.Sc., M.Phil, Pho.

^{*}Corresponding author: C. Swaminathan



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PHYTOCHEMICAL ANALYSIS AND ANTIMICROBIAL ACTIVITY OF LEAF EXTRACTS OF ECLIPTA ALBA L.

Research Article

C.Swaminathan¹, J. Jayaprakash^{1*}, D. Johnmilton¹, S. Poomala¹, R. Amutha², A. Malarvizhi³ and R.Krishnan¹

¹Department of Microbiology, St. Joseph's College of Arts and Science (Autonomous), Cuddalore 607 001, Tamil Nadu, India

²Department of Biotechnology, Periyar University Centre for Post Graduate and Research Studies,

Dharmapuri 635 205, Tamil Nadu, India

³Department of Microbiology, Vivekanandha College of Arts and Sciences for Women (Autonomous),

Tiruchengode 637 205, Tamil Nadu, India

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ABSTRACT

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Key words:

Eclipta alba L., Phytochemical analysis, Antibacterial activity

Eclipta alba L. is commonly known as false daisy belonging to the Asteraceae family. The present study was designed to study the phytochemical composition and antimicrobial potential of ethanol and methanolic leaf extracts of Eclipta alba L. Phytochemical analysis was done using standard phytochemical methods. The crude leaf extracts of the plant were tested against Staphylococcus aureus ATCC 25923, Escherichia coli ATCC 25922, Klebsiella pneumoniae ATCC BAA1705 and Pseudomonas aeruginosa ATCC 27853 by agar-well diffusion method. Ethanol and methanol leaf extract revealed the presence of carbohydrates, reducing sugars, alkaloids, fixed oil, saponins and phenolic compounds. The methanolic leaf extract showed the highest zone of inhibition compared with ethanolic leaf extract against all the tested bacterial pathogens. The results of the present study conclude that the studied plant possesses broad spectrum antibacterial properties.

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INTRODUCTION

Antibiotic resistance has become a serious and common problem in developing countries, both in hospitals and the community, causing high mortality every year (Uddin et al., 2021). Improper usage of antibiotics is the most important factor of antibiotic resistance and the global emergence of multi-drug resistant bacteria is increasingly limiting the effectiveness of current medications. Moreover, wide use of antibiotics in the animal industry has also resulted in the emergence of antibiotic resistant microorganisms. By means of increasing patient movement and travel throughout the world, transmission of the drug resistant microorganisms from one nation to another nation also increased (Bokhary et al., 2021).

Antibiotic resistance results in reduced efficacy of antibacterial drugs, making the treatment of patients difficult, costly, or even impossible (Shrestha et al., 2018). The impact on particularly susceptible patients is apparent, resulting in prolonged illness and increased mortality (Djeussi et al., 2013). The possible solution for the above-mentioned problems could come from medicinal plants which have been reported to have antimicrobial properties. During the last few decades there has been an increasing interest in the study of traditional plants and their medicinal value in different parts of the world. The medicinal properties of plants have been investigated due to their potent pharmacological activities, low toxicity and economic viability (Chew et al., 2012).

Eclipta alba (L.) belongs to the Asteraceae family and is commonly known as false daisy in English. The plant is useful the treatment of atherosclerosis, hyperlipidemia, in inflammatory conditions, memory disorders, edema. rheumatic joint pains, hepatitis, enlarged spleen, and skin problems (Karthikumar et al., 2007). The plant is commonly used in hair oil all over India for healthy black and long hair (Roy et al., 2008). The plant is used in the treatment of minor cuts and burns and the fresh leaf-juice is considered very effective in stopping bleeding (Khan and Khan, 2008). Leaf juice mixed with honey is also used for children with upper respiratory infections and also used in eye and ear infections. Root has been reported to possess emetic and purgative property (McGuffin et al., 1997). The present study is aimed at phytochemical analysis and evaluating the antimicrobial properties of leaf extracts of Eclipta alba L. in order to give credence to its acclaimed ethnomedical usage.

MATERIALS AND METHODS

Collection and Processing of Leaves of Eclipta alba L.

Fresh leaves of Eclipta alba L. were collected from Puliyur, Cuddalore district, South India. The collected plant was authenticated by Dr. L.Mullainathan, Department of Botany, Annamalai University, Chidambaram. A voucher specimen of the plant (Acc.No. 367) was deposited at the herbarium of the department for future reference. The leaves were washed under running tap water, air dried, and homogenized to

*Corresponding author: J. Jayaprakash

Dr. M. ARUMAI SELVAM, M.S.C. M.Phil, Pho. PRINCIPAL Department of Microbiology, St. Joseph's College of Arts & Science (Autonomous), Cuddalore, Tamilnadu, India-607 St. Joseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 607 001.

ANTIBACTERIAL, ANTIOXIDANT AND FT- IR ANALYSIS IN Withania somnifera

S. Megala^{1*}, S. R. Paranthaman², K. Shagirtha³, D. Sumitha¹, T. Sheela¹, and G. Samitha⁴

¹⁻ Assistant Professor, Department of Microbiology, St. Joseph's College of Arts and Science (Autonomous), Cuddalore- 607 001.

² – Head of the Department, Department of Microbiology, PERI College of Arts and Science, Thambaram-600 048.

³ - Assistant Professor, Department of Biochemistry, St. Joseph's College of Arts and Science (Autonomous), Cuddalore- 607 001.

⁴⁻ Department of Microbiology, St. Joseph's College of Arts and Science (Autonomous), Cuddalore- 607 001.

Correspondence to Author

Dr. S. Megala Assistant Professor Department of Microbiology St. Joseph's College of Arts and Science (Autonomous), Cuddalore- 607 001 Tamilnadu, India

ABSTRACT

The Present Study deals with the antibacterial activity of Acetone, Ethanol, Methanol extract of the leaves and seeds of *Cardiospermum helicacabum* using well diffusion method against *Staphylococcus aureus, Psedomonas aeruginosa, Escherichia coli* and *Klebsiella pneumoniae*. The plant extracts to be tested were prepared with various concentrations *viz.,* 50µl, 100µl, 150µl and 200µl. *Withania somnifera* Leaves extracts showed maximum antibacterial activity against all the pathogenic microorganisms tested followed by Root extracts. The antioxidant activity evaluated methanol leaves extract of *Withania somnifera* were found to be 46.79, 45.97 and 46.38 per 500 µg of dry weight of crude extract.

Key Words: Withania somnifera, Antibacterial activity, FT-IR, Antioxidant and Plant extract, .

Dr. M. ARUMAI SELVAM, M.Sc., M.Phil, Pho., PRINCIPAL St. Joseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 607 001.

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Phytogenic synthesis of silver nanoparticles using Achyranthes japonica root and its in vitro antimicrobial, antioxidant, and mushroom tyrosinase inhibitions

Bhusnure Omprakash Gadgeppa, Bhokare Manjusha Raman, Ganesh Mani, Giram Padmaja Sidram, Sachin Sivajirao Pandit, Jayaprakash Jaybalan, Kamalakkannan Kaliappan, Hemalatha Pushparaj & Jang Hyun Tae

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Influence of personal barriers in accessing primary health care Services on performance of healthcare center and client's satisfaction

*R.Punniyaseelan ** Dr. R. Krishnakumar

* R.punniyaseelan, Research scholar, St.Joseph's College of Arts & Science (Autonomous), Cuddalore-1 **R. Krishna Kumar, Associate Professor, St.Joseph's College of Arts & Science (Autonomous), Cuddalore-1

Abstract:

Background: Nearly 51.6% percentages of people of Tamilnadu are living in rural areas where they are underserved in healthcare services. Many factors have been listed out by academic researchers, of which barriers of individuals quietly differ among the gender, location, and financial status, cultural and social background. Carlio et al. suggested approaching accessibility barriers from an individual point of view. Objectives: The present study examines the influence of personal barriers of the user on performance of primary health care centers and on client's satisfaction of primary health care services. Design: Cuddalore district is divided into thirteen Medical health blocks to cater the medical needs in the district. All those who access the primary health services are taken as study population. Out of them, 60 respondents from each block are selected for data collection. After screening the data recorded, 666 respondents were considered as sample respondents. Settings: A well structured questionnaire was circulated to record their opinion on personal barriers and how it affects their accessibility, performance and client's satisfaction. Five point likert scales was used to express the magnitude of barriers and its effects. Results: The R² value of 0.568 that personal barriers influence 56.8 percent of the performance of healthcare units. The calculated β value of behavioral barriers (0.107), Awareness Barriers (0.105), Cultural Barriers (0.105), Accessibility Barriers (0.261) and Social Barriers (0.259) are validated by t- test .All these barriers significantly influence the performance of primary health care center. R² value of 0.319 that personal barriers influence 31.9% percent on the client satisfaction of healthcare services. The calculated β value of behavioral barriers (0.136), Awareness Barriers (0.433) and financial Barriers (0.203), is validated by t- test .They are strongly influencing the satisfaction on health care services. However the cultural Barriers (-0.048) and social barriers (-0.005) have no influence on client's satisfaction at 1% level of significance. Conclusion: Behavioral and awareness barriers are having a strong influence on performance of healthcare centers and client's satisfaction. Hence the government must bring awareness programmes to educate the people on availability services and make high trust on primary health care centers and on service quality. Behavioral aspects of individuals have to be changed through VHN/ASHA. The Change is a start from the individual is very essential to bring the people into the inclusive health care sector.

Key words: Public health care services, Health care personal barriers, individual barriers, accessibility barriers, Performance of health care unit, Primary health center, client satisfaction

Introduction:

Half of the population of India lives in 115,029 villages of which 17,089 villages are located in Tamilnadu. Nearly 51.60 percent of people of Tamilnadu are living in rural areas where they are underserved in healthcare services. Many factors have been listed out by academic researchers, of which barriers of individuals quietly differ among the gender, location, and financial status, cultural and social background. Carlio et al. suggested approaching accessibility barriers from an individual point of view. They found that respondents were experiencing some sort of challenges in accessing health care services. Poverty is the main criteria to access healthcare services. Economically weakened population has only choice to get treatment from primary health center. The weather conditions affect safe travel to the provider center. In rural areas, transportation facilities and linking roads to nearby urban areas influence the ability of accessing health care services. Apart from this, barriers on the provider side, such as lack of infrastructure, availability of some services, and quality of health care professionals. The language and cultural differences were identified as barriers. Though health services are provided at free of cost, some sort of amount is needed to access health services. Expenses of transport, companion expenses, and food and stay expenses were met out of pocket. Lack of income and employment force them to avoid health care services or postpone it for some time. Many rural people are not aware of the availability of services in primary health care centers and they believe public services are inferior in quality and not trustworthy. They are not able to access services available due to multiple reasons and barriers. Women in certain cultures are not allowed to go out to avail services. When they access primary health centers and avail quality services, their satisfaction on service may be higher. All the primary health centers are funded by the government out of a taxable amount. So it is essential to examine the performance of primary healthcare centers and to see the services are provided at satisfactory level and at what level the personal barriers influence performance of health care centers and on satisfaction.

Review of Literature

. As for rural areas concerned, geographical, limited availability of qualified doctors and financial barriers limit the visits to the doctors for their health care needs. Lack of medical practitioners, travelling distance, early closure of rural hospitals, lower funding in rural areas were experienced by agricultural workers. Elderly were under-used health service the to supplicion look of awareness (AUTONOMOUS)

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Kanpur Philosophers I.S.S.N 2348-8301 International Journal of humanities, Law and Social Sciences Published biannually by New Archaeological & Genological Society Kanpur India



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A STUDY ON EFFECTIVENESS OF JOB SATISFACTION OF EMPLOYEES IN TAMIL NADU STATE TRANSPORT CORPORATION WITH SPECIAL REFERENCE TO **CUDDALORE REGION - VILLUPURAM ZONE**

S. LAWENYA, Research Scholar, PG & Research Department of Commerce, St. Josephs College of Arts & Science (Autonomous), Cuddalore - 607 001

DR.L.SANTHANA RAJ, Associate Professor, PG & Research Department of Commerce, St. Josephs College of Arts & Science (Autonomous), Cuddalore - 607 001

Abstract

The present study the Human Resource Department of Tamil Nadu State Transport Corporation it was found that it has a well-knit HR Department and also a well devised labour welfare measures. Three methods were adopted for recruitment - Direct Recruitment, Indirect Recruitment and Third Party method. There were eight categories of incentive schemes in TNSTC since its inception, to improve the productivity level of its operations. It is suggested that the TNSTC Corporation may conduct researches at regular intervals to know the changing attitude of workers and to know about their effectiveness to improve the recruitment selection process.. The main objective is to identify general practices that organizations use to recruit and select drivers and conductors and to determine how the recruitment and selection practices affect organizational outcomes at the corporation. The data used in this paper is primary in nature and collected through personal interviews in the form of questionnaires from a sample of 200 employees in Tamil Nadu state Transport Corporation.

Keywords: Recruitment, Selection Process, TNSTC, Transport. Recruitment and Selection, Working conditions

Introduction

Job satisfaction plays vital role in the field of organizational behaviour and the practice of human resource management. Job Satisfaction is a part of life satisfaction. It occupies an important place in such disciplines as industrial psychology and organisational communication. The human being strives to seek satisfaction in every aspect of the working life. There are many ways to seek satisfaction by an individual in general but it is complex to measure accurately the level of job satisfaction perceived by employees. Developing country like India, existence of higher job satisfaction among the workers means a work force that is motivated and committed to high quality performance and a motivated work force is valuable assets to the management. Job Satisfaction is the favorableness or un-favorableness with which the employee views his work. It expresses the amount of agreement between ones expectation of the job and the rewards that the job provides. The nature of one environment of job is an important part of life as Job Satisfaction influences one general life satisfaction. Job Satisfaction, thus, is the result of various attitudes possessed by an employee.

Need for the Study

In the current trend, customer satisfaction plays a major role in all parts of the services. This research work is used to predict the over-all customer satisfaction and dissatisfaction of employees of TNSTC towards inter-personal relationship, working environment, wage and salary safety and labour welfare measures, training and motivation of employee, workers' participation in Kanpur Philosophers ISSN 2348-8301, Volume-X, Issue-I (A), 2023

St. Joseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 607 001.

EFFECTIVENESS OF SOCIAL MEDIA MARKETING ON HOMEPRENEURS A STUDY WITH SPECIAL REFERENCE IN CHENNAI CITY

Ranjani.P & Dr.L.Santhanaraj

Ph.D-Research Scholar& Associate Professor cum Research supervisor, PG & Research Department of Commerce St.Joseph's College of Arts & Science (Autonomous), Cuddalore, No.5, Annamalai Nagar Madukkarai, Pondicherry 605105 Contact:ready2mailranjani@gmail.com

Abstract

The purpose of this research is to identify how the Social Media Marketing impact on the consumer purchases decision. The objective of this research is that to define the term Social Media Marketing and homepreneurs consumer purchase behaviour, to carry out a literature review on the subject of consumer purchase behaviour and impact of Social Media Marketing, to conduct a primary research with the help of questionnaires and interviews on the impact of Social Media Marketing advertising and homepreneurs consumer purchase behaviour. This research is based on survey method, as the questionnaire was distributed to gather data from the public for the research about the impact of Social Media Marketing on homepreneurs consumer purchase behaviour. 184 responses were gathered from the distribution of the google forms survey. Further, primary research also was conducted utilisation of the journal articles from the previous researchers. The results of the research indicated that, there is a highly significant positive correlation identified between the Social Media marketing efforts and the homepreneurs consumers purchase decision of organic food products in among the sample.

Keywords: Homepreneurs –Social media- Familiarity- Awareness- Availability-Cost Advantage

Introduction to the study

Understanding consumer behaviour is key for marketing success as consumers have embraced utilising the internet and online socialising tools (Vinerean, Cetina, Dumitrescu, and Tichindelean, 2013). Consumer purchase behaviour is influenced by having the knowledge and being brand oriented. Also, brand awareness is coupled with good brand perception and loyalty result with a stronger brand image in homepreneurs consumer's mind, which will influence the consumers positively and becomes part of their purchase behaviour (Malik et al., 2013). Homepreneurs Consumer purchase behaviour is how individuals, organisations, and groups select, buy and make use of product, service, experience or ideas to satisfy their needs and wants (Rasool Madni, 2014).

Research aims and objective

The aim of this research is to analyse and identify the impacts of Social Media Marketing on consumer purchase decision and also how Social Media Marketing help consumer in a purchase decision.

Research objectives:

- 1. To define the term Social Media Marketing and homepreneurs consumer purchase behaviour.
- 2. To carry out a literature review on the subject of homepreneurs consumer purchase behaviour and impact of Social Media Marketing.

Research problems and questions

Dr. M. ARUMAI SELVAM, M.Sc., M.Phil. Pho. According to the theme that is chosen where the discussion emerges on the impact of social Media Marketing on homepreneurs consumer purchase behaviour. The primary question here is toes Socialisme

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RABINDRABHARATI JOURNAL OF PHILOSOPHY ISSN : 0973-0087

IMPACT OF SOCIAL MEDIA MARKETING ON PURCHASE DECISION OF RESIDENTIAL PROPERTY IN CHENNAI CITY

B.G.Saranae, Research Scholar, PG and Research Department of Commerce, St. Joseph's College of Arts &Science (Autonomous)Cuddalore-607001.

L. Santhana Raj, Associate Professor, PG and Research Department of Commerce, St. Joseph's College of Arts & Science (Autonomous), Cuddalore-607001.

Abstract

Both businesses and consumers have benefited greatly from the growth of marketing. In this industry, innovation has been both constant and swift. We depend on what customers post online about their experiences, as opposed to "word-of-mouth advertising," which was formerly the only choice. This article demonstrates how we may use social media to increase revenue and improve customer satisfaction on purchase decisions of residential property. Social media has more power than we realize. We created this to comprehend social media's impact on acquiring residential property in Chennai City. Buying a property is complex, and it can be challenging for marketers to communicate effectively with their target market. This article aims to show how marketers have modified their conventional marketing approaches to cater to the needs of the millennial generation, who are the most likely buyers of residential property. We examined the benefits and drawbacks of social media marketing for homes in Chennai City. This article can be useful for people particularly interested in the power of social media marketing and, more specifically, for those looking at a residential property in Chennai City, Tamil Nadu.

Keywords: Advertisement, Customer behavior, Homes property, Facebook, Youtube, Real Estate business.

1. INTRODUCTION

Since the first person stepped on this earth, food, clothes, and shelter have been humans' fundamental requirements. No of the difficulties, we constantly require food to keep us alive, clothing to protect our bodies, and a roof over our heads to feel secure. Owning at least one property is unquestionably everyone's desire. It is crucial from an emotional standpoint in addition to a monetary one. Homes have happy memories of dear ones, comfort, life events, growth, change, aspirations, etc. Given this significant background, everyone wants to have the nicest memories—a beautiful home! As crucial as the choice to buy a home is, it goes without saying that its complexity is also very high. Consider a time before the internet. Obtaining information about properties and making the best decision were both incredibly tough. Kings and masters of all knowledge were real estate brokers. House buyers completely relied on the brokers' good faith and lacked access to information. With the advent of print media, consumers had more options because they could communicate directly with developers and collect knowledge. Developers also benefited from promoting their goods directly to consumers without the middleman. The power of the Internet and modern technology significantly altered the game. The real estate sector quickly jumped on board with the digital revolution, just like every other industry that underwent a dramatic transformation. With online advertising, the cost of selling real estate fell to an all-time low, and the convenience of finding properties increased thanks to information being at your fingertips. The new storm, where communication was not just between buyers and sellers but also between purchasers, took hold even before individuals grasped the potential of websites and e-mail advertising. A technical revolution that allowed for universal participation, increased the credibility of information, and-most importantly-moved at the speed of light. The so-called "Social Media" is the new storm that will be covered in more detail in this essav.

Not to think that social media marketing influences purchasing any product online would be absurd. But considering the significant financial and emotional risks associated with residential property. upon reso

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PRINCIPAL St. Jeseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 507 001.

IMPACT OF E-LEARNING ON TEACHING AND LEARNING PRACTICES IN HIGHER EDUCATION INSTITUTIONS - STUDENTS VIEW

ABSTRACT

Higher Education systems are in rising demandall over the globeto use ICT tools in termination of the improve students' knowledge. Due tocovid pandemic, Educational institutions in moved to E-learning platforms. To create knowledge based society, it is very needed to incomplish ICT tools at all stages of the higher education system. E-learning became a vibrant instrument interest of students and faculty from all educational systems. but, the biggest care is the qualify in impact of E-learning and E-teaching in higher education institutions, from the student perspective further, it makes an attempt to quantitative research, and data were collected from both UG & Mastudents of St. Joseph's College of Arts and Science (Autonomous) Cuddalore, A convenient samplify method was adopted and the data was gathered using a structured questionnaire. Further, the studies how E-learning affects teaching and learning practices in higher education gractices in higher education institutions. Keywords: Educational system, E-Learning, Technology, ICT tools, E-Teaching.

DR. R. KRISHNAKUMAR

Associate Professor PG and Research Department of Commerce St.Joseph's College of Arts and Science (Autonomous) Cuddalore

nd Reflections on Bducat

MR. D. PRABAKARAN

AUDRO

Ph.D. Research Scholar PG and Research Department of Commerce St.Joseph's College of Arts and Science (Autonomous) Cuddalore

Dr. M. ARUMAI SELVAM

1. Introduction

The Higher education system has developed remarkably from an ordinary education system to new methods that support the delivery and acquiring the knowledge through the use of computer technology. Technology advancement has created a good platform to improve teaching skills and broaden students' learning capacity. E-learning is the best example of the development of technology used in the higher education system. E-learning is an instructional method that has great potential

DIGITAL MARKETING: OPPORTUNITIES AND CHALLENGES IN THE VIRTUAL ERA

Dr. F.Andrews

Assistant Professor, St.Joseph's College of Arts and Science (Autonomous), Cuddalore

Mrs. B.Lakshmi

Research Scholar St.Joseph's College of Arts and Science (Autonomous) Cuddalore,

Abstract:

Digital Marketing has improved marketing connectivity with consumers; otherwise termed online or internet marketing. The marketing strategy allows leveraging different networkers to connect global connectivity from the creator to end customers interested in products and services. As technology advances, traditional tactics become obsolete. Digital reform has paved a way for the marketing area in transforming and exploring changes in product selection and finding a marketplace to reach the right consumers. Electronic commerce has hitherto another revolution; a massive economic bubble grew in the new virtual era in transforming with the advent of digitalization, marketing product to customers are available at all times. This study has referred to inputs collected from secondary data to reveal the opportunities and challenges in the digital platform. To fetch the demand of small, medium, and large industries, to synchronize with vast boundaries, business entities should turn up to digital mode.

