Ph.D Programme: Banking Technology

Regulations
Course Structure & Syllabus
(as per New Ph.D guidelines)

Submitted to School Board

2011-12 onwards
Ph.D in Banking Technology

Regulations

Genesis

Department of Banking Technology was established in 2005 to offer a specialized MBA Programme funded by UGC under its innovative/ inter disciplinary funding schemes. This department is admitted for full funding by UGC from the Financial Year 2009-10. The Ph.D Programme in Banking Technology is launched in the Academic year 2009-10. Course structure and syllabus are new revised as per the new Ph.D guidelines.

Intake and Eligibility

The annual intake into this Ph.D programme depends on vacancies with eligible guides. Every teacher can admit a total of 8 candidates over 3 years.

The eligibility criteria are as follows:

- MBA: Banking Technology
- MBA (Finance/ Systems) (or) Equivalent Management Programmes like IIM – PG Diploma in Management
- M.Com (Business Finance) (or) Professional degrees like CA, ICWA, ACS, CFA, Any PG degree with CAIIB (or)
- ME/ M.Tech (CS/ IT)
- MCA/ M.Sc (Comp. Sci.)

(Any of the above Degrees with 55% Marks)

Faculty and Eligible Guides

Professor:

1. Dr. K. Chandra Sekhara Rao, Ph.D @
   Professor & Head
   Corporate Finance
   International Financial Mgt
   Investment & Portfolio Mgt

Associate Professor:

2. Dr. V. Prasanna Venkatesan, M.Tech., Ph.D@
   Software Architecture
   Banking Technology Mgt
   Object Oriented Systems

Readers:

3. Dr. T. Chithralekha, M Tech, Ph.D@
   Information Security
   Data warehousing
4. Dr. R. Sankaranarayanan, Ph.D@ (Formerly AGM, IOB, Chennai)  
Agent Technology
Banking & Finance
Bank Management
Forex Management

5. Dr. S. Sudalaimuthu  
Corporate Finance, Financial Services, Financial Information Systems, Logistics Management

6. Dr. V. Marriappan  
Banking, Strategic Finance, Managerial Economics, Cyber Crimes, Financial Reporting

**Assistant Professors:**

7. Shri. A. Balakrishnan  
Finance & Accounting, Security Analysis & Portfolio Management, Treasury and derivative Management

8. Shri. CP. Abdul Gafoor  
Indian Banking, Management Strategy, Foreign Exchange

**Interdisciplinary Ph.D Programme**

Ph.D in Banking Technology is classified as Interdisciplinary programme. Candidates from Commerce, Management and Computer Science/ Information Technology are eligible to conduct their Doctoral Programme.

**Thrust Areas**

- Banking Technology Management
- Financial Management
- Management of Banking & Financial Institutions
- Security Analysis and Portfolio Management
- Derivatives Management
- Information Security
- Data Warehousing & Data Mining
- Network Management
- Software Architecture

**Admission Procedure**

Admission is open under Full Time, Part-Time (Internal) and Part-Time (External) Categories. Admission to Ph.D programme is done through an All India Admission Test followed by an Interview. Admissions are generally done along with regular PG programmes. At present the admission is done during July – August. Certain Categories of part time candidates are exempt from Written Test. However, all part time candidates should present their aptitude for research through Publications and paper presentations in National/ International Conferences.
Fee Structure

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Item</th>
<th>Ph.D. (all figures in Indian Rupees)</th>
<th>Account No</th>
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<tr>
<td></td>
<td></td>
<td>Full-Time &amp; Part-Time Internal</td>
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<td>1</td>
<td>Research Fee: (p.s.)</td>
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<td>For Foreign national (p.s.):</td>
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<td>SAARC / Developing Countries</td>
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<td></td>
<td>South-East Asian Countries</td>
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<td>Others</td>
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<td>Registration Fee</td>
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<td>3</td>
<td>Matriculation Fee</td>
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<td>4</td>
<td>Recognition Fee:</td>
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<td>For degrees from Indian universities</td>
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<td>For degrees from foreign universities</td>
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<td>5</td>
<td>Identity Card Fee</td>
<td>25</td>
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<td>Sports Fee (p.a.)</td>
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<td>7</td>
<td>Medical Examination Fee (p.a.)</td>
<td>50</td>
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<td>8</td>
<td>Library Fund (p.s.)</td>
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<td>9</td>
<td>Laboratory Fee</td>
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<td>Science Courses having laboratories (p.s.)</td>
<td>500</td>
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<tr>
<td>10</td>
<td>Internet Fund (p.s.)</td>
<td>250</td>
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<td>11</td>
<td>Students’ Welfare Fund (p.a.)</td>
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<td>12</td>
<td>Alumni Association Fund (to be paid before submission of thesis)</td>
<td>100</td>
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<td>13</td>
<td>Caution Deposit (Refundable) Laboratory (Science Courses) Library</td>
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<td>Group Medical Insurance (for full-time candidates only)</td>
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<td>15</td>
<td>University Development Fund</td>
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<td>16</td>
<td>Software Subscription Fee</td>
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Course Structure

The Course structure for this Ph.D programme consists of

I: Background course work
   *3 subjects during 1st Semester*

II: Pre-Ph.D Course work
   *3 subjects during II Semester*

   *(During III – VI Semester)*

IV: Public Viva Voce examination
I BACKGROUND COURSE WORK:

Background Course work is compulsory for all candidates who do not possess MBA: Banking Technology degree.

