

SADAKATHULLAH APPA COLLEGE
(AUTONOMOUS)
(Reaccredited by NAAC withan 'A' Grade with a CGPA of
3.40 out of 4.00 in the III cycle An ISO 9001:2015 Certified
Institution)
RAHMATH NAGAR, TIRUNELVELI- 11,
Tamilnadu

PG AND RESEARCH DEPARTMENT OF
COMPUTER SCIENCE
(Unaided)



CBCS SYLLABUS
For
M.Phil. COMPUTER SCIENCE

(Applicable for students admitted in June 2018 and
onwards)

(As per the Resolutions of the Academic Council
Meeting held on 17.10.2018)

SADAKATHULLAH APPA COLLEGE (AUTONOMOUS)
PG AND RESEARCH DEPARTMENT OF COMPUTER SCIENCE
M.Phil. Computer Science Syllabus
(Applicable for students admitted in June 2018 and onwards)
COURSE STRUCTURE

I SEMESTER			II SEMESTER		
COURSE	H/W	C	COURSE	H/W	C
Core 1	4	4	Project and Viva - Voce	12	12
Core 2	4	4			
Project Oriented Elective Course (Theory)	4	4			
TOTAL	12	12	TOTAL	12	12

DISTRIBUTION OF HOURS, CREDITS, NO. OF PAPERS, & MARKS

SUBJECT	HOURS	CREDITS	NO. OF PAPERS	MARKS
Core	8	8	2	200
Project Oriented Elective Course (Theory)	4	4	1	100
Project and Viva-Voce	12	12	1	100
TOTAL	24	24	4	400

TITLE OF THE PAPERS

M. PHIL. COMPUTER SCIENCE (2018 - 2021)

(The candidate should select any one of the Area Papers in the first semester related to their proposed topics of research)

SEM	P	TITLE OF THE PAPER	SUB. CODE	H/W	C	MARKS		
						I	E	T
I	DSC1	Research and Teaching Methodology	18MCCS11	4	4	25	75	100
	DSC2	Machine Learning Techniques	18MCCS12	4	4	25	75	100
	DSE	A) Virtual Reality	18MECS1A	4	4	25	75	100
		B) Digital Image Processing	18MECS1B					
		C) Deep Learning	18MECS1C					
D) Big Data Analytics		18MECS1D						
II	D	Project and Viva-Voce	18MDCS21	-	12	--	100	100
TOTAL				12	24	75	325	400

M. PHIL. COMPUTER SCIENCE SYLLABUS

(Applicable for students admitted in June 2018 and onwards)

I SEMESTER			
DSC1	RESEARCH AND TEACHING METHODOLOGY		18MCCS11
Hrs/Week:4	Hrs/ Sem:60	Hrs/Unit:12	Credits: 4

OBJECTIVES:

- To develop understanding of the basic framework of research process.
- To develop an understanding of various research designs and techniques.
- To identify various sources of information for literature review and data collection.
- To develop an understanding of the ethical dimensions of conducting applied research.
- Appreciate the components of scholarly writing and evaluate its quality.

UNIT I INTRODUCTION TO RESEARCH

Meaning of Research – Objectives of Research – Motivation in Research – Types of Research – Research Approaches – Significance of Research – Research Methods versus Methodology – Research and Scientific Method – Importance of knowing how research is done – Research Process – Criteria of Good Research – Defining the Research Problem – Selecting the Problem – Necessity – Techniques involved in defining a problem – Research Design – Meaning – #Need# – Features of Good Design.

UnitII Data Collection and analysis:

Execution of the research - Observation and Collection of data - Methods of data collection – Sampling Methods- Data Processing and Analysis strategies - Data Analysis with Statistical Packages - Hypothesis-testing - Generalization and Interpretation. RESEARCH TOOLS Introduction – SPSS – MATLAB – LaTeX – #Weka# # # self-study portion

Unit III Reporting and thesis writing

Structure and components of scientific reports - Types of report – Technical reports and thesis – Significance – Different steps in the preparation – Layout, structure and Language of typical reports – Illustrations and tables - Bibliography, referencing and footnotes - Oral presentation – Planning – Preparation – Practice – Making presentation – Use of visual aids - Importance of effective communication – Interpretation of Data and Paper Writing – Layout of a Research Paper, Journals in Computer Science, Impact factor of Journals.