Keywords: Digitalization, Digital reform, Marketing Strategy, Technology advancement.

INTRODUCTION:

Marketing refers to the activities of mankind identifying, exchanging, and creating the demand and relationship between seller and buyer to vend the product and service to boost profit and wealth maximization. Marketing combines the sales promotion classification viz direct marketing, digital marketing, sales promotional strategies, personal selling, general advertising, public relations, and sponsorships. It includes advertisement, blurb, promo, puffery, hype, and sales tasks oriented from the manufacturing to the end users. Increased era and more modern technology forced companies to alter their advertisement strategies from traditional to technically equipped means.

The American Marketing Association (AMA), defines Marketing as "the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large"

Digital marketing utilizes digital channels to promote products and services to outreach shoppers to ameliorate under single roofing sheets of millions of producers.

To Capture the interest of the consumers and intuition to buy the product, the marketers choose a tool where the creative and innovative structured drive through online, google ads reach a comprehensive audience. High-tech marketing campaigns drive hooked up appears on mobiles, systems, tablets, and other communication devices, which ubiquitous web traffic, it measures the efficacy of the audience. The installation of electronic tools enables the producers to exhibit the product in distinct communities.

Dr. M. ARUMAI SELVAM, M.Sc., M.Phil. PNO. PRINCIPAL St. Joseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 607 001.

JOURNAL OF MANAGEMENT & ENTREPRENEURSHIP

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This is to certified that the article entitled

AN EMPIRICAL STUDY ON THE SATISFACTION LEVEL OF TEACHERS WORKING IN HIGHER SECONDARY SCHOOL TEACHERS.

Authored By

DR.I.SAVARIMUTHU.,

Research Supervisor, Associate Professor and Head, PG and Research Department of Commerce, St. Joseph's College of Arts and Science (Autonomous) - Cuddalore-607001, Tamil Nadu

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St. Jeseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 607 001,

Shodhak : A Journal of Historical Research ISSN : 0302-9832 Volume: 53, Issue: 01,No: 06, January - April: 2023 INFLUENCE OF SOCIAL MEDIA MARKETING ON APPAREL BUYING BEHAVIOUR BY RURAL CONSUMERS IN THE VILLUPURAM DISTRICT, TAMIL NADU

S. Sinthamani, Research Scholar, PG and Research Department of Commerce, St. Joseph's College of Arts & Science (Autonomous), Cuddalore -1, Tamil Nadu, India

Dr. I. Savarimuthu, Associate Professor & Head, PG and Research Department of Commerce, St.

Joseph's College of Arts & Science (Autonomous), Cuddalore – 1

Tamil Nadu, India

Abstract

Social media advertising is interacting with consumers on social media sites to increase brand awareness and revenue. It has changed the way people communicate, collaborate, and create, and it is becoming more and more well-liked among academics and advertisers today. The major goal of this study was to ascertain how social media marketing influenced consumers' choices for clothes. In total, 232number of respondents from different age categories were participated. Customers are urged to buy apparel because of the high standard of the goods, their comfort, the reasonable cost, and the promotions and deals available on social media. The brand name was determined to have the greatest impact on customers' purchase decisions. Customers are more likely to recommend their products on social media platforms when they had a great buying experience. According to the results, social media marketing is currently the most popular and preferred kind of digital advertising, impacting for both marketers and academics.

Keywords: Consumer Behavior, Online buying, Rural consumers, Consumer Conception, Social Media Advertising, and Digital Advertising.

Introduction

Social media platforms are now a vital resource for online buyers. Businesses of all stripes now frequently use social media to find and communicate with their intended consumers. Social media recommendations enhance consumers' probability of making an order by 71%. Most of the young generation are considered to invest money online trading and online shopping those are influenced by the social media network and digital marketing. They are also 1.6 times more probable to find novel goods via online media. Social media networks are therefore well-positioned to execute effective online advertising campaigns. (FitzGerald, 2019).

Social media sites like Facebook, Instagram, YouTube, LinkedIn, and Twitter have attracted advertisers because of their massive base of users and everyday growth in users. Social medias are now aware of how crucial social media marketing is to their advertisement efforts. It is important to deliver that sales of marketing business by social mediacould increase businesses that can build their brand and eventually boost the sales. Social media for retail business might be tremendous because it can allow you to commit with customers at any circumstances in the client lifecycle. According to previous studies, 60% of Twitter users hope to hear back within an hour. Social media marketing is essential for actively listening and resolving customer complaints. Social media provides businesses with a range of inventive business options, from luring in new customers to boosting the value of current ones ((Barnhart, 2020).

Nowadays, social media networks have covered many people's connections with a single network shared with multiple network connections. Thus, social media can increase customers and attract them to enter any online shopping app through special offers and discounts for all goods and items.^{1,1,2,0} Therefore, marketers and business people sing these social media platforms enormously to create a new channel for customer communication and make a platform for business motivation. Musiness people might be happy with technological improvements in digital marketing and the development of



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W	JARR
World Journal of Advanced Research and Reviews	
	Selected Statement Statement

(RESEARCH ARTICLE)

Efficiency of *Eudrilus eugeniae* Kinberg in vermicomposting three different forms of salvinia (Salvinia molesta, Mitchell)

T Ganesh Kumar*

Department of Zoology, St. Joseph's College of Arts and Science (Autonomous), Manjakuppam, Cuddalore 600701, Tamil Nadu, India.

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Abstract

Purpose: Ten-month long trials were conducted on different vermireactors fed with one of the following forms of Salvinia molesta: a) fresh whole plants, b) chopped plants, and c) sun-dried plants (24 h).

Method: The reactors were operated in two modes-semi-continuous and batch.

Results: The experiments revealed two clear trends (i) vermireactors operated in semi-continuous fashion performed better in terms of vermicast yield, earthworm growth and reproduction compared to batch reactors, (ii) sun-dried salvinia was the most preferred form of feed by *Eudrilus eugeniae*.

Conclusions: The maximum vermicast output (60.5%) and increase in earthworm zoomass (75.2%) had been achieved from sun-dried plants as feed followed by chopped and whole plants in vermireactors operated in semi-continuous mode. There was no mortality in any of the reactors. Thus, the experiments confirm that S. molesta can be sustainably vermicomposted in any of the forms with *E. eugeniae*.

Keywords: Vermicomposting; Eudrilus eugeniae; Vermicast; Salvinia molesta; Vermireactors

1. Introduction

It has been estimated that about half of the total fresh water systems in India are infested with aquatic weeds. Salvinia molesta is one of the rapid growing aquatic weed of the world grow up double in 1.5 to 11.6 days. Mitchell [16]; Lancar [14]; Ganesh kumar [9], which cause an enormous wreck to the water resources – in terms of quality and quantity, such as, shrinking the storage capacity of inland water stocks by consuming it for their growth as well as evapotranspiration. In addition, the mats of salvinia suppress the normal movement of the water body, causing stagnation and impede the sunlight before reaching the water. Due to this, the rot and dead weeds becomes unpleasant and the sound-aerated water ecosystem starts turning into decay - boosting mosquitoes and snails and discouraging fish growth. Ganesh kumar [10] Howard and Harley [12].

Two aquatic weeds which have gathered the majority of water surfaces in the world are *Eichhornia crassipes* (water hyacinth) and *S. molesta*. Water hyacinth is one of the most widespread and obnoxious weed of the world but in many regions it seems to be losing habitat to salvinia. Indeed salvinia has moved even into the Guinness Book of World Records as 'the world's worst weed'. Ad Hoc Panel [2].



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Corresponding author: T Ganesh Kumar



International Journal of Science and Research Archive

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(RESEARCH ARTICLE)

Check for updates

Potential of individual and combination of earthworm species in vermicomposting *Salvinia Molesta*, Mitchell

T Ganesh Kumar *

Department of Zoology, St. Joseph's College of Arts and Science (Autonomous), Manjakuppam, Cuddalore 600701, Tamil Nadu, India.

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Article DOI: https://doi.org/10.30574/ijsra.2023.8.2.0224

Abstract

Study is on the performance of earthworm species in vermicomposting salvinia was reported earlier. In this study on the performance of reactors inoculated with single species and combination of two or three species in vermicomposting salvinia is reported. The experiment was carried out on seven set of vermireactors, i.e. mono species - *Eudrilus eugeniae, Eisenia fetida, Perionyx excavatus.*, di species - *Eudrilus eugeniae +Eisenia fetida., Eisenia fetida + Perionyx excavatus.*, *Perionyx excavatus + Eudrilus eugeniae* and multi species - *Eudrilus eugeniae, Eisenia fetida, Perionyx excavatus.* The performance of multi-species reactor achieved conversion of about 67% of the feed mass (100 g dry wt,) per fortnight. The vermireactors were sustainable as the animals have remained consistently healthy and reproductive over a period of ten months.

Keywords: Salvinia molesta; Multi species earthworm; Vermireactor; Vermicompost; Vermicast

1. Introduction

In this study on the vermicomposting the weed salvinia was reported. The efficiency of three epigeic earthworm species and three forms of salvinia as feed was tested in reactors operated with only one species. In this study efforts made to compare the performance of the reactors with single species, combination of two or three species in vermicomposting salvinia is reported (Chauhan*et al.,* 2010; Meena *et al.,* 2011; Suthar and Singh, 2008).

2. Material and methods

Circular, 4 l plastic containers (dia. 24 cm, depth 9 cm) were utilized as vermireactors. In it twofold layer of jute sheets of 5-mmthickness saturated with water were put at the base of every reactor as vermibed, and the feed, 1 kg of salvinia (dry weight 100 g), was laid over it.In each reactor 15 healthy adult individuals of epigeic earthworms were (mono species - *Eudrilus eugeniae, Eisenia fetida, Perionyx excavatus.*, di species - *Eudrilus eugeniae +Eisenia fetida., Eisenia fetida + Perionyx excavatus, Perionyx excavatus + Eudrilus eugeniae* and multi species - *Eudrilus eugeniae, Eisenia fetida, Perionyx excavatus + Eudrilus eugeniae* and multi species - *Eudrilus eugeniae, Eisenia fetida, Perionyx excavatus*)introduced. The reactors were lined with 1.5-mm nylon mesh held set up with an elastic band to keep earthworm from getting away and evade interruption of different life forms. On that polyethylene sheets in black color was placed, as earthworms sensitive to light and build the nourishing circumstances in day time also. The detail of earthworm species and the numbers are summarized in Table 1.



*Corresponding author: T Ganesh Kumar

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St. Joseph's Journal of Humanities and Science (Volume 10 Issue 1 January 2023) 58-60



An Analytical Study of Enlightenment and Gender Bias in 18th Century

G. Karan^a X. Ann Lanka Jeyadharshini^{b*}

ABSTRACT

The present paper aims to analyse Mary Shelly's "Frankenstein" and bring out the moral message of Birth and Death. Thus the scientific technics are followed throughout the play by examining the various tests to Victor's experimented monster named Frankenstein. Electricity lead a big role in this novel and this follows the various testes comes under the age of 18th century with the topic of Galvanism. And the following action makes the science into another level in 21th century. In medical and bioengineering, Frankenstein resonates beyond defibrillation. It is a main tool for scientific and technological advances such as Artificial intelligence, cloning and genetics.

Keywords: Galvanism, science, cloning, birth, death, dissection, electricity.

Mary Shelley's focused on science, ethics, and literary knowledge and that provides an opportunity to evoke her writings on how science is framed and understood by the public and to contextualize technological innovations, especially in an era of AI, genome editing, robotics , computerized learning, and regenerative medicine. Although Frankenstein is mixed with the emotions and scientific inventions that unbounded human creative thinking, it also prompts serious reflection about our human development and collective responsibility for nurturing the products of our creative thinkingand imposing constraints to change the world around

^aResearch Scholar, PG & Research Department of English, St. Joseph's College of Arts & Science (Autonomous) Cuddalore - 607001. E-mail: karanpraveen.g@gmail.com ^bPG & Research Department of English, St. Joseph's College of Arts & Science (Autonomous) Cuddalore - 507001.

*E-mail: annlankaa@gmail.com

Dr. N. ARUMAI SELVAM, H.S., M.PHL, PSO., PRINCIPAL St. Jeseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 607 001. St. Joseph's Journal of Humanities and Science (Volume 10 Issue 1 January 2023) 69-72



A Feministic Study of Virginia Woolf's To The Light House

R. Vijay Sharma^a A. Pradhap^{b*}

ABSTRACT

This research assessed Virginia Woolf's To the Lighthouse, which develops a kind of analysis of human values and reality, examines, and condemnations the elaborate workings of the inner life. Like an outcome, in to really understand those concepts, it's essential to pay attention to Feminist theory since Woolf understands of history and narrative is clearly tied to ways thinking about women. Both, she desired her fiction to interrogate the central issue as to what women still are. She makes efficient use of her skills in the novel by utilizing a wide range of artistic techniques to illustrate the distinctions between actual and vision and the flow of consciousness in order to connect with the souls of her characters.

Keywords: Stream of consciousness, Literary techniques, Vision.

This study produces a bid to offer the framework required for understanding Mrs. Woolf's relevance by emphasizing on the viewpoints of an area that on occasion presents a distinctive issue. Furthermore, the study gives insight into the author's creativity with the narrative voice, the growth of characters, and the narrative. It means that To the Lighthouse characters have the potential of showing the complex functioning of the inner life in addition to life itself. Nevertheless, Woolf's focus in the role of storytelling in a person's life poses larger problems as well. Both

CUDDALORE - 607 001.

*Research Scholar, PG & Research Department of English, St. Joseph's College of Arts & Science (Autonomous) Cuddalore -607001. E-mail: vijaysharmaravi639@gmail.com *PG & Research Department of English, St. Joseph's college of Arts & Science (Autonomous), Cuddalore -607001. *E-mail: pradhapjoe@gmail.com St. Joseph's Journal of Humanities and Science (Volume 10 Issue 1 January 2023) 73-75



Gender and Inequality Sexual Politics

L. Ancy Merina^a M. Muthu Anu Suvetha^a J. P. Ida Joicey^{b*}

ABSTRACT

This article investigates the framing of the topic "Gender Inequality and Sexual Politics." In order to determine how much gender inequality in politics is addressed by policy discourses, Spain in the European Union (EU) asks how the issue is presented in the two scenarios. Which players participate in the debates, how gendered are policy discourses, Transgenderism, intersex status, pornography, sadomasechism, sexual and physical abuse, and paedophilia are just a few of the issues that fall under the umbrella of sexual politics, which was originally defined as relationships with "respect to sex, gender, and sexuality" in relation to the social system of politics. Certain claim, however, that homonationalisms in particular more rich nations selectively embrace some human rights and participate in international organisations in ways that uphold power imbalances.

Keywords: Human life, women suffering, pain.

According to JoniLovendurki (2005:48), the "most challenging impediment" to women being represented in politics is "the profoundly established culture of masculinity that porvades political institutions." According to Lovenduski (2005:146-7), political institutions built on "male

institutional territory" tend to be biassed towards women. How far do political discourses on gender inequality specifically target deeply ingrained patriarchal institutions? We can examine how policy discourses shape the implicit or explicit portrayal of the gender inequality issue and

 *Research Scholar, PG & Research Department of English, St. Joseph's College of Arts & Science (Autonomous) Cuddaloge -607001 E-mail: ancymerina1998@gmail.com
*PG & Research Department of English, St. Joseph's college of Arts & Science (Autonomous DC uddaloge M0105E) / A.M. H.Sc., M.F.L. PS.D., *E-mail: idajoicey@gmail.com
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Theme of Survial in Yann Martel's Life of Pi

K. Thirumavalavan^a A. Lenin^{b*}

ABSTRACT

The present paper aims to analyze the Yann Martel's Life of pi. Martel exposes the survival battle of young boy and tiger. Though many people accepted the realistic idea of Yaan Martel's Life of pi. Because he depicts the survival of common man and animals. The philosophical ideas and relationship between a man and animal is well discussed. It is a combination of philosophical Fictional ideas and this novel revolves around the characters piscine Molitor Patel (aka-Pi) young Indian Boy and another important character is Richard Parker a Bengal Tiger. The background of the novel suits with the Indian Tradition and follows the cultural ideas of Hindu religion when he gets an idea from the old man in India. Pi is the protagonist and a narrator of this novel. This novel depicts the story of a young boy who survives 227 days after a shipwreck with a Bengal Tiger. Martel says that this novel is inspired from Max and cats (1891) by MoacyrScaliar. It brings out the philosophical theories from the novel gives an idea of response and stimulus theory. This paper points out the idealistic view of survival.

Keywords: Faith, Spiritualism, Philosophy, Belief in God, Mystery, Fantasy, Survival, water, Optimism.

*Research Scholar, PG & Research Department of English, St. Joseph's College of Arts & Science (Autonomous) Cuddalore -607001. *E-mail: krithirumavalavan@gmail.com

^bPG & Research Department of English, St. Joseph's college of Arts & Science (Autonomous), Cuddalore 607001. *E-mail: leninallwin@gmail.com

Dr. N. ARUMAI SELVAM, H.S., M.PH., PSO., PRINCIPAL St. Jeseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 607 001. St. Joseph's Journal of Humanities and Science (Volume 10 Issue 1 January 2023) 76-77



Suppression of Women in Gita Hariharan's The Thousand Faces of Night

R. Sunitha^a M. A. Mary^{b*}

ABSTRACT

The present article aims to analyse the GitaHariharan's debut novel *The Thousand Face* of Night. Githawanted to show caste discrimination, male domination that persists in both old and new ways ideas. *The Thousands Faces of Night* mainly focusing onhow women supressed in mythology and reality.Githa gave her ideas towards women equality and discrimination thoughts are expressed by three charactersnamed Devi, Mayamma, and Sita. Devi is the young Indian girl, she is the protagonist of this novel. *The Thousand Faces of Night* depicts the suffering of an Indian women and how women are suppressed in the society and cultural norms.Githa Hariharan points that many gender discrimination are occurs because of Indian tradition and culture.

Keywords: Myths, gender inequality, suppression, discrimination, tradition.

In the beginning of the novel. Devidecided to leave America because of her mother'sadvise. She was in love withDan, her American boyfriend. When it comes to marriage stay Devi disapproved his proposal. From above idea Githa Hariharan secretly gives an Indian Tradition and their Moral by the love story of Dan and Devi. Because of Dan's religion and his culture she rejected the Dan's proposal because if she marries dan it will affect her cultural identity. After the arrival of Devi,Sita arranged marriage to her. Devi marriedMahesh who was from same caste and follows their

^aResearch Scholar, PG & Research Department of English, St. Joseph's College of Arts & Science (Autonomous) Cudatore - 607001.
^bPG & Research Department of English, St. Joseph's college of Arts & Science (Autonomous), Cuddatore - 607001.
^bPG & Research Department of English, St. Joseph's college of Arts & Science (Autonomous), Cuddatore - 607001.
^bPG & Research Department of English, St. Joseph's college of Arts & Science (Autonomous), Cuddatore - 607001.
^bPG & Research Department of English, St. Joseph's college of Arts & Science (Autonomous), Cuddatore - 607001.
^bPG & Research Department of English, St. Joseph's college of Arts & Science (Autonomous), Cuddatore - 607001.
^bPG & Research Department of English, St. Joseph's college of Arts & Science (Autonomous), Cuddatore - 607001.
^cUDDAtore - 607001.

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Discrimination of Social Status in Stephen King's The Shining

V. Vijay Anandh^a A. Napolean Joseph^{b*}

ABSTRACT

This research works seeks to analyse the theme of class struggle in the novel "The Shining" by Stephen King. Later, this book was adapted into a Stanley Kubrick-directed film with the current title "the Shining. "In this narrative, Stephen King describes his frightening encounter at the Stanley the lodging facility. The Overlook hotel got a recreation of the Stanley Hotel in the film "The Shining." The lodging's Room 237 serves as the room which received the paranormal records frequently. Kubrick's use of the name room 237 contains a number of contentious elements. Jack's child, Danny, has numerous personalities that help him recognise threat. Jack, who wanted to earn a consistent income, took an employment at a supernatural hotel and got himself stuck in a mess. At the conclusion of the film, people found that it consisted of a looping process. Throughout the film, Danny possesses two personalities, and at times uses both of them for himself to escape threats. The film features numerous horror-related additions by Kubrick. Stephen King uses his imaginary story roles to illustrate a mental shift in the human psyche, and he also incorporates numerous supernatural aspects into the book.

Keywords: Social status, Money conflicts, Supernatural elements, Human psyche, and Inner conflicts.

Dr. M. ARUMAI SELVAM, M.Sc. M. Phil. Pho. PRINCIPAL St. Jeseph's College of Arts & Science (AUTONOMOUS) onomous) Caddaloge - 69200 Sn2 op 1

^aResearch Scholar, PG & Research Department of English, St. Joseph's College of Arts & Science (Autonomous) Cuddalore -607001 *E-mail: anandhvijay2001@gmail.com

b*PG & Research Department of English, St. Joseph's college of Arts and Science (Autonomous), Cuddalore -607001.

*E-mail: napolean14joseph@gmail.com

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Analytic Study of Gender Inequality in the Period of Queen Victoria's Rule

R. Pradeepa^a S. Umamageswari^{b*}

ABSTRACT

This paper aims to analyzes the Gender inequality the age of Victorian period with an comparison of Thomas Hardy's Tess of the D'Urbervilles. He talked about approximately the battles and oppression of women's strengthening. The later ponders and researchers says that ladies are enabled and they are finishing in various regions as like men, but in reality women's life is similar to a caged one. This term paper look at nearly how women's condition and life was expected amid the Victorian age and the comparison with cutting edge period. Our society sets contain rules agreeing to their comfort and let the ladies to act appropriately.

Keywords: Male domination, Ideal women, Patriarchal values, contemporary conditions..

