

# DR. AMBEDKAR GOVERNMENT ARTS COLLEGE (AUTONOMOUS) VYASARPADI, CHENNAI – 600 039.



#### MINUTES OF THE DOCTORAL COMMITTEE MEETING

Doctoral Committee Meeting for Ph.D Scholar Ms. K.JANE NITHYA, Registration No: Ph.D./261/PT/12/2017/2375 Ph.D Computer Science (P.T) held on 07/03/23 at 2.30 pm in PG & Research Department of Computer Science, Dr Ambedkar Government Arts College, Vyasarpadi, Chennai - 39.

Ms.K.JANE NITHYA has presented herself before the Doctoral Committee duly constituted for the purpose.

The following members were present:

1. Dr. K. SHYAMALA (Supervisor & Convener)

2. Dr K.NIRMALA (External Expert)
3. Dr A. MURUGAN (Internal Expert)

#### Research Work completed during the period:

- Research work was focused on to detect clone node in wireless sensor networks.
- In the First Phase, different types of attacks on WSNs and existing detection mechanisms.
- In the Second Phase HCND (Hybrid Clone Node Detection) technique in conjunction with SML-IDS (Supervised Machine Learning based Intrusion Detection System) is used for detecting replication attacks in WSNs
- In the Third Phase in order to detect replica node attacks based on energy, IMA (Integrated Moving Average) with HCND (Hybrid Clone Node Detection) technique is used and is based on energy consumption thresholds in WSNs.
- In the next phase, Single Hop Detection (SHD) with Dynamic Mutual Search Memetic algorithm (DMSMA), which is fully distributed, highly robust against node colluding, specifically designed for WSNs.
- Future work is to clustering approach that decreases energy consumption and results in prolonged network lifetime which is an important requirement for networks operating in inaccessible areas.

# Online Courses:

# TRAINING PROGRAM

S.No.	Organised by	Title	Level	Date(s)
1	Advanced Tips and Tricks for Research Paper Publication in suitable Journals	Research Graduate	National	24.04.2021
2	Intellectual Property Office  Office of the Controller General of Patents, Designs and Trade Marks, Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, Government of India	IP Awareness/Training program under National Intellectual Property Awareness Mission	National	11.01.2022
3	Industry Sponsored Programme- Predictive Healthcare Data Analytics	Sai Ram Engineering College	National	07.03.2022 to 09.03.2022

## WORKSHOPS

S.No.	Organised by	Title	Level	Date(s)
1	Ethiraj College for Women, Chennai	Moodle Training	National	24.01.2020
2	Ethiraj College for Women, Chennai	Learning Management System and Open Educational Resources: A Student- CentricApproach	National	25.01.2020
3	Ethiraj College for Women, Chennai	Intellectual Property Rights	National	01.02.2020
4	Jain Deemed to be University.Faculty of Engineering and Technology	Java For Every One	National	25.05.2020
5	Stella Maris College	Basics of Documentation using Latex	National	24.05.2020 to 30.05.2020
6	Universal Teachers Academy	Creating Digital Posters, Creation of GIF images, Finding Copyright free Image/sounds, Creation of Interactive E-Content	National	02.06.2020 to 06.06.2020
7	Global Institute of Statistical Solutions(GISS)	General Paper on Teaching and Research Aptitude	International	10.11.2022 to 14.11.2022

	Ministry of Corporate Affairs, Government of India)			
9	TLC, Ramanujan College, University of Delhi(Sponsored by MHRD Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching)	Data Analysis and Visualisation	National	30.11.2022 to 06.12.2022
10	Dr.M.G.R Educational and Research Institute	Emerging Research Trends in Computing Technologies	National	28.11.2022 to 2.12.2022
	Electronics & ICT Academy ,NIT 11 Warangal and Pondicherry University Kalapet,Puducherry	Cyber Security Principles and Defensive Mechanisms	National	21.03.2022 to 30.03.2022

## Papers Published:

- K.Jane Nithya and Dr.K.Shyamala, "A robust and secure node replication attack detection strategy using a light weight supervised machine learning based intrusion detection system in wireless sensor networks.", Two-day International Conference on Recent Revolutions in Mathematics, Computer Science and Applications (ICRRMCSA'22) date: 9th and 10th september 2022.
- K.Jane Nithya and Dr.K.Shymala, "A ROBUST AND SECURE NODE REPLICATION ATTACK DETECTION STRATEGY USING A LIGHT WEIGHT SUPERVISED MACHINE LEARNING BASED INTRUSION DETECTION SYSTEM IN WIRELESS SENSOR NETWORKS" Journal Name: NEUROQUANTALOGY ,November 2022, DOI: 10.14704/NQ.2022.20.15.NQ88203.ISSN: 1303 5150
- K.Jane Nithya and Dr.K.Shyamala, "An Energy Efficient Integrated Moving Average (IMA) Model and HCND Mechnasim with M-Anfis Based Intrusion Detection System in WSN's.". Journal Name: TELEMATIQUE ISSN NO:1856-4194
- Dr.K.Shyamala and K.Jane Nithya "Single Hop Detection Scheme with Dynamic Mutual Search Memetic Algorithm (DMSMA) for clone node detection in Wireless Sensor Networks", Journal Name: Computer Integrated Manufacturing Systems ISSN:1006-5911.

## Recommendations of the Committee

The Committee have four through the research worker correct out by the notolor and advised the scholar to speed up the work.

Dr K. SHYAMALA

Associate Professor in Computer Science PG & Research Department of Computer Science Dr Ambedkar Government Arts College Chennai 600 039.

Dr K.NIRMALA

Associate Professor
Department of Computer Science
Quaid-e-Millath Govt.College for Women
Chennai 600 002.

Dr A. MURUGAN

Associate Professor & Head PG & Research Department of Computer Science Dr Ambedkar Government Arts College Chennai 600 039. Dr. (Ma) R. MOTAMANA, NA. AMARANANA.

PO. A RESEMBLY OF COMPUTER SCHOOLS.

Dr. MINISTRAL AND COLUMN (PUTCHCOMMAN)

VINANDA COMPUTER SCHOOLS.

VINANDA COMPUTER SCHOOLS.

DEPARTMENT OF COLUMN HOUSEN MITTERS OF SALAR CHENNAL - 600 002.

Read of the Department on

Computer Science

Ambedkar Govt. Arts College

Vyasarpadi, Chennal—600 gae



# DR. AMBEDKAR GOVERNMENT ARTS COLLEGE (AUTONOMOUS) VYASARPADI, CHENNAI – 600 039.



## MINUTES OF THE DOCTORAL COMMITTEE MEETING

Doctoral Committee Meeting for Ph.D Scholar Mrs. M. MERCY EVANGELINE, Registration No: Ph.D./14/PT/09/2015/CONFIRM/2017/507, Ph.D Computer Science (P.T) held on 25/04/2023 at 10:30 am in PG & Research Department of Computer Science, Dr.Ambedkar Government Arts College, Vyasarpadi, Chennai – 39.

Mrs. M. MERCY EVANGELINE has presented herself before the Doctoral Committee duly constituted for the purpose.

The following members were present:

1. Dr K. SHYAMALA

(Supervisor & Convener)

2. Dr A. MURUGAN

(Internal Expert& Head of the Department)

3. Dr. S.MARY VENNILA

(External Expert)

## Activities performed during this period for accomplishing Doctoral Work:

- Text Mining Techniques were explored for analyzing Textual Data and generating summaries.
   Data Collection was done for relevant text information to be used for the summarization process.
   Pre-processing phase was employed to clean the data. Pre-processing was carried out using Dictionary-based Stop Word Removal model.
- From the pre-processed data, features were identified and extracted. The features identified included NOUN and VERB tagging, based on the input text file. For identification process, Noun Identification using Morphophonemic Rules (NIMR) and Verb Identification using Morphophonemic Rules (VIMR) algorithms were employed. The features identified were extracted based on the frequency of their occurrence in the document using Feature Based Feature Extraction Algorithm (FBFE).
- These extracted features are used for ranking the sentences in the given text data. The high ranked sentences are generated as summary using Automatic Extractive Text Summarizer (AETS) model.

 For extracting the summary, Fuzzy Logic Inference Engine has been employed. The output is compared with two baseline summarizers – TF-IFD and TextRank summarizers.

## Related Work

# Workshop/Seminar attended:

- National Level Workshop Machine Learning & Deep Learning with Python Dept. of CSC, Loyola College – 27<sup>th</sup>& 28<sup>th</sup> September 2019
- National Webinar Series on Data Science organized by Christ University and United Board, 1st
   June to 6th June 2020
- Webinar on "Research Indications, Publishing Ethics and Predatory Journals", organized by Information Resource Centre and Centre for Research and Development, WCC, 16<sup>th</sup> September 2021
- Webinar on "Getting Started with Deep Learning", organized by Government Engineering College, Rajkot, 16th October 2021
- Webinar on "Git, GitHub and Open Source", organized by Government Engineering College, Rajkot, 4th December 2021
- National Webinar on 'Data Analytics", organized by University of Madras, 23rd March 2022

#### FDP's Attended:

- Virtual FDP on "End-to-End Processes in Data Analytics", organized by SSN College of Engineering, Kalavakkam, 2<sup>nd</sup> November to 6<sup>th</sup> November 2020 (10:00 am - 3:00 pm)
- Online live FDP on "Fundamentals of AI & ML", organized by ICT Academy 10th May 2021 to 14th May 2021(5 Days)
- Virtual FDP on "Scholarly Communications and Citation metrics", organized by Information Resource Centre and Centre for Research and Development, WCC, 1st October 2021
- Virtual FDP on "Thesis Writing", organized by Loyola Institute of Business Administration, 20th
   January 2022
- National Faculty Development Program on "Nuances of Scientific Writing and Publishing", organized by AIACHE, New Delhi and Madras Christian College, from 11<sup>th</sup> to 19<sup>th</sup> July 2022.