Unit IV Application of results and ethics –

Environmental impacts - Ethical issues - ethical committees - Commercialisation – Copy right – royalty - Intellectual property rights and patent law – Trade Related aspects of Intellectual Property Rights – Reproduction of published

material – Plagiarism - Citation and acknowledgement - Reproducibility and accountability.

UNIT V Methodology of Teaching

Teaching –Objective of Teaching-Phases of Teaching-Teaching Methods: Lecture Methods-Discussion Methods-Discovery Learning-Inquiry, Problem Solving Methods-Project Method-Seminar-Integrating ICT in Teaching-Individualised Instruction, Ways for Effective Presentation with Power Point-Documentation-Evaluation: Formative-Summative-Continuous and Comprehensive Evaluation-Later Adolescents Psychology: Meaning Physical, Cognitive, Emotional, Social and Moral Development-Teaching Later Adolescents.

COURSE OUTCOMES:

- Understand some basic concepts of research and its methodology
- Identify appropriate research topics
- Select and define appropriate research problem parameter
- Overview & concepts of research
- The need for research and types of research
- Steps in conducting research, prepare a project proposal
- Organize and conduct research in a more appropriate manner
- Write a research report, thesis and research proposal

REFERENCES

1. Garg, B.L., Karadia, R., Agarwal, F. and Agarwal, U.K., 2002. An introduction to Research Methodology, RBSA Publishers.
2. Kothari, C.R., 1990. Research Methodology: Methods and Techniques. New Age International. 418p.
3. Sinha, S.C. and Dhiman, A.K., 2002. Research Methodology, EssEss Publications. 2 volumes.
4. Trochim, W.M.K., 2005. Research Methods: the concise knowledge base, Atomic Dog Publishing. 270p.
5. Wadehra, B.L. 2000. Law relating to patents, trade marks, copyright designs and geographical indications. Universal Law Publishing.

Additional Reading

1. Anthony, M., Graziano, A.M. and Raulin, M.L., 2009. Research Methods: A Process of Inquiry, Allyn and Bacon.
2. Carlos, C.M., 2000. Intellectual property rights, the WTO and developing countries: the TRIPS agreement and policy options. Zed Books, New York.
3. Coley, S.M. and Scheinberg, C. A., 1990, "Proposal Writing", Sage Publications.
4. Day, R.A., 1992. How to Write and Publish a Scientific Paper, Cambridge University Press.
5. Fink, A., 2009. Conducting Research Literature Reviews: From the Internet to Paper. Sage Publications
6. Leedy, P.D. and Ormrod, J.E., 2004 Practical Research: Planning and Design, Prentice Hall.
7. Satarkar, S.V., 2000. Intellectual property rights and Copy right. EssEss Publications.

I SEMESTER			
DSC2	MACHINE LEARNING TECHNIQUES		18MCCS12
Hrs/Week: 4	Hrs/ Sem: 60	Hrs/Unit: 12	Credits: 4

OBJECTIVES:

- To introduce students to the basic concepts and techniques of Machine Learning.
- To have a thorough out understanding of the Supervised and Unsupervised learning
- To study the various probability based learning techniques

UNIT I FOUNDATION OF LEARNING

Probability Theory - Linear Algebra - Convex Optimization - Statistical Decision Theory - Regression - Classification - Bias Variance - Linear Regression - Multivariate Regression - Subset Selection - Shrinkage Methods - Principal Component Regression - Partial Least squares.