Hardy points out the stage of women and discuss the age of Victorian period. From the age of Victorian period, Hardy explain the lifestyle of peoples. Where he mainly discuss the women's life and equality.From the age Victorian sexual orientation logic, "Doctrine of partitioned spheres" were expressed that men and ladies are unmistakable and they inferred for diverse things. Where they set the different rules for men and women, and gives a stupidity ideas that men

^aResearch Scholar, PG & Research, Department of English, St. Joseph's college of Arts & Science (Autonomous), Cudialore - 607001.
*E-mail: vsjune2001@gmail.com
^b*PG & Research Department of English, St. Joseph's college of Arts & Science (Autonomous), Cuddalore 607001.

*E-mail: uma224589@gmail.com

Dr. N. ARUMAI SELVAM, H.S., M.PHL.PSO., PRINCIPAL St. Jeseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 607 001.

THE ROLE OF BELOVED'S GHOST IN TONI MORRISON'S EXPLORATION OF SLAVERY IN 'BELOVED'

Mr. V.R. Suresh Kumar¹, Dr. A. Arun Daves²

¹ M.A., M.PHIL., Head & Assistant Professor, Department of English, St. Joseph College of Arts and Science, Cuddalore ² M.A., M.A., M.PHIL., Ph.D., Assistant Professor, Department of English, Jawahar Science College, Neyveli

Abstract

African American writers have exhibited a unique engagement with supernatural elements. particularly ghosts, not merely as conduits for Gothic themes, but as participants in an emerging genre known as the "story of cultural haunting." This study aims to explore the significance of Morrison's choice to employ a ghost as a medium to bridge past and present in her novel, "Beloved" (1987). Through this exploration, the research delves into Morrison's utilization of magical realism and the ahost's interactions with key characters like Sethe, Denver, and Paul D, as well as its ties to the African American community. The analysis highlights the dual impact of the ahost on both individual and collective levels. Specifically, it contends that Beloved's spectral presence embodies personal and communal histories, aligning with Morrison's conceptualization of the past. Moreover, the research examines how the ahost functions as a cultural agent, fostering the healing process for African Americans affected by the trauma of slavery.

Keyword: Toni Morrison, Beloved, Slavery, Magic Realism, Gothic Tradition, Supernatural Elements

Tales featuring ghosts are a common thread in diverse cultural traditions around the world. This spectral narrative tradition has deeply entrenched itself within both European and American literary canons. The incorporation of ghosts and their narrative roles has been a subject of discourse among writers for centuries. Often, ghosts serve as pivotal plot devices, propelling stories centered around malevolent apparitions seeking restitution or vengeance. A quintessential example is Hamlet's father's ghost in Shakespeare's "Hamlet," urging his son to avenge his murder. In contemporary literature, however, the role of ghosts has evolved beyond mere plot utility, gaining figurative and symbolic significance. Notably, within African American literature, ghosts have taken on a distinct purpose-reviving a poorly documented and partially erased cultural history. Kathleen Brogan introduces the concept of "cultural haunting," signifying the persistent inclusion of ghosts in African American narratives to actively redefine their historical connections. Brogan suggests that these narratives emerge during times of rapid, often traumatic change, fostering the reconstruction of social bonds and group identities [3]. Thus, the rise of cultural ghost stories by contemporary African American writers, exemplified by Toni Morrison, reflects a deliberate divergence from Gothic themes toward a genre aimed recollecting and reimagining history at unconventionally. In "Beloved" (1987), Morrison employs the ghost as a conduit linking personal histories with broader cultural contexts. The spectral manifestation of Beloved influences characters to confront forgotten pasts, acknowledge themselves, and their roles within the African American community. Consequently, the ghost's role as a bridge to history catalyzes the characters' personal growth.

This research endeavors to elucidate Toni Morrison's rationale for incorporating a ghostly presence in "Beloved" (1987). Morrison's contention is that ghosts facilitate the connection between past and present, fostering a cultural mechanism to reexamine history, analyze the present, and redefine the future. In this vein, the study explores the ghost's interactions with other characters, such as Sethe, Denver, and Paul D, alongside its link to the African American collective. The research underscores the ghost's impact on individuals associated with it, embodying the sentiment: "They can

Dr. M. ARUMAI SELVAM, HSc. MPHL, PSO. PRINCIPAL St. Joseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 507 001.

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முளைவர். அ. அன்னப்பாள்

உதவிட்போசிரியா, தமிழ்த்துறை

தாய வளனார் கலை மற்றும் அறிவியல் கல்லூரி (தன்னாட்சி) சடலூர் – 1

மன்னுரை

டுவ்வுகம் இறைவனால் படைக்கப்பட்ட உலிர்களுள் உயர்ந்தராகக் கருதப்படுவது மனித இனம் ஒன்றே ஆரும். உலகே வாழும் மக்களிடையே சோல், செயல், மனம், என்னம் இலைகளில் இருந்து வழுவாமல் ஒருவன் தன்னைக் காப்பாற்றில் கோன்னதே தனிமனித அறம் ஆரும். ஒரு செயலைச் செய்வும் பொழுது முன்னோர்களுடைய வழிதினைகளைப் பின்பற்றி தனது வாழ்க்கையை ஒருவன் நடைமுறைப் படுத்தி வாழ்ந்து வந்தால் இச்சுழதாபத்தில் அவன் மனிதரும் சிறந்தவராகக் உருதப்படுவான் சான்றோர் உறிய தெறிமுறைகளின் படி தம் வாழ்க்கையை அமைத்துக்கோண்டால் அதுவே சிறந்த வாழ்வாரும். அதுவே தனி மனித அறுத்திருது ஏற்றது என்பதை எடுத்துரைப்பதேன மனித அறுத்திருக்கு ஏற்றது என்பதை எடுத்துரைப்பதே இச்சுட்டுரையின் நோக்கமாகும்

தனிமனித அறம் தொல்காப்பியர் அகத்திணையியலில் தனிமனித திகழ்ச்சிகளைக் கூறும்பொழுது தலைவன், தலைவியுடையடுற்றதொல்லாழ்ச்சையை,

"காமரு சாறை கடைக்கோட் காலை மெஞ் சாறை மக்களொடு துவன்தி அறம்புரி சற்றமொடு கிழவ்கும் கிழத்தியும் சிறந்தது பமீத்தல் இறந்ததன் பயனே" (தொல்லாப்பேம், பொருள, கற்பேல் குத்திரம் 51.)

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ஒரு செயலைச் செய்வதற்குர் சருவியாக அமையக்கடியலன் மனிதன் ஆவான். அச்செயலைச் செய்வும் தருதியுடையவன்டமே அச்செயனை ஒப்படைக்க வேண்டும். அவனை விடுத்து மற்றவர்கள்டம் ஒப்படைக்கக்கடாது என்பதை

"இதனை இதனால் இவன்முடிக்கும் எனதாப்ந்து அதனை அவனை விடல்" (இருக்குறன் - 517.)

என்னும் தறன் உணர்த்தும்

டுவக்கியம் ஒருவன், ஒருத்தி என்ற டுல்லநக் கோட் பாட்டினையும் கட்டிர் சேல்லிறது. டூறவும் ஒரு தனிமனித ஒழுக்கமாகும். தனிமனித வாழ்வினை நோக்கும்பொழுது ஒல்வொருவரும் தமது ஆழ்மணில் ஓர் எண்ணத்தைக் கொண்டிரும் பதை அறியலாம். தனிமனிதன் தனக்கு விடுக்கப் பட்டுள்ள வரையறையைறோமன் நல்ல நேற்பைப் பின்பற்றி வாழ வேண்டும் என்ற கருத்தை வலியுறுத்தும் வகையில் அமைந்ததே தனிமனித அறமாகும்.

அறத்தோடு வாழ்வதால் வரும் இன்பமே இன்பமாகும். அறத்தோடு பொருந்தாமல் வருவன எல்லாம் இன்பம் இல்வாதவை புகழும் இல்லாதலை என்று சுறிபுல்னார் வன்னுவர் இதனை,

"அறத்தான வருவதே இன்பம்மற் தெல்லாம் புறத்தே புகழும் இல" (திருக்குறன் - 39.) என்ற குறம் உணர்த்து தது

ஒழுக்க தெறி தன்றாகம

духаўдана паданца дийани масан д заудана масця ханя биза пубан масан абщана бубані. Сяма

"ஒருக்கத்தின் எப்துக் மேன்னம் இருக்கத்தின் எப்துகர் எப்தாப் பதி (இருக்கு நன் - 137)

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மனிதன் தனக்கு வரையறை செய்து சொண்ட டி தேகைவிலிருந்து மாறாமல் வாழ்ந்து வருவதே ஒழுக்க தவறாமை ஆகும். அவ்வாறு வாழ்ந்து வந்தால்; சிரும் சிறும் வாழ முடியும். மனிதன் தன்றுடைய தேற்விலிருந்து தவ இருக்க வெண்டும் என்ற கருத்தைப் பல இலக்கியப் பாட வற்புறுத்தகள்ளை

களவு ஒழுக்கத்தில் உளிரைக் காக்க உதவி புர்ந்த தலையகத தலைமனைக் கொடுப்பது மரபு அவனுடைய தாய், தந் அவ்வாறு செப்பாமல் தன் மகனைப் பிறர்க்குக் கெ முலல்கின்றனர். இதனால் இயற்கை நிகழ்வுகளும் தந்தம் நின இருந்து கெட்டுப் பயன் தராமல் பொரும் என் செவிலிக்குக்க றகறான் தோழி. இதனை,

்சிற்குடி மீரே! சிற்குடி மீரே! வாமில் ஞா வாரியாத் தேன்தொடர கொண்டை குரல்காய்கி சனா மகல்வாழ்தர் அவ்வ பரித்து ஒருகளைன் (கலித்தொகை, பாடல் - 35)

என்ற கலித்தொகை அடிகளின் வழி அறியமுடி இந்து. தாய்தத் அவர்களுடைய ஒழுக்க திசையிலிருந்து மாறாமல் இ வேண்டும் என்பதை இப்பாடல் வலிவுறுத்து இந்து

தலைவன் தலையி கொண்ட கனவு மணம் அற்றேற் நடப்பது என்றும் மரப்னை அற்பாத ஊரார் அவர் ஆரவார்த்தனர். இருந்தாலும் தலைவன், தலையி ஆகிய இரு தமக்குர்ப தேற்கள் பிருந்து தறைரமல் கனவு வாழ்க்க சடுபட்டனர். இவர்களது கனவு ஒழுக்கத்தை அற்றத தலைவலைப் பிர்தவால் தலையி இறந்துபடுவான் என்பதை த தன் குடிப்பெருவை கெடாவண்ணம் அவனைக் காவற்படுத்தி அன்னைபானவன் குடிப்பெருவையைப் பாதுவாக்க வேண்டும் ஒழுக்க வேல் பிருந்து மாறாது ஒழுலி வந்தான் என்பதை,

அழுகல் மாரே அந்தைனது அதனால் தநாதல் தன்னை அருக்கூடிப் படுப்ப

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வெல்லில் கொடுமையால் வாழுக்கெடந்த உறிக்க தொழிலை மேற்கோள்வதற்கு மழை நக்க தோத்தில் உதலிலது போல, உலகத்தில் உள்ள உறிக்கு விலாந்தி தொழிலை முறையோடு தெற்தவறாமல் செய்தால் அதன் ப உண்மைகள்லத்த சேரும் என்பதை.

பதப்புனல் • ஜின் சிறப்பிதழ்

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Dr. N. ARUMAI SELVAM, U.S., M.P.L., PSO., PRINCIPAL St. Joseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 607 001.

தமிழ் இலக்கியங்களில் மனிதநேயம்

ஹனைவர். ம. வனத்தையன்

இணைப்பேராசாாயா

துறைத்தலைவர், தமிழ்த்துறை

தூய வளனார் கலை மற்றும் அறிவியல் கல்லூரி (தன்னாட்சி) கடலூர் – 1

முன்னுரை

மனித வாழ்வியல் ^திந்தனைகளில் முகிழ்த்தெடுக்கப்பட்டதே பண்பாட்டுக் கூறுகள்; பண்பாட்டுக்கூறுகளே நாகரிகத்தை வார்த்தெடுத்தது. ஒவ்வொரு தனிமனிதனும் சமுதாயத்தின் உறுப்பீனன் ஆவான். தனிமனிதன் மாறினால் சமுதாயமும் மாறும். சமுதாயம் மாறினால் நாகரீகம். பண்பாடு இவை அணைத்தும் மாறிவிடும். எனவே, மனிதத்தன் மையென்னும் அடிப்படை உணர்வே மனிதநேயத்தை உருவாக்கும். மனிதநேயப் பண்பே மனிதனை மற்ற விலங்குகளிடமிருந்து வேறு படுத்தியும் காட்டுகிறது. மனிதநேய உணர்வே அவனை ஒன்றுகூடி வாழச்செய்து ஒற்றுமைக்கும் வழிலகுத்தது. வேற்றுமையிலும் ஒற்றுமைகாணும் மனப்பான்மை தமிழருடையது. பிற உயிர்களிடத்தில் அன்பு செலுத்தி இறைவனிடத்தில் இன்பம் கண்டவன் தமிழன்.; அத்தகைய சிந்தனைகள் பண்டைத் தமிழ் இலக்கியங்களில் இழையோடிப் போயிருக்கின்றன. அத்தகைய சிந்தனைகள் குறித்துக் காண்பதே இக்கட்டுரையின் நோக்கமாகும்.

பிற உயிர்கள் மேல் இரக்கம் காட்டுதல்

எல்லா உயிர்களிடமும் இரக்கங்காட்டுவது பண்டைத் தமிழர்களின் பரம்பரைக் குணம். காரணமில்லாமல் எவ்வுயிர்க்கும் இன்னலிழைக்கமாட்டார்கள்.

ஒரு தலைவன் தேரின்மேல் ஏறிக்கொண்டு வருகின்றான். அத்தேர் கடற்கரையின் வழியே வந்து கொண்டிருக்கின்றது. கடற்கரையிலே நண்டுகள் மேய்ந்து கொண்டிருக்கின்றன. தேறோட்டி வரும் பாகன், தேர்ச்சக்கரத்திலே அந்த நண்டுகள் அகப்பட்டு நகங்காதபடி கவனத்துடன் தேரை ஒட்டிக்கொண்டு வருகின்றான். இச்சமயத்திலே அவனுடைய செய்கைக்குஉதவியாக நிலவும் தோன்றியது. இந்திகழ்ச்சியின் வழியாகத் தமிழர்களின் உயிர்க்கருணை அறியலாகிறது.

அலைகள் மோதுகின்றன - ஒளிபொருந்திய மணல் நிறைந்த -கடற்கறை; அந்தக் கரையிலே சக்கரங்களின் அடியிலே நண்டுகள் அகப்பட்டுக் கொள்ளாதபடி பாதுகாத்துக்கொண்டே,தேர்ப்பாகன் குதிரைகளின் வாரைப் பிடித்து இழுத்து கவனத்துடன் தேரை ஒட்டினான். இச்சமயத்தில் அக்கடற்கறையில் நிலவும் புறப்பட்டது என்னும் சாதாரண நிகழ்ச்சியை கோட்பாடு மூலமாக விளக்கு இறது இப்பாடல்.

"புணரி பொருத பூமணல் அடைகரை, ஆழி மருங்கின் ஆலவன் ஒம்பி

வலவன் வள்பு ஆய்ந்து ஊர

நிலவு விரிந்தன்றால் கானலானே." (நற்றிணை பாடல்- 11)

அஃறிணை உயிர்கள் வாடுவதைக் கூடத் தாங்காமல் வள்ளலார் கூறும் கருத்து மனிதநேயச் சிந்தனையின் உச்சத்தை எடுத்துக் சுறுவதாக உள்ளது. உலக உயிர்களுக்கெல்லாம் அன்பு செய்யும் மனப்பான்மை வேண்டும் என்று கூறியுள்ளார் வள்ளலார்.

"வாடிய பயிரைக் கண்ட போதெல்லாம்

வாடினேன் பசியினால் இளைத்தே"

(திருவருட்பா, 6ஆம் திருமுறை,பாடல் - 62)

புதுப்புனல் • ஜூன் சிறப்பிதழ் 2023

பிறரின் துன்பம் களைதல்

தமிழர்கள் பிறர்படும் துன்பத்கை; கண்டால் பொறுக்க மாட்டார்கள். உடனே அவர்களுக்கு உதலி செய்ய முற்படுவர். இதுவே சிறந்ந மனிதத்தன்மை. இத்தன்மை ஒவ்வொரு மனிதனிடமும் குடிகொண்டிருந்தால் மனித சமுதாயத்தில்துன்பமே தலைகாட்டாது ஒற்றமையும் இன்பமும் ஒன்றாகக் கைகோர்க்து நடனமாடும். இவ்வுண்மையைப் பண்டைத் தமிழர்கள் அறிந்திருந்தனர். இத்தகைய அருங்குணம் மக்களுக்கு வேண்டும் என்பதைத் தமிழர்கள்; விளக்கி உள்ளனர்.

ஒரு மளிதனுடைய சிறந்த செல்வம் எது என்பதை ஒரு நற்றிணைப் பாடல் எடுத்துக் காட்டுகின்றது. தமிழரின் சிறந்த பண்பாட்டையும் அது விளக்குகின்றது.

அதிகார தோரணையில் பேசுவதும், விரைந்து செல்லும் வாகனங்களிலே ஏறிச் செல்வதும் செல்வம் அன்று. தாம் செய்த செயலின் நல்ல பயனையே சான்றோர் செல்வம் என்று கூறுவர். தன்னைக் கண்டவர்களின் துன்பம்,தன்னைக் கண்டவுடனே அஞ்சி ஒடும்படியான தன்மையுடன்,அவர்களிடம் இரக்கம் காட்டுவதாகிய செல்வமே கிறந்த அழியாத செல்வமாகும் என செல்வத்தின் தன்மையைப் பின்வரும் பாடல் செவ்வனே எடுத்துக்கூறுகிறது.

"நெடிய மொழிதலும்,கடிய ஊர்தலும் சேல்வம் அன்று தம்செய் வினைப்பயனே சான்றோர் செல்வம் என்பது சேர்ந்தோர் புன்கண் அஞ்சும் பண்பின் மென்கண் செல்வம் செல்வம் என்பதுவே."

(நற்றிணை பாடல்- 210)

உலக உயிர்களின் இன்பத்தைப் பெரிதும் விரும்பும் நிலையைப் பற்றித் தாயுமானவர் கூறியுள்ளார்.உலக உயிர்களைத் தம் உயிராகக் கருதி அவற்றிற்கு வரும் துன்பத்தைத் தமக்கு வரும் துன்பம் என்று எண்ணி வருந்துவதே மனிதநேயச் சிந்தனை என்கிறார்.

"எல்லோரும் இன்புற்று இருக்க நினைப்பதுவே அல்லாமல் வேறொன்றும்அறியேன் பராபரமே" (தாயுமானவர் பராபக்கண்ணி பாடல்- 221)

பிற உயிர்களுக்குத் துன்பம் செய்யாமை

மனிதர்களுக்கு மட்டும் துன்பம் செய்யாமல் வாழ்வதைவிடப் பறவைகளுக்கும் அத்தகைய துன்பம் செய்யாமல் வாழவேண்டு மென நீறிநூல்கள் எடுத்துரைக்கின்றன. பறவைகளுக்கும் வண்டுகளுக்கும் துன்பம் செய்யாமல் வாழ வேண்டும் என்று நாலடியார் வற்புறுத்துகிறது. கதந்திரமாய் இருக்கும் பறவைகளை மனிதர்கள் தாங்கள் வாழும் வீட்டிற்கு கூட்டிக்கொண்டுவந்து வளர்ப்பர். பறவைகளைச் கதந்திரமாக விடாமல் துன்புறுத்தி வீடுகளில் அடைத்து வளர்க்கும் மனிதர்களைப் பார்த்து நாலடியார் கேள்வி கேட்கிறது. இயற்கையோடு இயைந்த வாழ்வு மேற்:கொள்ள மேற்கொள்ள வேண்டும் என்கிறது நாலடியார். இதனை

"இடும்பார்க்கும் காலராய் ஏதிலார்க்கு ஆளாய்க் கரும்பார் கழனியுள் சேர்வர் - சுரும்பார்க்கும் காட்டுளாய் வாழும் சிவலும் குறும்பூழும் கூட்டுளாய்க் கொண்டுவை பார்" (நாலடியார் பாடல்- 122)

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Dr. M. ARUMAI SELVAM, M.Sc., M.PHL, PSD., PRINCIPAL St. Jeseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 507 001.