#### Online Course Completed:

- NPTEL Course Completion with an Elite certificate in "The Joy of Computing using Python" during July 2018 – December 2018
- Course on "Introduction to Natural Language Processing NLP", Udemy (Online Course). 25th
   January 2023

# Paper presented /published in Conferences/Journals:

- 1. Mercy Evangeline M, Dr.K.Shyamala, "Stop word removal algorithm for Tamil Language" in the proceedings of International Conference on Recent Innovations in Electrical, Electronics & Communication Engineering (ICRIEECE) - 2018, School of Electrical Engineering, Kalinga Institute of Industrial Technology, KIIT, Bhubaneswar, Odisha, during July 27th and 28th, 2018. (IEEE Conference)
- 2. Mercy Evangeline M & Dr K Shyamala, (2019), "Noun Identification for Tamil Language using Morphophonemic Rules", International Journal of Recent Technology and Engineering (IJRTE) ISSN: 2277-3878, Volume-8 Issue-4, 11867 – 118, November 2019 (Scopus Indexed)
- 3. Mercy Evangeline M & Dr K Shyamala, "Verb Identification using Morphophonemic Rules in Tamil Language", ICTACT Soft Computing Volume 11 Issue 1, 2237 - 2243, October 2020 (UGC Care)
- 4. M. M. Evangeline and K. Shyamala, "Text Categorization Techniques: A Survey", in the proceedings of International Conference on Innovative Practices in Technology and Management ICIPTM, Noida, India, pp. 137-142, doi: 10.1109/ICIPTM52218.2021.9388332), 2021 (IEEE Conference)
- 5. Evangeline, M.M., Shyamala, K., Barathi, L., Sandhya, R. Frequency Based Feature Extraction Technique for Text Documents in Tamil Language. In: Advances in Computing and Data Sciences. ICACDS 2021. Communications in Computer and Information Science, vol 1441. Springer, Cham. https://doi.org/10.1007/978-3-030-88244-0\_8, 2021 (Springer Series)
- 6. Mercy Evangeline M, Dr.K.Shyamala, Yogalakshmi K, Jeevitha V, "Compound Word Formation Using Sandhi Rules in Tamil Language", in proceedings of National Conference on Emerging Trends, pp. 21-24, March 2023 (National Conference)
- 7. Dr. Shyamala, K and Mercy Evangeline M, Extractive Text Summarization Using Frequency Based Feature Extraction for Single Document in Tamil Language, ICTACT Journal on Soft Computing – Communicated (Journal)
- 8. Shyamala, K and Mercy Evangeline M, A Framework for Extractive Text Summarization of Single Text Document in Tamil Language using Frequency Based Feature Extraction Technique - International Conference on Data Science and Network Engineering ICDSNE 2023, NIT Agartala - Communicated (Conference)

### Recommendations of the Committee:

The Committee is satisfied with the progress of the Research work. The Candidate has published 6 papers, 3 of these papers has been presented in International Conference, 3 in Journals and 2 papers have been communicated. Hence the Scholar is permitted to submit her Synopsis.

Dr K. SHYAMALA

Associate Professor

PG & Research Department of Computer Science DrAmbedkar Government Arts College (Autonomous)

Vyasarpadi, Chennai 600 039.

Dr A. MURUGAN

Associate Professor & Head PG & Research Department of Computer Science DrAmbedkar Government Arts College (Autonomous) Vyasarpadi, Chennai 600 039.

Dr. A. MURUGAN, M.Sc., Ph.D., ASSOCIATE PROFESSOR & HEAD P.G. & RESEARCH DEPT OF COMPUTER SCIENCE OF AMBERIKAR GOVT, ARTS COLLEGE (AUTONOMOUS)

VYASARPADI, CHENNAI - 600 039

Dr. S. MARY VENNILA Associate Professor & Head

Department of Computer Science

Presidency College (Autonomous)

Chennai - 600 005.

Dr.S. M. VENNILA

Associate Cofessor & Head

of Computer Science

Presidenc, College Chennai - 1 005

# APPENDIX – C UNIVERSITY OF MADRAS

# SECOND SIX MONTH PROGRESS REPORT OF THE Ph.D. PROGRAMME FOR THE PERIOD FROM 20<sup>th</sup> JUNE 2022 TO 19<sup>th</sup> DECEMBER2022

1. Particularsaboutthecandidate:

: DHANALAKSHMI.U

a) Name

: Assistant Professor of Commerce

b) Designation(where applicable)

: J.N.N Arts & Science Women's College

c) Institution where employed

(if: applicable)
d) Period of the Report

: JUNE 2022 To DECEMBER 2022

2. RegistrationDetails:

a) Category of Registration

: Part-time(Internal)

b) Date of provisional registration with

University reference

: Ref:Ph.D/Prov.Regn/4025/PT/12/2021/735

Dated29thMarch,2022

c) Whether the provisional registration has

been confirmed (If yes, give reference): Yes, Ph.D/Prov.Regn/4025/PT/12/2021/735

Dated29thMarch,2022

3. ParticularsoftheSupervisor(s)

(i) Supervisor

a) Name : Dr. S.SARAVANAN

b) Designationc) Institution where employed

: Assistant Professor & Research Supervisor : PG & Research Department of Commerce,

Dr. Ambedkar Government Arts College,

Vyasarpadi, Chennai-600039

(ii) Co-Supervisor

a) Name

: Not Applicable

b) Designation

: Not Applicable

c) Institution where employed

: Not Applicable

4. Name of Department/Institution

Where research is conducted

: PG & Research Department of Commerce,

Dr. Ambedkar Government Arts College,

Vyasarpadi, Chennai -600 039

5. Area of work and tentative title of the

Proposed thesis

: MARKETING MANAGEMENT

"Adoption of E-learning and marketing effectiveness in succeeding at competitive examinations - A Study with

Special reference to Chennai City"

## 6. Details of the progress:

a) Whether the candidate's report in Triplicate is enclosed?

Yes

b) Whether any papers have been published? (ifyes, furnishdetails)

Yes

c) Whether seminars/conferences attended?

Yes(Certificate enclosed)

d) Whethertheprescribedcoursework has

Been completed? If yes, course completed:

Yes(Course work enclosed)

7. Whether the tuition fee is being paid

Yes

Date: 23-12. 2022

Signature of the Candidate

8. Remarks of the supervisor

a) Attendance

: Satisfactory

b) Progress

: Satisfactory

9. Whether the Supervisor agrees with the Scholar's report? :Yes(Minutes) (If yes, give details)

Signature of the Supervisor

Dr. S. SARAVANAN,

M.Com., M.B.A., M.Phil., Ph.D., ASSISTANT PROFESSOR & RESEARCH GUIDE PG and Research Department of Commerce, Dr. Ambedkar Government Arts College, Vyasarpadi, Chennai-600 039.

Signature of the HOD

Dr. V. RAVICHANDRAN, M. Com., M. Phil., Ph.D.

Assistant Professor 2 Heave P.G. & Research Dept. of Commerce Dr.Ambedkar Govt. Arts College (Autonomous)

Wasarpadi, Chennai - 600 039.

Signature of the Head of the Institution Principal

Dr. Ambediar Govt. Arts College (Autonomous) Vyasarpadi, Chennai-600 039.

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# DR.AMBEDKAR GOVERNMENTARTS COLLEGE (AUTONOMOUS, AFFILIATED TO UNIVERSITY OF MADRAS) VYASARPADI, CHENNAI – 600 039 PG & RESEARCH DEPARTMENT OF COMMERCE

# Minutes of the Research Advisory Committee Meeting For the Second six month from 20th June to 19th December 2022

The Second Research Advisory Committee meeting of Ms. U.DHANALAKSHMI Ph.D Part- time (Internal), Ref.No. Ph.D/Prov. Regn. /4025/PT/12/2021/ 735 Dated 29<sup>th</sup> March, 2022 was held in PG and Research Department of Commerce on 23/12/2022 at 11.0.m in college campus.

## The following Members were Present:

#### 1. Dr.S.SARAVANAN

Assistant Professor & Research Supervisor PG & Research Department of Commerce, Dr. Amebedkar Government Arts College, Vyasarpadi, Chennai – 600039

Convener & Supervisor

#### 2. Dr. G. VIJYA KUMAR

Assistant Professor Department of Commerce, Sri Theagaraya College, Old Washermampet, Chennai–600021

**RAC Member-1** 

#### 3. Dr. R. BHAGYALAKSHMI

Assistant Professor Department of Commerce, Government Arts College Men, Nandanam, Chennai – 600 035

RAC Member - 2

The Research entitled on "Adoption of E-learning and its marketing effectiveness in succeeding at competitive examinations – A Study with special reference to Chennai City".

The candidate presented the course work completed and was evaluated on Ph.D course work examinations in the following Subjects:

- Extensive study undertaken for the Paper I: Research and Publication Ethics
  compulsory course work paper to understand the concepts and methods.
- Thesis title related Paper IV: E-Learning Technology services to obtain insight into the area of research.
- Research Methodology (Paper II Exempted)
- Marketing Management Field / Area Paper (Paper III Exempted)

This Candidate already Completed Paper -II and Paper - III examination in M.Phil before admission to Ph.D (Part-Time -Internal) in the same subject are exempted from taking Paper- II and Paper- III. As mentioned in 2021 Ph.D regulation.

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# During the Research Period in First Six months from 20.06.2022 to 19.12.2022 National and International Conferences/Workshop/FDP/Attended and Presented by Ms. U. DHANALAKSHMI

S.No		Ms. U. DHANALAKSHMI		
1 Global Institute of Statistical Solutions (GISS)		VENUE	TOPIC	DATE
		Solutions (GISS)	Participated: International online workshop on "Academic Writing: Ethical Issues"	18th to 20th June 2022
	2	Department of Accounting & Finance, Patrician College of Arts & Science	Participated: International PDP on "Research Writing & Ethics"	28th June to 5th July 2022
	3	Department of Commerce, Savitha College of Arts & Science	Participated: Webinar on "Morality of Advertising and its impact"	12 <sup>th</sup> July 2022
	4	Department of Corporate Secretaryship, Thiruthangal Nadar College, Chennai	Participated: National level Seminar entitled "Mentoring Faculties in Workplace- Post Covid Effect"	29 <sup>th</sup> July 2022
		National Awareness Mission, ntellectual Property Office, India	Participated: IP Awareness/Training Program on "National Intellectual Property Mission"	26 <sup>th</sup> August 2022
6	G	Department of Commerce, Venkataswamy Naidu College, ovilpatti	Participated: ICCSSR-SRC Sponsored National level online workshop on "Implementation of OBE in Commerce Education"	27 <sup>th</sup> August 2022
7		Human Resource Development Centre, Goa University	Participated: UGC Sponsored Workshop on "NEP 2020" (Online)	29 <sup>th</sup> August 2022
8	G	oms guru Academy, Bangalore	Academy, Bangalore  Participated: Online Workshop on "Writing and Publishing Research Articles in Scopus and Web of Science Indexed Journals"	
9	Uı		Presented: International Conference on "IEFICS-2022" Paper entitled "The Impact of Digital Technologies on Academic Entrepreneurship"	20 <sup>th</sup> & 21 <sup>st</sup> October 2022
0		partment of Management adies, DB Jain College, Chennai	Participated: Workshop on "Preparation of Research Grant Proposal in Social Studies"	12 <sup>th</sup> December 2022
1		vernment Degree College ngmarg, Jammu and Kashmir	Participated: International FDP on "Tools and Technique's in Research	5 <sup>th</sup> to 12th 2 December
2	Mul			August, 2022 Impact Factor

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The Research Advisory committee members observed the completion of the course work and literature reviews of the Research Scholar. The RAC members have advised to concentrateon Research work and framing Objectives, Questionaries and data collection Process.