UNIT II LINEAR MODELS

Linear Classification - Logistic Regression - Linear Discriminant Analysis - Perceptron - Support Vector Machines - Neural Networks - Early Models - Perceptron Learning - Backpropagation - Initialization - Training & Validation - Parameter Estimation - Bayesian Estimation

UNIT III TREE AND RULE MODEL

Decision Trees - Regression Trees - Stopping Criterion & Pruning - Loss functions - Categorical Attributes - Multiway Splits - Missing Values - Decision Trees – Instability - Evaluation Measures - Bootstrapping & Cross Validation - Class Evaluation Measures - ROC curve - Ensemble Methods - Bagging - Boosting - Multi-class Classification - Naive Bayes - Bayesian Networks

UNIT IV CLUSTERING

Undirected Graphical Models - HMM - Variable Elimination - Belief Propagation - Partitional Clustering - Hierarchical Clustering - Birch Algorithm - CURE Algorithm - Density-based Clustering

UNIT V REINFORCEMENT LEARNING

Gaussian Mixture Models - Expectation Maximization - Learning Theory - Introduction to Reinforcement Learning - Optional videos (RL framework - TD learning - Solution Methods - Applications)

COURSE OUTCOMES

- To implement neural network for an application of your choice using an available tool.
- To implement probabilistic discriminative and generative algorithms for an application of your choice and analyze the results.

- To use a tool to implement typical clustering algorithm for different types of application.
- To design and implement an HMM for a sequence model type of application.
- To identify applications suitable for different types of machine learning with suitable justification

TEXT BOOKS:

1. The Elements of Statistical Learning - by Trevor Hastie - Robert Tibshirani - Jerome H. Friedman (freely available online)
2. Pattern Recognition and Machine Learning - by Christopher Bishop (optional)

REFERENCE(S):

1. K. P. Murphy - "Machine Learning: A probabilistic perspective" - MIT Press - 2012.
2. C. M. Bishop - "Pattern Recognition and Machine Learning" - Springer - 2007.
5. D. Barber - "Bayesian Reasoning and Machine Learning" - Cambridge University Press - 2012.

I SEMESTER			
DSE(A)	VIRTUAL REALITY		18MECS1A
Hrs/Week:4	Hrs/ Sem: 60	Hrs/Unit:12	Credits: 4

OBJECTIVES:

- To impart the fundamental aspects, principles of virtual reality technology
- To gain knowledge about hardware tools of virtual reality

UNIT I VIRTUAL REALITY AND VIRTUAL ENVIRONMENTS

Introduction – Computer Graphics – Real-time computer Graphics – Flight Simulation – Virtual Environment – Benefits of Virtual Reality – Historical Development of VR: Scientific Landmarks.

UNIT II 3D COMPUTER GRAPHICS

Virtual world Space – Positioning the Virtual Observer – The Perspective Projection – Human Vision – Stereo Perspective Projection – 3D Clipping – Color Theory – Simple 3D Modeling – illumination, reflection Models- Shading Algorithms – Radiosity – Hidden surface removal – realism- stereographic Images Geometric Modeling: 3D Space Curves – 3D boundary representation – other modeling strategies – Geometrical Transformations: Frames of reference – Modeling – Instances – Picking, Flying, scaling – Collision detection.

UNIT III GENERIC VR SYSTEM

Virtual Environment – computer Environment – VR technology – Models of Interaction – VR Systems – Animating the Virtual Environment: The Dynamics of numbers – animation of objects – Shape and object i n between – Free-form deformation – Particle Systems

UNIT IV PHYSICAL SIMULATION

Objects Falling in a gravitational field – Rotating wheels – Elastic Collisions – Projectiles – Simple Pendulums – Springs – Flight dynamics of an aircraft. Human Factors: The eye – the ear – The Somatic senses – Equilibrium.

UNIT V VR HARDWARE

Sensor Hardware – Head-Coupled display s – Acoustic Hardware – Integrated VR Systems – VR Software: Modeling Virtual World – Physical Simulation – VR Tool Kits – VR Applications: Engineering – Entertainment – Science – training – The Future: Virtual Environments – Modes of Interaction.

