

DISSERTATION PREPARATION AND SUBMISSION GUIDELINES

MASTER OF TECHNOLOGY (COMPUTE SCIENCE AND ENGINEERING)

Department of Computer Science & Information Technology

Mahatma Gandhi Central University, Motihari, Bihar

Preamble: While utmost attention must be paid to the content of the Thesis/Dissertation/Report (hereinafter called the 'Thesis'), which is being submitted in partial fulfillment of the requirements of the respective degree, a standard format must be prescribed. The same format shall also be followed in the preparation of the final soft copies to be submitted to the Library in the future.

Thesis/Dissertation/Report must be based on Research work/Industry/Project-based research only.

1. DISSERTATION PREPARATION GUIDELINES

This Dissertation shall be presented in a number of chapters, starting with an Introduction and ending with a Summary and Conclusions. Each of the other chapters will have a precise title reflecting the contents of the chapter. A chapter can be subdivided into sections, subsections, and subsubsection so as to present the content discretely and with due emphasis.

1.1. Introduction

The title of **Chapter 1** shall be Introduction. It shall justify and highlight the problem posed, define the topic and explain the aim and scope of the work presented in the Dissertation. It may also highlight the significant contributions from the investigation.

1.2. Related Work/Literature Survey

This shall normally form **Chapter 2** and shall present a critical appraisal of the previous work published in the literature pertaining to the topic of the investigation. The extent and emphasis of the chapter shall depend on the nature of the investigation.

1.3. The Proposed Model

The reporting on the investigation shall be presented in one or more chapters with appropriate chapter titles.

- Due importance shall be given to experimental setups, procedures adopted, techniques developed, methodologies developed and adopted.
- While important derivations/formulae should normally be presented in the text of these chapters, extensive and long treatments, copious details, and tedious information, detailed results in tabular and graphical forms may be presented in Appendices. Representative data in tables and figures may, however, be included in appropriate chapters.
- Figures and tables should be presented immediately following their first mention in the text. Short tables and figures (say, less than half the writing area of the page) should be presented within the text, while large tables and figures may be presented on separate pages.
- Equations should form separate lines with appropriate paragraph separation above and below the equation line, with equation numbers flushed to the right.

1.4. Results and Analysis

This shall form the penultimate chapter of the thesis and shall include a thorough evaluation of the investigation carried out and bring out the contributions from the study. The discussion shall logically lead to inferences and conclusions as well as scope for possible further future work.

1.5. Summary and Conclusion

This will be the final chapter of the dissertation/thesis. A brief report of the work carried out shall form the first part of the Chapter. Conclusions derived from the logical analysis presented in the Results and Discussions Chapter shall be presented and clearly enumerated, each point stated separately. Scope for future work should be stated lucidly in the last part of the chapter.

1.6. Appendix

Detailed information, lengthy derivations, raw experimental observations, etc. are to be presented in the separate appendices, which shall be numbered in Roman Capitals (e.g. “Appendix IV”). Since reference can be drawn to published/unpublished literature in the appendices these should precede the “Literature Cited” section.

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This should follow the Appendices, if any, otherwise the Summary and Conclusions chapter. The candidates shall follow the style of citation and style of listing in one of the standard journals in the subject area consistently throughout his/her thesis, for example, IEEE in the Department of Electrical Engineering, Materials Transactions in Department of Metallurgical Engineering and Materials Science. However, the names of all the authors along with their initials and the full title of the article/monogram/book, etc. have to be given in addition to the journals/publishers, volume, number, pages(s), and year of publication.

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- **Quality:** The thesis shall be printed on white bond paper, whiteness 95% or above, weight 75 gram or more per square meter.
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- **TABLE OF CONTENTS:** The contents shall follow the Abstract and shall enlist the titles of the chapters, section and sub-section using decimal notation, as in the text, with corresponding page number against them, flushed to the right. For the sample look at the Annexure-V

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1.1.2 The thesis must be printed or photocopied on one side of the paper. All copied of thesis pages must be clear, sharp, and even, with uniform size and uniformly spaced characters, lines, and margins on every page of good quality white paper of 75 gsm or more.