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அன்னை தெரேசா காவியத்தில் வாழ்வியல் அ_{றம்}

முனைவர் இ. ஆக்னஸ் மேரி, M.A., M.Phil., M.Ed., P.hD., DCA

உதவிப் பேராசிரியர், தமிழ்த்துறை

தூய வளனாா் கலை மற்றும் அறிவியல்கல்லூாி (தன்னாட்சி), கடலா்

முன்னுரை

கல்தோன்றி மண்தோன்றாக் காலத்தே வாளோடு முன்தோன்றிய மூத்தக்குடி தமிழ்குடி

(புறப்பொருள்வெண்பா மாலை)

உலக மொழிகளுக்கெல்லாம் மூத்த மொழி நம் தமிழ் மொழி. _{சங்க} காலத்திற்கு முன்பே யவணர்கள் தமிழகத்தில் வாணிப உறவு கொண்டிருந்தனர். இதைத் தொடர்ந்து இசுலாமியர்கள், போர்ச்சுக்கள், டச்சுக்காரர்கள் ஆங்கிலேயர்கள் என பல நாட்டவரும் வாணிபத்திற்காக நம் நாட்டுடன் வாணிப உறவு கொண்டிருந்தனர். இவர்களில் முக்கிய மாணவர்கள் ஆங்கிலேயர்கள். இவர்கள் வாணிபத்தோடு தங்களுடைய சமயத்தையும் பரப்ப முற்பட்டார்கள். அதற்காக தங்களுடன் கிறித்துவ பாதிரிமார்களையும் அழைத்து வந்தார்கள். அந்த பாதிரிமார்கள் தங்களுடைய மதங்களைப் பரப்ப முக்கியமாக மொழி தேவை என்பதை உணர்ந்து தமிழை நன்கு கற்றுத்தேர்ந்தார்கள். மேலும் பைந்தமிழின் இனிமையை சுவைத்து மகிழ்ந்து தமிழுக்காகத் தமிழ்த் தொண்டு செய்யத் தொடங்கி விட்டார்கள். ஐரோப்பியர்களின் வருகையால், மதங்களை பரப்ப வந்தவர்கள் மத்தியில் மனிதர்களைத் தேடி, புறக்கணிக்கப்பட்ட கடைக்கோடி மக்களைத் தேடித் தன்னையும் அர்பணிக்க வந்த கிறித்துவ கன்னியாஸ்திரிகளில் ஒருவர்தான் அன்னை தெரசா என அழைக்கப்படும் ஆக்னஸ் .தான் ஒரு கிறித்தவள் என்பதை மட்டும் அடையாளமாக்கிக் கொண்டு மதம், இனம், மொழி, ஏழை, பணக்காரன், உயர்ந்தவன், தாழ்ந்தவன் என்ற பாகுபாடு பார்க்காமல் தன் வாழ்நாளை அர்பணித்து ''புனிதர்'' என்ற நிலையைப் பெற்றார். இந்த ஆக்னஸ் என்ற புனித அன்னை தெரேசாவின் வாழ்க்கையை எழுத்தாளர் சேவியர் என்பவர் தெரேசாவின் காவியம் என்னும் தலைப்பில் அன்னை தெரேசாவின் வாழ்க்கை வரலாற்றை கவிதை நடையில் படைத்துள்ளார். இந்தக் கட்டுரையானது அன்னை தெரேசாவின் காவியத்தில் வாழ்வியல் அறம் என்ற தலைப்பில் ஆராயப்பட உள்ளது. அவர்கள் வாழ்க்கையே முழுவதுமே அறவாழ்க்கை தான் அவற்றில் சிலவற்றைப் பிரித்து இந்தக் கட்டுரையில் காட்டப்பட்டுள்ளது.

நட்பு அறம்

நாடாது நட்டலின் கேடு இல்லை நட் பின் வீடில்லை நட்பு ஆள்பவர்க்கு **HEMMOSEALA**'A

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அருட்தந்தை துப்புயி அடிகளாரின் ஆதிச் சுவடியும் அற இலக்கியமும்

முனைவர் அ. ஜான்போஸ்கோ, M.A., M.Phil., M.A., SET., Ph.D.

உதவிப்பேராசிttlயர், தமிழ்த்துறை தூய வளனார் கலை மற்றும் அறிவியல் கல்லூரி (தன்னாட்சி) கடலூர், தமிழ்நாடு, இந்தியா

ഗ്രങ്തുനെ

தமிழ் இலக்கிய வரலாறு பல்வேறு காலங்களில் வாழ்ந்த பலதரப்பட்ட அறிஞர்கள் பெருமக்களால் படைக்கப்பட்டு வெளி வந்துள்ளது. கால அடிப்படையிலும் இலக்கிய வகையிலும் இலக்கிய வரலாற்று நூல்கள் படைக்கப்பட்டு வந்து கொண்டு இருக்கின்றன தமிழகத்தில் வாழ்ந்த பல்வேறு சமய பெருமக்கள் அவரவர்கள் தங்களின் சமய கருத்துக்களையும் கொள்கைகளையும் தமிழ் மொழியின் வாயிலாக வெளிப்படுத்தி வந்திருக்கின்றனர் தமிழ் மொழியும் பல துறைகளில் இலக்கிய வளர்ச்சி பெற்று சிறந்து விளங்கி கொண்டிருக்கின்றது பிற சமயங்களைப் போலவே கிறிஸ்தவர்களும் தமிழ் இலக்கியங்களை படைத்துள்ளனர். வாணிபத்திற்காக தமிழகத்தில் நுழைந்த பிற நாட்டவர்களுள் ஆங்கிலேயர்களும் அடங்குவர். அப்படி வந்த ஆங்கிலேயர்கள் தங்களின் கிறிஸ்தவ மதத்தையும் பரப்ப முற்பட்டார்கள் ஆகையால் கிறிஸ்தவ மதத்தை பரப்ப வந்த பாதிரிமார்கள் தங்களை தமிழ் மக்களிடம் கொண்டு செல்ல மொழி ஒரு தடையாக இருந்தமையால் முதலில் தமிழ் மொழியை நன்கு கற்று தேர்ந்தார்கள். அதைத் தொடர்ந்து மதத்தை விட தமிழ் மொழியை வளர்த்தெடுப்பதில் தங்களின் ஆர்வத்தை காட்டினார்கள் எனவே தமிழ் மொழியின் சிறப்பினையும் அதன் பன்முகத் தன்மையினையும் உலகிற்கு அறிவிக்க தொடங்கினார்கள் அப்படி மதங்களை பரப்ப வந்து தமிழீ மொழியைக் கற்றுத் தேர்ந்து விளங்கிய பாரிஸ் நகரைச் சேர்ந்த வேத போதக சபை குருக்களில் ஒருவர்தான் அருட்பணி லூயிஸ் சவினியன் துப்புயி அடிகள் ஆவார். இவர் பிப்ரவரி 2 1832 இல் புதுச்சேரி வந்தடைந்தார் 1841 மிஷின் பிரஸ் என்ற அச்சகத்தை நிறுவி அதன் மேலாளராக இருந்து கொண்டு பல நூல்களை தமிழில் எழுதவும் மொழிபெயர்க்கவும் பதிப்பிக்கவும் செய்தார் . அப்படி தமிழில் உள்ள பல அற இலக்கியங்களை படித்து அவற்றை நிறைவு செய்யும் வகையில் தான் வடிவமைத்த ஆதிச் சுவடி என்ற நூலில் ஒழுக்கமாலை என்னும் 12 கவிதைகளில் இறை வார்த்தையின் அடிப்படையில் அனைவருக்கும் அவசியமான சிறந்த ஒழுக்க நெறிகளை தொகுத்தார் இந்த ஒழுக்க நெறிகளை பிற இலக்கியங்களோடு தொடர்புபடுத்தி ஆய்வு நோக்கில் இந்த கட்டுரையானது "அருட்தந்தை துப்புயி அடிகளாரின் ஆதிச் சுவடியும் அற இலக்கியமும்" என்னும் தலைப்பில்உருவாக்கப்பட உள்ளது

> Dr. M. ARUMAI SELVAM, H.S., M.P.S., PRO, PRINCIPAL St. Jeseph's College of Arts & Science (AUTONOMOUST) தமிழ்த்துறை, போப் கல்தோரி, பிரையாக (பிர

නිගුථාරානුල්: 2

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எட்டுத்தொகை நூல்களில் அக இலக்கியங்கள் காட்டும் பெண்களின் நிலைப்பாடுகள்

முனைவர் அ. ஜான்போஸ்கோ

தமிழ்த்துறை, உதவிப்பேராசிரியர் தூய வளனார் கலை மற்றும் அறிவியல் கல்லூரி (தன்னாட்சி) கடலூர்

முன்னுரை

"கல் தோன்றி மண் தோன்றா காலத்தே வாளோடு முன் தோன்றிய மூத்தக் குடி நம் தமிழ்க் குடி"

ஆயிரக்கணக்கான ஆண்டுகளுக்கு முன் தோன்றிய மொழி நம் தமிழ் மொழியாகும் செழுமையான இலக்கண இலக்கியங்களை தன்னகத்தே கொண்டு விளங்கும் நம் மொழியானது மனித வாழ்க்கையை படம் பிடித்து காட்டும் கண்ணாடியாக இலக்கண இலக்கியங்கள் அமைக்கப்பட்டுள்ளன. அப்படி சங்க கால நம் முன்னோரின் வாழ்வியல் கூறுகளானபண்பாடு, கலை, கலாச்சாரம், நாகரிகம், பழக்கவழக்கங்கள் போன்ற அனைத்தையும் எடுத்து சங்க இலக்கியங்கள் அமைந்துள்ளன. அவற்றில் எட்டுத்தொகை நூல்களில் இடம் பெற்றுள்ள அக இலக்கியங்களான நற்றிணை குறுந்தொகை, ஐங்குறுநூறு, கலித்தொகை, அகநானூறு போன்ற நூல்களில் பெண்கள் தங்கள் அன்றாட வாழ்வில் சந்திக்கின்ற வாழ்வியல் சிக்கல்கள் பிரச்சனைகள் இன்ப துன்பங்கள் போன்றவற்றை ஆராயும் வகையில் "எட்டுத்தொகை நூல்களில் அக இலக்கியங்கள் காட்டும் பெண்களின் நிலைப்பாடுகள்'' என்ற தலைப்பில் கட்டுரையானது அமைக்கப்படவுள்ளது. மேலும் இக்கட்டுரையானது. சங்க காலத்தில் வாழ்ந்த பெண்களின் பிறப்பு முதல் மூப்பு வரை உள்ள ஒவ்வொரு நிலைப்பாடுகளையும் கூறுவனவாக இக்கட்டுரை இடம் பெற்றுள்ளது.

பெண்ணின் ஏழு வகை பருவங்கள்

உலகில் இடம்பெறும் ஏழுவகைப் பருவ மகளிர் பெயர்கள். உலா இலக்கியத்துக்கான இலக்கணம் கூறும்போது இலக்கண நூல்கள் ஏழு பருவப் பெண்கள் பற்றி கூறுகின்றன. ஏழு பருவத்துப் பெண்களும் உலா வரும் தலைவனைக் கண்டு அவன்மீது காதல் கொண்டு வருந்துவதாக உலா இலக்கியம் கூறுவதைக் காணலாம். பருவங்கள் ஏழு என்பதில் யாருக்கும் மாற்றுக் கருத்து இல்லை. ஆனால் இந்த ஏழு பருவ மகளிரின் அகவையைக் குறிப்பிடுவதில் இலக்கண நூல்கள் மாறுபடுகின்றன. பன்னிரு பாட்டியல் என்ற இலக்கணநூல் ஏழு பருவ பெயர்களை அவற்றிற்குரிய வயதுபடி தெளிவாக குறிப்பிட்டுள்ளது.

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St. Jeseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 607 001.

ஒரு மானுவிடவியல் பார்_{வை} நற்றிணை

> செ. ஆரோக்கியதால் துணைப்பேராகிரியர், தமிழ்த்துறை தூய வளனார் கலை மற்றும் அறிவியல் கல்லூரி, _{கடலூ}

ஆய்வுச் சுருக்கம் ஆய்வுச் சுருக்கம் சங்க இலக்கியம் மனித மனவோட்டத்தை உயிரோட்டமாசுக் கொண்டு பிரதிபவி_{க்கும்}, சங்க இலைக்கியம் மகிழ வாழ்க்கைச் சூழலைக் கற்பனை நயத்துடன் படைத்துக் காட்டும் அவ்விலக்கியம் மக்களின் வாழ்க்கைச் சூழலைக் கற்பனை நயத்துடன் படைத்துக் காட்டும் அவ்விலைகளியம் மகையின் காலுகளாடு இதன் காட்டும் உளவியல் இலக்கியம். இதனடிப்படையில் சங்க இலக்கியங்களுள் ஒன்றான நற்றினை உளவாயல் இல்லையை முற்றுவது வழி அக்கால மக்களின் மானுடச் சிந்தனைகளையும் செயற்பாடுகளையும் இக்கட்டுவர வழு அம்பால் என்று குற்படுகிறது. ஆறறிவு பெற்ற மாந்தர் அறிவு முதிர்ச்சி அடைந்த ஆராய்ந்து விளக்க முற்படுகிறது. ஆறறிவு பெற்ற மாந்தர் அறிவு முதிர்ச்சி அடைந்த ஆரா மற்று வின்பாடு மிக்க வாழ்க்கை நிலையை வகுத்துக் கொண்டனர். நாகரிக வாழ்_{க்கை} பின்னர் பண்பாடு மிக்க வாழ்க்கை நிலையை வகுத்துக் கொண்டனர். நாகரிக வாழ்_{க்கை} அடைவதற்கு முன் வாழ்ந்த மாந்தர்கள் மனம் போன போக்கில் வாழ்ந்தனர். பன்பாடு மிக்க வாழ்க்கை வாழ்ந்த காலத்தில் சங்க இலக்கியங்கள் தோன்றின. மக்களின் வாழ்க்கு நிலையை எட்டுத்தொகை நூல்கள் சித்தரித்துக் காட்டின. அகப்பாடல்கள் இனக்குடி மக்களின் வாழ்க்கை முறையை விவரித்துக் காட்டுவதை இக்கட்டுறையில் கானலாம். முக்கிய சொற்கள்: நற்றினை, மானுடவியல், சமூகம், பண்பாடு, வாழ்க்கைமுறை

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பண்டைத் தமிழரின் பண்பாடும் பழக்க வழக்கங்களும் இன்றைய காலங்களில் வாழ்கின்ற மக்களை நெறிப்படுத்துகின்ற வகையில் அமைகின்றன. சமுதாயத்தில் நிகழும் அக, புற வளர்ச்சியைக் குறித்துக் கூறுவது பண்பாடு: "பண்பெனப்படுவது பாடறிந்து ஒழுகல்" என்ற கலித்தொகை கூற்று இ^{ங்குக்} குறிப்பிடத்தக்கது. அவ்வகையில் சங்ககால மக்களின் பண்பாட்டையும் பழக்க வழக்கங்களையும் அறியும் வகையில் இக்கட்டுரை அமைகிறது.

பண்பாடு என்னும் சொல் மனிதனோடு மட்டுமே தொடர்புடையது. இதவே பிற உயிரினங்களிடமிருந்து மனிதனைப் பிரித்துக் காட்டுகிற மனிதன் ^{மட்டுமே} பண்பாட்டைக் கொண்டு விளங்குபவன். பண்படுவது பாண்பாடு: பண்படுதல் - சீர்படுதல் அல்லது திருந்துதல், திருந்திய நிலத்தைப் பண்பட்ட ^{அல்லது} பண்படுத்தப்பட்ட நிலமென்றும், திருந்திய தமிழைப் பண்பட்ட ^{செந்தமிழ்} என்றும் தொடு என்றும் திருந்திய உள்ளத்தைப் பண்பட்ட உள்ளமென்றும் சொல்வது ^{வழக்கம்} (https://ta.a.ii (https://ta.wikipedia.org/wiki/) என்று தேவநேயப் பாவாணர் குறிப்படுகிறார்.

நற்றிணை

முன்னுரை

நற்றிணை என்பது தமிழ் இலக்கியத்தில் எட்டுத்தொசை ^{இலக்கிய} நகப்பாட் மணை வகைப்பாட்டினுள் காணப்படும் இலக்கியத்தில் எட்டுத்தொகை ^{இன்} பலராலும் பாடப்பட்டும் ஒரு நூலாகும். இந்நூல் தனிப்பாட^{ல்களாகப்} பலராலும் பாடப்பட்டுப் பின்னர் தொகுக்கப்பட்டது.

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Dr. M. ARUMAI SELVAM, M.S.

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கவிமுகி பன்னாட்டுத் தமிழ் ஆய்விதழ் Kavimugi International Journal of Tamil Research

எருய்தலின் சிறப்பைக் கூறும் கலித்தொகை

திருமதி. **ச.லீமா**

தமிழ்த்துறை, உதவிப்பேராசள்லய தூய வளனார் கலை மற்றும் அறிவியல் கல்லூரி (தன்னாட்சி) மஞ்சகுப்பம், கடலூர் - 1 அலைபேடு: 8056596245 மின்னஞ்சல்: leemasargunam@gmail.com

ஆய்வுச்சுருக்கம்

நெய்தல் நிலம் என்பது பண்டைத் தமிழகத்தில் பகுத்து அறியப்பட்ட ஐந்து வகைத் தமிழர் நிலத்திணைகளில் ஒன்றாகும். கடலும் கடல் சார்ந்த இடங்கள் நெய்தல் என அழைக்கப்படுகின்றன. வருணன் மேய பெருமணல் உலகமும் எனத் தொல்காப்பியம் இதுபற்றிக் கூறுகிறது. நெய்தல்கலியின் சிறப்பை கலித்தொகையின் மூலம் இக்கட்டுரையில் விளக்கப்பட்டுள்ளது. நெய்தல்கலியை பாடியவரும் கலித்தொகையை தொகுத்தவருமான நல்லந்துவனாரின் சிறப்பையும், சான்றோர்கள் யாவர் அவர்களுக்கு உரிய பண்புகள், கடமைகள் பற்றியும் கலித்தொகையில் மட்டுமே காணலாகும் மடலேறும் மரபுப் பற்றியும் கூறப்பட்டுள்ளது. மேலும் பண்பாட்டு பழக்கவழக்கங்கள் குறித்தும், அவற்றின் மூலம் சமுகம் பண்பட்டு வந்துள்ள செய்திகளையும் காணலாம். மேலும் அரசருக்குரிய கடமைகள், பண்புகள் மற்றும் மருத்துவனுக்குரிய கடமைகள் பற்றியும் இக்கட்டுரையில் விளக்கி கூறப்பட்டுள்ளன.

முன்னுரை

நெய்தல் நிலம் கடலும் கடல் சார்ந்த பகுதியைக் கொண்டது. இந்நிலத்தின் தெய்வம் வருணன் ஆகும். இந்நிலத்தின் உரிப்பொருள் இரங்கலும் இரங்கல் நிமித்தம் ஆகும். நெய்தலின் கருப்பொருள்களாக சுறா, முதலை ஆகியவற்றையும் குடிமக்களாக பரதவர், பரத்தியரையும் கூறுகின்றனர். நெய்தல் நில மக்களின் தொழிலாக மீன் பிடித்தல், மீன் உலர்த்தல் மற்றும் அவர்களின் உணவு மீன், உப்பு விற்றுப் பெற்ற உணவுப் பொருள்களே ஆகும். கலித்தொகையின் மூலம் நெய்தல் நிலத்தில் சொல்லப்படும் பல்வேறு வகையான நிகழ்வுகள் பற்றிக் இக்கட்டுரையில் விளக்கப்பட்டுள்ளதை காணலாம்.

நல்லந்துவனார்

சங்ககாலப் புலவர்களில் ஒருவர். அந்துவன் என்னும் பெயரைக்கொண்டு இவர் சேரர் குடியைச் சேர்ந்தவர் எனக் கொள்ளலாம். இவர் பாடியனவாக 39 பாடல்கள் உள்ளன. அகநானூற்றில் 1 பாடலும், கலித்தொகையில் 33 பாடல்களும் நற்றிணையில் 1 பாடலும் பரிபாடலில் 4 பாடல்களும் பாடியுள்ளார். இவர் செவ்வேள்மீது பாடிய பரிபாடலை மதுரை மருதன் இளநாகன் என்னும் புலவர் அந்துவன் யாடிய சந்துகைமு வநடுவரை என்று குறிப்பிட்டுப் பாராட்டியுள்ளார்.1 இவரது பாடலில் சொல்லப்பட்ட சொல் விளக்கங்கள் இன்று பலராலும் எடுத்தாளப்படுகின்றன. தொல்காப்பியம், திருக்குறள், சிலப்பதிகாரம் போன்ற நூல்களில் உள்ள பொருள். துலப்பது....... சொற்றொடர்கள் வியப்பைத் தருகின்றன. அசுணமா, மகன்றில் ஆகிய விலங்குகளுக்கு இவரது பாடல்_{கள்} விளக்கமாக அமைந்துள்ளன. இவர் கூறும் மெய்யுரைகள் ஆழமானவை. புழக்கவழக்கங்கள் தமிழரின் ஆழ் பிரையாட்டைக் காட்டும் வரலாற்றுச் சுவடுகள், உவமைகள் புதுமையானவை. சேரரின் கால்வழியைச் சேர்ந்த இவர் பாண்டியனைப் புகழும் பாங்கு இவ_{ரகு} நடுவுநிலைமைப் பண்புக்கு எடுத்துகாட்டு. புராணத் செய்திகளின் புலியாக இவர் விளங்குகிறார்.

நெய்தல் நிலம்

பழந்தமிழ்ச் சான்றோர்கள் நிலத்தை ஐந்து பகுதிகளாகப் பிரித்துள்ளனர். குறிஞ்சி, முல்லை, மருதம், பாலை, நெய்தல் என்பனவே அவை. எனினும், உலகம் நானிலம் என்றே வழங்கப்படுகிறது. காரணம். நம் தமிழ்ப் பெரு நாட்டில் இயற்கையாய் அமைந்த பாலை என்ற ஓர்; தனி நிலப் பகுதியே இல்லை. ஆதலின் அது நிலமாகவே கருதப்படவில்லை என்பதுதான். பண்டைச் சான்றோர்கள் பாலையை ஒரு நிலமாய்க் கொள்ளாது. இயற்கையாய் அமைந்த ஏனைய நான்கு நிலங்களை மட்டுமே சிறப்பாகக் கருதி, இந்நாட்டினை நானிலம் என வழங்குவாராயினர். பாலைக்கு நீல மின்மையின் என்கிறார் பேராசிரியர்2 நானிலம் எனப்பட்டது

இந்நிலங்களில் நெய்தல் என்பது கடலும் கடல் சார்ந்த பகுதியுமாகும். இதனை வருணன் மேய வருமணல் 3 என்கிறது தொல்காப்பியம். உலகம் நெய்தல் கருங்கடற் கடவுள் காதலித்த நெடுங்கோட் டெக்கா் 4 எனப் பொருள் கூறினார். தொல்காப்பிய உரையாசிரியருள் வருணனைத் ஒருவரான நச்சினார்க்கினியர். அதாவது, தங்கள் தெய்வமாக வழிபடும் மக்கள் வாழ்கின்ற, கடல் கொழித்த 5 எனப் மணல் மேடுகள் மல்கிய கடற்கரைப்பகுதி பொருள்படும். வருணனை வழிபடும் மக்கள் வாழ்கின்ற கடற்கரைப் பகுதியே நெய்தல் என்பது தொல்காப்பிய உரையாசிரியர் நச்சினார்க்கினியரின் கருத்து. கடல் நீரால் அமைந்தமையின் கடற்கரைப் பகுதி மட்டுமே நெய்தல் எனக் கொள்ளல் தகும்.