## Plan for Next Third Six months from 20th December 2022to19th June 2023

- To frame the research objective by in-depth understanding of the proposed research topic.
- 2. To frame the questionnaires based on the research objectives.
- 3. Refine the research topic with respect to finding from literature and other sources.
- ConcentratingonPublicationofResearcharticlesrelatingtothetopicinpeerreviewed research journals.

## Recommendations:

The Research Advisory Committee suggested the scholar to publish research-oriented papers in referred journals and to attend the short-term courses, conferences and workshops. RAC also recommends to the course work subject, Research and Publication Ethics and E-learning Technology Services Examination completed and paper evaluated including periodic presentation and viva voce.

Dr.S.SARAVANAN Convener/ResearchSupervisor

Dr. S. SARAVANAN,

M.Com., M.B.A., M.Phil., Ph.D.,
ASSISTANT PROFESSOR & RESEARCH GUIDE
PG and Research Department of Commerce,
Dr. Ambedkar Government Arts College,
Vyasarpadi, Chennai-600 039.

Dr. G. VIJAYA KUMAR RACMember-1

Dr. G. VIJAYA KUMAR

ASSISTANT PROFESSOR & RESEARCH SUPERVISOR DEPARTMENT OF COMMERCE

SIR THEAGARAYA COLLEGE CHENNAI - 600 021.

Dr.R.BHAGYALAKSHMI RACMember-2

Dr. R. BHAGYALAKSHMI, M. Cons., M.B.A., M. Phil., Ph.D.,

As arrant Professor

Department - Commerce

Government Arts college for Men (Autonomous) Nandanam, Chennal - 600 035.

# APPENDIX - C UNIVERSITY OF MADRAS

# THIRD SIX MONTH PROGRESS REPORT OF THE Ph.D. PROGRAMME FOR THE PERIOD FROM 20<sup>th</sup> DECEMBER 2022 TO 19<sup>th</sup> JUNE 2023

1. Particulars about the candidate:

a) Name

b) Designation (where applicable)

c) Institution where employed (if: applicable)

d) Period of the Report

: DHANALAKSHMI.U

: Assistant Professor of Commerce

: J.N.N Arts & Science Women's College

: DECEMBER 2022 To JUNE 2023

2. Registration Details:

a) Category of Registration

b) Date of provisional registration with University reference

: Part-time(Internal)

: Ref: Ph.D/Prov.Regn/4025/PT/12/2021/735

Dated:29th March, 2022

c) Whether the provisional registration

has been confirmed (If yes, give reference): Yes,

Ph.D/Prov.Regn/4025/PT/12/2021/CONFIRM/

2022/243 Dated:30th January,2023

3. Particulars of the Supervisor(s)

(i) Supervisor

a) Name

b) Designation

c) Institution where employed

: Dr. S. SARAVANAN

: Assistant Professor & Research Supervisor

: PG & Research Department of Commerce,

Dr. Ambedkar Government Arts College,

Vyasarpach, Chennai-600039

(ii) Co-Supervisor

a) Name

b) Designation

c) Institution where employed

: Not Applicable

: Not Applicable

: Not Applicable

4. Name of Department/Institution Where research is conducted

: PG & Research Department of Commerce, Dr. Ambedkar Government Arts College,

Vyasarpadi, Chennai -600 039

5. Area of work and tentative title of the Proposed thesis

: MARKETING MANAGEMENT

"Adoption of E-Learning and its Effectiveness in Succeeding Competitive Examinations - A Study with Special Reference to Chennai City"

# 6. Details of the progress:

a) Whether the candidate's report in Triplicate is enclosed?

Yes

Yes

b) Whether any papers have been published? (If yes, furnish details)

c) Whether Seminars/Conferences attended?

Yes(Certificate enclosed)

d) Whether the prescribed coursework has been completed? If yes, course completed:

Yes (Completed)

7. Whether the tuition fee is being paid

Ves

Date: 19/6/23

U. Ohanalakshm? Signature of the Candidate

8. Remarks of the supervisor

a) Attendance

Satisfactory

:

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b) Progress

Satisfactory

9. Whether the Supervisor agrees with the Scholar's report? (If yes, give details)

Yes (Minutes)

Signature of the Supervisor

Dr. S. SARAVANAN,

M.Com., M.B.A., M. Phil., Ph.D., ASSISTANT PROFESSOR & RESEARCH GUIDE PG and Research Department of Commerce, Dr. Ambedkar Government Arts College, Vyosarpadi, Chennai-600 039.

Signature of the HOD

Dr.V.RAVICHANDRAN, M.Com., M.Phil., Ph.D.,

P.G. & Research Dept. of Commerce Dr.Ambedkar Govt. Arts College (Autonomous) Vyasarpadi, Chennai - 600 039.

Signature of the Head of the Institution

Principal

Dr. Ambedkar Govt. Arts College (Autonomous) Vyasarpadi, Chennal-600 039.

# DR.AMBEDKAR GOVERNMENTARTS COLLEGE (AUTONOMOUS, AFFILIATED TO UNIVERSITY OF MADRAS) VYASARPADI, CHENNAI – 600 039 PG & RESEARCH DEPARTMENT OF COMMERCE

# Minutes of the Research Advisory Committee Meeting For the Third six months from 20th December 2022 to 19th June 2023

The Third Research Advisory Committee meeting of Ms. U.DHANALAKSHMI Ph.D Part-time(Internal), Ref.No: Ph.D/Prov.Regn./4025/PT/12/2021/735 Dated 29<sup>th</sup> March, 2022 was held in PG and Research Department of Commerce on 19/06/2023 at 11.2 in college campus.

## The following Members Were Present:

#### 1. Dr.S.SARAVANAN

Wast

Assistant Professor & Research Supervisor PG & Research Department of Commerce, Dr. Amebedkar Government Arts College, Vyasarpadi, Chennai – 600039

Convener & Supervisor

### 2. Dr. G. VIJYA KUMAR

Assistant Professor Department of Commerce, Sri Theagaraya College, Old Washermampet, Chennai–600021

RAC Member- 1

#### 3. Dr. R. BHAGYALAKSHMI

Assistant Professor Department of Commerce, Government Arts College Men, Nandanam, Chennai – 600 035

RAC Member - 2

The Research entitled on: "Adoption of E-Learning and its Effectiveness in Succeeding Competitive Examinations - A Study with Special Reference to Chennai City"

#### 1. Introduction

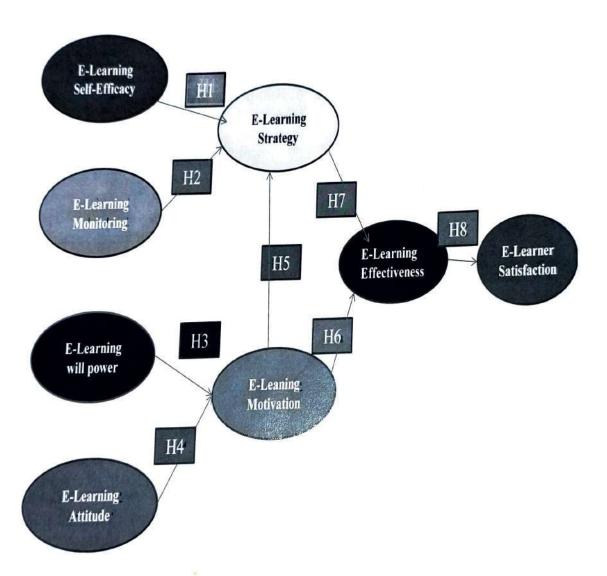
Now a days learning is not restricted to classroom but has more integration with virtual teachers and interactive teaching aids. India has over 15 million competitive exam takers every year. Nowadays youth is not restricted themselves to traditional mode of leaning through their syllabus course only but also believe in enhancement their knowledge skills and preparing for competitive exams. Hence, a study on this topic is essential. In this study, so far, literature on the adoption of e-learning and its effectiveness has been collected, and research objectives, the scope of the study, and a statement of the problem have been finalised. This report presents the progress of research work during the third half of the year.

# 2. Objectives of Third Half year

The third half year was utilized to accomplish the following objectives:

- i. To develop a conceptual framework
- ii. To develop research hypotheses
- iii. To finalize the questionnaire

## 3. Conceptual Framework



## 4. Hypotheses

H1: E-learning self-efficacy has a positive influence on e-learning strategy for competitive examinations in the study area

H2: E-learning monitoring has a positive influence on E-learning strategy for competitive examinations in the study region

H3: E-learning willpower has a positive influence on e-learning motivation for competitive examinations in the sample area

**H4:** E-learning attitude has a positive influence on e-learning motivation for competitive examinations in the study area

**H5:** E-learning motivation has a positive influence on e-learning strategy for competitive examinations in the study area

**H6**: E-learning motivation has a positive influence on e-learning effectiveness for competitive examinations in the study area

### 5. Questionnaire Items

## 5.1 E-Learner's perception on Instructor quality

- 1. I use e-learning system as recommended by my instructors
- 2. I think an instructor's enthusiasm about using e-learning stimulates my desire to learn
- 3. I receive a prompt response to questions and concerns from my instructors in e-learning
- 4. I think communicating and interacting with instructors are important and valuable in elearning
- 5. Generally, my instructors have a positive attitude to the utilization of e-learning

# 5.2 E-Learning Self-Efficacy

- 1. If I try my best, I can always solve the problem
- 2. I can calmly face difficulties, because I believe in my ability to deal with problems
- 3. For me, sticking to ideals and achieving goals is a breeze
- 4. Compared with other students in the class, I hope

## 5.3 E- Learning monitoring

- 1. E-learning platform has good monitoring of learning time, progress, etc
- 2. Teachers have good monitoring of your learning
- 3. You often reflect on deficiencies in the learning process and correct

## 5.4 E-Learning willpower

455

- 1. When I study online, I can devote myself to learning without thinking about anything else
- 2. When learning online, I will not be attracted by entertainment information
- 3. I can overcome the troubles in E-learning and adjust my emotions to continue learning
- 4. When studying online, my friends came to chat with me, but I still insist on learning

# 5.5 E-Learning attitude

- 1. I like the new form of online teaching
- 2. I can adapt well to online teaching methods
- 3. The content of the textbook can be better presented in the form of network
- 4. I think what I have learned in the classroom is helpful for the growth of knowledge

# 5.6 E-Learning motivation

- 1. I think what I have learned in the classroom is helpful for the growth of knowledge
- 2. I am interested in what I have learned
- 3. What I have learned is very important for the final exam
- 4. What I have learned is very important for my future work

## 5.7 E-Learning strategy

- 1. Before E-learning, I will make a learning plan
- 2. When I find that the plan is not in harmony with reality, I will immediately adjust the learning plan
- 3. I will apply the successful methods in the past homework and real class to E-learning
- 4. When learning new content, I tried to combine other content

## 5.8 E-Learner Satisfaction

- 1. E-learning is enjoyable
- 2. E-learning give me self-confidence
- 3. E-learning satisfies my educational needs
- 4. I am satisfied with performance of system
- 5. E-learning is pleasant to me
- 6. I am pleased enough with e-learning system

# 5.9 E-Learning Effectiveness

- 1. I have a good grasp of the knowledge on the online course
- 2. I fully understand what I have learned
- 3. I will be able to cope well with the exam
- 4. E-learning enriches my learning style

# 6. Research work to be done in the IV Half Year Period

The following are to be done in the IV Half Year period of the study:

- a. Research Methodology
- Sampling Techniques
- c. Tools for Data Analysis

#### Recommendations:

The Research Advisory Committee suggested the scholar to publish research-oriented papers in referred journals and to attend the short-term courses, conferences and workshops. RAC also recommends to the Third six-month report period from December 2022 to June 2023.