COURSE OUTCOMES

- To discuss the basic concepts of Virtual Reality
- Develop the Virtual Reality application in different areas
- Design of various Modeling concepts
- To expose the concept of Virtual Reality Programming with Toolkits

TEXT BOOK(S):

John Vince, "Virtual Reality Systems", Pearson Education Asia, 2001

REFERENCE BOOK(S):

1. The VRML 2.0 Handbook by Jed Hartman - Josie Wernecke - and Silicon Graphics (Paperback - Oct 10 - 1996)
2. Building VrmL Worlds by Claire Sanders - Charlie Scott - Paul Wolfe - and SebastianHassinger (Paperback - Dec 1996)
3. The Annotated VRML 2.0 Reference Manual by Rikk Carey and Gavin Bell (Paperback - Jun 6 - 1997)
4. Reality Architecture: Building 3D Worlds In Java and VRML by Mccarthy and Carty (Paperback - Feb 5 - 1998)
5. The VrmL Sourcebook by Andrea L. Ames - David R. Nadeau - and John L. Moreland (Paperback - Jan 1996)
6. VrmL: Browsing and Building Cyberspace by Mark Pesce (Paperback - Sep 1995)

I SEMESTER			
DSE(B)	DIGITAL IMAGE PROCESSING		18MECS1B
Hrs/Week:4	Hrs/ Sem: 60	Hrs/Unit:12	Credits: 4

OBJECTIVES:

- Learn Digital Image introduction and filtering concepts.
- Be Exposed To Simple Image Processing Techniques.
- Be Familiar With Image Compression And Segmentation Techniques.
- Learn To Represent Image In Form Of Features.

UNIT I Introduction and Filtering

Light - Brightness adaption and discrimination - Pixels - coordinate conventions - Imaging Geometry - Perspective Projection - sampling and quantization. **Spatial Domain Filtering:** Intensity transformations - contrast stretching - histogram equalization - Correlation and convolution - Smoothing filters - sharpening filters - gradient and Laplacian. **Filtering in the Frequency domain:** Fourier Transforms and properties - FFT - Convolution - Correlation - 2-D sampling - Discrete Cosine Transform.

UNIT II Image Restoration

Basic Framework - Interactive Restoration - Image deformation and geometric transformations - image morphing - Restoration techniques - Noise characterization - Noise restoration filters - Adaptive filters - Linear - Position invariant degradations - Estimation of Degradation functions - Restoration from projections.

UNIT III Image Compression

Encoder-Decoder model - Types of redundancies - Lossy and Lossless compression - Entropy of an information source - Shannon's 1st Theorem - Huffman Coding - Arithmetic Coding - Golomb Coding - LZW coding - Transform Coding - Run length coding - Bit-plane encoding - Discrete Wavelet Transform (DWT) - Continuous Wavelet Transform - Fast Wavelet Transform - 2-D wavelet Transform - JPEG-2000 encoding - Digital Image Watermarking.

UNIT IV Morphological Image Processing

Basics - SE - Erosion - Dilation - Opening - Closing - Hit-or-Miss Transform - Boundary Detection - Hole filling - Connected components - convex hull - thinning - thickening - skeletons - pruning - Geodesic Dilation - Erosion - Reconstruction by dilation and erosion.

UNIT V Image Segmentation

Boundary detection based techniques - Point - line detection - Edge detection - Edge linking - local processing - regional processing - Hough transform - Thresholding - Iterative thresholding - Otsu's method - Moving averages -

Multivariable thresholding - Region-based segmentation - Watershed algorithm -
Use of motion in segmentation

COURSE OUTCOMES

- The student should be able to implement basic image processing algorithm using MATLAB tools
- Design an application that incorporates different concepts of image processing.
- Apply an explore new technologies in the areas of image enhancement restoration, segmentation, compression, wavelet processing and image morphology.
- Critically analyze the different approaches to implements mini project
- Explore the possibility of applying image processing concepts in various domains.