சான்றோர் இயல்பு

நனனெறி, நெறிமுறை அல்லது அறமுறைமை என்பது மெய்யியலின் முக்கியமான ஒரு பிரிவு. இது நடத்தை தொடர்பில் சரி, பிழை ஆகிய கருத்து_{க்களை} முறைப்படுத்தி, பேணி அவற்றைக் கைக்கொள்ளும்படி மக்களுக்குப் பரிந்துரை செய்வது. நன்னெறியின் முக்கு முக்கியமான அம்சம் நல்ல வாழ்வு ஆகும். சான்றோன் எனச் பு____ எனச் சொல்லப்படுபவர்கள் சுயஒழுக்கும், கட்டுப்பாடு,

> Dr. M. ARUMAI SELVAM, M.Sc., M.Phil. Pho. PRINCIPAL St. Jeseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 607 001.

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கவிக்தொகை சுட்டும் அழுகியல் கூறுகள்

ചെ.കിനേസി ജെത്നേഖന

தூய வளனார் கலை மற்றும் அறிவியல் கல்லூரி(தன்னாட்டு). மஞ்சக்குப்பம், கடலூர்-1 janodomnic@gmail.com Phone No.9789556824

முன்னுரை

அழகியல் (Aesthetics) அல்லது Esthetics என்பது அழகின் தன்மையை ஆராய்வது படைப்புகளில் அழகை இனங்கண்டு இரசிப்பதும், சுவைப்பதும் பற்றிய இயலாகும். அறிவியல் ரீதியாக உள்ள உணர்வுகளை உணர்ச்சிகளோடு இணைந்து ஆராய்வது எனலாம். இவை கலை பண்பாடு மற்றும் இயற்கையை பிரதிபலிக்கும் துறையாக இருப்பதை அறிஞர்கள் வரையறுக்கின்றனர். இதனை பூரணத்தை நாடும் இதய வேட்கை தான் அழகியல் -பிளேட்டோ (Over Love of beautifully taiys on earth in due to the search by our soul for the absolute (Emerrsm) 1 உண்மை, நன்மை, அழகு இம்மூன்றும் ஒன்றின் வேறுபட்ட முகங்களே. அழகு என்பது அழகற்ற கூறுகளை உள்ளடக்கியது என்கிறார் பிளேட்டோ. இப்படி சமூகப் பயன்பாட்டில் அழகியல் எத்துணையோ புதிய பரிமாணங்களை உள்ளடக்கியது.

கலை எந்த அளவிற்குத் தன்னைச் சுத்தி உள்ளவற்றைப் பிரதிபலிக்கவேண்டும்? அது அளவிற்கு அதைப் படைத்தவனின் உணர்ச்சியை வெளிப்படுத்த வேண்டும்? போன்ற வினாக்களுக்கு விடை தேடுகிறது அழகியல் என்கிறார். இந்திரன், கலையைக் குறித்து அழகியல் பார்வையை அணுகுவது போல் வாழ்வின் ஒவ்வொரு கூறுகளிலும் பண்பாட்டு நெறியிலும் அழகியலை அணுக வேண்டியுள்ளது. இலக்கியங்களிலும் அழகியலை இன்றியமையா ஒன்று எனலாம். அணுகுவது தொன்மை கால சமூகம் இயற்கையோடு வாழ்வினை வாழ்ந்தனர். அவர்களின் இலக்கியத்தில் இயந்த அழகியலைத் தவிர வேறு பொருளைக் காண்பது அரிது. சங்ககாலம் முதல் தற்காலம் வரை கோட்பாடாக அழகியலை வரையறுத்துள்ளனர். பல கோட்பாடுகளும் அழகியல் கூறாக கட்டமைத்துக் கூறமுடிகிறது.

அகம், புறம் என்ற பிரிவாகப் பிரிக்கப்பட்ட சங்க இலக்கியத்தில் அக இலக்கியத்திற்கு என்று தனி இடம் உண்டு. அதில் கற்றறிந்தார் ஏத்தும் கலி எனக் குறிப்பிடும் போதே கலித்தொகையின் கருத்துச் செறிவும், மொழியமைப்பும் சார்ந்த கூறுகளே இடம் பெறுகின்றன. இத்தகைய சிறப்புப் பெற்ற நூலான **கலித்தொகையில் அழ**கியல் கூறுகள் வெளிப்படும் போக்கினை ஆராய்வதே இக்கட்டுரையின் நோக்கமாகும்.

இலக்கியமும் அழகியலும்

இலக்கியம் வாயிலாக வெளிப்படும் இன்பம்

முருகியல் இன்பம் என்பர். அம்முருகிய_{லை அழிய} பால் என்பர். இலக்கியம் தலைச்சி_{ரக்} ருகியல் துகைப்பர். இலக்கியம் தலைச்சிறந்து அழகியல் என்பர். இலக்கியம் தலைச்சிறந்து அழகியலே காரணம் எனலாம். அழக் அழகியலே காரணம் எனலாம். அழக் அழகிய மை பாற்றுத்துக் கூறமுடியாத இன்னவென்று வரையறுத்துக் கூறமுடியாத இன்னவென்று வரையறுத்துக் கூறமுடியாத இன்னவ்வை ஆ கருத்தியலோடு பிண்ணிக் கிடக்கிறது. _{கவிருக்} கருத்தியலோடு பிண்ணிக் கிடக்கிறது. _{கவிருக்} உணர்ச்சி, வடிவம் என்னும் _{பலிலை} இணைந்து எடுத்துரைக்கும் போத்த கூறுகளோடு சுறுகுமைன் கட்டமைக்கப்படுகிறது. எந்த அழகியல் கட்டமைக்கப்படுகிறது. எந்த அழம்பட பொருளையும் அழகு என்று வரையறை நே முடியாது என்பதை தொல்காப்பியர்

ஒப்பும் உருவும் வெறுப்பும் என்றா கற்பும் ஏரும் எழிலும் என்றா சாயலும் நாணும் மடனும் என்றா

நாட்டியல் மரபின் நெஞ்சுகொளின் அல்லு காட்டலாகாப் பொருள் என்ப2 (பொருள் நூ.243)

ஏர், எழில் என்றும் சொற்கள் அழகு என்று சொல்லைக் குறிப்பவை. இவை பருப்பொரு போன்றது எடுத்துக்காட்ட முடியாது என்கிறார். எட்டுத்தொகை நூல்

சங்க கால இலக்கியங்கள் தமிழரின் பொற்கால் எனலாம். பண்டைய தமிழரின் வாழ்வியலையு உயர்ந்த எண்ணத்தையும் உணர்த்துகின்றன. அவ்வற எட்டுத்தொகையில் கலித்தொகை கற்றோரா பாராட்டப்பெறும் இலக்கியம் என்பர். அக இலக்கிய மாந்தர்களின் கூற்றுகளாக பாடல்கள் அமைகின்று. கலித்தொகையின் ஒவ்வொரு பாடலும் 93 சிறுகதையாகவும் ஒரங்க நாடகம் போன்ற^{ப்} விளங்குகிறது. ஐந்து நிலவகை புவியியல் அமைப்பி புலவர்களால் பாடப்பெற்றது. இலக்யே மாந்தர்களின் உணர்வு பெட்டகமாக திகழ்வதோ& அழகியல் நோக்கில் காட்டு சித்தரிப்புக்கள் ஆய்த் வினக்கப்படு விளக்கப்படுகிறது. இப்பாடலைப் பாடிய புலவர்களில் கூறிக்கோண் குறிக்கோள் யாதாயின் புலமையை காட்டிப் பெருல

அடைவதற்கோ அல்லது பொருள் அடைவதற்பே அவ்வ வன்னை அல்லது பொருள் அடைவதற்பே அல்ல அன்பையும் பண்பையும் கொண்டு வாழ்ந் பழந்தமிழரின் வாழ்க்கையில் எங்கும் அழ^{ஓயல்} வெளிப்படுவரை வெளிப்படுவதைக் காணலாம். பாலைக் கலி அன்பின் அழகியல்

தலைவன் பொருள் தேடச் இசல் இன்றான். இலுக் ரமி கலைலால் தலைவை பொருள் தேடச் செல்டிக்றான். இ தோழி தலைவியின் துன்பதிலையை தலைவலுக்க உரைக்கின்றாள். புயலில் கிக்குத் குவிக்கும் கப்பலில் துன்பம் போன்று இறுக்குத்து கவிக்கும் கப்பலில் இருப்பதாகவும், திருவிழா ஒழுதி இரிச்சு St. Joseph's College of Alts & Science (AUTONOMOUS) CUDDALORE - 607 001.

அற இலக்கியங்கள் காட்டும் இல்லறம்

முனைவர் அ. ஜான்போஸ்கோ

தமிழ்த்துறை, உதவிப்பேராசிரியர், தூய வளனார் கலை மற்றும் அறிவியல் கல்லூரி (தன்னாட்சி_{),} கடலூர். தமிழ்நாடு, இந்தியா

ஆய்வுச் சுருக்கம் :

சங்க கால நூல்களுக்கு ஒரு தனி சிறப்பு உண்டு. காரணம் சங்க கால மக்களின் வாழ்க்கை வேறு, அக்காலத்து நூல்கள் வேறு அல்ல. சங்ககால மக்களின் வாழ்க்கையே நூல்களாக உருபெற்றது. அப்படி வாழ்ந்த மக்களின் வாழ்க்கையை அகம், புறம் என இரண்டாக பிரித்தனர். இதில் அகவாழ்க்கையில் காணப்படும் சுறுகளில் இல்லறம் குறித்த அறவாழ்வை மட்டும் இக்கட்டுரையில் கருதுகோளாகக் கொண்டு, அற இலக்கியங்களில் குறிப்பிடப்பட்டிருக்கும் இல்லற அறக் கருத்துக்களை வெளிக்கொணர்ந்து, தற்கால மக்களுக்கும் இல்லறத்தார்க்கும் உணர்த்தும் வகையில் இக்கட்டுரையானது அமையப்பெற உள்ளது.

முன்னுரை :

"அறன் எனப்பட்டதே இல்வாழ்க்கை அ∴தும் பிறன்பழிப்பது இல்ஆயின் நன்று"

-(குறள்-49)

இந்தக் குறளின் மூலம் இல்லறமே துறவறத்தை விட தலை சிறந்தது என்று கூறுகிறார் வள்ளுவர். தமிழருடைய வாழ்வில் இல்லறமும். துறவறமும் இரு கண்களாகப் போற்றப்படுகின்றன. அதேபோன்று இல்லற வாழக்கையின் சிறப்பை சுறும் வள்ளுவர்.

"இயல்பினான் இல்வாழ்க்கை வாழ்பவன்என்பான் முயல்வாருள் எல்லாம் தலை" - (குறள்-47) என்ற குறளின் மூலம், இல்லற வாழ்க்கையில் வாழும் ஒருவன் வாழும் முறையறிந்து வாழ்வானேயானால், அவன் தவம் செய்யக் கூடிய முனிவர்களைவிட தலைசிறந்தவன் என்கிறார் வள்ளுவர். இதுபோன்ற கருத்துக்களையும் இல்லறம் மேற்கொண்டவர்க்கு ஏற்ற அ_{றக்} கருத்துக்களையும் அற இலக்கியங்கள் வாயிலாக ஆய் வதே இந்த கட்டுரையின் முக்கிய குறிக்கோலாக ஆராயப்பட உள்ளது.

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ஆய்வுத்தலைப்பு :

நீதி நூல்களில் குறிப்பிடப்பட்டிருக்கும் _{அறச்} செய்திகளில் இல்லறம் குறித்த செய்திகளை மட்டும் குறிக்கோளாகக் கொண்டு "அற இலக்கியங்கள் காட்டும் இல்லறம்" என்னும் தலைப்பால் இந்_{தக்} கட்டுரையானது ஆராயப்பட உள்ளது.

ஆய்வு எல்லை :

பதினெண் கீழ்கணக்கில் உள்ள 11 அற நூல்களில் காணப்படும் இல்லறத்திற்கு ஏற்ற அறக்கருத்துக்களை மட்டும் எல்லையாகக் கொண்டு உருவாக்கப்பட உள்ளது.

ஆய்வு நோக்கம் :

அற நூல்களில் காணப்படும் பழங்கால மக்களின் வாழ்வியல் முறைகளை வெளிக்கொணர்ந்து, தற்கால மக்களுக்கு, இல்லறத்தாரின் பழக்க வழக்கங்களையும், வாழ்வியல் எதார்த்தங்களையும் உணர்த்துவதே இக்கட்டுரையின் நோக்கமாகும்.

ஆய்வுப் பயன் :

சங்கம் மருவிய காலங்களில் உருவான இந்த அற நூல்களில். அந்த காலங்களில் வாழந்த மக்களின் அன்றாட வாழ்வில் காணப்படும் அறச் செயல்களை, தற்கால மக்களுக்கு எடுத்துரைக்கும் விதத்தில், இல்லற மாந்தர்களின் நிலை, பண்பாடு, கலாச்சாரம் நாகரீகம் போன்றவைகளை நிகழ்கால மக்கள் உணர்ந்து வாழ வழிவகுக்கும் வகையில் இவ் வாய் வானது பயனுள் எ விதத் தில் பயன்பெறும் என்பது குறிப்பிடத்தக்கதாகும்.

நவீனத் தமிழாய்வு [பன்னாட்டுப் பன்முகத் தமிழ் காலாண்டு ஆய்விதழ்] (கலை மற்றும் மனிதவியல், மொழி) ISSN:2321-984X - அறப்பிதழ் Modern Thamizh Research (A Quarterly International Multilateral Thamizh Journal) (Arts and Humanities, Language) ISSN:2321-984X - அறப்பிதழ் தமிழ் இலக்கியங்களில் வாழ்வியல் அறங்கள் - தேசியக் குருத்தரங்கம் - 29.12.2023 தமிழ்த்துறை, ஸ்ரீ கிருஷ்ணசாமி கலை மற்றும் அறிவியல் கல்லூரி, மேட்டமலை, சாத்தார், தமிழ்நாடு, இதியா,



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RESEARCH ARTICLE

MUSICAL INSTRUMENTS IN ART FORMS IN THE TEMPLES OF SOUTH INDIA WITH SPECIAL REFERENCE TO CHIDAMBARAM REGION

Dr. R. Sudaroli

Assistant Professor, Department of History, St. Joseph's College of Arts & Science (Autonomous), Cuddalore.1, Tamil Nadu, Email ID: rsudarolihistory@gmail.com

Abstract

To some extent musical instruments have been considered indispensable, for, even the gentle twang of the most primitive of the musical instruments with a single or double stringed and the drone of the pipe adds a unique melodic entity. The realization of these indispensable nature of musical instruments was so deep rooted, that the artistic genius of the craftsman, was forced to immortalise them in stone and other materials. Thus, several of the musical instruments have been bought into being during different periods. Music and dance have been the chief forms of religious expression in India. The origin of music in India is attributed to Gods and Goddesses and to mythological figures like Gandharvas and Kinnaras who figure in all the stories and legends connected with the science and practice of music.

Introduction

To some extent musical instruments have been considered indispensable, for, even the gentle twang of the most primitive of the musical instruments with a single or double stringed and the drone of the pipe adds a unique melodic entity. The realization of these indispensable nature of musical instruments was so deep rooted, that the artistic genius of the craftsman, was forced to immortalise them in stone and other materials. Thus, several of the musical instruments



have been bought into being during different periods. Music and dance have been the chief forms of religious expression in India. The origin of music in India is attributed to Gods and Goddesses and to mythological figures like Gandharvas and Kinnaras who figure in all the stories and legends connected with the science and practice of music.

Ancient Sanskrit literature and treatises on the science of music commonly refer to Indian music instruments. Ancient Indian sculptures refer to Indian

> 601 Dr. N. ARUMAI SELVAM, N.S., M.PH., PSO., PRINCIPAL IJMASRI, Vol. 3, State J, Chiloge 6014-696 Science (AUTONOMOUS) CUDDALORE - 607 001.

Properties of *Q*-Intuitionistic *L*-Fuzzy Lower*Q*-Level Subset of ℓ -Subsemiring of an ℓ -Semiring

R. AROKIARAJ Department of Mathematics, Rajiv Gandhi College of Engineering & Technology, Pondicherry-607403. India.

> V. SARAVANAN Department of Mathematics, FEAT, Annamalai University, Annamalainagar - 608002 Tamil Nadu, India.

> > J. JON AROCKIARAJ

Department of Mathematics, St. Joseph's College of Arts & Science, Cuddalore -607001, Tamil Nadu, India.

Abstract: - In this paper, the idea of a Q-intuitionistic L-fuzzy ℓ -subsemiring of a ℓ -semiring is introduced. We made an effort to learn more about the algebraic nature of ℓ -semiring. In addition, several findings about the characteristics of lower Q-level subsets of a Q-intuitionistic L-fuzzy ℓ -subsemiring of a ℓ -semiring are developed. We also explored the fundamental theorem for homomorphism and anti-homomorphism.

Key-Words: -Fuzzy subset, (Q, L)-fuzzy subset, (Q, L)-fuzzy ℓ -subsemiring, Q-intuitionistic L-fuzzy subset, Q-intuitionistic L-fuzzy ℓ -subsemiring, Q-intuitionistic L-fuzzy relation, strongest Q-intuitionistic L-fuzzy subsets.

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1 Introduction

Numerous researchers looked into the concept of fuzzy sets' generalisation after L.A. Zadeh presented it [30]. The term "lattice" was first used by Dedekind in 1897, and it was later expanded upon by Birkhofft, G. [8,9]. A special kind of lattice known as a Boolean ring with identity was similar to the Boolean algebra that Boole invented. This relationship led to the establishment of the link between lattice theory and contemporary algebra. K.T. Atanassov [5,6] developed the idea of intuitionistic fuzzy subset as a generalisation of the idea of fuzzy set. Q-fuzzy subgroups is a brand-new algebraic structure that was developed and defined by A. Solairaju and R. Nagarajan [26,27]. In this article, we discuss some of the characteristics of lower Q-level subsets of a Q-intuitionistic L-fuzzy ℓ-semiring.

The heading of each section should be printed in small, 14pt, left justified, bold, Times New Roman. You must use numbers 1, 2, 3, ... for the sections' numbering and not Latin numbering (I, II, III, ...)

2 Preliminaries

Definition 2.1. [31]Let *X* be a collection of set that isn't empty. A function $\mu_A: X \to [0, 1]$ a **fuzzy** subset μ_A of *X*.

Definition 2.2.[27, 28]Let X be a non-empty set, $L = (L, \leq)$ is a lattice with least member 0 and largest element 1, and Q is a non-empty collection. A (Q, L)-fuzzy subset μ_A of a function $\mu_A: X \times Q \rightarrow L$.

Definition 1.3.[20,21]Let *R* be a ℓ -semiring and *Q* to be a set that isn't empty. A (Q, L)-fuzzy subset *A* of *R* is referred to as a (Q, L)-fuzzy ℓ -subsemiring (QLFLSSR) of *R* if it meets the following criteria:

(i) $\mu_A(x + y, q) \ge \mu_A(x, q) \land \mu_A(y, q),$ (ii) $\mu_A(xy, q) \ge \mu_A(x, q) \land \mu_A(y, q),$ (iii) $\mu_A(x \lor y, q) \ge \mu_A(x, q) \land \mu_A(y, q),$ (iv) $\mu_A(x \land y, q) \ge \mu_A(x, q) \land \mu_A(y, q),$ for every x and y in R and q in Q.

Example 2.1.Let $(Z, +, \mathbb{Z}, \vee, \wedge)$ be a ℓ -semiring and $Q = \{p\}$, Then the (Q, L)-fuzzy set A of Z is defined by

$$A(x,q) = \begin{cases} 1 & if \ x = 0 \\ 0.33 & if \ x \in <2 > -0 \\ 0 & if \ x \in Z - <2 > \end{cases}$$

A is unmistakably a (Q, L)-Fuzzy ℓ -subsemiring of a ℓ -semiring.

Definition 2.4.[5,6]An **intuitionistic fuzzy subset** (IFS)A in X is defined as an object of the form $A = \{\langle x, A_{\mu}(x), A_{\vartheta}(x) \rangle / x \in X\}$, where $A_{\mu}, X \mapsto [0,1]$ and $A_{\vartheta}: X \to [0,1]$ define the degree of membership and the degree of non-introduction of Encadement Park, PSO. PRINCIPAL



Exploring the Decreasing Coercivity Properties of Aluminum Cobalt Ferrites Prepared by Coprecipitation Method

R. POONGODI^{1,00}, S. SENGUTTUVAN^{1,*,00} and R. SAGAYARAJ^{2,*,00}

¹PG & Research Department of Chemistry, Thiru.Vi.Ka. Government Arts College (Affiliated to Bharathidasan University), Thiruvarur-610003, India

²PG & Research Department of Physics, St. Joseph's College of Arts and Science (Autonomous) (Affiliated to Annamalai University), Cuddalore-607001, India

*Corresponding authors: E-mail: senguttuvanathan@gmail.com; sagayarajnancy@gmail.com

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Cobalt aluminum ferrites were synthesized by coprecipitation method at 1000 °C. XRD studies pointed out the employed samples $(Fe^{2+}Al_2^{3+}O_4^{2-}, Fe_{0.25}Co_{0.75}Al_2O_4 \text{ and } Fe_{0.75}Co_{0.25}Al_2O_4)$ were crystallized in a single phase cubic spinel form. The synthesized samples were calculated structural parameters such as crystallitesize (D: 17 nm), X-ray density (D_x: 3.97 to 4.15 g/cm³), volume of the unit cell (V: 583.64 to 586.58 Å), lattice strain ($\epsilon: 6.9 \times 10^{-3}$), dislocation density ($\delta: 3.3 \times 10^{-3}$) and lattice constant (a: 8.357 to 8.371 Å). The FE-SEM microstructure confirmed that various concentrations result in different particle sizes (5 µm to 500 nm). The magnetic characteristics were investigated by VSM and magnetic parameters like saturation magnetization ($M_s: 4.82 \times 10^{-3}$ to 0.673 emu/g), retentivity ($M_r: 1.545 \times 10^{-3}$ to 0.229 emu/g), coercivity ($H_c: 775.45$ to 2212.8 Oe), magnetic moment ($\mu_B: 1.57 \times 10^{-4}$ to 2.108 $\times 10^{-2}$), remnant ratio (R: 0.32 to 0.357 no unit) and anisotropy constant (K: 3.418 to 177.57 J/m³) were calculated. High coercivity materials are ideal for use in magnetic recording media, permanent magnets and microwave devices since they possess a high degree of resistance to an external magnetic force.