Dr.S.SARAVANAN Convener/Research Supervisor

RAC Member-

Dr. S. SARAVANAN, M.Com., M.B.A., M. Phil., Ph.D., ASSISTANT PROFESSOR & RESEARCH GUIDE

PG and Research Department of Commerce, Dr. Ambedkar Government Arts College, Vyasarpadi, Chennai-600 039.

M.Com., M.Phil., M.B.A., Ph.D., ASSOCIATE PROFESSOR & RESEARCH SUPERVISOR

DEPARTMENT OF COMMERCE SIR THEAGARAYA COLLEGE CHENNAI - 600 021.

Dr.R.BHAGYALAKSHMI **RAC Member-2** 

Dr. R. BHAGYALAKSHMI, M.Com., M.B.A., M.Phil., Ph.D.,

Assistant Professor Department of Commerce Government Arts College for Men (Autonomous)

Nandanam, Chennai - 600 035.

# DR AMDEDKAR GOVERNMENT ARTS COLLEGE (AUTONOMOUS) VYASARPADI, CHENNAI 39

# Minutes of the Doctoral Committee Meeting

A meeting of Doctoral Committee to review the progress of research work carried out by the candidate Mrs. K. KAVITHA (Ph.D./Part-Time) was held on 27.07.2022

The following members were present:

- 1. Dr. P. Krishnamoorthy(Supervisor & Convener)
- 2. Dr. T.K. Arumugam(Subject Expert-Internal)
- 3. Dr. B. Muthukumaran(Subject Expert-External)

The Doctoral Committee evaluated the progress of research work carried out by the candidate Mrs. K. KAVITHA (Ph.D./Part-Time) and asked to present the ongoing activities and salient features of her research work. The powerpoint presentation of the proposed presented by the candidate was observed and reviewed. The Committee expressed their satisfaction and also advised the candidate to submit the six month progress report VIII for the continuation of her PhD research programme.

Dr. B. Muthukumaran,

(Subject Expert - External),

Assistant professor,

Department of Chemistry, Presidency College (A),

Chennai-600 05.

Dr.T.K.ARUMUGAM,

(Subject Expert-Internal),

Assistant professor, M.Sc., Ph.D.,

COMPONIE POR SERVICE Protection (A) Chemistry P.G. & Reenarch Desa Anterior (A) Chemistry
Dr. Ambedkar Government (Autonomous)

Vyasarpadi, Chennai - 600 039

rvisor & Convener), Assistant professor,

Department of Chemistry, Dr.Ambedkar college(A),

Chennai-600039.

Dr. P. KRISHNAMOORTHY, M. Sc., M.Ed., M.Phil., Ph.D., Assistant Professor

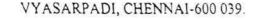
P.G. & Research Department of Chemistry Dr. Ambedkar Govt. Arts College, (Autonomous)

Vyasarpadi, Chennal - 600 039

Dr. B. MUTHUKUMARAN, M.Sc., Ph.D., **Assistant Professor G&** Research Department of Chemistry, Presidency College (Autonomous),

Chennal - 600 005.

# DR. AMBEDKAR GOVERNMENT ARTS COLLEGE (AUTONOMOUS)



#### MINUTES OF THE DOCTORAL COMMITTEE MEETING



Doctoral Committee Meeting for Ph.D Scholar Mrs. K.PREM LATHA, Register to: Ph.D/Regn/660/FT/04/2018/3443 Ph.D Chemistry (F.T) held on 15/09/2022 at 10am in PG & Research Department Chemistry, Dr. Ambedkar Government Arts College, Vyaserpadi, Chennai-39.

Mrs Premlatha has presented "Investigations on the synthesis growth and characterization of amino acid based semiorganic crystal for nonlinear optical applications" research work before the Doctoral Committee duly constituted for the purpose.

## Activities performed during this period for accomplishing Doctoral thesis:

- Glycine and its NLO nature with various metal dopant increases the efficiency of mechanical strength discussed.
- The spectral studies related to structural determination discussed.
- electronic structural analysis using DFT studies and NBO analysis to find polarizability of the molecule evaluated.
- Contemporary studies on growth and characterization of NGG, BGG, MGG, NALA - various potential optoelectronic NLO material nature discussed.
- · The Optical applications towards laser and the biological applications related to human metabolism are evaluated. The future research work progress comparative effectiveness analyzed.

DIP KINSHNAMOORTHY,

Assistant Professor, Department of Chemistry,

Dr. Ambedkar Arts college,

Chennai-600 039 Dr. P. KKISHNAN J. K. HY M.Sc., M.Ed., M.Phil., Ph.D.,

Assistant Professor P.G. & Rosearch Department of Chemistry Dr. Ambedkar Govt. Arts College, (Autonomous)

Vyasarpadi, Chennai - 600 039

Dr.T.K.ARUMUGAM. Assistant Professor,

Department of Chemistry,

Dr. Ambedkur Arts college, Chennai-60039.

Dr. T.K. ARUMUGAM, M.Sc., Ph.D., Assistant Professor PG & Research Department of Chemistry or Ambedkar Govt. Arts College, (Autonomous) Vyasarpadi, Chennai - 600 039

Dr.B.Muthukumaran.

Assistant professor, Department of chemistry. Presidency college, Chennai- 600 005.

Dr. B. MUTHUKUMARAN, M.Sc., Ph.D., **Assistant Professor** PG & Research Department of Chemistry. Presidency College (Autonomous), Chennai - 600 005.

The scholar has published two papers in international journals, presented the research work in two international and three national conferences. The committee has evaluated the research work carried out by the scholar and satisfied with the performance. Hence the committee permits the scholar to submit the synopsis.

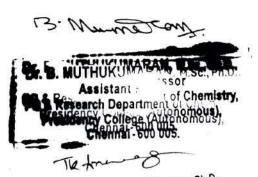
Signature of the Members of the Doctoral Committee:

Dr. P. KRISHNAMOORTHY,
Supervisor and convener,
Assistant professor in chemistry,
PG & Research Department of Chemistry,
Dr. Ambedkar Government Arts College,
Chemnal-600 039.

Dr. B. MUTHUKUMARAN,
Assistant Professor,
PG & Research Department of Chemistry,
Presidency College,
Chemiai-600 005.

Dr T.K.ARUMUGAM,
Assistant Professor,
PG & Research Department of Chemistry,
Dr. Ambedkar Government Arts College,
Chemiai-600 039.

Dr. P. Khion Manual Professor
Assistant Professor
P.G. & Rosearch Department of Chemistry
Dr. Ambedkar Govt. Arts College, (Autonomous)
Vyasarpadi, Chennal - 600 039



Dr. T.K. ARUMUGAM, M.Sc., Ph.D.,
Assistant Professor
P.G. & Research Department of Chemistry
P.G. & Research Department of Chemistry
Dr. Ambedkar Govt. Arts College, (Autonomous)
Vyasarpadi, Chennal - 600 039
Vyasarpadi,

Date: 15 09 2022 Chennal-600 0039.

# MINUTES OF THE MEETING OF THE SELECTION COMMITTEE FOR THE CANDIDATE

# Mrs.R.RAMA NACHIAR (Part-Time/Non-Stipendiary)

The meeting of the selection committee in connection with the candidate applied for admissions to Ph.D. Degree programme in department of chemistry, Dr.Ambedkar Government Arts College(Autonomous), Chennai-600 039 was held on 25.1.2023 at 11:30AM at the department of chemistry, Dr. Ambedkar Government Arts College, Chennai- 600 039.

The committee has interacted with the above mentioned candidate and is fully satisfied with her standard and competence. The committee recommends very strongly for the Ph.D. registration of the candidate.

Signature of the Members of the Selection Committee.

Members

Dr.C.SRINIVASAN,

Head of the Department of Chemistry,

Dr. Ambedkar Government Arts College,

Vyasarpadi, Chennai -600039.

Member

Dr.S.MANIVANNAN,

Assistant professor

Department of Chemistry.

Dr. Ambedkar Government Arts College,

Vyasarpadi, Chennai -600039.

Supervisior / Convener

Dr.P.KRISHNAMOORTHY,

Assistant professor

Department of Chemistry,

Dr. Ambedkar Government Arts College,

Vyasarpadi, Chennai-600039

Date: 25.1.2023

Place: Chennai-600039.

**Department of Chemistry** Dr. Ambedkar Govt. Arts College Vyasarpadi, Chennai - 600 039.

IL S. MANIVANHAN, M.Sc., M.

Assistant Professor of Chemistry. oG & Research Department of Chemistry

Dr. Amhedkar Govt. Arts College wasaroadi. Chennai-Red "

Dr. P. KRISHNAMOORTHY, M.Sc., M.Ed., M.Phil., Ph.D.,

**Assistant Professor** P.G. & Research Department of Chemistry Dr. Ambedkar Govt. Arts College, (Autonomous)

Vyasarpadi, Chennai - 600 039

Principal

Dr. Ambedkar Govt. Arts College, Vyasarpadi,

Chennai - 600 039

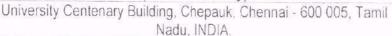




#### UNIVERSITY OF MADRAS

(Established under the Act of Incorporation XXVII of 1857 – Madras University Act 1923)

(State University)



ai - 600 005, Tamil

Ref. No.: Ph.D. Registration Section / 2020/ 2020

Dated : 1 4 DEC 2020

From The Registrar i/c. University of Madras.