Compulsory Course work during 1st Semester
(Two Streams)

Stream I (For IT Background Students)

PHDBT 611 Indian Banking & Financial Systems Soft 6 Credits
PHDBT 612 Accounting and Finance for Manager Soft 6 Credits
PHDBT 613 Management Concepts & Organisation Behavior Soft 6 Credits

Stream II (For Non IT Students)

PHDBT 615 Financial Information System Soft 6 Credits
PHDBT 616 Business Intelligence Soft 6 Credits
PHDBT 617 Banking Technology Management Soft 6 Credits

Pre-Ph.D Courses

Compulsory for all candidates. Candidates with M.Phil / M.Tech degree are given exemption.

PHDBT 621 Research Methodology and Statistical Techniques Hard 6 Credits
PHDBT 623 Area Paper Soft 6 Credits


5. **Foreign Exchange Market**: Meaning and structure – Regulatory authority in India – Players in Forex Market – Authorized dealers and Money changers

**Basic Text Book & References:**


2. **Joint Stock Company Accounts**: Issue of Shares (Principles only) – Final Accounts of Companies (Format only) – Banking Company accounts – Capital and Reserves- Preparation of Final Accounts of Banking Companies- Non-Performing assets – Asset Classification and Provisioning


5. **Introduction to Tally** - Basic features – Undervalue, Preparation of Ledger accounts on Tally- Preparation of Invoices- subsidiary books -Display__ of final accounts - Ratios (Practice sessions: 10)

**Basic Text Book & References:**


4. **Staffing**: Overview of staffing and directing functions – Controlling – Prerequisites of Control systems – Control process – Methods, Tools and Techniques of Control – Design of Control Techniques – Choices in Control


**Basic Text Book & References:**


Basic Text Book & References:

UNIT I

UNIT II
Knowledge Discovery - Data Mining: - Data Mining Functionalities – Data Preprocessing – Data Cleaning – Data Integration and Transformation – Data Reduction – Data Discretization and Concept Hierarchy Generation. Association Rule Mining: - Efficient and Scalable Frequent Item set Mining Methods – Mining Various Kinds of Association Rules – Association Mining to Correlation Analysis – Constraint-Based Association Mining. Data Mining tools, Market Basket Analysis, Management Applications Customer Relations Management (CRM) Data Visualization and Multidimensionality Geographical Information Systems (GIS) and Business applications.

UNIT III

UNIT IV

UNIT V

REFERENCES
PHD: BANKING TECHNOLOGY DEGREE PROGRAMME

PHDBT 617: BANKING TECHNOLOGY MANAGEMENT

Hard Core

6 Credits

1. **Branch Operation and Core Banking** - Introduction and Evolution of Bank Management – Technological Impact in Banking Operations – Total Branch Computerization – Concept of Opportunities – Centralized Banking – Concept, Opportunities, Challenges & Implementation

2. **Delivery Channels** - Overview of delivery channels – Automated Teller Machine (ATM) – Phone Banking – Call centers – Internet Banking – Mobile Banking – Payment Gateways – Card technologies – MICR electronic clearing


5. **Contemporary Issues in Banking Techniques** – Analysis of Rangarajan Committee Reports – E Banking - Budgeting – Banking Softwares – Case study: Analysis of Recent Core Banking Software.

**Basic Text Book & References:**

4. Turban Rainer Potter, Information Technology, John Wiely & Sons Inc. 2010
**Unit I**: Research Methodology and Design: Approaches Selection of Problem Techniques involved in defining a problem Concept of Research Design Basic Principles Sample Survey - Sampling Designs.

**Unit II**: Techniques of survey and collection of data Objectives and Hypothesis Scaling techniques - design of questionnaire and schedules collection of data interview technique experimental and case study Pilot study processing of data Tabulation.

**Unit III**: Formulation of Hypothesis Null and Alternative Hypothesis Analysis of data Statistical measures Bivariate analysis Sampling Level of significance Testing of Hypothesis Difference in Means Proportions Variance Testing correlation and regression coefficients.

**Unit IV**: Parametric and Non parametric tests ANOVA Interactional effects Multivariate Analysis of variance (MANOVA) Analysis of covariance (MANCOVA) Non-parametric Tests Chi-square test Test of goodness of fit Kolmogrov Smirnov Test- Krushal wallis test of one way AOV Mann Whitney U test- Sign test- kendall s coefficients of concordance Turkey HSD tests Duncan s Multi-range test Friedman two analysis.


**Unit VI**: Research Reports and Review: Research Report types indexing- Review of Research works in the area of Finance, Marketing, Personnel Management Methodology adopted Techniques employed.

**Books:**

PHD: BANKING TECHNOLOGY DEGREE PROGRAMME

PHDBT 623: AREA PAPER

(TO BE DECIDED BY THE DOCTORAL COMMITTEE FOR EACH CANDIDATE SEPARATELY BASED ON THE BROAD FIELD OF RESEARCH)

Hard Core
6 CREDITS

Syllabus is designed based on at least 30 Reprints of Papers Published in National and International journals. The topics should cover the theoretical Background, empirical works and Cross Country/ Cross industry experiences.