



# Institute for Development and Research in Banking Technology

(Established by Reserve Bank of India)

Castle Hills, Road No. 1, Masab Tank, Hyderabad-57, India.

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e-Programme on

## EMERGING AI/ML TECHNOLOGIES

March 14 – 17, 2022

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### Introduction

In 2020, the epidemic and constant lockdowns boosted the demand for digital services of the future powered with AI. And now we see a growing demand for cutting-edge AI/ML technologies in the financial industry. Financial Services firms are increasing their adoption AI and machine learning to capitalize on the data from new digitally driven channels. It is a must for Financial and Banking institutions that they know what they can deploy now and understand future challenges. This will allow them to work toward redesigning their businesses. This e-program is one step in this direction.

### Objectives

- To make the participants aware of the basic ML pipeline and the set of practices that aims to deploy and maintain machine learning models reliable and efficient.
- To present emerging use cases of AI/ML in BFSI along with the technological factors and concepts behind them.
- To discuss the major challenges in successfully deploying AI/ML solutions, such as the associated security and privacy issues etc.

### Contents

- Introduction to Machine Learning pipeline and MLOps
- Emerging use cases of AI/ML in BFSI - I: Advanced NLP in Finance - Intelligent process automation and multilingual chatbots
- Emerging use cases of AI/ML in BFSI - II: AI/ML for Cyber Security, V-KYC and Edge Intelligence
- Main Barriers to the wider adoption

### Mode of Teaching

Online teaching plus learning inputs through reading material, videos, webinars, assignments, quizzes, online interactions and clarifications. Each e-Programme will have four live webinars and course material will be made available in advance for study.

### Who Can Participate?

Officials from IT Divisions of Banks and Financial Institutions, who are involved in projects related to Digital Banking and innovations.

### End Use:

Participants will have a better understanding of key factors of machine learning pipeline, and the associated challenges. They will also be explored to various emerging use cases of AI/ML in the field of banking and finance.

### Programme Coordinator:

**Dr. Mridula Verma**, Assistant Professor, IDRBT; e-mail: [vmridula@idrbt.ac.in](mailto:vmridula@idrbt.ac.in)

### Fees:

#### **For Indian Participants**

- RRBs & Coop Banks: Rs. 11,800/- (Rs. 10,000/- + 18% GST)
- All Other Banks & Financial Institutions: Rs. 14,750/- (Rs. 12,500/- + 18% GST)

#### **For International participants**

- US \$ 220 (per participant, All inclusive)

### Bank Account Details for Remittance of Fees

The fees for this e-programme can be remitted to the following accounts:

#### **For Indian Participants**

Account Name : IDRBT  
Bank & Branch : Axis Bank Limited, Humayun Nagar, Mehdiapatnam, Hyderabad  
Account No. : 426010100018823  
MICR Code : 500211012  
IFSC Code : UTIB0000426

#### **For International participants**

Receiver's Correspondent Bank : JP Morgan Chase, New York, USA  
Swift Code : CHASUS33XXX  
Fed Wire Routing Number : ABA 021000021  
Beneficiary Bank & Branch : Axis Bank Ltd., Mumbai, India  
Account Number : 0011407376  
Beneficiary Bank Swift Code : AXISINBB

#### **Ultimate Beneficiary**

Account Name : IDRBT  
Customer ID : 030021632  
Account No. : 426010100018823  
Bank & Branch : Axis Bank Ltd., Jubilee Hills, Hyderabad, India. (AXISINBB030)

### Nominations

Banks may nominate any number of participants to these e-Programmes, which may be accepted on a first-cum-first-served basis. While nominating, please provide the details of the participants (Name, Designation, Bank, Mobile No/Phone No, email address, fees billing address, GST No. of the Bank).

Apart from nominations by banks, staff members of banks can self-nominate themselves for these e-Programmes by providing their employee credentials and paying the programme fee latest by **March 11, 2022**.

## How to Register

The nominations for these e-Programmes, and queries if any, may please be sent to [eprogram@idrbt.ac.in](mailto:eprogram@idrbt.ac.in). Please visit <https://www.idrbt.ac.in/eprogrammes> for more details about these programmes.

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### e-Programmes in March 2022

S. No.	Name of the e-Programme	Date	e-Programme Coordinator	Last Date for Nomination
1	Workshop on Registration Authority Operations	01 – 04	Dr. N. P. Dhavale	Feb 28, 2022
2	AI/ML and Data Science for Banks	01 – 04	Dr. V. Ravi	Feb 28, 2022
3	Proactive Cyber Defence Strategies	07 – 10	Dr. Dipanjan Roy	Mar 04, 2022
4	Introduction to Authentication Techniques	08 – 11	Dr. M. V. N. K. Prasad & Dr. N. P. Dhavale	Mar 07, 2022
5	Recent Cyber Crimes and Defences	08 – 11	Dr. Rajarshi Pal	Mar 07, 2022
6	Data Centre Management	14 – 17	Dr. P. Syam Kumar	Mar 11, 2022
7	Emerging AI/ML Technologies	14 – 17	Dr. Mridula Verma	Mar 11, 2022
8	Big Data Analytics through Elastic Map Reducer for Banks	21 – 24	Dr. V. Ravi	Mar 11, 2022
9	Mobile Banking, Social Media Banking and Mobile Security Testing	21 – 25	Dr. V. N. Sastry	Mar 18, 2022
10	Targeted Attacks - Detecting in Early Stages	22 – 25	Dr. B. M. Mehtre	Mar 21, 2022
11	Secure Coding Practices	22 – 25	Dr. V. Radha	Mar 21, 2022
12	Re-envisioning Digital Banking Systems	28 – 31	Dr. Susmita Mandal	Mar 25, 2022