Chepauk, Chennai- 600 005.

To

1. The Controller of Examinations

2. All Campus Directors in Various Campuses

3. All HOD's / Directors

4. The Secretary to Vice Chancellor

5. The Senior PA to Registrar

6. The Director Network Operations.

7. All College Principals / Directors of Research Institutions

Sir/Madam,

Sub: Circular regarding implementation of two credit course for awareness about publications. Ethics and publication misconducts entitled "Research and publication Ethics [RPE] - Regarding

It is informed that the University Grants Commission recommended a two credit course entitled "Research and publication Ethics" as a part of course work for Ph.D Students.

Recommended by University Board of Research Studies, the Syndicate (14/02/2020) and Academic Council (29/02/2020) passed the Syllabus. The Syllabus was also presented in Senate on May 2020.

Now, it is hereby informed all Ph.D Students admitted from July 2020 session should complete this course within one year.

The Ph.D Students without M.Phil, the course work shall have four papers including "Research and publication Ethics", for Ph.D Students who have been exempted from course work, because they completed M.Phil, should write this paper "Research and publication Ethics". The M.Phil candidates those who had registered on inter-disciplinary mode should write three papers including "Research and publication Ethics", within one year of admission in Ph.D. Programme.

Registration for Ph.D Programme shall be conformed only after the passing course including Rsearch and publication Ethics.

The syllabus and guidelines are uploaded herewith.

Yours faithfully

N. Mathravan
REGISTRARI/C 12000

## UNIVERSITY OF MADRAS

## Guidelines for two Credit Courses

- (1) The written examination for the theory components of the course 'Research And Publication Ethics' shall be conducted by the Department/Colleges/Research Institutions for 50 marks.
- (2) The examinations for the Practical component of the course 'Research and Publication Ethics' shall be conducted by the Department/Colleges/Research Institutions for 50 marks.
- (3) The Theory/ practical examination will have to be evaluated by the respective Ph.D guide and the results should be passed in the doctoral Committee and then be submitted to the University, within one year from the date of admission of Ph.D programme
- (4) The students shall obtain at least 55% in each of internal and external examination, that is 55% in this minimum pass mark of each of the internal and external examinations.
- (5) A pass in the course 'Research and Publication Ethics' is an essential for pre registration course work.
- (6) This course is offered in addition to the existing course work of three papers. Students with M.Phil degree who are exempted from course work, also should take this course and obtain a pass mark of 55%.

#### UNIVERSITY OF MADRAS

## Syllabus in Detail for two credit courses:

#### THEORY

- RPE 01: PHILOSOPHY AND ETHICS (3 hrs.)
- 1. Introduction to philosophy: definition, nature and scope, concept, branches
- 2. Ethics: definition, moral philosophy, nature of moral judgements and reactions
- RPE 02: SCIENTIFICCONDUCT (5 Hrs.)
- 1. Ethics with respect to science and research
- 2. Intellectual honesty and research integrity
- 3. Scientific misconducts: Falsification , Fabrication, and Plagiarism (FFP)
- 4. Redundant publications: duplicate and overlapping publications, salami slicing
- 5. Selective Reporting and misrepresentation of data
- RPE 03: PUBLICATION ETHICS (7 HRS.)
- 1. Publication ethics: definition, introduction and importance
- 2. Best practices / standards setting initiatives and guidelines: COPE, WAME, etc.
- 3. Conflicts of interest
- 4. Publication misconduct: definition, concept, problems that lead to unethical behaviour and vice versa ,types
- 5. Violation of publication ethics, authorship and contributor ship
- 6. Identification of publication misconduct, complaints and appeals
- 7. Predatory publishers and journals

#### PRACTICE

- RPE 04: OPEN ACCESS PUBLISHING (4hrs.)
- 1 Open access publications and initiatives
- SHERPA/RoMEO online resource to check publisher copyright & self archiving policies
- 3. Software tool to identify predatory publications developed by SPPU
- 4. Journal finder / journal suggestion tools viz. JANE, Elsevier journal Finder, Springer Journal suggested, etc.
- RPE 05: PUBLICATION MISCONDUCT (4hrs.)
- A. Group Discussions (2hrs.)
  - 1. Subject specific ethical issues, FFP, authorship
  - 2.Conflicts of interest
  - 3. Complaints and appeals: examples and fraud from India and abroad
- B. Software tools (2hrs.)

Use of plagiarism software like Turnitin, Urkund and other open source software tools

- RPE 06: DATABASES AND RESEARCH METRICS (7HRS.)
  - A. DATABASES (4HRS.)
    - 1. Indexing databases
    - 2. Citation databases: Web of science, Scopus, etc.
  - B. RESEARCH METRICS (3HRS.)
    - Impact Factor of journal as per journal Citation Report, SNIP, SJR, IPP, Cite score
    - 2. Metrics: h-index, G index, i10 index, altmetrics

## Dr. Ambedkar Government Arts College (AUTONOMOUS) Vyasarpadi, Chennai – 600 039.

#### PG & RESEARCH DEPARTMENT OF COMPUTER SCIENCE

#### **SYLLABUS**

#### **Cloud Computing File Security**

- **Unit 1:** Cloud Computing Fundamentals- Definition, Evolution, Cloud Architecture, Cloud Data Centre Multi- Tenancy Approaches to create a barrier between the Tenants, Security for Cloud Computing.
- **Unit 2:** Network Intrusion Detection: Network defense tools: Firewalls, VPNs, Intrusion Detection, and filters. Criminal acts, ethics, legal frameworks.
- **Unit 3:** Finding Threats, STRIDE, Spoofing Threats, Tampering Threats, Repudiation Threats, Information Disclosure Threats, Denial-of-Service Threats.
- **Unit 4:** Threat Modeling Tools, Generally Useful Tools, Open-Source Tools, Commercial Tools. Web and Cloud Threats, Web Threats, Cloud Tenant Threats, Cloud Provider Threats, Mobile Threats.
- **Unit 5:** Storage devices Block, File. Cloud Storage Classes- unmanaged, managed. Creating Storage System, Virtual Storage Containers, Challenges.

#### Ph.D. COURSE WORK SYLLABUS

#### **RESEARCH AND PUBLICATION ETHICS**

Syllabus in Detail for two credit courses:

#### THEORY

#### RPE 01: PHILOSOPHY AND ETHICS (3 hrs.)

- 1. Introduction to philosophy: definition, nature and scope, concept, branches
- 2. Ethics: definition, moral philosophy, nature of moral judgement and reactions

#### RPE 02: SCIENTIFIC CONDUCT (5 hrs.)

- 1. Ethics with respect to science and research
- 2. Intellectual honesty and research integrity
- 3. Scientific misconduct: Falsification, Fabrication, and Plagiarism (FFP)
- 4. Redundant publication: duplicate and overlapping publications, salami slicing
- 5. Selective Reporting and misrepresentation of data

#### **RPE 03: PUBLICATION ETHICS (7 hrs.)**

- 1. Publication ethics: definition, introduction and importance
- 2. Best practices/ standards setting initiatives and guidelines: COPE, WAME etc.
- 3. Conflict of internet
- 4. Publication misconduct: definition, concepts, problems that lead to unethical behaviour and vice versa, types
- 5. Violation of publication ethics, authorship and contributorship
- 6. Identification of publication misconduct, complaints and appeals
- 7. Predatory publishers and journals

#### PRACTICE

#### RPE 04: OPEN ACCESS PUBLICATION (4 hrs.)

- 1. Open access publications and initiatives
- SHERPA/R0MEO online resource to check publisher copyright & self archiving policies
- 3. Software tool to identify predatory publications developed by SPPU

 Journal finder/ journal suggestion tools viz, JANE, Elsevier journal Finder, Springer Journal suggested etc.

#### RPE 05: PUBLICATION MISCONDUCT (4 hrs.)

#### A. Group Discussion (2 hrs.)

- 1. Subject specific ethical issues, FFP, authorship
- 2. Conflict of internet
- 3. Complaints and appeals: examples and fraud from Indian and abroad

#### B. Software tools (2 hrs.)

1. Use of plagiarism software like Turnitin, Urkund and other open source software tools

#### RPE 06: DATABASE AND RESEARCH METRICS (7 hrs.)

#### A. DATABASE (4 hrs.)

- 1. Indexing databases
- 2. Citation databases: Web of science, Scopus etc

#### B. RESEARCH METRICS (3 hrs.)

- 1. Impact Factor of journal as per journal Citation Report, SNIP, SJR, IPP, Cite score
- 2. Metrics: h-index, G-index, i10 index, altmetrics

#### MARKETING MANAGEMENT

#### **OBJECTIVE:**

- > To understand the changing business environment and the fundamental premise underlying market driven strategies.
- > To identify the indicators of management thoughts and practices.

#### UNIT I INTRODUCTION

Defining Marketing — Core concepts in Marketing — Evolution of Marketing—Marketing Planning Process — Scanning Business environment: Internal and External — Value chain — Core Competencies — PESTEL — SWOT Analysis—Marketing interface with other functional areas — Production, Finance, Human Relations Management, Information System — Marketing in global environment — International Marketing — Rural Marketing — Prospects and Challenges.

#### UNIT II MARKETING STRATEGY

Marketing strategy formulations – Key Drivers of Marketing Strategies - Strategies for Industrial Marketing – Consumer Marketing – Services marketing – Competition Analysis – Analysis of consumer and industrial markets – Influence of Economic and Behavioural Factors – Strategic Marketing Mix components.

#### UNIT III MARKETING MIX DECISIONS

Product planning and development – Product life cycle – New product Development and Management – Defining Market Segmentation – Targeting and Positioning – Brand Positioning and Differentiation – Channel Management – Managing Integrated Marketing Channels – Managing Retailing, Wholesaling and Logistics – Advertising and Sales Promotions – Pricing Objectives, Policies and Methods

#### UNIT IV BUYER BEHAVIOUR

Understanding Industrial and Consumer Buyer Behaviour — Influencing factors — Buyer Behaviour Models — Online buyer behaviour — Building and measuring customer satisfaction — Customer relationships management — Customer acquisition, Retaining, Defection — Creating Long Term Loyalty Relationships.

#### UNIT V MARKETING RESEARCH & TRENDS IN MARKETING

Marketing Information System – Marketing Research Process – Concepts and applications: Product – Advertising – Promotion – Consumer Behaviour – Retail research – Customer driven organizations - Cause related marketing – Ethics in marketing – Online marketing trends - social media and digital marketing.