REFERENCE(S):

1. Digital Image Processing, 3rd Edition, by Rafael C Gonzalez and Richard E Woods. Publisher: Pearson Education.

RELATED LINKS:

<http://www.ece.arizona.edu/~dial/>

I SEMESTER			
DSE(C)	DEEP LEARNING		18MECS1C
Hrs/Week: 4	Hrs/ Sem: 60	Hrs/Unit: 12	Credits: 4

OBJECTIVES:

- To introduce students to the basic concepts and techniques of Deep Learning.
- To have a thorough understanding of the Neural Networks, Autoencoders and Regularization
- To study the various probability based Convolutional Neural Networks techniques

UNIT I INTRODUCTION

History of Deep Learning - McCulloch Pitts Neuron - Thresholding Logic - Perceptrons - Perceptron Learning Algorithm - Multilayer Perceptrons (MLPs) - Representation Power of MLPs - Sigmoid Neurons - Gradient Descent - Feedforward Neural Networks - Representation Power of Feedforward Neural Networks

UNIT II NEURAL NETWORKS

FeedForward Neural Networks - Backpropagation - Gradient Descent (GD) - Momentum Based GD - Nesterov Accelerated GD - Stochastic GD - AdaGrad - RMSProp - Adam - Eigenvalues and eigenvectors - Eigenvalue Decomposition

UNIT III AUTOENCODERS

Principal Component Analysis and its interpretations - Singular Value Decomposition Autoencoders and relation to PCA - Regularization in autoencoders - Denoising autoencoders - Sparse autoencoders - Contractive autoencoders

UNIT IV REGULARIZATION

Regularization: Bias Variance Tradeoff - L2 regularization - Early stopping - Dataset augmentation - Parameter sharing and tying - Injecting noise at input - Ensemble methods - Dropout Greedy Layerwise Pre-training - Better activation functions - Better weight initialization methods - Batch Normalization

UNIT V CONVOLUTIONAL NEURAL NETWORKS

Learning Vectorial Representations Of Words - Convolutional Neural Networks - LeNet - AlexNet - Visualizing Convolutional Neural Networks - Guided Backpropagation - Deep Dream - Deep Art - Fooling Convolutional Neural Networks - Recurrent Neural Networks - Backpropagation through time (BPTT)

COURSE OUTCOMES

- The fundamental principles theory and approaches for learning with deep neural networks
- The main variants of deep learning and their typical application
- The key concepts issues and practices when training and modeling with deep architectures as well as have hands on experience in using deep learning framework for this purpose
- How to implement basic versions of some of the core deep network algorithms
- How deep learning fits within the context of other ML approaches and what learning tasks it considered to be suited and not well suited to perform.

REFERENCE(S):

1. Deep Learning - An MIT Press book - Ian Goodfellow and YoshuaBengio and Aaron Courville.

RELATED LINKS:

<http://www.deeplearningbook.org>

I SEMESTER			
DSE(D)	BIG DATA ANALYTICS		18MECS1D
Hrs/Week: 4	Hrs/ Sem: 60	Hrs/Unit: 12	Credits: 4

OBJECTIVES:

- To understand the competitive advantages of big data analytics
- To understand the big data frameworks
- To learn data analysis methods
- To learn stream computing
- To gain knowledge on Hadoop related tools such as HBase, Cassandra, Pig, and Hive for big data analytics

UNIT I INTRODUCTION TO BIG DATA

Big Data – Definition - Characteristic Features – Big Data Applications - Big Data vs Traditional Data - Risks of Big Data - Structure of Big Data - Challenges of Conventional Systems - Web Data – Evolution of Analytic Scalability - Evolution of Analytic Processes - Tools and methods - Analysis vs Reporting - Modern Data Analytic Tools.

UNIT II HADOOP FRAMEWORK

Distributed File Systems - Large-Scale File System Organization – HDFS concepts - MapReduce Execution - Algorithms using MapReduce - Matrix-Vector Multiplication – Hadoop YARN.