1.1.3 The thesis should be free from typographical errors.

1.2 Size and Margins

1.2.1 A4 is the recommended thesis size.

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in partial fulfilment of the requirements
for the award of the degree of*

MASTER OF TECHNOLOGY

IN

COMPUTER SCIENCE & ENGINEERING

BY

<STUDENT NAME>



**DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY
MAHATMA GANDHI CENTRAL UNIVERSITY, MOTIHARI
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Department of Computer Science and Information Technology
महात्मा गाँधी केन्द्रीय विश्वविद्यालय
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Bihar-845401, India

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<Name of Hod>

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Mahatma Gandhi Central University,
Motihari, Bihar-845401, India

Supervisor

<Name of the supervisor>

Department of Computer Science and
Information Technology,
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Motihari, Bihar-845401, India

Annexure-III

Acknowledgement

This M.Tech. dissertation is the result of a challenging journey, upon which many people have contributed and given their support -----

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Technology,

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Abstract

Radio channels are scarce resources and to be utilized judiciously. The channel allocation problem is an important research problem in the area of mobile computing discipline. Though efforts are being made for the maximum utilization of the channels, studies indicate that still proper and full channel utilization is often not done because of many associated constraints. Recently, the concept of cognitive radio has emerged which suggests that opportunistic channel utilization is possible if the mobile services are classified into two classes; primary services and secondary services. Primary services are licensed one and are given utmost preference whereas secondary services use the channels opportunistically. The usage of the channels are based on the cognition of the radio channels.

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Abbreviations

BSC	Base Station Controller
BTS	Base Transceiver Station
CAC	Call Admission Control
CD	Code Division
CR	Cognitive Radio
DCA	Dynamic Channel Allocation
DHCP	Dynamic Host Configuration Protocol
FCA	Fixed Channel Allocation
FCC	Federal Communication Commission
FD	Frequency Division
FDMA	Frequency Division Multiple Access
FTCA	Fault Tolerant channel Allocation
FTP	Forced Termination Probability
GA	Genetic Algorithm
GALC	Genetic Algorithm for Locking Channel
GASC	Genetic Algorithm for Switching Channel
GSM	Global System for Mobile Communication
HCA	Hybrid Channel Allocation
HLR	Home Location Registry
IF	Intermediate Frequency
ITU	International Telecommunications Convention
MH	Mobile Hosts
MS	Mobile Stations
MSS	Mobile Service Station
MTSO	Mobile Telephone Switching Office
NBS	Nash Bargaining Solution
NSS	Network Switching Subsystem
OSI	Open System Interconnection
PHC	Primary Handoff Call
PNC	Primary New Call

List of Symbols

$APHCR_q$	<i>Arrived Primary Handoff Call Request</i>
$APNCR_q$	<i>Arrived Primary New Call Request</i>
$ASHSR_q$	<i>Arrived Secondary Handoff Service Request</i>
$ASNSR_q$	<i>Arrived Secondary New Service Request</i>
$BPNCR_q$	<i>Blocked Primary New Call Request</i>
$BSNSR_q$	<i>Blocked Secondary New Service Request</i>
CR	<i>Churning Rate</i>
CRT	<i>Criteria</i>
$Cell_i$	<i>i^{th} Cell</i>
C_{drop}	<i>Interrupted call prior to its normal completion</i>

CERTIFICATE OF APPROVAL

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(External Examiner)

(Head of Department)

STATEMENT OF THESIS PREPARATION

1. Thesis Title:

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2. Degree for which the thesis is submitted:

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3. The thesis Guide was referred for preparing the thesis.

4. Specifications regarding the thesis format have been closely followed.

5. The contents of the thesis have been organized based on the guidelines.

6. The thesis has been prepared without resorting to plagiarism.

7. All sources used have been cited appropriately.

8. The thesis has not been submitted elsewhere for a degree.

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Technology,

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