#### REFERENCES:

- 1. Philip T. Kotler and Kevin Lane Keller, Marketing Management, Prentice Hall India, 14th Edition, 2012.
- KS Chandrasekar, "Marketing management-Text and Cases", Tata McGraw Hill Education,
   2012
- 3. Lamb, Hair, Sharma, Mc Daniel—Marketing An Innovative approach to learning and teaching A south Asian perspective, Cengage Learning, 2012.
- 4. Paul Baines, Chris Fill, Kelly Page, Marketing, Asian edition, Oxford University Press, 2013.
- 5. Ramasamy, V.S, Namakumari, S, Marketing Management: Global Perspective Indian Context, 5th Edition, Macmillan Education, New Delhi, 2014.

#### E-LEARNING TECHNOLOGY SERVICES

#### **OBJECTIVE:**

- ➤ To enable the students to understand the concept of e-learning and integrating the technology.
- To inculcate knowledge in planning the role of information technology in the classroom.
- To make the students to understand the E-Learning Marketing Strategy mediated and its applications.

#### UNIT I CONCEPT OF E-LEARNING

Meaning, Evolution of E-Learning –Generations of distance education, Components of ELearning –Virtual classroom: Tele conferencing, Audio and Video conferencing tools. Advantages & disadvantages, E-learning in education versus corporate sector.

#### UNIT II PSYCHOLOGICAL BACKGROUND IN E-LEARNING

Process of E-Learning: Knowledge Acquisition and Creation, Sharing of Knowledge, Utilization of Knowledge – E-Learning Instructional Grounds: Behaviourism, Cognitivism and Constructivism. Types of Learning Platforms – Proprietary vs. Open – Introduction Learning Management System(LMS) – Content management System – CMS vs LMS – LMS solutions – Functional Areas of LMS.

# UNIT III E-LEARNING MARKET IN INDIA AND E-LEARNING COURSE MARKETING STRATEGY

E-Learning Ecosystem, Market Segmentation, E-Learning Business Model and Revenue Model- India E-Learning Market: Market Size and Growth Forecast - E-Learning Course Marketing Strategy in Service Business- Best Practices, Audience, Time, Absence of live tutoring, Course Output, Tools- Key Decision Factors and Key Aspects of Service System.

#### UNIT IV E-LEARNING PLATFORMS

Types of Learning Platforms – Proprietary vs. Open – Introduction Learning Management System(LMS) – Content management System – CMS vs LMS - Government Initiatives: NDEAR, e-VIDYA, NISHTHA, DIKSHA, e-Pathshala, e-Kalpa, National Digital Library in India, eSkillIndia, SWAYAM, SWAYAMPRABHA, Shodhganga, e-ShodhSindhu, e-Yantra, FOSSEE, VIDWAN- Competitive Landscape: NIIT Ltd, Edukart Education Pvt.Ltd, Individual Learning Pvt.Ltd, Sorting Hat Technologies Pvt.Ltd, Think & Learn Pvt.Ltd, Upgrade Education Pvt.Ltd, Vedantu Innovation Pvt.Ltd, Coursera Inc, Udemy India.

# UNIT V CURRENT TECHNOLOGIES, TRENDS, AND CHALLENGES OF E-LEARNING

Augmented Reality, Artificial Intelligence, Internet of Things, Learning Management System, School Management, systems, cloud computing, remote virtual laboratories - Challenges of adopting E-Learning - Covid-19 Impact Analysis.

#### REFERENCES:

- 1. MahmutSinecen (2018) Trends in E Learning, Intech Open London, UK
- 2. Jay Cross, Lance Dublin(2002) Implementing E-Learning, Association of Talent Development.
- 3. Boykaand Gradinarova(2015)E-Learning Instructional Design, Organizational Strategy and Management, Intech Open, UK.
- 4. Book Depository, UK. Michael Allenn (2016) Guide to E Learning, II Edition John Wiley & Sons, New Jersey
- 4. MahmutSinecen (2018) Trends in E Learning, Intech. Open London, UK
- Means, B., Toyama, Y., Murphy, R, "Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies", 2010.

#### Ph.D Course work Syllabus(Area Paper) Paper -III -HUMAN RESOURCE MANAGEMENT

#### COURSE OBJETIVES

- 1. To understand the HR environment and to know the difference between traditional and strategic HR management.
- 2. To identify the various process and methods in Human Resource planning and the compensation components.
- To impact knowledge on the procurement and retention of employees and their safety measures

#### UNIT - LINTRODUCTION

Human Resource Management (HRM) – Meaning – Definition –Objectives – Importance – History of HRM – Nature and Scope of HRM – Functions of HRM – Changing role of HR Manager - Human Resource Development (HRD).

#### HUMAN RESOURCE PLANNING

Human Resource Planning – Objectives & Importance of HRP - Process of HRP - Job Analysis Definition, Uses, Process, and Methods - Job Description and Job Specification.

#### TRANING

Training - Features - Training Vs Development - Need for Training - Types of Training - Organization Development - Characteristics & Objectives of OD - OD Interventions - Performance & Potential Appraisal - Employees Morale- Measures to improve Morale- Joh Satisfaction - Motivation - Theories of motivation - Leadership - Theories - Group Dynamics.

## CAREER PLANING AND DEVELOPMENT

Career Planning - Career Stages - Succession Planning - Need and Objectives of Career Planning - Process - Career Development - Career Management - Wage and Salary Administration - Employee Welfare - Health and Safety .

#### UNIT - V TRENDS IN HRM

Recent Trends in HRM - Stress Management - Human Resources Information System - HRM Research and Audit.

#### REFERENCE BOOKS:

- 1. Dr.J.Jayasankar, Human Resource Management, Margham Publications, Chennai
- 2. Ashwathappa(2010), K., Human Resource Management, 6th Edition, Tata McGraw- Hill Education Pvt. Ltd.,
- Mamoria, C.B.(2011). Personnel Management. Himalaya Publishing House
- 4. Dr.K.Sundar and Dr.J.Srinivasan, Human Resource Development, Margham
- 5. Dr. K. Sundar and ArockiaSamy, Human Resource Management. Vijay Nicole Publications. Chennai

Dr. S. SARAVANAN,
M.Com., M.B.A., M.Phil., Ph.D.,
ASSISTANT PROFESSOR & RESEARCH GUIDE
PG and Research Department of Commerce,
Dr. Ambedkar Government Arts College,
Vyasurpadi, Chennai-600 039.

# Ph.D Course work Syllabus(Thesis related paper) Paper -IV - ARTIFICIAL INTELLIGENCE IN HRM

## COURSE OBJETIVES

- 1. To understand the various characteristics of Artificial Intelligence in HRM
- 2. To know about the analysis of Artificial intelligence techniques and application.
- 3. To learn represent knowledge in solving Artificial intelligence problems.
- 4. To find out the major problems of IT Industries Sector

#### UNIT - HINTRODUCTION

Artificial intelligencein HRM - concept- meaning - definition - scope, goals, Characteristics and Importance of Artificial intelligence-Approaches of Artificial intelligence -Role of Artificial intelligence in HRM - challenges of Artificial intelligence in HRM.

# UNIT - II ARTIFICIAL INTELLIGENCE TECHNIQUES AND APPLICATION

Artificial Intelligence IIR techniques - Barriers to adopting Artificial Intelligence in Human Resource- Application of Artificial Intelligence in HR- -Deploying Artificial intelligence in Human Resource.

# UNIT -HICONTRIBUTION TO ARTIFICIAL INTELLIGENCE

Contribution to Artificial intelligence-Computer Science - Philosophy - Psychology-Neuron Science Biology-math's-sociology-Programming with or without Artificial intelligence-Knowledge Representation in Artificial intelligence

# UNIT - IVRECRUITMENT AND SELECTION

Recruitment -- Sources of Recruitment -- Factors Influencing Recruitment -- Selection -- Steps in the Selection Process - Selection Tests - - Placement and Induction. Knowledge Management Emotional Intelligence - Talent Management - Managing Human Resource in Virtual Organizations.

# UNIT - VOVERVIEW OF INFORMATION TECHNOLOGY INDUSTRIES

Overview in IT Industries in India- challenges faced in IT sector -Major Problems in IT Sectors- Resent Trends in IT sector-- Emerging issues in IT industries.

## REFERENCE BOOKS:

- M. Tim Jones, —Artificial Intelligence: A Systems Approach(Computer Science)!. Jones and Bartlett Publishers, Inc.; First Edition, 2008
- Nils J. Nilsson. —The Quest for Artificial Intelligencel. Cambridge University Press, 2009.
- 3. William F. Clocksin and Christopher S. Mellish, Programming in Prolog: Using the ISO Standardl, Fifth Edition, Springer, 2003.
- Gerhard Weiss, —Multi Agent Systemsl, Second Edition, MIT Press, 2013.
- 5. David L. Poole and Alan K. Mackworth. —Artificial Intelligence: Foundations of Computational Agentsl, Cambridge University Press, 2010.

Dr.

ASSISTANCE SEESSER & RESEARCH GUIDE PG and Research Department of Commerce, Dr. Ambedkar Government Arts College, Yyasarpadi, Chennai-500 039.

### Dr. Ambedkar Government Arts College, Vysarpadi P.G and Research Department of Mathematics Ph.D -Course Work Syllabus

## RESEARCH AND PUBLICATION ETHICS

Syllabus in Detail for two credit courses:

# RPE 01: PHILOSOPHY AND ETHICS (3 hrs.)

- 1. Introduction to philosophy, definition, nature and scope concept, branches 2. Ethics: definition, moral philosophy, nature of moral judgements and reactions:

# RPE 02: SCIENTIFICCONDUCT ( 5 Hrs.)

- 1. Ethics with respect to science and research
- 2. Intellectual honesty and research integrity
- 3. Scientific misconducts: Falsification Fabrication, and Plagiarism (FFP)
- 4 Redundant publications duplicate and overlapping publications, salami slicing
- 5 Selective Reporting and misrepresentation of data

# RPE 03: PUBLICATION ETHICS (7 HRS.)

- 1. Publication ethics: definition, introduction and importance
- 2. Best practices standards setting initiatives and guidelines. COPE, WAME, etc.
- 3. Conflicts of interest
- 4. Publication misconduct definition concept problems that lead to unethical behaviour and vice
- 5. Violation of publication ethics, authorship and contributor ship
- 6. Identification of publication misconduct complaints and appeals
- 7. Predatory publishers and journals

#### PRACTICE

# RPE 04: OPEN ACCESS PUBLISHING (4hrs.)

- 1. Open access publications and initiatives
- 2. SHERPA/ROMEO online resource to check publisher copyright & self-archiving policies
- 3. Software tool to identify predatory publications developed by SPPU
- 4. Journal finder/journal suggestion tools viz. JANE Elsevier journal Finder, Springer Journal suggested etc

# RPE 05 PUBLICATION MISCONDUCT (4hrs.)

- A. Group Discussions (2hrs.)
- 1. Subject specific ethical issues, FFP, authorship
- 2. Conflicts of interest
- 3. Complaints and appeals examples and fraud from India and abroad

#### B Software tools (2hrs.)

Use of plagiarism software like Turnitin, Urkund and other open source software tools

## RPE 06: DATABASES AND RESEARCH METRICS (7HRS.)

- A. DATABASES (4HRS.)
- 1. Indexing databases
- 2. Citation databases: Web of science, Scopus, etc.