### e-Programmes in April 2022

S. No.	Name of the e-Programme	Date	e-Programme Coordinator	Last Date for Nomination
1	Distributed Ledger Technology and Banking Applications	04 – 07	Dr. N. V. Narendra Kumar	Apr 01, 2022
2	Technologies for Financial Inclusion	04 – 07	Dr. M.V.N.K. Prasad	Apr 01, 2022
3	Workshop on Registration Authority Operations	05 – 08	Dr. N. P. Dhavale	Apr 04, 2022
4	AI/ML for Cyber Security	05 – 08	Dr. Rajarshi Pal	Apr 04, 2022
5	Adversarial ML for Banks	18 – 21	Dr. V. Ravi	Apr 13, 2022
6	Smart Banking using AI and ML	18 – 21	Dr. Mridula Verma	Apr 13, 2022
7	Cyber Forensics for Cyber Defence - A Proactive Approach	19 – 22	Dr. B. M. Mehtre	Apr 18, 2022

8	API Development	19 – 22	Dr. V. Radha	<b>Apr 18, 2022</b>
9	Future of Innovative Smart Banking	25 – 28	Dr. Susmita Mandal	<b>Apr 22, 2022</b>
10	Security in Cloud Computing	26 – 29	Dr. P. Syam Kumar	<b>Apr 25, 2022</b>
11	Introduction to Hardware Security	26 – 29	Dr. Dipanjan Roy	<b>Apr 25, 2022</b>

### e-Programmes in May 2022

S. No.	Name of the e-Programme	Date	e-Programme Coordinator	Last Date for Nomination
1	Re-imagining customer engagement with conversational Chatbots	09 – 12	Dr. Mridula Verma	<b>May 06, 2022</b>
2	Introduction to Governance, Risks and Compliance	10 – 13	Dr. Abhishek Kumar Thakur	<b>May 09, 2022</b>
3	Continuous Security Validation	10 – 13	Dr. V. Radha	<b>May 09, 2022</b>
4	Secure Financial Infrastructure	10 – 13	Dr. Susmita Mandal	<b>May 09, 2022</b>
5	Cyber Security for Remote Working Scenario	17 – 20	Dr. Rajarshi Pal	<b>May 16, 2022</b>
6	Proactive Cyber Defence Strategies	17 – 20	Dr. Dipanjan Roy	<b>May 16, 2022</b>
7	Dark Web Monitoring for Threat Intelligence	17 – 20	Dr. B. M. Mehtre	<b>May 16, 2022</b>
8	Introduction to Authentication Techniques	23 – 26	Dr. M.V.N.K. Prasad Dr. N.P.Dhavale	<b>May 20, 2022</b>
9	Explainable AI for Banks	24 – 27	Dr. V. Ravi	<b>May 23, 2022</b>
10	Big Data and Cloud	24 – 27	Dr. P. Syam Kumar	<b>May 23, 2022</b>

### e-Programmes in June 2022

S. No.	Name of the e-Programme	Date	e-Programme Coordinator	Last Date for Nomination
1	Privacy Preserving Machine Learning for Banks	06 – 09	Dr. V. Ravi	<b>June 03, 2022</b>
2	Distributed Ledger Technology and Banking Applications	06 – 09	Dr. N. V. Narendra Kumar	<b>June 03, 2022</b>
3	5G Use Cases and IoT Applications for Banks	06 – 10	Dr. V. N. Sastry	<b>June 03, 2022</b>
4	Threats to Digital Payment Ecosystem	07 – 10	Dr. Susmita Mandal	<b>June 06, 2022</b>
5	Technologies for Financial Inclusion	07 – 10	Dr. M.V.N.K. Prasad	<b>June 06, 2022</b>
6	Emerging AI/ML Technologies	13 – 16	Dr. Mridula Verma	<b>June 10, 2022</b>
7	Workshop on Registration Authority Operations	14 – 17	Dr. N. P. Dhavale	<b>June 13, 2022</b>
8	Privacy and Security Risks in Machine Learning	14 – 17	Dr. Rajarshi Pal	<b>June 13, 2022</b>
9	RBI Guidelines on Cyber Security	20 – 23	Dr. Dipanjan Roy	<b>June 17, 2022</b>

10	Introduction to Containers	21 – 24	Dr. P. Syam Kumar	<b>June 20, 2022</b>
11	Targeted Attacks - Detecting in Early Stages	21 – 24	Dr. B. M. Mehtre	<b>June 20, 2022</b>
12	API Development	Jun 28 – Jul 01	Dr. V. Radha	<b>June 27, 2022</b>