Keywords: Ferrites, Impedance, Coercivity, Magnetization, Coprecipitation method, Cobalt aluminum ferrites.

INTRODUCTION

The nano-revolution has had far-reaching consequences, from improved medical care to the emergence of brand-new materials and technology. Nanotechnology has enabled us to create smaller, faster and more efficient devices, as well as new materials with unique properties. It also opened up new possibilities in fields such as energy, computing and robotics. Generally, magnetic materials are classified as diamagnetic, paramagnetic and ferromagnetic. Since the discovery of a new type of super paramagnetic, the nano-revolution can be considered to have begun. These can be called nano-sized nanoferrites [1,2]. A ferrite core is a type of magnetic core made of ferrite, a sintered form of ceramic composed of iron oxide and other metal oxides. There are a number of uses for ferrite cores, ranging from antennas, biomedical sensors and magnetic cell separation to gas detectors, tissue repair and biomedicine electronics. Ferrite cores can be used for hyperthermia radiation, catalysis, magnetic drug delivery, catalytic electrodes, ferrofluids, magnetic resonance

imaging (MRI) contrast development, magnetic refrigeration, memory storage devices, microwave attractors, permanent magnets, solar energy conversion, recording heads, magnetic recording, transformer cores, high-frequency electrical equipment and hard disk recording media [3,4]. All of the above uses particle size, dopant concentration, electrical properties and magnetic properties, which have a large effect on the properties of nanoferrites.

Research is being conducted on nanoferrites to create materials with specific electrical and magnetic properties, as well as tailored particle size, for targeted applications. This provides a range of benefits, such as improved energy efficiency, enhanced performance and improved reliability [5-9]. The A plane is typically composed of a metal oxide, such as iron oxide (FeO), while the B plane is composed of a different metal oxide, such as zinc oxide (ZnO). The two metal oxides are combined in a ratio of two atoms of A to four atoms of B, forming a lattice structure. The spinel ferrite structure is composed of a network of tetrahedral, with each tetrahedron consis-

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Effect of ZnO on the Structural and Magnetodielectric Properties of MgFe₂O₄ Nanocomposite Prepared by Sol-Gel Method

T. VEERAMANI^{1,0}, C. VENKATARAJU^{1,*,0}, V. PORKALAI^{1,0} and R. SAGAYARAJ^{2,*,0}

¹P.G. & Research Department of Physics, Thiru.Vi.Ka. Government Arts and Science (Affiliated to Bharathidasan University), Thiruvarur-610003, India

²P.G. & Research Department of Physics, St. Joseph's College of Arts and Science (Autonomous) (Affiliated to Annamalai University), Cuddalore-607001, India

*Corresponding authors: E-mail: tvkphymani@gmail.com; sagayarajnancy@gmail.com

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Zinc oxide doped magnesium ferrite ($Mg_{1,x}Zn_xFe_2O_4$) nanocomposite was synthesized using sol-gel method and demonstrated to have a cubic spinel structure, with a range of crystallite sizes (19-40 nm) and lattice constants (8.432-8.399 Å). The material was found to have two prominent vibrational modes for tetrahedral (446 cm⁻¹) and octahedral (584 cm⁻¹). The dielectric constant was higher at low frequencies and decreased at higher frequencies, while the saturation magnetization decreased (16 to 6 emu/g) gradually with an increase in Zn^{2+} , likely due to the presence of non-magnetic Zn^{2+} . The magneto-dielectric constant was found to increase with the magnetic field for $MgFe_2O_4$ and up to a magnetic field of 2000 Oe for the zinc magnesium nanocomposites, after which it decreased for higher magnetic fields. A positive and negative change in magneto-capacitance as a function of the magnetic field was also observed. The antibacterial activity suggests that the substitution of Zn^{2+} into magnesium ferrite can be an effective method for improving antibacterial activity, with the potential to damage the bacterial membrane and other components through positively charged ions and ROS generated by nanoparticles. Potential uses for this synthetic material include magneto-optical recording and magnetic biosensors.

Keywords: Zinc oxide, Magnesium ferrite, Sol-Gel method, Dielectric constant, Magneto dielectric, Coercivity, Ferrimagnetic.

INTRODUCTION

Ferrite is an iron or other divalent cations component that is made up of one or more ferromagnetic materials, often either metal alloys or ceramic compounds. The general formula for ferrites is $A^{2+}B_2^{3+}O_4$, for example $Fe^{2+}Fe_2^{3+}O_4$, which is representative of its iron oxide content. The most common type of ferrite is magnetic, which is composed of iron and an oxide, such as chromium oxide or manganese oxide [1]. Ferrite magnets typically have a weak magnetic field, but they are able to store energy in their magnetic domains, making them ideal for applications like power transformers. Iron ferrite is a type of ferrite material composed of iron and one or more ferromagnetic materials, such as metal alloys or ceramic compounds [1,2].

Zinc ferrite is an artificial magnetic material composed of zinc oxide and iron oxide. It has a spinel structure, which consists of an ordered arrangement of cations and anions, such as Zn²⁺ and Fe³⁺ in this case. This structure results in a strong magnetic field and makes zinc ferrite an ideal choice for applications such as data storage and magnetic recording [3]. Magnesium ferrite is a ferromagnetic compound of magnesium oxide and iron oxide. This material has a spinel structure formed by an ordered arrangement of cations and anions, specifically Mg²⁺ and Fe³⁺. The resulting strong magnetic field is advantageous for uses like high frequency amplifiers and radio antennas [4]. Spinel structures are composed of oxygen and metal cations, arranged in a cubic lattice. There are three main types of spinel structures such as normal spinel, inverse spinel and mixed spinel. The cation and anion sites within the lattice are distributed in an ordered fashion is called normal spinel, such as in magnesium ferrite (MgFe₂O₄). The cation and anion sites within the lattice are distributed in an inverted fashion is said to be inverse spinel, such as in magnetite (Fe₃O₄). Zinc-doped magnesium ferrite is a magnetic material composed of cobalt oxide, zinc oxide and iron oxide. It has a disordered spinel structure, which consists

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A DFT study on structural and bonding analysis of transition-metal carbonyls $[M(CO)_4]$ with terminal silicon chalcogenides complexes $[M(CO)_3SiX]$ (M = Ni, Pd, and Pt; X = O, S, Se, and Te)

Palani Vetri^a, Francisxavier Paularokiadoss^{b,*}, Christian A. Celaya^c, L. Mary Novena^d, Jisha Mary Thomas^e, Thayalaraj Christopher Jeyakumar^{a,*}

^a PG & Research Department of Chemistry, The American College, Madurai, Tamil Nadu 625002, India

^b PG & Research Department of Chemistry, St. Joseph's College of Arts and Science (Autonomous), Cuddalore, Tamil Nadu 607001, India

^c Instituto de Energías Renovables, Universidad Nacional Autonoma de Mexico, Piv.Xochicalco s/n.Col. Centro, Temixco C.P.62580, Morelos, Mexico

^d Stella Mary's College of Engineering, Aruthenganvilai, Nagercoil, Tamil Nadu 629202, India

^e Department of Chemistry, Pondicherry University, R. V. Nagar, Puducherry 605 014, India

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ABSTRACT

DFT calculations using the B3LYP level of the theory have been done for transition metal carbonyls $[M(CO)_4]$ with terminal Silicon Chalcogenides (SiX) complexes $[M(CO)_3SiX]$ (M = Ni, Pd, and Pt; X = O, S, Se, and Te). The theoretical investigation regarding the bonding nature of these transition metal carbonyls with terminal SiX complexes has been obtained from the natural population analysis NPA and natural bond order NBO analysis. Wiberg bond indices WBI analysis reveals the bond index of the M-SiX bond. From the frontier molecular orbital FMO analysis, we have predicted the energy gap of (highest occupied molecular orbital) HOMO-LUMO (lowest unoccupied molecular orbital) is in the range of 4.19 eV to 6.31 eV. NBO analysis shows the bond contribution from the M (M = Ni, Pd, and Pt) atom is lesser than that of the Si atom.

1. Introduction

Isoelectronic or isolobal relationships play a pivotal role in finding novel ligand varieties in organometallic chemistry. Carbon monoxide is a well-known ligand that is isoelectronic to N2, BF, GaI, and SiO, all of which are known to act as ligands. Because of their versatility in catalytic processes as a reactant or a spectator ligand, metal carbonyl complexes have received substantial theoretical and experimental attention. [1–19]. N₂ complex was successfully synthesized by Allen and Senoff in 1965 [20]. H. Schnockel and colleagues reported the complex consisting of the isoelectronic species SiO with silver for the first time in 1988. They synthesized Ag(SiO) complex by co-condensation of Ag metal and SiO molecules with an excess of argon, and it was analysed using FT-IR spectroscopy. Ag(SiO) showed a band at 1163 cm⁻¹ (free SiO $\gamma = 1226$ cm⁻¹) which was attributed to the stretching vibrational frequency of Si-O [21]. When H. Schaefer et al. studied the interaction of Ag with a silicon monoxide ligand, they discovered that Ag(SiO) favoured linear structure and weak bonding between Ag and SiO. The same authors further examined the potential energy hypersurface of AgSiO and found that this complex has higher stability when it acquired the bent structure [22,23]. The ESR spectra for the AgSiO in adamantane matrices obtained at 77 K were explored by P L Timms et al., and the results showed that the Ag(SiO) complex favoured a nonlinear structure [24]. M E Alikhani et al. investigated bonding for atomic silver interactions with SiO and SiS and discovered a more covalent nature [25]. H Schnockel et al. used the same co-condensation method with Na and K metals and the ligand SiO to produce K(SiO) and Na(SiO), which were then characterised by IR spectroscopy (1025 cm⁻¹ and 1013 cm⁻¹ for K(SiO) and Na(SiO), respectively) and also theoretical studies revealed that these complexes had bent structure. However, in IR spectroscopy, a band was found at 1246 cm^{-1} in the Pd(SiO) complex, and it retained a similar bonding pattern (σ donation and π acceptor) with PdCO [26,27]. Weltner, Jr et al. related mono carbonyl ESR (at 4 K in the solid neon matrix) pattern to transition-metal mono silonyls [M(SiO), M = Cu, Ag, Au and V] and their corresponding carbonyls [28]. Some of the theoretical reports established the complex bonding pattern, electronic structure and spectral studies. R Hoffmann et al. studied and compared the bonding patterns of [Fe(SiO)₅] and [Fe(CO)₄(SiO)] with various

* Corresponding authors. E-mail addresses: paul_adoss@yahoo.com (F. Paularokiadoss), chemistchris24@gmail.com (T. Christopher Jeyakumar).

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Dr. M. ARUMAI SELVAM, M.S., M.Phil. PNO. PRINCIPAL St. Joseph's College of Arts & Science (AUTONOMOUS)

CUDDALORE - 507 001.



SnO₂ Nanoparticle-Dispersed, Phosphoric Acid-Doped Poly(vinyl alcohol)/Epoxy Resin/Siloxane Hybrid Network Proton Transport Membrane for Fuel Cell Applications

Amalorpavadoss Arumugam, Senthil Theerthagiri, Ponnusamy Senthil Kumar,* Chellpandi Sekar, Chandramohan Ayyavu, Srinivasan Krishanan, and Dinakaran Kanniyan*



had IEC values of 1.19 and 1.32 mmol/g, respectively. However, the inclusion of SnO₂ NPs increased the PVA/Ep/APS membrane's capacity to absorb water (1, 2, and 3%). The incorporation of SnO2 NPs decreased the swelling ratio of PVA/Ep/APS, and the degree of water absorption of PVA/Ep/APS reduced the swelling ratio significantly. The proton conductivity of the PVA/Ep/APS sheets is better than that of the membrane manufactured from unmodified PVA. Notably, the stability of the membrane has been increased in the SnO₂ NPs dispersed in a 3% PVA-blended membrane by 29.80%. It has been demonstrated that the PVA/Ep/APS nanocomposite films with incorporated SnO₂ NPs have higher proton conductivities than that of PVA/Ep/APS alone. The 3% SnO_2 -loaded membrane, which measured 2.27×10^{-2} S/cm at 110 °C, was shown to have a greater proton conductivity than those of other PVA mix membranes. PVA/EP/APS-blended membranes are potential membrane materials for fuel cells according to the results.

INTRODUCTION

One of the most hopeful renewable energy production methods for creating clean and ecologically friendly electricity is the fuel cell, which is becoming more and more well-known on a global scale.^{1,2} Fuel cell technology effectively generates power from chemical energy and electrical energy, producing water as a byproduct; it can reduce the environmental problem of membrane fabrication³ while operating at a high efficiency and with less noise. The characteristics of proton exchange membrane for fuel cell (PEMFCs), which can be set up easily, runs at low temperatures, and responds quickly to changes in load and operating circumstances, set them apart from other fuel cells.⁴⁻⁷ It is believed that the electrode assembly consisting of a polymer membrane electrode assembly (MEA) is the essential part of the fuel cell as it is here that all the relevant electrochemical processes take place and the overall performance is determined. An MEA arrangement is

made by sandwiching the proton-conducting polymer layer betwixt the electrodes.^{8–10}

The majority of researchers who have sought to produce an alternative polymeric material for the PEMFC system's membrane include those that transmit protons that are both cost-effective and efficient. There are two sorts of materials in this category. Perfluorinated copolymers, such as nafion, are of first class, and they exhibit superior proton conductivity and high oxidative and hydrolytic stability proton conductivity (PC). The perfluorinated polymer contains the following five





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Understanding the electronic structure of the alkaloid in scorpion venom through drug adsorption and molecular docking studies on COVID-19 proteins



Anbumani Velmurugan Ilavarasi^a, Francisxavier Paularokiadoss^b, L. Mary Novena^c, T. Pooventhiran^d, Sultan Erkan^e, Christian A. Celaya^f, Renjith Thomas^{d,*}, Dinakara Rao Ampasala^a, Thayalaraj Christopher Jeyakumar^{g,*}

^a Department of Bioinformatics, Pondicherry University, Puducherry, India

^b PG&Research Department of Chemistry, St. Joseph's College of Arts & Science (Autonomous), Cuddalore, India

^c Department of Physics, Stella Mary's College of Engineering, Azhikal, Kanniyakumari District, India

^d Department Chemistry, St Berchmans College (Autonomous), Changanassery, Kerala, India

^e Department Chemistry, Faculty of Science, Sivas Cumhuriyet University, Sivas, Turkey

^f Centro de Nanociencias y Nanotecnología, Universidad Nacional Autónoma de México, Km 107 Carretera Tijuana-Ensenada, Ensenada, BC, C.P. 22800, Mexico

⁸ PG&Research Department of chemistry, The American College (Autonomous), Madurai, India

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Keywords: Venom Alkaloid DFT COVID-19 Molecular docking

ABSTRACT

Electronic structure analysis of the alkaloid from scorpion venom (ASV) was studied at the B3LYP/6-311++G (d, p) level of theory. Vibrational analysis, molecular orbital analysis and the MEP and contour plot analysis show the reactivity and molecular stability of the compound. The measured frontier molecular orbital energy distance (E_{LUMO} - E_{HOMO}) is 4.12 eV. The reactive descriptors research found that the ASV molecule has a chemical hardness of 2.205 eV and an electronegativity of 3.325 eV, consistent with its biological activity. The calculated NLA parameters μ_0 , α_0 , and β° values of the title molecule are 1.5009 Debye, -5.718×10^{-24} e.s.u, 2.984 $\times 10^{-30}$ e.s.u, respectively. The alkaloid from scorpion venom is found to form stable complexes with cyclodextrin. ASV was docked against the main proteases (MPro) and papain-like proteases (PLpro) of COVID-19. ASV has a Glide docking score of -8.017 kcal/mol with MPro and -5.091 kcal/mol with PLpro. ASV has a Prime MM-GBSA binding score of -5.1.74 kcal/mol with MPro and -32.19 kcal/mol with PLpro. The Glide and Prime results demonstrated that ASV has a stronger binding for MPro than PLpro protein. Furthermore, the major pharmacokinetic characteristics of ASV were predicted. ASV was found to have good drug-like properties with no violations. Since ASV binds to COVID-19 proteases, it could be used as an anti-COVID-19 agent. The outcomes of the study may have a substantial impact on the development of COVID-19 therapies.

1. Introduction

Naturally occurring basic nitrogen atoms containing organic compounds are known as alkaloids. Alkaloids are produced by bacteria, fungi, plants, and animals. Alkaloids were commonly extracted from crude extracts of these species and purified using extractions and column chromatography [1,2]. It has several pharmacological actions like antimalarial, antiasthma, cholinomimetic, anticancer analgesic, antibacterial, etc. [3–7]. Recent studies emphasize the medicinal value of various venom components from animals like a scorpion. Scorpion venom could have valuable natural products in drug development for various medicinal properties like anticancer. However, it is a tremendously complex mixture of enzymes, peptides, amino acids, mucoproteins, lipids, and inorganic salts. It has various toxic compounds, and only 1% of them are known to date. Given the harmful and possibly lethal properties of scorpion poisoning, humans have used scorpion body parts and venoms in conventional drugs for thousands of years [8]. Various scorpion venom compounds are being investigated for their possible therapeutic benefits, as these compounds may serve as hopeful controllers for the production of new prescription drugs. Quadratic

PRINCIPAL

St. Jaseph's College of Arts & Science

(AUTONOMOUS)

* Corresponding authors. E-mail addresses: renjith@sbcollege.ac.in (R. Thomas), chemistchris24@gmail.com (T. Christopher Jeyakumar).

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(RESEARCH ARTICLE)

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Silibinin extenuates arsenic instigated oxidative pulmonary damage and fibrosis in rats

S. Miltonprabu ^{1,*} and K. Shagirtha ²

¹ University of Madras, Department of Zoology, Guindy campus, Chennai-600025, India. ² St.Joseph's college, Department of Biochemistry, Cuddalore-607001, India.

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Abstract

Arsenic (As) and its compounds were widely used as a medicine in the past years for the treatment of such diseases as diabetes, psoriasis, syphilis, skin ulcers and joint diseases. Long-term exposure to arsenic from drinking-water and food can cause cancer and skin lesions. It has also been associated with cardiovascular, lung diseases and diabetes. Its exposure could cause severe oxidative stress and fibrotic injuries in lung tissue. Due to the antioxidant and antiinflammatory properties of siibinin (SB), the present study investigated its effects on As-induced pulmonary toxicity. For the experimental study, twenty four male rats were randomly categorized into four groups of six. Initially, the first and fourth groups were treated intragastrically with normal saline and SB (80 mg/kg) for 28 consecutive days. respectively. The second and third groups were treated with As (5mg/kg BW) and As along with SB (80 mg/kg BW) for 28 consecutive days, respectively, At the end of the experimental tenure, the animals were anesthetized with ketamine and xylazine, and lung tissue samples were collected for biochemical and histological examinations. The results showed that As significantly increased hydroxyproline (HP) and lipid peroxidation (LPO) and decreased the lung tissue antioxidant capacity. In addition, myeloperoxidase (MPO) activity increased significantly, while glutathione peroxidase (GPx), catalase (CAT), and superoxide dismutase (SOD) activity declined substantially. The administration of therapeutic doses of SB could prevent the oxidative, fibrotic, and inflammatory effects of As-induced lung toxicity, and these changes were consistent with histological observations. In conclusion, SB may improve the antioxidantdefense of lung tissue and prevent the spread of inflammation and the development of As-induced fibrotic injuries by enhancing antioxidant enzymes and preventing inflammatory cell infiltration.

Keywords: Arsenic; Silibinin; Oxidative stress; Pulmonary toxicity; Antioxidant

1 Introduction

Environmental or occupational or even accidental exposure to certain heavy metals can cause generation of reactive oxygen species (ROS) which are major causes of various diseases. Arsenic (Ar), a heavy metal is considered to be an oldest environmental toxin and recognized as a king of poison. It is also a renowned occupational toxin. The toxicity of As has been well documented in experimental animals and also in human beings (Bencko and Foong, 2017; Rahaman et al, 2013). This element is associated with a lot of adverse health effects. Studies revealed that As exposure causes generation of ROS and modification of antioxidant defense systems in animals and occupationally exposed workers. Production of highly reactive oxygen species (ROS), such as superoxide radicals (O₂-), hydrogen peroxide (H₂O₂), hydroxyl radicals (OH) and lipid peroxides mediated by As ions are known to damage various cellular components including proteins, membrane lipids and nucleic acids (Sarkar et al, 2020). As enters into the body through various routes and through circulation it is carried to various organs and gets deposited mainly Mittle advergate/ard/bonesu entry. Oxidative stress involves an imbalance between oxidants and antioxidants (Lichtenberg and Pinchuk 2015) and sesides

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^{*} Corresponding author: S. Miltonprabu



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Biochemical Perturbations and Metabolic Derangements Induced by Benzophenone-3 at Environmentally Relevant Concentration in the Liver of Danio rerio

S. Miltonprabu ^{a*}, K. Shagirtha ^b and S. Senthilmurugan ^c

^a Department of Zoology, University of Madras, Chennai, India.
^b Department of Biochemistry, St. Joseph's College, Cuddalore, India.
^c Department of Zoology, Annamalai University, Annamalainagar, India.

Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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Original Research Article

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ABSTRACT

UV filters are used daily by millions of people. many wastewater treatments plants are ill-equipped to filter them properly. As a result, UV filters are progressively reaching the environment at an alarming level. Benzophenone-3(BP3) in particular, are toxic to all organisms. Its toxic effects include coral bleaching and interference with metabolic, enzymatic, and reproductive activities. The

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Dr. M. ARUMAI SELVAM, H.Sc., M.Phil, Pho. PRINCIPAL St. Joseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 607 001.