#### B. RESEARCH METRICS (3HRS.)

- 1. Impact Factor of journal as per journal Citation Report, SNIP SUR IPP Cife score
- 2. Metrics h-index, Gindex 110 index, altmetrics

M.B.A. P.G.D.C.A. Ph.D. DEPATHERNAT Member

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Dr. R. Sakthivel (External Member) Phil. Ph.D.

## Dr. Ambedkar Government Arts College, Vysarpadi P.G and Research Department of Mathematics Ph.D -Course Work Syllabus

## GRAPH THEORY SYLLABUS FOR Ph.D Course Work

### Unit.1

Coverings-Coverings and Independent Sets-Planarity-Plane and Planar graph-Outer Planer graph-Thickness-Crossing Number

## Chapter.10. and Chapter.11

### Unit.2

Colourability- The Chromatic number- The five colour theorem- The chromatic polynomial-Matrices-the adjacency matrix-the incidence matrix-cycle matrix

## Chapter.12 and Chapter.13

### Unit.3

Edge Colouring- Edge Chromatic number-Vizing's Theorem-Applications-Time tabling Problem

### Chapter.6

### Unit.4

Vertex Colouring- Chromatic number-Brook's theorem-Hajos Conjecture-Chromatic Polynomial-girth and Chromatic Number.

### Chapter.8

#### Unit.5

Introduction to Labeling of graph-graceful labelling smf Harmonious labelling, Magic type labeling

### Chapter.2, Chapter.5

### Recommended Text:

For Unit.1 and Unit.2

Frank Harary, Graph theory, Narosa Publishing House, New Delhi, 2022

For Unit.3 and Unit.4

Graph theory with applications, J.A.Bondy and U.S.R.Murty, Oxford Press.

For Unit.5

A dynamic Survey of Graph Labeling, Joseph A. Gallian, 25th Edition.

G. Dr. G. Palani, rs college (Supervisor) at 500 039.

DI. M. RAMAKRICHNAN

M.SC., M.Phil., M.B.A., P.G.D.C.A. Ph.D.

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(Internal Membersion

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PG & Research Department of Mathematics,
Pachalyappa's College,
Chemial - 600 030

## **Document Information**

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## Sources included in the report

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LOSSLESS DNA SEQUENCE COMPRESSION ALGORITHMS USING SUBSTITUTIONAL AND DICTIONARY BASED METHODS Thesis submitted in Partial Fulfillment of the Degree of Doctor of Philosophy (Ph.D.) in COMPUTER SCIENCE By K. PUNITHA (Ph.D./Regn./47/PT/09/2015/2439) Under the Guidance of Dr. A. MURUGAN, M.Sc., Ph.D.,

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Associate Professor PG & RESEARCH DEPARTMENT OF COMPUTER SCIENCE Dr. AMBEDKAR GOVERNMENT ARTS COLLEGE (AUTONOMOUS) CHENNAI – 600 039 (AFFILIATED TO UNIVERSITY OF MADRAS)

### AUGUST 2022

CERTIFICATE FROM THE SUPERVISOR I certify that the thesis entitled "Lossless DNA Sequence Compression Algorithms using the Substitutional and Dictionary Based Methods" submitted for the degree of Doctor of Philosophy (Ph.D.) by Mrs. K. Punitha is the record of research work carried out by her during the period September 2015 to August 2022 under my guidance and supervision, and that this work has not formed the basis for the award of any Degree, Diploma, Associateship, Fellowship or other Titles in this University or any other University or institution of Higher Learning. Place: Chennai Signature of the Research Supervisor Date:

DECLARATION I declare that the thesis entitled "Lossless DNA Sequence Compression Algorithms using the Substitutional and Dictionary Based Methods" submitted by me for the Degree of Doctor of Philosophy(Ph.D.) is the record of work carried out by me during the period from September 2015 to August 2022 under the guidance

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### Sources included in the report

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STOCK PRICE PORECASTING USING HOLT- WINTERS TECHNIQUE AND HYBRID ENSEMBLE VALIDATED ARIMA MODEL THESIS SUBmitted IN PARTIAL PARTIES AND ATTEMPT OF THE DEGREE OF DOCTOR OF PHILOSOPHY (Ph.D.) IN COMPUTER SCIENCE BY K. ANUSHA In Partial Pulling Science by R. AN. (PhD735/PT/09/2015/CONFIRM/2017/352) Under the Guidance of Dr. A. MURUGAN, M.Sc., Ph.D. PG and

MATCHING BLOCK 1/70

RESEARCH DEPARTMENT OF COMPUTER SCIENCE Dr. AMBEDIKAR GOVERNMENT ARTS COLLEGE (AUTONOMOUS) CHENNAL - 600 0391

AFFILIATED TO UNIVERSITY OF MADRAS, SEPTEMBER 2022

vii ABSTRACT In today's digital world, both individuals and businesses are increasingly faced with urimanageable amounts of data, hence, knowledge discovery has become a great challenge.

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Traditionally, the method of converting data into knowledge relied on manual analysis, this has begome infeasible in many

fields since there has been an exponential growth in data volumes. Data mining helps to analyze a huge amount of data and extract hidden knowledge and natterns, which has been an exponential growth in data volumes. knowledge and patterns, which are useful in decision making. Data mining is used in numerous areas of business and research, including sales and marketing areas of patterns, which are useful in decision making. Data mining is used in numerous areas of business and research, including sales and marketing, product development, healthcare, and education. Data mining can provide intense benefits over competitors by enabling businesses to learn more about customers, develop effective marketing strategies, increase revenue, and decrease costs. Several studies have been made over the years in the areas of stock price prediction and risk assessment since the stock markets came into existence. However, these studies weren't successful in uncovering hidden relationships and underlying trends. This coupled with advancements in the information technology field in the form of data mining, machine learning and artificial intelligence motivated researchers and corporates to apply data mining techniques for stock market assessment. Stock markets tend to be unpredictable and even illogical and turbulent which makes it hard to find reliable patterns. Machine learning algorithms are capable of creating a model for handling turbulent and non-linear structures, discovering hidden patterns within the data and predicting how these patterns will affect the model in the future. This research work uses various data mining methods to help the investors to evaluate the stocks, predict future prices and build their decision on which of the stocks to invest to achieve profit. To start with, various data mining techniques have been used for stock market analysis and stock evaluation. Past data on stock data, dividend%, market indices, etd. were collected from the Bornbay Stock Exchange. The collected data were pre- processed by removing unwanted, noisy and blank data. Then various ratios were calculated to assess the risk levels of different companies. It was proceeded by the calculation of the intrinsic value of stock and calculation of Expected

viii Return. Then the impact of dividends and various macro-economic factors on the stock prices were studied as a next step, the work has built a model for predicting stock prices. Historical data on stock prices were collected from BSE and pre-processed. The future stock prices were predicted using the ARIMA model using arithmetic mean in the first phase. In the second phase, results of the ARIMA model have been were predicted using the Anima model using anti-lined. The accuracy of both ARIMA models has been determined, using RMSE. Finally, a hybrid ensemble improved by using the geometric mean. The accuracy of both ARIMA models has been determined, using RMSE. Finally, a hybrid ensemble improved by using the geometric mean. The accuracy of model has been measured using the voting classifier. While the first segment of the research work has proved that data mining is an effective tool in stock market analysis, the second segment dealing with segment of the research work has proved that data filling stated ARIMA model has turned out to be an effective mechanism for predicting developing a geometric mean-based hybrid ensemble validated ARIMA model has turned out to be an effective mechanism for predicting

Stock prices in the short run.

1 CHAPTER 1 INTRODUCTION In today's digital world, both individuals and businesses are increasingly faced with large amounts of data; hence, knowledge discovery has become a grand challenge.

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Traditionally, the method of converting data into knowledge relied on manual analysis; this has become unfeasible in many



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GHENNAI CITY Thesis Submitted to University of Madras in Partial Fulfillment of the Requirements for the Award of the Degree of DOCTOR OF PHILOSOPHY IN COMMERCE Submitted By

P.D. GLADSTAN, M.Com., M.Phil., Regn./2733/PT/12/2019/361 UUnnddeerr thhee GGuuilddaannccee ooff Dr. S. SARAVANAN, M.Com., M.B.A., M.Phil., Ph.D., Assistant Professor PG & Research Department of Commerce Dr. Ambedkar Govt. Arts College Vysarpadi Chennai-600039. DEPARTMENT OF COMMERCE Dr. AMBEDKAR GOVERNMENT ARTS COLLEGE CHENNAI - 600.039 MARCH 2023

1 Chapter — I Introduction I am Unique 1.1 Preface Every human being is unique in nature. No two persons do the same thing in the same way; no two persons behave in the same way in the same situation; one can notice a lot of differences. The concept of "Lifestyle' follows the same notion. Lifestyle is the way one lives or behaves. No two human beings can live or behave in the same way. Of late, a new type of lifestyle has started to pop up in the minds of academic researchers. It is e-lifestyle. The growth of the internet medium has given rise to this type of new lifestyle among internet users. The journey of this research on e-lifestyle begins with this chapter. Being the first chapter, the chapter \_Introduction' introduces the research work and contains an overview of this research work. In

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this chapter, the background of the study is briefed, the problem of the study is presented, the scope of the study is specified, the objectives of the study are outlined, the hypotheses of the study

are highlighted, the need for the study is narrated, the research methodology is registered, the research gaps are reported, and finally the chapter scheme is catalogued. 1.2 Background of the Study The term "lifestyle" is commonly used to categorize people who share the same characteristics and beliefs (Lin, F. Y., 2003). For example, DINK (Double Income No Kids) refers to couples without children with a higher disposable income (Lin, F. Y., 2003). Lifestyle is the measure of attitudes, interests, and psychological preferences and is defined as the procedure people use to express their understanding of themselves (Mendi, B., & Mendi, O., 2015). In marketing research, lifestyles can be used for niche marketing because they reveal consumers' needs and desires related to consumption behaviours (Lekakos, 2009, Li, 2013 as cited in Mendi, B., & Mendi, O., 2015). Lifestyle is defined as —distinctive modes of existence that are accomplished by persons and groups through socially sanctioned and culturally intelligible patterns of action!