UNIT III DATA ANALYSIS

Statistical Methods:Regression modelling - Multivariate Analysis - Classification: SVM & Kernel Methods - Rule Mining - Cluster Analysis - Types of Data in Cluster Analysis - Partitioning Methods - Hierarchical Methods - Density Based Methods - Grid Based Methods - Model Based Clustering Methods - Clustering High Dimensional Data - Predictive Analytics – Data analysis using R.

UNIT IV MINING DATA STREAMS

Streams: Concepts – Stream Data Model and Architecture - Sampling data in a stream - Mining Data Streams and Mining Time-series data - Real Time Analytics Platform (RTAP) Applications - Case Studies - Real Time Sentiment Analysis - Stock Market Predictions.

UNIT V BIG DATA FRAMEWORKS

Introduction to NoSQL – Aggregate Data Models – Hbase: Data Model and Implementations – Hbase Clients – Examples – .Cassandra: Data Model – Examples – Cassandra Clients – Hadoop Integration. Pig – Grunt – Pig Data Model – Pig Latin – developing and testing Pig Latin scripts. Hive – Data Types and File Formats – HiveQL Data Definition – HiveQL Data Manipulation – HiveQL Queries.

COURSE OUTCOMES

- Understand how to leverage the insights from big data analytics
- Analyze data by utilizing statistical data mining approaches
- Perform analytics on real time streaming data.
- Understand the various NO SQL alternative database models

REFERENCE(S):

1. Bill Franks, —Taming the Big Data Tidal Wave: Finding Opportunities in Huge Data Streams with Advanced Analytics, Wiley and SAS Business Series, 2012.
2. David Loshin, "Big Data Analytics: From Strategic Planning to Enterprise Integration with Tools, Techniques, NoSQL, and Graph", 2013.
3. Michael Berthold, David J. Hand, —Intelligent Data Analysis, Springer, Second Edition, 2007.
4. Michael Minelli, Michelle Chambers, and Ambiga Dhiraj, "Big Data, Big Analytics: Emerging Business Intelligence and Analytic Trends for Today's Businesses", Wiley, 2013.
5. P. J. Sadalage and M. Fowler, "NoSQL Distilled: A Brief Guide to the Emerging World of Polyglot Persistence", Addison-Wesley Professional, 2012.
6. Richard Cotton, "Learning R – A Step-by-step Function Guide to Data Analysis, , O'Reilly Media, 2013.

II SEMESTER		
D	PROJECT AND VIVA-VOCE	18MDCS21
Hrs/Week:12	Hrs/ Sem: 180	Credits: 12

The following guidelines have to be followed by every candidate while preparing his/her M.Phil. Dissertation:

- The Dissertation should be in English.
- The candidate has to follow the instructions of the SadakathullahAppa College COMPUTER SCIENCE Research Centre with regard to the format and content of the Dissertation.
- The first page, Declaration and certificate of the dissertation should be according to the model given at the end of this.
- Dissertation text should be typed in usual MS-Office font with size 12 / 13 on A4 size Executive bond quality paper with double line spacing. Each page should contain at least 20 lines.
- The Dissertation should be submitted in duplicate.
- The number of pages in M.Phil. Dissertation should be not less 100 pages inclusive of bibliography and Annexure.
- Two bound copies of the M.Phil. Dissertation duly signed by the Guide and Head of the Department should be submitted through the Research Centre along with the CD containing the softcopy of the Dissertation in PDF format.
- Candidates shall submit the dissertation to the Research Centre through the Supervisor and Head of the Department within 6 months but not earlier than 5 months from the date of start of the second semester.
- The M.Phil. scholars should attend at least one of the following:

training programmes / Workshops / Seminars / Symposiums, etc., and that they should also have a paper either published or received for acceptance in an ISSN / Reputed Journal before submitting the Dissertation. M.Phil. Scholars shall present at least one research paper in a conference or seminar as per UGC norms. Photo copy of the publication/Letter of acceptance for publication should be given as Annexure at the end of the Dissertation. **Scholars who fail to comply with the above are not eligible for the submission of their Dissertation.**
- Both the Internal as well as External Examiners award 100 marks each for the Dissertation and the average of the marks awarded by the two examiners will be given to the candidates. The distribution of marks will be **60 marks for the Dissertation and 40 marks for the Public Viva-Voce Examination.** In the Public Viva-voce Examination the M.Phil. Scholars should present their Dissertation work with PowerPoint Presentation. The Division of marks for the Dissertation is as mentioned below:

Particulars	Internal Examiner	External Examiner
Wording of Title	5	5
Objectives/ Formulation including Hypothesis	5	5
Review of Literature	10	10
Relevance of Dissertation to Social Needs	5	5
Methodology/ Technique/ Procedure Adopted	15	15
Summary/ Findings/ Conclusion	5	5
Bibliography/ Annexure/ Foot notes	10	10
Training/ Seminar/ Workshop	5	5
	60	60

(Model for the Title Page of the Dissertation)

TITLE OF THE DISSERTATION

*Dissertation Submitted to the
SadakathullahAppa College (Autonomous)
in partial fulfilment of the requirements for the award of
the degree of*

MASTER OF PHILOSOPHY (MAJOR)

Submitted by

NAME OF THE CANDIDATE

(REGISTER NO. XXXXXXXXX)

Under the guidance of

NAME OF THE GUIDE

Designation of the Guide
SadakathullahAppa College (Autonomous)
Tirunelveli – 627011



**RESEARCH DEPARTMENT OF (MAJOR)
SADAKATHULLAH APPA COLLEGE (AUTONOMOUS)
TIRUNELVELI – 627011
MONTH, YEAR**

(Model for the Certificate of the Dissertation)

SadakathullahAppa College (Autonomous)

Rahmath Nagar, Tirunelveli – 627011

CERTIFICATE

Certified that the dissertation work with the title, **“TITLE OF THE DISSERTATION”** submitted by **NAME OF THE CANDIDATE** with the register number XXXXXXXX in partial fulfilment of the requirements for the award of the degree of **Master of Philosophy in (Major) at the Research Department of (Major), SadakathullahAppa College (Autonomous)**, is a work done by the candidate during the period 20XX-XX, under my guidance and supervision and this dissertation or any part thereof has not been submitted elsewhere for any other Degree or Diploma.

Tirunelveli – 627011

DD-MM-YEAR

<<Signature of the HOD with date>>
<<Name of the HOD>>
<<Academic Designation of the HOD>>
<<Name of the Department>>
SadakathullahAppa College (Autonomous)
Tirunelveli - 11

<<Signature of the Supervisor with date>>
<<Name of the Supervisor>>
<<Academic Designation of the
Supervisor>>
<<Name of the Department>>
SadakathullahAppa College (Autonomous)
Tirunelveli - 11

Viva-Voce Examination for the candidate was conducted on
.....

Internal Examiner

External Examiner

(Model for the Declaration by the Candidate)

Name of the Candidate,

M.Phil. Scholar, (Register No.: XXXXXXXX)

Research Department of XXXXXXXX,

SadakathullahAppa College (Autonomous),

Rahmath Nagar, Tirunelveli – 627011

DECLARATION BY THE CANDIDATE

I hereby declare that, the dissertation with the title, **“TITLE OF THE DISSERTATION”** submitted in partial fulfilment of the requirements for the award of the degree of **Master of Philosophy in XXXXXXXX** at **the Research Department of XXXXXXXX, SadakathullahAppa College (Autonomous)**, is my original work done under the guidance of **Name of the Guide, Designation of the Guide, SadakathullahAppa College (Autonomous), Tirunelveli – 11** and this work has not been submitted elsewhere for any other Degree or Diploma.

Tirunelveli – 627011

DD-MM-YEAR

(Signature of the Candidate)

Countersigned

1. Signature and Seal of the Guide

2. Signature and Seal of the HOD