⁺⁺ Associate Professor;

[#]Assistant Professor;

^{*}Corresponding author: Email: : miltonprabu@hotmail.com, smprabu73@gmail.com;

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Antioxidant and antiproliferative activity of film based sodium alginate with *Cocculus hirsutus* mucilage

Leema Rose Mary D, Marie Arockianathan P^{*}, Celine Hilda Mary S, Lawrance A and Priya Nagappan.

¹ Assistant Professor, PG & Research Department of Biochemistry, St.Joseph's College of Arts & Science, Cuddalore, Tamildadu, India.

*Corresponding Author: E-Mail: samlee5700@gmail.com

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ABSTRACT

Natural polymers are readily available and biodegradable; primarily they are commercial, their usage increased in food and pharmaceutical industry. Among them, sodium alginate is one of the most abundant renewable polymers used in the pharmaceutical, agricultural and chemical industries mainly due to its unique properties including antioxidant and antimicrobial properties, film-forming ability, biodegradability, biocompatibility, availability and non-toxicity. In recent years, plant derived polymers like mucilage have a great interest due to their wide range of applications such as thickening, binding, disintegrating, suspending, emulsifying, stabilizing and gelling agents. Mucilaginous material is soluble fiber rich compound so that it has a high-water holding capacity and shows similar functional properties to those of gum Arabic. The current study to evaluate antioxidant, antiproliferative activities of the different concentration of Cocculus hirsutus leaves mucilage incorporated into sodium alginate film. The most suitable properties of antioxidant, antiproliferative properties were determined by DPPH assay and MTT Assay. Antiproliferative activity was assessed using breast cancer cell line(MCF7), while the mucilage extract of Cocculus hirsutu sshowed the inhibition effects of the cancer cell lines (MCF7), while there was no effect on the growth of normal cells. So, the natural mucilage and their constituents incorporated into sodium alginatebased films as a promising technology with the knowledge that these compounds have been able to prevent oxidation and control the proliferation of cancer cell growth.

Keywords: Sodium alginate, Cocculus hirsutus, Antiproliferative activity and Antioxidant activity.

1.INTRODUCTION

Natural polymers comprise with a large number of the derivates group, it can be exploited to its best since its readily available, can withstand chemical modification and due to its origin, it has a good potential to degrade. They are hydrophilic polymers which is very low-cost effective has positive regulatory acceptance for large scale Polymers consists of various production. characteristics which makes them an efficient choice for the versatility, a wide range of physical and chemical properties, non-toxic and have good mechanical strength, inexpensive and easy to construct, inert to host tissue and compatible with the environment. Composites are generally formed by physical interaction between two different polymer solutions. This type of composites exhibits unique physical and chemical properties, as the interactions within the polymer gels have considerable effect on the formation and their properties, because it depends on various factors including nature and position of the ionic groups, molecular weight, charge density and concentration of both polymers.

Natural polysaccharides are excellent ingredients of both edible films and coatings. Among them, sodium alginate is one of the most abundant renewable polymers used in the medical field, food, agricultural and chemical industries mainly due to its unique properties including intrinsic wound-healing, antioxidant and antimicrobial properties, hemostatic activity, filmforming ability, biodegradability, biocompatibility and non-toxic effects.^[1,2]Among the natural plant

> Dr. M. ARUMAI SELVAM, M.Sc., M.Phil. Pho. PRINCIPAL St. Joseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 607 001.

A Comprehensive Study On Some Fundamental Problems In Graph Theory Using PYTHON

^[1]Dr. A.Venkatesan, ^[2]Dr. S. Muthukumaran, ^[3]Dr.A. Victoria Anand Mary,^[4]Dr. C. Christy

^[1]Assistant Professor, PG and Research Department of Mathematics, ^[2]Assistant Professor, PG and Research Department of Computer Science St. Joseph's College of Arts & Science (Autonomous), Cuddalore-607001.

E-mail: ^[1]suresh11venkat@gmail.com^[2]muthu.svk06@gmail.com ^[3]victoria.mary1106@gmail.com ^[4]vincentchristy4@gmail.com

Abstract: In this paper some fundamental problems in graph theory such as finding the shortest path, Hamiltonian path, minimum weight of the spanning tree and determining whether a given graph is Eulerian are obtained by Python.

Keywords: Eulerian Circuit - Hamiltonian path - Dijkstra's Algorithm - Prim's Algorithm - Minimum Spanning Tree.

1. Introduction:

In this paper we assume a graph G is finite, undirected and connected. Graph theory is a branch of mathematics that deals with the study of graphs and networks. A graph G consists of a pair (V(G), X(G)) where V(G) is a non-empty finite set whose elements are called points or vertices and X(G) is a set of unordered pair of distinct elements of V(G). The elements of X(G) are called lines or edges of the graph G[6]. Python is a high-level programming language that is used for a wide range of applications. It was first released in 1991 by Guido van Rossum and has since become one of the most popular programming languages in the world. The Shortest Path, Hamiltonian Path, Minimum weight of the Spanning Tree and determining whether a given graph is Eulerian are some of the most well-studied topics in graph theory and computer science. Here we discuss these fundamental problems in graph theory using Python.

2. Preliminaries:

2.1 Definitions: ([7])

A walkW, connecting vertices u and v in a graph G is a finite alternating sequence of vertices and edges in the form $u = u_0$, e_1 , u_1 , e_2 , u_2 , e_3 , u_3 , e_4 , u_4 , e_5 , u_5 , ..., u_{n-1} , e_n , $u_n = v$. The walk W is called *closed walk* is u = v. In a walk, an edge or a vertex may repeat.

The number of edges in a walk is called its *length*. A walk is called a *trial* if all edges in it are distinct and a trial is called a *circuit* if it is closed.

A walk W is called a *path* if all vertices in it are distinct. A path is called a *cycle* if it is closed. Obviously, all edges in a path are also distinct and only first and last vertices are repeated.

2.2 Definition: ([7])

A graph G is called *weightedgraph* if each edge e in G is assigned a definite non-negative real number denoted by (e), called weight of e. The non-negative real number may be length, cost, time, distance, fuel etc.

2.3 Definition: ([3])

A circuit in a connected graph G is called *Eulerian circuit* if it contains all the edges of graph and the graph is called *Eulerian graph* if such a Eulerian circuit exists in G.

Dr. M. ARUMAI SEL 404 AN. Se. M. PHIL, PNO. PRINCIPAL St. Jeseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 607 001.

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Efficient Sum of Intrusion Detection and Dictionary Learning Using Honey Spot Network for Cloud Security

¹Dr.A.Victoria Anand Mary, ²Dr.S.Muthukumaran, ³Dr.S.Anand Christy,

^{1,2}Assistant Professor, PG & Research Department of Computer Science, St.Joseph's College of Arts and Science

(Autonomous), Cuddalore-1, TamilNadu, India.

³Assistant Professor, PG Department of Computer Applications, St.Joseph's College of Arts and Science

(Autonomous), Cuddalore-1, Tamilnadu, India.

Abstract: Uses of signal sparsity in a transform or dictionary domain include noise reduction, inverse problems, and compression. In contrast to analytical dictionary models, datadriven synthesis dictionary modification has recently shown potential. Dictionary learning problems, on the other hand, are typically NP-hard and non-convex, and the standard alternating minimization algorithms for these problems are computationally intensive, with the synthesis-sparse-encoding phase accounting for of most computations. This article examines in detail effective methods for learning dictionaries affected by aggregate sparsity. The data is first approximated with a sum of sparse rank one matrices (outer products) and then a block coordinate descent approach is used to estimate the unknowns. The article uses concepts underlying the algorithms, such as efficient closed-loop solutions involved in the block coordinate descent algorithms created. In addition, we address the issue of dictionary-blind image reconstruction and propose innovative and effective adaptive image reconstruction methods using sum of outer products and block coordinate descent approaches. We present a convergence study on dictionary-blind image reconstruction and dictionary learning algorithms. Our numerical tests demonstrate the promising performance and speedup over previous systems that the proposed methods offer in compressed sensor-based image reconstruction and sparse data representation.

Keywords: Intrusion Detection, Dictionary, Cloud Security, Honey Spot Network.

I. INTRODUCTION

The process of selecting relevant information from a vast volume of data. Effective Total of External Products Dictionary learning is useless, but if a user searches for a certain product online, all available brands will appear in the search results (Dictionary learning-available search). The inverse problem reveals characteristics that are not visible to the naked eye. The user-given product reviews in the current system are not authentic. Experts will use the product to combat these false reviews, and by utilizing both greedy and relaxation algorithms together with innovative and efficient methods, they will provide us with the real (true) review.

The new and effective adaptive image (product) reconstruction approach that makes use of sum of outer products and block coordinate descent techniques. Under user conditions—which are frequently stringent and broken in applications—the greedy and relaxation algorithms promise to deliver the right answer.

The purpose of the proposed system is to genuinely review products. The experts will offer their reviews. Through reading these reviews, customers can determine the caliber of the goods.

a) Data Sources

The new and effective adaptive image (product) reconstruction approach that makes use of sum of outer products and block coordinate descent techniques.

Under user conditions—which are frequently stringent and broken in applications—the greedy and relaxation algorithms promise to deliver the right answer.

The purpose of the proposed system is to genuinely review products. The experts will offer their reviews.

Through reading these reviews, customers can determine the caliber of the goods. Before data is sent to the database or data storage server, it must be cleaned, merged, and selected.

The data cannot be used directly for the data extraction process as it comes from multiple sources and is in different formats and may not be accurate or complete. Therefore, data integration and cleansing must be a priority. Here too, more data is collected from different sources than necessary All you have to do is select the relevant data and send it to the server.

Various techniques can be applied to the data as part of the cleansing, integration and selection. The data may be subject to various procedures as part of the integration, cleansing and selection processes. [6].

Database or Data Warehouse Serve

The actual data that is prepared for processing is stored in the database or data storage server. Therefore, the server is responsible for obtaining the relevant data in response to the user's mining request.

c) Data Mining Engine

The core component of any data mining system is the data mining engine. To perform data mining tasks such as association, classification, characterization, clustering, prediction, time series analysis, etc., it consists of several modules.

d) Graphical User Interface

The graphical user interface module serves as a communication channel between the user and the data mining system. This module makes the system simpler and more efficient for the user, even without understanding the true complexity of the process. When the user specifies a task or request, they will be contacted by this module. Data mining, technology and displays the results in an easy-to-understand manner.

b)

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To improve the performance on disk load balancing in a cloud environment using improved Lion optimization with min-max algorithm

J.Robert Adaikalaraj^{a,*}, C. Chandrasekar^b

^a Department of Computer Science, Bharathiar University, Coimbatore, Tamilnadu, India

^b Department of Computer Science, Government Arts and Science College for Women, Coimbatore, Tamilnadu, India

ARTICLE INFO

Improved lion optimization algorithm

Keywords:

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Min-max algorithm

Disk load balancing

ABSTRACT

A key challenge was optimizing the speed of the network while maintaining impartiality. Power monitoring solutions have been developed to reduce these load imbalances. These techniques frequently need unique hardware or software on the participants' end. To accomplish the cloud computing system of load balancing, this study created an intelligent virtual machine programming scheme using a machine learning technique. The researchers introduced two methods that identify optimal probabilistic solutions to the issue after conducting an in-depth investigation. A min-max load balancing solution is generated by the second method, while the first approach reduces the load on the network's crowded Access Points (APs). Let's focus on the mapping of links in particular because the mapping of nodes was established a priori. This study provides an innovative and effective Improved Lion Optimization (ILO) with Min-Max Algorithm for enabling VNE in real systems consisting, breaking new ground in the research to employ Genetic Operators for parallelization. Load balancing & power conservation were two crucial goals that must be taken into account, and also the findings reduce the cost of processing time, the proposed system outperforms the sequentially one in terms of both goals. In addition, the adaptive capacity of the proposed algorithm was assessed across various substrate structural configurations. The load balancing goal was achieved; the typical data center usage was higher than that of other methods, reaching nearly 80%; the largest amount of virtual machine migration was reduced by 94.5%; the data center's maximum energy consumption was reduced by 49.13%.

1. Introduction

Cloud computing, which uses virtualized distributed computer technology, including online services, offers a flexible way to store files and information [1]. The goal of cloud computing would be to offer as many services at the lowest cost possible at any time. Over 100 million computers were online at all times [2,3]. These devices instantly send a request and are answered. The primary goals are reducing costs, quicker response times, and performance improvement, clouds also were referred to as a "pool of services. There are various types of loads, such as CPU load, network usage, storage capacity constraints, etc. A procedure or method called load balancing was used to dynamically and fairly distribute a large processing load on all cloud servers. Effective load balancing results in excellent power utilization, which reduces resource consumption and stimulates customer satisfaction. In addition, it reduces energy use, contributing to cleaner environmental protection [4]. The author must first define the critical difficulties and problems associated since these could have an impact on how the method functions before we would evaluate the current load-balancing options for cloud technology.

A more complex procedure would result from the increasing complexity of the design which could negatively impact productivity. Additionally, delays could exacerbate problems and decrease efficiency when systems require additional data and communications for surveillance and control [5,6]. Accordingly, load-balancing algorithms should be created as simply as possible. A specific breakpoint in the method should be avoided while balancing and collecting information on the different nodes [7]. Special methods could provide reliable and efficient solutions to balancing problems in a particular sequence. A single operator for the entire network seems like a problem, although [8]. In such circumstances, the network as a whole would collapse if the processor did not function properly.

Any equilibration method should be created to resolve this issue. Although global load-balancing techniques seem to offer a superior

* Corresponding author. E-mail addresses: rubertraj123@gmail.com (J.Robert Adaikalaraj), chandrasekar2000@gmail.com (C. Chandrasekar).

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es/by-nc-nd/4.0/). Dr. M. ARUMAI SELVAM, H.S., M.Phil. PNO.

PRINCIPAL St. Jeseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 507 001. ORIGINAL RESEARCH



Replica controlled sensor enabled architecture for management of electronic health records

I. Benjamin Franklin¹ · R. Bhuvaneswari² · V. Vasanthi³ · M. Paul Arokiadass Jerald²

Received: 27 February 2023 / Accepted: 25 August 2023 © The Author(s), under exclusive licence to Bharati Vidyapeeth's Institute of Computer Applications and Management 2023

Abstract Electronic health records (EHR) are awfully substantial for patients in managing their records in a distributed environment and endorse their status of rising or fall of health on a time-to-time basis. The replicas can be prevented through logic programming which cannot be managed on a time-to-time basis. The major objective of this paper is to design and propose a replica controlled and body area sensor enabled architecture model that would be capable of managing the EHR records based on life-threatening problems like irregular heartbeat, arrhythmia, biomedical problems, bio fabrication and organ-on-a-chip process. The proposed model assisted in managing the biomedical problems related to EHR data using a sensor-enabled environment where the patient can be tracked continuously. Also, the model conveys a distributed system to control the replica through consistent monitoring of redundant data that comes through the sensor device refresh process in a distributed system. The scope of the model included implementation in health centers,

M. Paul Arokiadass Jerald mjerald@gmail.com I. Benjamin Franklin

franklinbenj@gmail.com

R. Bhuvaneswari rbeswari17@gmail.com V. Vasanthi

vasanthiv.78@gmail.com

- PG Department of Computer Applications, St. Joseph's College of Arts and Science (Autonomous), Cuddalore, India
- ² Department of Computer Science, Periyar Arts College, Cuddalore, India
- ³ Department of Computer Science, Dharmapuram Gnanambigai Govt. Arts College for Women, Mayiladuthurai, India

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hospitals where data segregation and analysis on a time-totime basis is recommended.

Keywords Electronic health records · Body area sensor · Replica management · Biomedical problems · Distributed system

1 Introduction

The immense growth of information and technology has risen to the maximum level of physical interaction with humans through sensors and it has steadily extended its arms toward the health department based on the tracking and monitoring of various health problems related to biomedical and life-threatening diseases from various beneficiaries. The proposal derives a globalized framework where the integration of technologies associated with healthcare and wireless technologies is commuted to provide a new dimension of methodology that is applied to identify the biomedical diseases and disorders experienced by people around the world. The World Health Organization recommends patients be influenced for mortal diseases [1] with the sustenance of gender and age bias. Though there are various prediction systems [2, 3] for various biomedical problems and related diseases, it is very hard to manipulate the nature and occurrence of the disease to track it down in the course of time. For example, biomedical problems including, heart problems, diabetes, organ-on-a-chip [4], etc., measuring might occur during any stage of the patient with respect to their gender and age gestures. Hence a framework model [5] is required to provide a solution for tracking diabetes, cardiac disease, gall bladder problems, Osteoarthritis, etc., before it actually affects the patient in an advanced stage. The model is a progression of the hybridization of sensor-enabled and

> Dr. M. ARUMAI SEL 221 Splingen Phil. Pho. PRINCIPAL St. Jeseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 607 001.

ANALYSIS OF ONLINE INTRUSION DETECTION MODELS TO INCORPORATE SECURED DIGITAL CASH TRANSACTION IN MOBILE SMART SYSTEMS

R. Bhuvaneswari¹, V. Vasanthi², M. Paul Arokiadass Jerald³ and I. Benjamin Franklin⁴

^{1,3}Department of Computer Science, Periyar Arts College, India

²Department of Computer Science, Dharmapuram Gnanambigai Government Arts College for Women, India ⁴PG Department of Computer Application, St. Joseph's College of Arts and Science, Cuddalore, India

Abstract

The major Objective of this research paper is to design the Mobile Smart Device Digi Cash Intrusion Detection Framework (MSDDID) for assessing Intrusion Detection (ID) techniques and evaluating ID parameters that has to be rectified for enhancing the security of Digital Cash Transactions in Mobile Smart devices. The Research examined the Intrusion Detection dataset with 41 predictive features and 1 class feature for evaluating prediction in its novel form. The Framework was examined in WEKA with RapidMiner for analysis. The Results of classifiers Decision Table (98.7%), Random Forest Tree (99.79%), AdaBoost (94.37%), CART Model (99.61%), LazyIBK (99.44%), Naïve Bayesian (89.66%) signified that Smart devices security in Digi cash transactions could be predicted with refinement of data during transaction as deployed in this research work. The cluster analysis again conformed that num_root, su_attempted and num_compromised were the three parameters predominantly used for intrusions in the network and has to be addressed in the model.

Keywords:

Intrusion Detection System, Network Security, Intrusion Detection Parameters, Digital Cash Transactions, Mobile Smart Systems

1. INTRODUCTION

India is regarded as one of the best nations thriving best in global Digital Economy as directed by the Prime Minister of India. In recent survey, it was found in 2022, around 70 billion transactions [1] were completed by people of India. It was a steady increase from 44 billion in 2021. Various digital payment schemes like Gpay, Paytm and Phonepe has been predominantly in practice among the millions of people. Government also focused on the Unified Payment National Payments Corporation of India (NPCI) to encourage cashless transaction among the people. Various countries have accepted payment schemes [2] available in India like RuPay and UPI as a gateway for carrying out their regular transactions. The first one to accept Indian mode of online gateway was Nepal followed by several countries like Singapore, Bhutan, UAE, France etc. The Global payment system has been increasing [3] since 2018 after demonetisation in 2016 to gain trust among the customers including business people, government officials and all the common people. It was recently mentioned by Prime minister of India that every household will be given with cashless transactions in the future. Hence it is highly significant that the security of the system [4] has to be tightened and made securely available for the masses. This is because with inception of any new technology or change, the problems also tend to seek into the system. Same way, the intruders have changed their way of stealing money from physical snatching to online intrusion [5] and money cheat with the knowledge and support of the systems. Thus, a secure platform is required to manipulate the system and bring solution to the problem of handling secure transactions in the future. This is the problem addressed in the research study. The major Objective of this research paper is to design the Mobile Smart Device Digi Cash Intrusion Detection Framework (MSDDID) for assessing Intrusion Detection (ID) techniques and evaluating ID parameters that has to be rectified for enhancing the security of Digital Cash Transactions in Mobile Smart devices. Various Reearch Questions were pondered to determine the purpose of the research and its relevant outcomes. The substantial analysis and experiments were expected to be performed to determine that there is significant relationship between the selection of relevant parameters in predicting the intrusion during digi cash transactions in smart devices. The scope is applied among mobile smart devices to enhance security of digital cash transactions carried out by people using applications like Gpay, UPI etc. This analysis would ponder to the needs of the futuristic needs of the masses of people in bring quality solution to the problem of being afraid to make transactions in all public places.

2. RELATED WORKS

The research work encompasses few of the earlier works completed by different researchers to promote secured cashless transactions in the digital communications. Lee, H., and Hong, D., [6] focused on the inception of blockchain technology to improve the quality of security in cashless digital transactions. The major idea was to reduce the financial crisis among the organisations due to theft of transactions in online mode. Nandal, N., et.al. [7] analysed the importance of global technology in bringing secured e-transactions for the future. The author believed that such secure transaction would bring sustainable economy for the future. Also, Digital Signature Authentication Cryptosystem was discussed by Islam, A., et.al. [8] to encourage stable E-cash flow in commercial and markets from the customers and investors. The cashless India was dreamt with reliable security by Aggarwal, K., et. al. [9] for better enhancement of finance and business. A secure wallet creation was developed by Igboanusi, I. S., et.al. [10] to bring both offline and online transaction among the common people to grow the number of transactions.

Alupotha, J., et.al. [11] concentrated on the quality of transactions with cryptocurrency using Aggregable and confidential transactions among the business people. Also, this increased the efficiency of Quantum-Safe Cryptocurrencies. Ahamed, S., et.al. [12] discussed on the decentralised security systems on the basis of Blockchain technologies to bring easy payment system for the cash transactions. There is a potential warning for all the cash transactions as suggested by Prasad, E., [13] as it was mentioned that cash would become obsolete in the future and complete cashless transaction will occur among all the people in America. Raj, P. V. R. P., et. al. [14] also suggested that

Dr. M. ARUMAI SELVAM, M.Sc., M.Phil. PSO., PRINCIPAL St. Jeseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 507 001.