2 and has been used for research and advertising in various markets (Lutzenhiser and Gossard, 2000; Sanquist et al., 2012 as cited in Mendi, B., & Mendi, O., 2015).

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Lifestyle is a —set of behaviors reflecting individual psychological concerns (internal beliefs) and sociological consequences (external stimuliill (

Yu. 2011 as cited in Mendi, B., & Mendi, O., 2015). Lifestyle studies (irst appeared in the 1950s, and were intended to define consumer behaviours (Havinhurst and Feigenbaum, 1959; Yu. 2011 as cited in Mendi, B., & Mendi, O., 2015), and the concept of lifestyle was used in marketing research in the 1960s (Lazar, 1963; Yu. 2011 as cited in Mendi, B., & Mendi, O., 2015). The AIO (Activities, Interests, Opinions) scale was developed

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by Wells and Tigert in the 1970s and the VALS (Value, Attitude, Lifestyle) scale developed by Mitchell in 1983

are widely used in lifestyle research (Mitchell, 1983; Yu. 2011 as cited in Mendi, B., & Mendi, O., 2015). There are different opinions, definitions, and theories related to lifestyle; however, Yu (2011) found in his study that all of these theories suggest that human behaviours can be understood by psychological and sociological variables (Mendi, B., & Mendi, O., 2015). Lifestyle theories agreed that consumer behaviors can be predicted by a function of sociological and psychological variables (Siti Hasnah Hassan, T. Ramayah, Osman Mohamed & Amin Maghsoud, 2015).

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Consistently, consumer e-lifestyle is also predictable and assessable by psychological and sociological constructs (Yu, 2011

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INFLUENCE OF HEALTH INSURANCE SERVICES ON CUSTOMER SATISFACTION: AN ECONOMIC ANALYSIS ECONOMICS

Dr. AMBEDKAR GOVERNMENT ARTS COLLEGE VYASARPADI, CHENNAI - 600 039 JUNE - 2022

INFLUENCE OF HEALTH INSURANCE SERVICES ON CUSTOMER SATISFACTION: AN ECONOMIC ANALYSIS WITH SPECIAL REFERENCE TO CHENNAL CITY, TAMIL NADU CHAPTER 1 INTRODUCTION 1.1 Background Insurance service industry plays strategically an important role contributing to the economic development of the country besides sharing the responsibility of funding major projects of the Central and State Governments. The insurance service industry has emerged as the fastest growing sectors in the global economy. In the recent years, health insurance services like other insurance services have realized the significance of customer centered policies. They are also using Service Quality as an important differentiator and a path to success. Service Quality is the consumers' judgment about an entity's overall excellence or superiority. It is a form of attitude and results from a comparison of expectations to perceptions of performance received. The health insurance industry like many other financial services industries is facing a rapidly changing market, new technologies, economic uncertainties, vicious competition and more demanding consumers and the changing climate has presented an unprecedented set of challenges. Just like companies of other business domains, health insurance also considers their customers as the most important asset. However, the most critical issue is whether this customer orientation is reflected in their strategies. Health insurance providers increasingly recognize that today"s customers who insist on improvements in quality of services have many alternatives and, therefore, may more readily change providers if not satisfied. This is evident from the not so uncommon practice of "policy lapses" readily embraced by dissatisfied policyholders. The decrease in customer loyalty has made management of service quality and customer satisfaction critically important factors for insurance players. The health insurance providers need to reconfigure their strategy and business to sustain or improve their competitive advantage, and for this they first need to consider how to create a satisfied customer base that will not be eroded even in the face of fierce competition. For answering this fundamental question, these companies must realize the necessity of studying and understanding various antecedents of customer satisfaction. Therefore, the health insurance players need to realize that business depends on client service and the satisfaction of the customer and therefore it is imperative for them to

customer service quality. In present study, we evaluated different factors influencing health insurance services on customer satisfaction in Chennal city, Tamil Nadu. 1.2 Health Insurance- The Concept The term "Health Insurance" is a type of insurance that covers the medical expenses in health care.

Policy normally cover the expenses reasonably and necessarily incurred under the below mentioned heads in respect of each insured person subject to overall ceiling of sum insured (for all claims during one policy period). a) Room rent b) Nursing expenses c) Fees of surgeon, anaesthetist physician. consultants, specialists d) Anaesthesia, blood, oxygen, operation theatre charges, surgical appliances, medicines, drugs, diagnostic materials, X-ray, Dialysis, chemotherapy, blood transfusion, cost of outpatient consultancy cost of organs and similar expenses. The Sum assured may be on an individual basis or on a floater basis for the family as a single unit. It also offers to groups working for achieving a common objective may be like working for a company. Health Insurance policies like other forms of insurance may offer a cumulative bonus for every claim-free year, the sum insured is increased by a certain Percentage at the time of renewal. The increase is subject to a maximum Percentage. In case of a claim, the cumulative bonus is reduced by 10% at the next renewal. Health care expenses incurred during a specified number of days before the hospitalization and after the hospitalization from the date of discharge may be considered as part of the claim provided the expenses relate to the disease/ailment. Insurance companies have tie-up arrangements with a large number of hospitals. If policyholder takes treatment in any of these hospitals, there is no need for the insured to pay hospital bills. The Insurance Company, through its Third Party Administrator (TPA) or directly as in the case, will arrange direct payment to the concerned hospital. Expenses beyond sub limits prescribed by the insurance provider in the policy or treatments not covered under the policy have to be settled by the insured directly maybe sometimes called co-payments. The insured can avail treatment in a non-listed hospital in which case the insured has to pay the bills first and then seek reimbursement from the Insurance Company. There will be no cashless facility available in those hospitals. Add-ons are provided by insurance companies to offer additional benefits and to attract more Customers to health insurance. There are also stand-alone policies that are designed to give benefits like hospital cash, critical illness benefits, surgical treatment benefits, etc. These policies can either be taken separately or in addition to the hospitalization policy. Health insurance policies are issued for a period of one year. The common form of health insurance policies in India cover the expenses incurred on hospitalization. New variety of products are now available like critical illness policy which offer a range of health covers, depending on the need and requirement of the insured. It is also designed based on the market requirements. The health insurer provides direct payment to hospital (cashless facility) or reimburses the expenses related to the disease and injuries or disburses a fixed amount of money on the happening of an illness.

advance to reduce the disputes likely emerge in the future. Buying health insurance policies protects the people from the sudden, unexpected costs of impatient or outpatient treatments (or other covered health events, like critical illnesses) which would otherwise make a major hole into the household savings. Most often it leads to indebtedness which is evident in many cases throughout the Country. Everyone is exposed to various health hazards and a medical emergency can cause indebtedness to more than seventy Percent of the population without any prior warning. Healthcare is increasingly becoming expensive, with the advent of technology, new treatment procedures. Modern medicines have also driven up the costs of healthcare. 1.3 Health Insurance in India: Health insurance is one of the emerging service sectors in India.

is now emerging as a tool to manage financial needs of people to seek health services. Today,

Suman Devi, 2018). The concept of Health Insurance was proposed in the year 1694 by Hugh the elder Chamberlen from Peter Chamberlen family. In 19th Century "Accident Assurance" began to be available which operated much like modern disability insurance. This payment model continued until the start of 20th century. During the middle to late 20th century traditional disability insurance evolved in to modern health insurance programmes. Today, most comprehensive health Insurance programmes cover the cost of routine, preventive and emergency health care procedures and also most prescription drugs. But this is not always the case. Healthcare in India is in a state of enormous transition: increased income and health consciousness among the majority of the classes, price liberalization, reduction in bureaucracy, and the introduction of private healthcare financing drive the change. insurance. Before independence, the health structure was in dismal condition i.e. high morbidity and high mortality and prevalence of infectious diseases. Since independence, emphasis has been put on primary health care and we made considerable progress in improving the health status of the country, But

still, India is way behind many fast developing countries such as China, Vietnam and Sri Lanka in



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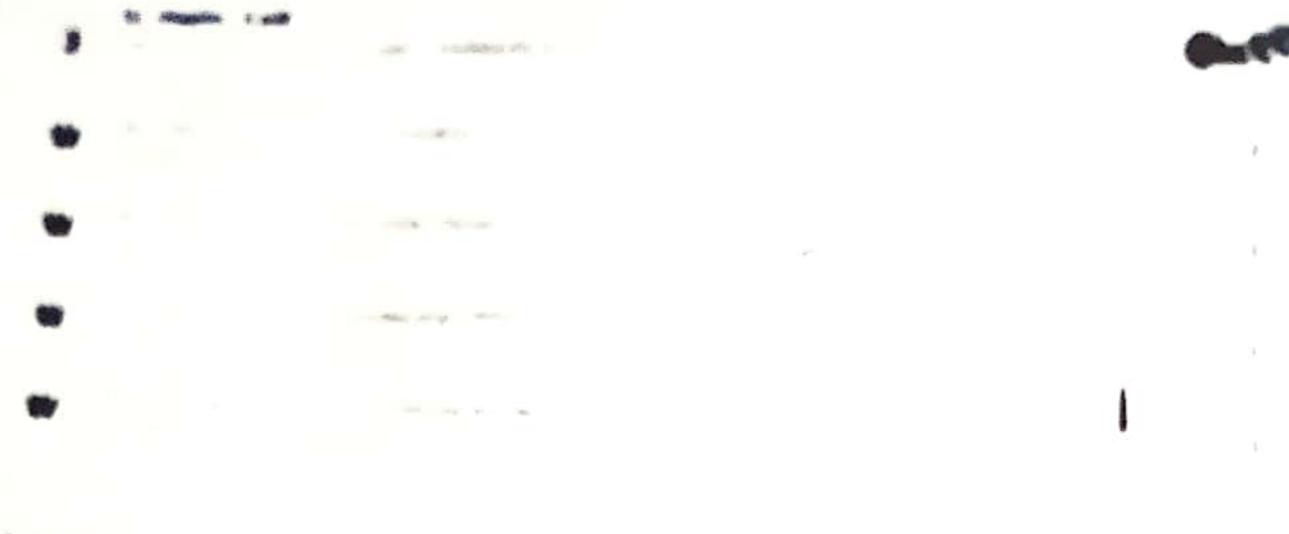
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