Humanities and Social Science Studies, Vol. 12, Issue 2, No. 21, July – December: 2023 A STUDY ON EMPLOYEES INVOLVEMENT IN PRIVATE SECTOR BANKS WITH REFERENCE TO SELECTED BANKS IN CUDDALORE DISTRICT

S. AMMU, Ph.D (Part - Time) Research scholar, St. Joseph's College of Arts & Science (Autonomous), Cuddalore – 607001 sammu9128@gmail.com
Dr. P. JAMES MARY, Assistant Professor in Commerce, St. Joseph's College of Arts & Science (Autonomous), Cuddalore - 607001

Abstract

Employee is for that reason the level of commitment and involvement a worker has in the direction of their organisation and its values. Employee Involvement is ready constructing a certainly fantastic relationship with the body of workers. People are the maximum important and treasured asset of each organization. Organization should choose to maximize wealth via maximizing their human capital. It is a paradox that the treasured human resources are given much less importance and attention during the wealth maximization process. The banks render critical services to the loads belonging to the various sectors of the economy like agriculture, enterprise whether small scale or massive scale. The banking device is one of the few establishments that impinge at the financial system and have an effect on its performance for better or worse. The take a look at focused on employee first, a consumer second is the brand new size which strengthens the idea of employee engagement in banks. This paper is trying to throw the light of the different factors focus on worker Involvement in personal area Banks almost about Cuddalore district.

INTRODUCTION

Employee Involvement is for this reason the extent of dedication and involvement a worker has toward their business enterprise and its values. Job Involvement outcomes from a cognitive judgment about the want pleasurable capabilities of the process. Jobs in this view are tied to one's self photo. It is worried more with character's notion about task, in which as, Involvement includes the lively use of emotions. Banking is an important area and acts as a spine of financial development. The banks render essential services to the hundreds belonging to the numerous sectors of the financial system like agriculture, industry whether or not small scale or large scale. The banking system is one of the few establishments that impinge at the economy and have an effect on its overall performance for higher or worse. They act as a improvement organization and are the supply of hope and aspirations of the hundreds. Now-a-days banks being at aggressive scenario, employee Involvement may be very a whole lot important for longer sustainability. This examine arises from the need to control the human sources of the banks greater successfully. Having an engaged group of workers with it is important because it facilitates banks to reap benefits of sustainability, productiveness and increased efficacy.

There is a paradigm shift in human aid and management practices from task delight, process choice, selection and recruitment technique, to employee engagement and worker involvement. Employee engagement is extraordinarily new. The conventional idea of worker retention has made a shift to worker engagement. The purpose of human aid practices is now that specialize in employee engagement and involvement thru process pleasure and organizational commitment toward preserving the personnel. Therefore, employee engagement is set building a brilliant dating with the paintings force.

FACTORS AFFECTING EMPLOYEE INVOLVEMENT

- Workplace Culture
- Organizational Communication
- Managerial Styles
- Leadership
- Company Reputation
- Access to Training & Career Opportunities

Dr. M. ARUMAI SELVAM, M.Sc., M.Phil.Pso., PRINCIPAL St. Joseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 607 001.

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Appendage of artificial intelligence in the sphere of refurbishing human capital management

A. Lilly *

R. Rajkumar ⁺ PG and Research Department of Commerce St. Joseph's College of Arts and Science (Autonomous) (Affiliated to Annamalai University) Cuddalore Tamil Nadu India

J. Vinoth Kumar[§]

PG and Research Department of Commerce St. Joseph's College (Autonomous) (Affiliated to Bharathidasan University) Tiruchirappalli Tamil Nadu India

J. Lydia[‡]

PG and Research Department of Commerce Bishop Heber College (Autonomous) (Affiliated to Bharathidasan University) Tiruchirappalli Tamil Nadu India

[†]E-mail: lydia_ajohn@yahoo.co.in



Dr. M. ARUMAI SELVAM, M.Sc., M.Phil. PSO., PRINCIPAL St. Jeseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 607 001.

^{*}E-mail: lillyvictorious1@gmail.com (Corresponding Author)

^{*t*}*E-mail:* **09rajkumarr@gmail.com**

[§]E-mail: vinothkumarj36@gmail.com

A STUDY ON ORGANISATIONAL CLIMATE IN SOUTHERN RAILWAY, GOLDEN ROCK, TIRUCHIRAPPALLI, TAMIL NADU

Monika Mariya Pragasam, Assistant Professor, Department of Business Administration (CA), St. Joseph's College of Arts & Science (Autonomous), Cuddalore, Tamil Nadu.E-mail: <u>monika@sjctnc.edu.in</u>

Punniyaseelan Ramasamy, Assistant Professor, Department of Commerce (Bank Management), St. Joseph's College of Arts & Science (Autonomous), Cuddalore, Tamil Nadu. E-mail: rpseelan1966@gmail.com

ABSTRACT

The study of organisational climate acquires significance as it is one of the most important factors in influencing the success of the organisation. The present study focused on various factors affecting organisational climate of the study unit namely communication, training and development, teamwork, role and responsibility, work environment, safety measures and human relations. It is evident from the study results that these dimensions were responsible for positive and undesirable results on organisational climate. Not only the dimensions of organisational climate have been studied but also the impact of organisational climate on employee's performance, job satisfaction and withdrawal behaviour. Withdrawal behaviour consists of absenteeism, lateness and turnover intention. The researcher came out with the notion that the top management has to hone up the skills and attitudes of the respondents and provide necessary facilities and work environment. The employees' positive perception towards the sound organisational climate is also need of the hour.

INTRODUCTION

Organisational climate is the human environment within which an organisation's employees do their work. It may refer to the environment within a department, a major company unit such as a branch plant or an entire organisation. Each organisation has its own culture, traditions, and methods of action which, in their totality, constitute its climate. Climate can influence motivation, performance and job satisfaction. It does this by creating certain kinds of expectancies about what consequences will follow from different actions. The concept of withdrawal behaviour consists of factors related to the intention to leave the organisation or an intention to quit the organisation. In more specific terms, employees consider looking for other organisations to join and actually leave the present organisation. These constructs would be frequently visible in employee's activities in the form of increased absenteeism, increased lateness, increased tardiness and a decrease in productivity. If employee withdrawal behaviours were left unchecked, it may increase disrespect for supervisors, disturbing and interfering with co-workers, and at times may lead to improper handling of properties belonging to the organisation. The employees working in the organisation will display negative withdrawal behaviours if they are not satisfied with the existing organisational climate. Hulin, (1991) described that "Withdrawal behaviour can be considered the ways in which an employee, who is dissatisfied with a situation, responds to it. Previous research proved that employee withdrawal behaviour may lead to using organisational working hours for personal work, missing assigned meetings, taking longer breaks than the allowed ones, killing and wasting time by chatting with other employees and spoiling their productivity, arriving late to the organisation, leaving early from the organisation and increase in taking sick leave (Kanungo & Mendonca, 2002). Therefore, in this study employee withdrawal behaviour is considered as the consequence of organisational climate.

NEED OF THE STUDY

Organisational climate serves as the guidelines for dealing with the people in the organisation and it also has a major influence on Communication, Training and Development, Teamwork, Role and Responsibilities, Work Environment, Safety Measures, and Human Relation as individual as well as

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Dr. M. ARUMAI SELV& Mass. Mars. PRINCIPAL PRINCIPAL St. Joseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 607 001.

The Influence of Dental Treatment on Dental Anxiety and Life Classification Utilizing Machine Learning Methods

M. Vijayasankar

Department of Statistics, St.Joseph's College of Arts and Science, Cuddalore

Abstract:

This research paper evaluates the dental anxiety of 800 patients in a private hospital in Chennai using four Machine Learning algorithms: Naïve Bayes, IBk, SVM, and Random Forest. The database was collected from the case sheets of the patients and included information on socio-economic parameters, such as age, gender, education, and occupation, and dental clinical parameters, such as X-rays, rubber dams, jaw fatigue, cold air sensitivity, and lack of information about procedures. The four Machine Learning algorithms were used to assess the level of dental anxiety and the effectiveness of treatments for it. The results showed that the Random Forest classifier achieved 100% classification accuracy and the remaining algorithms achieved more than 83% classification accuracy. The summary statistics, classification accuracy, and confusion matrix of the four Machine Learning algorithms provide valuable insight into the dental anxiety of the patients and can help to provide more effective treatments for their needs.

Introduction:

Dental anxiety is an emotional response that can be characterized by feelings of fear, unease, apprehension, and dread when faced with the prospect of receiving dental care. It is estimated that up to one-third of the population experience some degree of dental anxiety, which can lead to avoidance of necessary dental treatments and poorer oral health in general. Clinical parameters associated with dental anxiety include avoidance of dental care, increased heart rate and blood pressure, cold sweating, trembling, nausea, and difficulty breathing. Individuals with dental anxiety often report a fear of needles, drills, and the unknown, as well as a fear of pain and embarrassment. Treatment approaches for managing dental anxiety include cognitive-behavioral therapies, relaxation techniques, nitrous oxide sedation, and pharmacological interventions.

In this research paper, the researcher used WEKA (Waikato Environment for Knowledge Analysis) is a powerful, open-source data mining and machine learning software developed by the University of Waikato in New Zealand. It is used for data pre-processing, classification, regression, clustering, association rules, and visualization. It is written in the Java programming language and can be used on Windows, Mac, and Linux operating systems. WEKA provides arts a Science (DDDALORE - 607 001,

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A. LENIN

Assistant Professor PG & Research Department of English St. Joseph's College of Arts and Science (Autonomous), Cuddalore. Email id: leninallwin@gmail.com

The Indomitable Spirit of Santiago in The Old Man and the Sea: A Psychoanalytic Study

Abstract

Psychoanalysis explores the complexities of the human soul and the psychoanalytic perspective of the personality offers a unique way of looking at how the body and mind get connected to the personality. In the novel *The Old Man and the Sea by* Ernest Hemingway, Santiago's unconscious mind never accepts failure and the thought of victory are projected through his conscious actions throughout the text. The real struggle portrayed in the novel was between Santiago's conscious and unconscious mind not really between him and the fish. The journey depicted in the novel is the journey inside the mind of the old man, Santiago. This paper reports a study of Santiago's character based specifically on Freudian Classical Psychoanalytic Theory of Personality.

The Indomitable Spirit of Santiago in The Old Man and the Sea: A Psychoanalytic Study

Psychoanalysis explores the complexities of the human soul and the psychoanalytic perspective of the personality offers a unique way of looking at how the body and mind get connected to the personality. In the novel *The Old Man and the Sea by* Ernest Hemingway, Santiago's unconscious mind never accepts failure and the thought of victory are projected through his conscious actions throughout the text. The real struggle portrayed in the novel was between Santiago's conscious and unconscious mind not really between him and the fish. The journey depicted in the novel is the journey inside the mind of the old man, Santiago

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Check for updates

Demystifying hedonic shopping motivation and consumer buying behavior during the post-global pandemic: evidence from a developing country

Alex Aruldoss^a, Sudhir Rana^b, Satyanarayana Parayitam^c, and Bhuvaneswari Gurumurthy^d

^aDepartment of Commerce (Bank Management) and Business Administration (Computer Applications), St. Joseph's College of Arts and Science (Autonomous), Cuddalore, India; ^bDepartment of Marketing and Strategy College of Healthcare Management & Economics, Gulf Medical University, Ajman, United Arab Emirates; ^cDepartment of Management and Marketing, Charlton College of Business, University of Massachusetts Dartmouth, Dartmouth, Massachusetts, USA; ^dDepartment of Commerce (Bank Management), St. Joseph's College of Arts & Science (Autonomous), Cuddalore, India

ABSTRACT

The recent hit global pandemic brought a paradigm change in consumer buying behavior worldwide. The present study aims to investigate the influence of hedonic motivation on post-pandemic consumer behavior. Data collected from 1163 respondents from the urban population in southern India were analyzed. First, the psychometric properties of the survey instrument were checked using LISREL software of structural equation modeling (SEM), and then path analysis was done to test hypothesized relationships. For double moderation, Hayes PROCESS macros were used. The results indicate that (i) hedonic happiness and hedonic fun are positively related to hedonic shopping value (HSV), (ii) HSV is positively associated with impulsive buying tendency (IBT), (iii) pandemic cues are positively associated with compulsive buying tendency (CBT), (iv) IBT and CBT are positively associated with e-purchase, and (v) e-purchase is positively related to customer satisfaction. The results also support that (a) perceived enjoyment moderated the relationship between HSV and IBT, (b) perceived usefulness (second moderator) moderated the moderated relationship between perceived enjoyment (first moderator) and HSV in influencing IBT. The implications for marketing theory and practice are discussed.

Introduction

Ever since the global pandemic (COVID-19) started dancing worldwide, consumer habits have dramatically changed (Donthu & Gustafsson, 2020; Naeem, 2021). The pandemic has resulted in several changes: work-from-home, virtual meetings, web-based teaching-learning environment, and, most importantly, e-buying (Bao, 2020; J. Kim, 2020; Saleem et al., 2021; Sheth, 2020). As Davvetas et al. (2022) correctly pointed out, "the pandemic has had severe negative consequences for international health care systems, the global economy, and consumer well-being" (Davvetas et al., 2022, p. 81).

In the marketing context, Sheth (2020) pointed out that COVID-19 is expected to result in new habits and paradigm changes in consumer behavior. For example, taking shelter behind technology, consumers find innovative ways of shopping, employees learn to cope with the change in work culture (from face-to-face to work from home), and families attempt to find new ways of enjoying life during the post-pandemic period (Mergel & Schützwohl, 2021). Investigating how consumers respond to the changing marketing environment resulting from the crisis is the day's call (Sheth, 2020). In addition, as the global pandemic is also associated with significant changes in our daily routines, increasing stress, depression, anxiety, and boredom (Arslan et al., 2020), and, hence, individuals and families attempt to find alternatives to reduce the ill effects of the pandemic (Deng et al., 2020). One such alternative is to engage in shopping stemming from hedonic motivation, i.e. enjoyment, satisfaction, and pleasure in buying.

This study is conducted against the backdrop of the post-pandemic scenario to highlight the importance of hedonic shopping consumers engage in to mitigate the ill effects of stress due to the pandemic. Some of the recent studies reported that hedonic motivation is a significant predictor of consumers' buying behavior (Coelho et al., 2023; Koch et al., 2020). Apart from buying groceries and daily necessities to satisfy the needs, consumers engage in hedonic shopping (Roggeveen & Sethuraman, 2020). Sometime back, Martin-Consuegra et al. (2019) pointed out that

CONTACT Satyanarayana Parayitam Sparayitam@umassd.edu Department of Management and Marketing, Charlton College of Busine's, University of Massachusetts, Dartmouth, MA,USA © 2023 Taylor & Francis Group, LLC

PRINCIPAL St. Jeseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 507 001.



AN INVESTIGATION OF THE RELATIONSHIP BETWEEN FAMILY ENVIRONMENT AND SELF-CONCEPT AMONG HIGHER SECONDARY STUDENTS

*R.Sembiyan - R.Rajesh**

*Assistant Professor, Department of Psychology, St.Joseph's college of Arts & Science (Autonomous), Cuddalore_01 **Guest Faculty, Periyar Arts College, Cuddalore.

Abstract

The present study attempts to investigate the status of family environment and self-concept on the basis of gender and the relationship between family environment and self concept of Higher Secondary students of Cuddalore district, Tamilnadu, South India. The investigation involved 122 students through random sampling in the age group of 16 to 18 years. The sample consisted of 75 male students (61 %) and 47 female (39%) students. The tools for data collection were Family Environment Scale (FES) by Harpreet and N.R. Chadha (1998) and Self-concept Scale (SCS) by M.M. Mukhopadhyay and D.N. Sansanwal (1983). Questionnaires were designed on the basis of the instruments. Descriptive statistics and Pearson correlation were used for analyzing the data. The results manifested that there is no significant difference in family environment on the basis of gender among Higher Secondary Students whereas there is significant difference in self-concept among them. Further, it was inferred that self-concept of students is positively correlated with the dimensions of family environment, viz., cohesion, expressiveness, conflict, acceptance and caring, independence and control except active recreational orientation.

Key words: Family Environment, Self-Concept, Gender, Higher Secondary students.

Introduction

It is obvious that family as a social institution profoundly influences the learner especially adolescents. It is possible that family environment has pervasive influence in the growth of the students as well as it has the invidious and insidious effect towards their backwardness. It is often observed that the sterling performance of students family environment exerts an advantageous, magnificent decisive role.

Self-concept is defined as the awareness of one's own self and it includes beliefs and values. It is a process involving three tiers, namely, self- identity, self-evaluation and self- ideal based on one's positive and negative attitudes.

A person with positive self-concept has belief in himself; is confident and has the courage to face challenges and overcome difficulties.; also has respect for himself as well as others and could make a realistic assessment of himself. On the other hand, a person with negative self-concept is

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Dr. N. ARDOZAL SEL Anthons., M.P.L. PSO., PRINCIPAL St. Jeseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 507 001.
EMPLOYEE ENGAGEMENT: A STUDY ON IMPACT OF QUALITY OF WORK LIFE OF EMPLOYEE OF PRIVATE BANKS ON EMPLOYEE ENGAGEMENT STRATEGIES OF PRIVATE BANKS IN VILLUPURAM DISTRICTS

Pachaiyammal, Research Scholar (Full-Time), P&G Research Department of Commerce ST. Joseph's Arts and Science College (Autonomous), Cuddalore-607001 (Affiliated to Annamalai University)

Dr. A. Radhakrishnan, Assistant Professor, Research Supervisor and Guide P&G Research Department of Commerce

ST. Joseph's Arts and Science College (Autonomous), Cuddalore-607001 (Affiliated to Annamalai University)

ABSTRACT

The rapid changing scenario of banking not only seen in metro or urban cities but also at semi-urban cities. The competition for capturing the consumer segment is very high among both public sector and private sector banks. The job of bank employees is shifting from maintaining lager files to operating high performance computer software. Employees have to perform to satisfy the needs of customers by working round the clock. Employees working in private banks need to outperform for their sustainability and growth in the bank, they have to shows quality of performance and productive job to sustain in the organisation. This in turn will affect not only their work life balance but also long-term productivity at workplace. Due high pressure and overload job employees are turnover or ending their current job. Hence, private banks need to come forward to eradicate this condition through better employee engagement strategies. Thus, the present study try to interrogate the impact of quality of work life of employees of private banks on employee engagement strategies in Villupuram district of Tamil Nadu state. the researcher has used non probability sample method for collecting data from bank employees working in Villupuram district. A sample of 180 respondent were covered from various private banks running in various taluks of Villupuram districts. Both univariate and multivariate statistical test has been used to assess the relationship among the variables. Results shows determinants of employee engagement at private banks are significantly determined by Security and Career Development Factor, Opportunities and Authority Factor and Satisfaction and Growth Factor. personal profile of the bank employees has no such effect on determinants of bank employees.

Keywords: Engagement, Workplace, Security, Opportunities and Productivity.

INTRODUCTION

St. Jeseph's College of Arts & Science With the humanization of work, individualization of organisations, and modification of Structural and management processes, Quality of Work Life (QWL) seeks to alter the overall organisational atmosphere. It takes into account the employees' sociopsychological requirements. It aims to instill in enterprises a culture of work dedication that will guarantee increased staff productivity and job happiness. The term "quality of

Dr. M. ARUMAI SELVAM, M.S., M.Phil, Pho.

PRINCIPAL

Research Article

A NOTE ON Q-INTUITIONISTIC L-FUZZY & SUBSEMIRING OF A & SEMIRING

R.Arokiaraj¹, V.Saravanan² and J.Jon Arockiaraj³

¹ Department of Mathematics, Rajiv Gandhi College of Engineering & Technology Pondicherry-607403. India.
Email: <u>arokiamaths89@yahoo.com</u>
² Department of Mathematics, FEAT, Annamalai University, Annamalainagar - 608002 ,Tamil Nadu, India.
Email: <u>saravanan_aumaths@yahoo.com</u>
³ Department of Mathematics, St. Joseph's College of Arts & Science, Cuddalore -607001, Tamil Nadu, India.
Email: jonarockiaraj@gmail.com

ABSTRACT: In this paper, we introduce the notion of Q-intuitionistic L-fuzzy ℓ -subsemiring of a ℓ -semiring. We made an attempt to study the algebraic nature of ℓ -semiring. We also made an attempt to study the some properties of Q-intuitionistic L-fuzzy ℓ -subsemiring of a ℓ -semiring and study the main theorem for homomorphism and anti-homomorphism.

2000 AMS Subject classification: 03F55, 20N25, 08A72.

KEY WORDS: fuzzy subset, (Q, L)-fuzzy subset, (Q,L)-fuzzy ℓ -subsemiring, Q-intuitionistic L-fuzzy subset, Q-intuitionistic L-fuzzy relation, Product of Q-intuitionistic L-fuzzy subsets.

INTRODUCTION: After the introduction of fuzzy sets by L.A.Zadeh [31], several researchers explored on the generalization of the concept of fuzzy sets. The concept of lattice was first defined by Dedekind in 1897 and then developed by Birkhofft, G.,[8,9]. Boole introduced Boolean algebra; a special class of lattice was equivalent to Boolean ring with identity. This relation gave a link between lattice theory and modern algebra. The idea of intuitionistic fuzzy subset was presented by K.T.Atanassov [5,6], as a speculation of the thought of fuzzy set. The notion of fuzzy subnearrings and ideals was introduced by Abou Zaid.S [1]. A.Solairaju and R.Nagarajan [26,27] have presented and characterized another mathematical design called Q-fuzzy subgroups. Sampathu.S, Anita Shanthi .S, and Praveen Prakash.A [23] have introduced (Q,L)-fuzzy Subsemiring of a Semiring. In this paper, we introduce the some theorems in Q-intuitionistic L-fuzzy ℓ -subsemiring of a ℓ -semiring and established some results.

1.PRELIMINARIES:

1.1 Definition: Let X be a non-empty set. A **fuzzy subset** A_{μ} of X is a function $A_{\mu}: X \rightarrow [0, 1]$.

1.2 Definition: Let X be a non-empty set and $L=(L, \leq)$ be a lattice with least element 0 and greatest element 1 and Q be a non-empty set. A **(Q, L)-fuzzy subset** A_µ of X is a function A_µ: $X \times Q \rightarrow L$.

Dr. M. ARUMAI SELFAM, R.S., M.F.L. PSO. PRINCIPAL St. Jeseph's College of Arts & Science (AUTONOMOUS) CUDDALORE - 507 001.